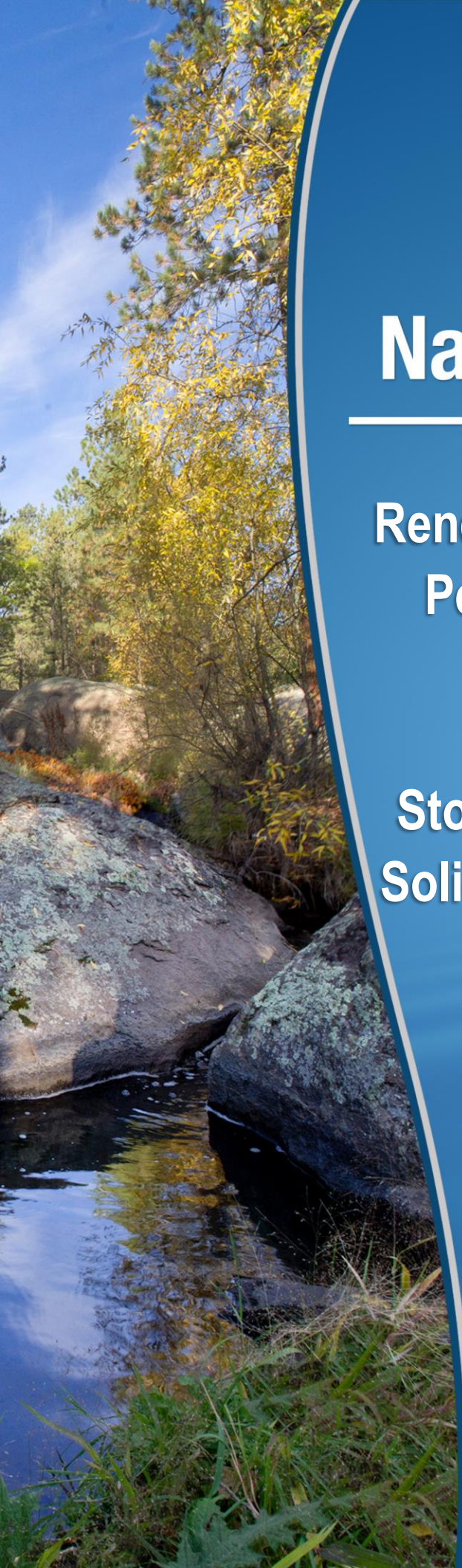

ERID-254865

Los Alamos National Laboratory

Renewal Application for NPDES Permit Number NM0030759

Individual Permit for Storm Water Discharges from Solid Waste Management Units and Areas of Concern

March 2014

Volume 2 of 2

LA-UR-14-21861

Los Alamos NATIONAL LABORATORY EST. 1943

NPDES FORM 2F SECTION IV – NARRATIVE DESCRIPTION OF POLLUTANT SOURCES

Introduction

The information provided in Form 2F Section IV is divided into three parts:

- Part A is a table that provides an estimate of the area drained by an SMA that is covered by impervious surfaces;
- Part B provides updated Individual Permit Site narratives for all 405 Sites; and
- Part C is a table that provides the location and description of existing structural and nonstructural control measures to reduce pollutants in storm water, a description of the treatment the storm water receives, and the ultimate disposal of the treated wastes other than by discharge.

Part A

Part A is not applicable by outfall (i.e., Site). An estimation of the drainage areas of individual Sites and the impervious areas drained to the Site is not practical. However, the impervious surface area, total drainage area, and percent impervious surface for each SMA, which are in themselves subwatersheds, are presented in Table IV-1 for reference. The impervious surface area is estimated using the roads, parking areas, and building roofs located within the SMA.

Part B

The co-Permittees updated the Individual Permit Site narratives that were submitted for the current Permit based upon new and substantial information collected under the Consent Order and the Individual Permit. These updated narratives include the following.

- *A description of the current status of the SWMU or AOC:* The updated description documents any changes that have been made at the Site since the Individual Permit was issued. Examples of Site updates include documentation of the removal or remediation of impacted soil, plugged outfalls, septic tank removals, and building demolitions.
- *A description of the Site's status under the Consent Order:* The updated description includes a Site's Consent Order status because once NMED issues a CoC, the co-Permittees may submit a certification of completion of corrective action to EPA under the Individual Permit. A Site's Consent Order status will fall under one of the following seven categories:
    - ❖ an investigation report has been approved by NMED
    - ❖ a CoC was issued by NMED
    - ❖ a CoC request was submitted to NMED
    - ❖ a supplemental investigation report has been submitted to NMED
    - ❖ a supplemental investigation report has not yet been submitted to NMED, but the data evaluation indicates that a Site is eligible for a CoC
    - ❖ additional investigation is required or
    - ❖ the Site is deferred or delayed

- *A description of any significant industrial materials exposed to storm water:* The concentrations of Site-related, naturally occurring constituents in shallow soil samples were compared with the applicable soil background concentrations and residential SSLs. The concentrations of anthropogenic constituents in shallow samples were compared with residential SSLs. Based upon this data evaluation, a determination was made of whether or not the Site contains significant industrial material(s). If one or more TAL exceedances occur, the storm water and soil data were evaluated to determine if the TAL exceedance was from Site-related, significant industrial materials exposed to storm water.
- *For Sites with one or more TAL exceedances, an evaluation of other source(s) of the constituents that exceeded TALs:* The nature of the SMA is evaluated to determine if it receives runoff from developed and/or undeveloped areas. The TAL exceedance is then compared with the applicable background UTLs.

Section IV Part B of Form 2F requires a narrative description of significant materials that are currently or in the past 3 years have been treated, stored, or disposed of in a manner to allow exposure to storm water; the method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact of these materials with storm water runoff; and materials loading and access areas. Unlike a typical facility subject to an Individual Permit, the source of the significant industrial materials exposed to storm water is the historical activity that caused the Site to be identified as a SWMU or AOC in the 1990 Solid Waste Management Units Report. That is, the potential historical releases at a Site are the “industrial activity” that creates a “point source.” Therefore, the 3-year time frame in Section IV Part B of Form 2F is not applicable. Although the Individual Permit specifically excludes regulated storm water discharges associated with current conventional industrial activities or nonpoint runoff, any current waste and/or material management practices are included in the updated Individual Permit Site narrative for completeness.

Table 1 in Supporting Material lists the Sites by watershed, canyon, SMA, Site name, and receiving water.

Part C

The co-Permittees completed BCM installation and certification activities in 2010 and 2011 and successfully met the Part I.B.1 requirements within the Permit deadlines, as detailed in Appendix E of Individual Permit application. The co-Permittees also installed numerous additional structural control measures in 2012 and 2013. The Individual Permit also requires numerous nonstructural controls such as spill prevention plans and employees training. Table IV-2 summarizes these controls by type in each SMA.

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
See SECTION IV PART A, TABLE IV-1, VOLUME 2					

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

See SECTION IV PART B, VOLUME 2

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
See SECTION IV PART C, TABLE IV-2, VOLUME 2		

Part A

Table IV-1
Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
R-SMA-0.5	0	7904	0.0
R-SMA-1	1563981	11186094	14.0
R-SMA-1.95	0	36351	0.0
R-SMA-2.05	0	8326059	0.0
R-SMA-2.3	0	997696	0.0
R-SMA-2.5	31423	1052000	3.0
B-SMA-0.5	3349366	47382063	7.1
B-SMA-1	113660	742669	15.3
ACID-SMA-1.05	0	329	0.0
ACID-SMA-2	692841	2293481	30.2
ACID-SMA-2.01	0	746	0.0
ACID-SMA-2.1	2835833	12608570	22.5
P-SMA-0.3	5572	22305	25.0
P-SMA-1	0	127851	0.0
P-SMA-2	28650	153690	18.6
P-SMA-2.15	33016	343449	9.6
P-SMA-2.2	0	2286	0.0
P-SMA-3.05	0	11356	0.0
LA-SMA-0.85	93801	178057	52.7
LA-SMA-0.9	0	3088	0.0
LA-SMA-1	25195	44720	56.3
LA-SMA-1.1	162568	215236	75.5
LA-SMA-1.25	38669	40101	96.4
LA-SMA-2.1	0	2922	0.0
LA-SMA-2.3	1502	5249	28.6
LA-SMA-3.1	0	1726	0.0
LA-SMA-3.9	0	1629	0.0
LA-SMA-4.1	57469	211996	27.1
LA-SMA-4.2	0	12043	0.0
LA-SMA-5.01	3702	29870	12.4
LA-SMA-5.02	0	5676	0.0
LA-SMA-5.2	0	34251	0.0
LA-SMA-5.31	238	1390	17.1
LA-SMA-5.33	0	727	0.0

Table IV-1 (continued) Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
LA-SMA-5.35	88616	991479	8.9
LA-SMA-5.361	0	1897	0.0
LA-SMA-5.362	0	1938	0.0
LA-SMA-5.51	73807	543736	13.6
LA-SMA-5.52	0	67659	0.0
LA-SMA-5.53	0	56463	0.0
LA-SMA-5.54	0	652	0.0
LA-SMA-5.91	14151	135183	10.5
LA-SMA-5.92	0	40953	0.0
LA-SMA-6.25	32	35158	0.1
LA-SMA-6.27	409	16226	2.5
LA-SMA-6.3	2014	49511	4.1
LA-SMA-6.31	631	17696	3.6
LA-SMA-6.32	660	1307	50.5
LA-SMA-6.34	1055	18515	5.7
LA-SMA-6.36	6588	51271	12.8
LA-SMA-6.38	7332	39653	18.5
LA-SMA-6.395	14776	78731	18.8
LA-SMA-6.5	0	31436	0.0
LA-SMA-9	0	223212	0.0
LA-SMA-10.11	0	614	0.0
LA-SMA-10.12	0	41262	0.0
DP-SMA-0.3	153	79158	0.2
DP-SMA-0.4	2711	9277	29.2
DP-SMA-0.6	4203	21298	19.7
DP-SMA-1	16233	133286	12.2
DP-SMA-2	0	24490	0.0
DP-SMA-2.35	0	8281	0.0
DP-SMA-3	26	27410	0.1
DP-SMA-4	0	1777	0.0
S-SMA-0.25	860924	1439521	59.8
S-SMA-1.1	132889	326098	40.8
S-SMA-2	1345388	2211429	60.8
S-SMA-2.01	22572	36652	61.6
S-SMA-2.8	0	3894	0.0
S-SMA-3.51	0	817	0.0

Table IV-1 (continued) Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
S-SMA-3.52	0	365	0.0
S-SMA-3.53	0	8122	0.0
S-SMA-3.6	77279	311515	24.8
S-SMA-3.7	354	3183	11.1
S-SMA-3.71	4476	8569	52.2
S-SMA-3.72	10426	11119	93.8
S-SMA-3.95	0	3671	0.0
S-SMA-4.1	0	366	0.0
S-SMA-4.5	0	946	0.0
S-SMA-5	1238	5312	23.3
S-SMA-5.2	0	27443	0.0
S-SMA-5.5	0	2478	0.0
S-SMA-6	1811078	12203809	14.8
CDB-SMA-0.15	1909	9844	19.4
CDB-SMA-0.25	83796	187455	44.7
CDB-SMA-0.55	99800	202181	49.4
CDB-SMA-1	261202	627370	41.6
CDB-SMA-1.15	9096	66985	13.6
CDB-SMA-1.35	19776	56828	34.8
CDB-SMA-1.54	12233	47056	26.0
CDB-SMA-1.55	1707	3123	54.6
CDB-SMA-1.65	0	214	0.0
CDB-SMA-4	46397	330316	14.0
M-SMA-1	678069	1292653	52.5
M-SMA-1.2	0	17482	0.0
M-SMA-1.21	21729	23030	94.4
M-SMA-1.22	47040	80305	58.6
M-SMA-3	12096	16340	74.0
M-SMA-3.1	0	486	0.0
M-SMA-3.5	7161	18132	39.5
M-SMA-4	131399	327736	40.1
M-SMA-5	0	25355	0.0
M-SMA-6	7	6910	0.1
M-SMA-7	0	10688	0.0
M-SMA-7.9	0	21056	0.0
M-SMA-9.1	4813	9007	53.4

Table IV-1 (continued) Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
M-SMA-10	16252	63247	25.7
M-SMA-10.01	0	7860	0.0
M-SMA-10.3	68513	108864	62.9
M-SMA-11.1	340	4331	7.8
M-SMA-12	0	10180	0.0
M-SMA-12.5	0	21601	0.0
M-SMA-12.6	0	24968	0.0
M-SMA-12.7	0	44314	0.0
M-SMA-12.8	0	24956	0.0
M-SMA-12.9	0	4417	0.0
M-SMA-12.92	2685965	27271277	9.8
M-SMA-13	0	178918	0.0
PRATT-SMA-1.05	48461	441553	11.0
T-SMA-1	0	918	0.0
T-SMA-2.5	0	2438	0.0
T-SMA-2.85	7766	13509	57.5
T-SMA-3	50969	122523	41.6
T-SMA-4	24072	126172	19.1
T-SMA-5	31881	80932	39.4
T-SMA-6.8	0	218	0.0
T-SMA-7	0	25131	0.0
T-SMA-7.1	1397	19645	7.1
2M-SMA-1	239165	808387	29.6
2M-SMA-1.42	0	239	0.0
2M-SMA-1.43	4418	11611	38.1
2M-SMA-1.44	0	286	0.0
2M-SMA-1.45	3188	27737	11.5
2M-SMA-1.5	0	90	0.0
2M-SMA-1.65	0	554	0.0
2M-SMA-1.67	0	3672	0.0
2M-SMA-1.7	6714	9523	70.5
2M-SMA-1.8	27565	53560	51.5
2M-SMA-1.9	8850	11104	79.7
2M-SMA-2	235866	458666	51.4
2M-SMA-2.2	3936	4040	97.4
2M-SMA-2.5	1256	1925	65.2

Table IV-1 (continued) Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
2M-SMA-3	400	1032244	0.0
3M-SMA-0.2	0	3539	0.0
3M-SMA-0.4	3417	235153	1.5
3M-SMA-0.5	42257	315964	13.4
3M-SMA-0.6	0	29679	0.0
3M-SMA-2.6	0	12220	0.0
3M-SMA-4	1097078	46131321	2.4
PJ-SMA-1.05	0	10767	0.0
PJ-SMA-2	0	40896	0.0
PJ-SMA-3.05	0	1265	0.0
PJ-SMA-4.05	0	52608	0.0
PJ-SMA-5	4335	51399	8.4
PJ-SMA-5.1	0	9051	0.0
PJ-SMA-6	0	5257	0.0
PJ-SMA-7	1646	5239	31.4
PJ-SMA-8	969	3721	26.0
PJ-SMA-9	3798	12111	31.4
PJ-SMA-10	856	8391	10.2
PJ-SMA-11	0	25449	0.0
PJ-SMA-11.1	0	62576	0.0
PJ-SMA-13	1606	6977	23.0
PJ-SMA-13.7	38994	83569	46.7
PJ-SMA-14	518	7176	7.2
PJ-SMA-14.2	0	52	0.0
PJ-SMA-14.3	0	24	0.0
PJ-SMA-14.4	4742	14581	32.5
PJ-SMA-14.6	11632	16257	71.5
PJ-SMA-14.8	0	624	0.0
PJ-SMA-16	0	17038	0.0
PJ-SMA-17	109493	551420	19.9
PJ-SMA-18	0	237408	0.0
PJ-SMA-19	71349	845109	8.4
PJ-SMA-20	114710	290081	39.5
STRM-SMA-1.05	32314	144271	22.4
STRM-SMA-1.5	7053	165973	4.2
STRM-SMA-4.2	0	3459	0.0

Table IV-1 (continued) Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
STRM-SMA-5.05	0	87013	0.0
CDV-SMA-1.2	0	71099	0.0
CDV-SMA-1.3	0	5073	0.0
CDV-SMA-1.4	92974	755347	12.3
CDV-SMA-1.45	0	746	0.0
CDV-SMA-1.7	0	6108	0.0
CDV-SMA-2	1659	142562	1.2
CDV-SMA-2.3	481531	4415407	10.9
CDV-SMA-2.41	0	109145	0.0
CDV-SMA-2.42	612	27010	2.3
CDV-SMA-2.5	115701	1007116	11.5
CDV-SMA-2.51	4458	130341	3.4
CDV-SMA-3	0	17059	0.0
CDV-SMA-4	169	5916	2.9
CDV-SMA-6.01	7505	53452	14.0
CDV-SMA-6.02	388	4598	8.4
CDV-SMA-7	0	15991	0.0
CDV-SMA-8	44661	1059673	4.2
CDV-SMA-8.5	924	6183	14.9
CDV-SMA-9.05	1003	85514	1.2
F-SMA-2	29967	1710991	1.8
PT-SMA-0.5	645	318687	0.2
PT-SMA-1	155	174047	0.1
PT-SMA-1.7	1151	82799	1.4
PT-SMA-2	8463	128521	6.6
PT-SMA-2.01	0	6645	0.0
PT-SMA-3	878401	32570496	2.7
PT-SMA-4.2	1207022	46479585	2.6
W-SMA-1	31726	257403	12.3
W-SMA-1.5	112408	346852	32.4
W-SMA-2.05	9863	38238	25.8
W-SMA-3.5	25899	79999	32.4
W-SMA-4.1	802	13457	6.0
W-SMA-5	388011	3106212	12.5
W-SMA-6	0	10424	0.0
W-SMA-7	6028	98140	6.1

Table IV-1 (continued) Impervious Surfaces and Drainage Area by SMA

Site Monitoring Area	Area		
	Impervious Surface (ft^2)	Total Drained (ft^2)	Percentage Impervious Surface (%)
W-SMA-7.8	6811	68927	9.9
W-SMA-7.9	0	339	0.0
W-SMA-8	10597	72619	14.6
W-SMA-8.7	86757	753728	11.5
W-SMA-8.71	369	12343	3.0
W-SMA-9.05	3034	37066	8.2
W-SMA-9.5	0	4116	0.0
W-SMA-9.7	1361	6497	20.9
W-SMA-9.8	0	444	0.0
W-SMA-9.9	0	14779	0.0
W-SMA-10	13210	337750	3.9
W-SMA-11.7	42299	303605	13.9
W-SMA-12.05	1936	18490	10.5
W-SMA-14.1	59292	225142	26.3
W-SMA-15.1	0	9972	0.0
A-SMA-1.1	0	8238094	0.0
A-SMA-2	91732	23123517	0.4
A-SMA-2.5	0	21301	0.0
A-SMA-2.7	0	390515	0.0
A-SMA-2.8	6291	33942	18.5
A-SMA-3	802	8516073	0.0
A-SMA-3.5	0	370	0.0
A-SMA-4	10000	114205	8.8
A-SMA-6	29691	330186	9.0
CHQ-SMA-0.5	461	45790	1.0
CHQ-SMA-1.01	0	8056	0.0
CHQ-SMA-1.02	31137	89697	34.7
CHQ-SMA-1.03	48787	207277	23.5
CHQ-SMA-2	29452	538187	5.5
CHQ-SMA-3.05	0	13791	0.0
CHQ-SMA-4	0	627	0.0
CHQ-SMA-4.1	0	11266	0.0
CHQ-SMA-4.5	2291	118511	1.9
CHQ-SMA-5.05	0	6700	0.0
CHQ-SMA-6	21289	518104	4.1
CHQ-SMA-7.1	0	21691	0.0

Part B

Site ID: **00-001**
Site Name: **Sediment traps in Mortandad Canyon**
SMA: **M-SMA-12.92**

Updated Site Description (2014):[1]
SWMU 00-001 is the area of the historical and current sediment traps in Mortandad Canyon. The Site is approximately 900 ft long × 200 ft wide within the Mortandad Canyon stream channel downstream from and east of the confluence of Mortandad and Ten Site Canyons. The two original traps were built in 1976 with a capacity of approximately 20,000 gal. In 1980, a third trap was built with a capacity of approximately 225,000 gal. Currently, trap 1 the upstream basin has a capacity of approximately 286,000 gal. Trap 2, the next trap downstream, has a current capacity of 628,000 gal. Trap 3, the downstream trap, has a current capacity of 287,000 gal. The three basins were reexcavated in 1992 after they were filled following several storms. Excavated sediment from the traps was stockpiled next to the traps. The sediment traps are approximately 1.5 mi downstream from the TA-50 RLWTF outfall and about 1.4 mi upstream from and west of the LANL boundary. Maintenance of the sediment traps was performed as part of the post–Cerro Grande fire recovery work. Excavation of sediment trap 1 was conducted in July 2000. Approximately 384 yd^3 of soil from sediment trap 1 was excavated, transported, and disposed of at TA-54, Area G. Excavation of the soil piles north and adjacent to sediment trap 1 was completed in August 2000. Approximately 1308 cubic yards of soil from the piles were excavated, transported, and disposed of at TA-54, Area G. Excavation of sediment trap 3 was conducted in August 2000. Approximately 5040 yd^3 of soil from sediment trap 3 was excavated, transported, and disposed of at TA-54, Area G. In July 2002, LANL requested and obtained NMED concurrence that the environmental media generated during this routine maintenance does not warrant management as F-listed hazardous wastes.

Decision-level data from the 2005–2006 Consent Order Mortandad Canyon investigation indicated the Site meets recreational risk levels, which are acceptable for present-day and foreseeable future land uses of the canyon. In addition, no adverse ecological effects were observed within terrestrial and aquatic systems in the canyon. Following the Las Conchas fire in the summer of 2011, additional sediments were removed from the traps in anticipation of increased sediment deposition from runoff from the burn scar. The SWMU 0-001 sediment traps incurred damage as a result of the extreme storm events that occurred between September 10 and 14, 2013. These events were accompanied by record runoff, flooding, and erosion. Therefore, during the summer and fall of 2014, sediment within the SWMU 00-001 sediment traps will be excavated and placed upstream behind a new berm and stabilized, the traps and related spillways will be repaired and improved, and new berms will be constructed upstream of the traps to slow runoff and sediment transport during extreme storm events. The Mortandad Sediment traps are routinely inspected.

Significant Materials Exposed to Storm Water: [2] To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: Not applicable

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[1] Throughout the site narratives, this section corrects and replaces the descriptions submitted in the October 2007 supplemental application.

[2] Throughout the site narratives, this section incorporates new and updated information and data obtained from work conducted under the 2005 Consent Order and under the IP (see additional information described in Supporting Material Section 10).

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **00-011(a)**
Site Name: **Former mortar impact area**
SMA: **R-SMA-2.5**

Updated Site Description (2014):
SWMU 00-011(a) is a 29-acre former mortar-impact area located on General Services Administration land about 0.4 mi east of the Sportsmen's Club small-arms firing range (AOC 00-015) in Rendija Canyon. The Site was a mortar impact area in the mid-1940s for 60-mm and 82-mm rounds; operations ceased in the late 1940s. SWMU 00-011(a) is located in a relatively flat open grassland with scattered shrubs and trees. The Site is bisected east to west by Rendija Road (unpaved). On the north side of the road, the Site has a gradual to steep slope to the ephemeral stream channel. The slope is covered by mulch consisting of downed trees that burned during the 2000 Cerro Grande fire. Although, the Site is fenced and posted with DOE "No Trespassing" signs, evidence indicates the Site is used for recreational activities such as dirt-biking and target practice. During the 1993 Phase I RFI conducted at SWMU 00-011(a), the Site was surveyed for UXO and OEW; two live mortar rounds were found and destroyed. Other materials recovered during the ordnance sweep, included approximately 2400 pieces of ordnance fragments and three times as much scrap material. Geomorphic mapping was conducted including mapping of all drainage channels that drained the area enclosed within the boundaries of the site and the areas with high concentrations of ordnance fragments. Two pits containing tires and UXO/MD were excavated and removed.

Consent Order investigations are complete for SWMU 00-011(a); the Site meets residential risk levels. NMED issued a CoC with controls for SWMU 00-011(a) in May 2013.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, and Fertilizers: Not applicable

Receiving Water: Rendija Canyon

Site ID: **00-011(c)**
Site Name: **Potential munitions-impact area**
SMA: **R-SMA-2.05**

Updated Site Description (2014):
SWMU 00-011(c) is the potential location of a munitions-impact area. The Site is located on General Services Administration and USFS land within a tributary of Rendija Canyon north of the Sportsmen's Club small-arms firing range (AOC 00-015). The area is approximately 9 acres in size. It was identified as a possible munitions-impact area because of nearly illegible historical signage posted at the Site in the 1940s. Extensive archival searches have revealed no documentation regarding the use of this Site as a munitions-impact area. In addition, no field evidence of munitions operations (e.g., MD, MEC, UXO, or impact scars) has been found at SWMU 11-011(c). During the 1993 Phase I RFI conducted at SWMU 00-011(c), the Site was surveyed for UXO and OEW. Scrap metal such as bailing wire and tin cans were found, but no ordnance, MD, MEC, or UXO was located. In addition, no ordnance was found during the 2007 investigation or during the 2009 ordnance survey.

The complete absence of UXO and OEW confirmed that the SWMU 0-011(c) was never used as an ordnance-impact area. In accordance with the approved Guaje/Barrancas/Rendija Canyons Aggregate Area investigation work plan, no further investigation was conducted at SWMU 00-011(c). NMED concurred with the conclusion that no additional ordnance surveys need to be conducted at this Site and issued a CoC without controls in May 2012.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, and Fertilizers: Not applicable

Receiving Water: Rendija Canyon

Site ID: **00-011(d)**
Site Name: **Former bazooka firing area**
SMA: **B-SMA-1**

Updated Site Description (2014):
SWMU 00-011(d) is a former bazooka firing area located on predominantly Los Alamos County land and a small section of private property in a small north-trending tributary of Bayo Canyon. The Site, which operated between 1944 and 1948, is located northeast of the intersection of San Ildefonso Road and Diamond Drive. The 6-acre Site is only partially fenced and is accessible to the public.

An investigation was conducted in 1992 to search for and remove UXO and OEW. OEW recovered from the Site was found in the subsurface and was composed of about 0.5 yd^3 of tail-fin assemblies, motors, bullets, and other fragments from bazookas. The 2007 Consent Order investigation report recommended the Site for corrective action complete without controls. The NMED approved the report with directions requiring biennial UXO surveys. NMED did not approve a request for CoC without controls, but did approve a CoC with controls for UXO. LANL requested that NMED rescind the CoC with controls and reconsider the request for CoC without controls because the controls are not associated with requirements under the Consent Order.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-1 exceeded the TAL for gross-alpha radioactivity. Based on Site history, the Site is an unlikely source of the TAL exceedance. Shallow samples collected during the 2007 Consent Order investigation were not, however, analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical Site activities.

Method of Treatment, Storage, or Disposal: The bazooka firing range is no longer in service. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **00-011(e)**
Site Name: **Former ammunition-impact area**
SMA: **R-SMA-2.3**

Updated Site Description (2014):
SWMU 00-011(e) is a former ammunition impact area located on USFS land in a tributary of Rendija Canyon known as Thirty-Seven Millimeter Canyon. The Site was used from the mid- to late 1940s for training U.S. Army personnel operating tanks firing 20- and 37-mm rounds. The impact area extends north along the tributary to the top of a cliff face and is approximately 15 acres in size. SWMU 00-011(e) is located within a very steep natural amphitheater with numerous loose rocks and boulders. Vegetation at the site consists of thick weeds and small shrubs. The Site is fenced with barbwire and posted with "Explosives No Trespassing" signs. During the 1993 Phase I RFI conducted at SWMU 00-011(e), the Site was surveyed for UXO and OEW. During the ordnance sweep, materials recovered included 37-mm rounds and fragments. Because it was not known if these rounds were HE or armor-piercing, they were all placed in shallow pits and detonated with explosives.

Consent Order investigations are complete for SWMU 00-011(e); the Site meets residential risk levels. NMED issued a CoC with controls for SWMU 00-011(e) in May 2013.

Significant Materials Exposed to Storm Water: A baseline storm water sample was collected June 14, 2013, which yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, and Fertilizers: Not applicable

Receiving Water: Rendija Canyon

Site ID: **00-015**
Site Name: **Active small-arms firing range**
SMA: **R-SMA-1.95**

Updated Site Description (2014):
AOC 00-015 is the Los Alamos Sportsmen's Club, an active firing range located on General Services Administration land leased from DOE in Rendija Canyon. The area covers approximately 30 acres. The firing range consists of several small-arms ranges and has operated since 1966. Lead is expected to be present in earthen berms and on the surface of the ranges. Shattered clay projectiles are present on the skeet and trap ranges

Investigations under the Consent Order were not performed at AOC 00-015 as part of the Guaje/Barrancas/Rendija Canyons Aggregate Area investigation; the approved investigation work plan proposed delaying full characterization of this active firing until operations cease. At that time, the nature and extent of contamination at AOC 00-015 will be determined and any necessary corrective actions identified and implemented.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for R-SMA-1.95 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at AOC 00-015. Consent Order sampling has not yet been conducted. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the undeveloped and developed BVs, which is consistent with the Site not being the source of this TAL exceedance.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Rendija Canyon

Site ID: **00-017**
Site Name: **Former industrial waste lines**
SMA: **LA-SMA-1**

Updated Site Description (2014):
SWMU 00-017 consists of former industrial waste line 167, former manhole ULR 33, and former industrial waste lines 170 and 171. Former line 167 and former manhole ULR-33 were removed before 1985, except for the anchors and sections of pipe encased in anchors. Lines 170 and 171 are the only sections of industrial waste line known to remain in Los Alamos townsite. The site of former line 167 and former manhole ULR 33 under the Omega Bridge remains undeveloped. Nine concrete anchors and 3-ft-long sections of pipe encased in each of the anchors remain at the site. The industrial waste lines were installed to serve the entire Laboratory from its beginning in 1943. With an estimated total length of 39,000 ft, the underground industrial waste lines and associated sumps and pumps were used to transport liquid radioactive waste generated by various operations in Former TA-01 to treatment facilities. The estimated operation period for the majority of these waste lines is from the 1950s to the 1970s. Phased decommissioning and removal of the waste lines began in 1964 and were completed in 1986.

SWMU 00-017 is expected to be eligible for a CoC under the Consent Order after submittal and approval of the Phase II Report for Upper Los Alamos Canyon Aggregate Area.

Significant Materials Exposed to Storm Water:

In 2013, enhanced storm water monitoring samples for LA-SMA-1 exceeded TALs for aluminum, PCBs, and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, lead, and gross alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above BVs in any of the 17 shallow Consent Order or 1998 RFI soil, sediment, and tuff samples collected at the Site.
- PCBs are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for PCBs because they were not identified as potential contaminants at this Site. PCBs were not detected in any of the shallow 1998 RFI samples collected at the Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, and uranium and plutonium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

As described in the Updated Site Description, historical waste management activities were all below ground. As a result, no residual contaminants could be exposed to storm water. The Consent Order and RFI sampling results support this conclusion. The SMA receives runoff from developed and undeveloped areas. The concentrations of aluminum and gross-alpha radioactivity detected in SMA samples are less than the UTLs for runoff from undeveloped areas and above the UTLs for urban runoff from developed areas. The concentration PCBs detected in the SMA sample is less than the UTLs for urban runoff from developed areas and above the UTLs for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **00-018(a)**
Site Name: **Former WWTP, Pueblo Canyon**
SMA: **P-SMA-3.05**

Updated Site Description (2014):
SWMU 00-018(a) consists of the decommissioned Pueblo Canyon WWTP, located at the end of Olive Street in Pueblo Canyon on Los Alamos County property. The plant, which was built between 1946 and 1948, began operating in 1951 and received waste from HRL at TA-43 until1983 and from Los Alamos business and residential customers until 1991. From 1983 to 1991, the plant received only sanitary waste from Los Alamos businesses and residences. The plant was the primary supplier of irrigation for the Los Alamos golf course and recreational ball fields. From 1953 to 1983, this WWTP received laboratory waste (less than 10 L/mo) from the HRL at TA-43, the only known laboratory contributor to the waste stream at the plant. The HRL generated chemical and radioactive wastes, but LANL policy required that radioactive wastes not be discharged to the drains. In the early 1960s, Los Alamos County assumed control and decommissioned it in 1992.

Formerly, Los Alamos County held a NPDES permit for the Pueblo Canyon WWTP. After the plant was decommissioned in 1992, sludge in the plant's digester was transferred to sludge drying beds. In 1996, Los Alamos County removed the dried sludge from the sludge drying beds in accordance with regulations applicable to publicly owned treatment works and New Mexico operation practices for WWTPs. The final D&D of the WWTP was completed in 2008. The Site is currently accessible to the public for recreational activities.

Consent Order Phase I and Phase II investigation sampling for SWMU 00-018(a) is complete. The Phase II investigation report recommended SWMU 00-018(a) for corrective action complete without controls. NMED approved the Phase II investigation report with modifications in December 2010. NMED required LANL to evaluate the vapor-intrusion pathway to request a CoC without controls. LANL will perform the vapor-intrusion evaluation and submit a request for CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for P-SMA-3.05 exceeded TALs for copper and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site but is commonly present in sewage sludge at low concentrations. Copper was detected above soil, sediment, and tuff BVs in shallow (i.e., less than 3 ft bgs) Consent Order and RFI soil, sediment, and tuff samples. Copper was detected above BVs in 17 of 36 shallow samples with a maximum concentration 10 times the soil BV, which was detected in a sample of soil and dried sludge from a sludge fill area.
- PCBs are not known to be associated with industrial materials historically managed at the Site but are commonly present in sewage sludge at low concentrations. PCB mixture (Aroclor-1242) was detected in 1 of 19 shallow samples below the EQL. PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 13 to 19 shallow samples at maximum concentrations 20% and 10% of the residential SSLs, respectively.

The sampler receives runoff from developed areas as well as undeveloped areas consisting of Bandelier Tuff and sediment derived from Bandelier Tuff. Results of comparisons of the maximum concentration of storm water TAL exceedances with the UTL for runoff from undeveloped areas (i.e., soil and sediment derived from Bandelier Tuff) and the UTL for runoff from developed areas indicate that the concentrations of copper and PCBs detected in the SMA sample are consistent with runoff from developed and undeveloped areas, such as the P-SMA-3.05 drainage area.

Method of Treatment, Storage, or Disposal: The WWTP is no longer operating. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment, storage, and disposal activities are described above.

Past and Present Materials Management Practices: The WWTP is no longer operating. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **00-018(b)**
Site Name: **Former WWTP**
SMA: **P-SMA-0.3**

Updated Site Description (2014):
AOC 00-018(b) is the former Bayo Canyon WWTP that was located at the intersection of Pueblo and Bayo Canyons. It was owned and operated by Los Alamos County and began operating in 1963 and was upgraded in 1966. The plant treated the sanitary waste stream that previously was routed to the former central WWTP (SWMU 00-019) and sanitary waste from residences on Barranca Mesa. Most wastes treated at the plant were from businesses, eastern Los Alamos residences, and Barranca Mesa residences. After the Pueblo Canyon WWTP [SWMU 00-018(a)] was decommissioned in 1992, the remaining northern and western Los Alamos residential sanitary waste streams were routed to the Bayo Canyon WWTP. This plant was the primary supplier of effluent for irrigation at the Los Alamos golf course and recreational ball fields from 1992 until it was decommissioned in 2007. Mercury was historically used to seal and lubricate the hubs of trickling filters at the former WWTP. The Bayo WWTP was demolished by Los Alamos County in 2009 and 2010. Residual mercury was found to be present in the trickling filter seals during demolition.

The Consent Order investigation of AOC 00-018(b) is complete. The Site meets residential risk levels. NMED issued a CoC without controls for AOC 00-018(b) in January 2011.

Significant Materials Exposed to Storm Water:
In 2013, enhanced storm water monitoring samples for P-SMA-0.3 exceeded the TALs for copper, mercury, selenium, radium-226 and -228, and adjusted gross alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 7 shallow Consent Order and RFI soil samples collected at the Site. Copper was detected at a concentration of 55.3 mg/kg in a sludge sample collected during the 1996 RFI; there are no BVs for sludge.
- Mercury is known to be associated with industrial materials historically managed at the Site. Mercury was not detected above BVs in any of the 7 shallow Consent Order and RFI soil samples collected at the Site. Mercury was detected at a concentration of 0.492 mg/kg in a sludge sample collected during the 1996 RFI; there are no BVs for sludge.
- Selenium is not known to be associated with industrial materials historically managed at the Site and was not detected above BVs in Consent Order and RFI samples collected at the Site; however, detection limits were above BVs.
- Alpha-emitting radionuclides, including radium-226 and radium-228 are not known to be associated with industrial materials historically managed at AOC 00-018(b). Consent Order and RFI samples were not analyzed for gross-alpha radioactivity, alpha-emitting radionuclides or isotopic radium but were analyzed by gamma spectroscopy, which is capable of detecting americium-241 and uranium-235. No alpha-emitting radionuclides were detected above BVs/FVs. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from the former location of the WWTP and from undeveloped landscape. The concentration of copper detected in the SMA sample was below the developed area UTL and above the undeveloped area UTL. Although UTLs are not available for mercury, the concentration of mercury

detected in the SMA sample is greater than the maximum detected concentrations in the undeveloped and developed background data sets for runoff. There are no UTLs for selenium, but the concentration detected in the SMA sample is above the maximum concentration in the background data set for runoff from undeveloped areas. The gross-alpha TAL exceedance is below the developed and undeveloped runoff UTLs. Background runoff UTLs are not available for radium-226 and -228; however, the exceedance is less than 2 times the TAL. These results, along with the low magnitude and frequency of copper and selenium detections in investigation samples, are consistent with the Site not being the source of the TAL exceedances for copper, selenium, radium-226 and radium-228, and gross-alpha radioactivity. Mercury is known to have been present at the Site, although there are no known releases of mercury and mercury was not detected above BV in shallow investigation samples. Because there are no other known sources of mercury within the SMA drainage area, the Site is assumed to be the source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment and disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **00-019**
Site Name: **Former central wastewater treatment plant**
SMA: **P-SMA-2.2**

Updated Site Description (2014):
SWMU 00-019 is the former central wastewater treatment plant (CWWTP), which was first installed to replace a series of septic tanks serving original LANL facilities and some residential areas of the Los Alamos townsite. LANL operated the CWWTP from 1947 to 1961. The Site is located in the eastern part of the Los Alamos townsite at the current location of the Sombrillo assisted-living facility, at the north edge of Townsite Mesa above Graduation Canyon, a hanging tributary canyon of Pueblo Canyon. Former CWWTP components included a primary settling tank, sludge digestion tank, final settling tank, trickling filter, chlorine contact tank, clarifier, pump house, two sludge drying beds, two outfall areas, manholes, and associated underground piping. CWWTP operations were confined to the mesa top; however, two outfalls from the CWWTP discharged onto the canyon slope above Graduation Canyon.

The plant was decommissioned in 1961. In 1967, the Site was transferred intact, but out of service, to County ownership. Although the County never operated the plant as a wastewater treatment plant, the Site was used for various activities, and over time the County removed portions of the treatment plant structures. The County used the mesa-top portion of the Site for various maintenance-related activities, primarily to house the Roads and Grounds Headquarters and a storage area. As a result, the mesa top was heavily reworked by the County over more than 30 yr of ownership. During the VCA conducted by LANL in 1999 and 2000, remaining process pipelines were removed, along with the pump house and asbestos in the pump house. During the VCA, it was discovered process structures (the primary settling tank, sludge digestion tank, trickling filter, final settling tank, and chlorine contact tank) remained in place. Preliminary investigation indicates that each of the tanks was emptied, then completely or partially collapsed, filled, and buried with soil of unknown origin by the County. Construction of a senior citizen assisted-living facility was completed in 2004 over the Site.

Consent Sampling has not been conducted at SWMU 00-019. Decision-level data from the 1999–2000 VCA indicate the Site meets residential risk levels for the mesa-top portion of the Site and recreational risk levels for the hillside portion. The VCA report recommended NFA for SWMU 00-019 and was approved by NMED in May 2002. Recently, NMED required additional investigations to characterize potential historical releases to Graduation Canyon, including potential releases from SWMU 00-019. Storm water and sediment sampling results from the drainage downgradient of SWMU 00-019 have been reported to NMED; detected constituent concentrations were all below residential SSLs and SALs. A request for a CoC without controls will be submitted to NMED in 2014.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **00-030(f)**
Site Name: **Former septic system**
SMA: **ACID-SMA-2.01**

Updated Site Description (2014):
AOC 00-030(f) consists of a former septic system that included two septic tanks located on private property south of Canyon Road and north of Rose Street, slightly northeast of the United Church school building. On a 1943 engineering drawing, the tanks are labeled “Septic Tank No. 2.” The system was tied to sewer lines in the “Apartment Area” and handled sanitary waste from a school, a post exchange, and some of the original Ranch School buildings but did not handle waste from former TA-01 operations. The septic system ceased operating when the central WWTP came online in 1947. Portions of the tanks were previously removed; however, remnants of the tank remain under a sidewalk and existing retaining wall; the outfall was not located until 2009.

Consent Order investigations are complete for AOC 00-030(f). NMED issued a CoC without controls for AOC 00-030(f) in December 2008. However, since the outfall location was identified in 2009, NMED rescinded the CoC pending sampling at the outfall, which was conducted in 2010. Revised risk-assessment results indicate that AOC 00-030(f) still meets residential risk levels. LANL recommended corrective action complete without controls in the approved Phase II report.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Acid Canyon

Site ID: **00-030(g)**
Site Name: **Former septic system and outfall**
SMA: **ACID-SMA-1.05**

Updated Site Description (2014):
AOC 00-030(g) consists of a former septic system and outfall that were located near the former Catholic Church (3200 Canyon Road) in an area now covered by a paved parking lot for apartments. The septic system was installed in the early 1940s and received wastes from former TA-01 facilities. The former septic tank (structure 6) consisted of reinforced concrete and measured 32 ft long × 22 ft wide × 6.5 ft deep. A center baffle separated the tank into east and west chambers. Drainage from the septic system discharged through an outfall to Acid Canyon in an area owned by Los Alamos County. The septic system ceased operating when the CWWTP came online in 1947 and was subsequently removed in 1993. The inlet line was never discovered and may have been removed during the installation of the gas pipeline that crosses the site.

Consent Order investigations are complete for AOC 00-030(g). Decision-level data indicate the former AOC 00-030(g) septic tank location meets residential risk levels, and the former outfall location and drainage meet recreational risk levels. A CoC will be requested from NMED for this Site in 2014.

Significant Materials Exposed to Storm Water: A baseline storm water sample was collected in August 2011 and yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Acid Canyon

Site ID: **01-001(b)**
Site Name: **Former septic tank**
SMA: **LA-SMA-2.3**

Updated Site Description (2014):
SWMU 01-001(b) is the former location of a septic tank (former structure 01-135), which served FP and M-1 buildings through a single sanitary waste line connection. The septic tank was removed during the 1974–1976 radiological survey and D&D of TA-01. FP Building was constructed in November 1945 and was a foundry for nonradioactive and nonferrous metals. The building was determined to be free of radioactive contamination before D&D. M-1 Building was completed in June 1950 and originally was used to machine lithium and later to machine uranium-238. The building superstructure was determined to be free of contamination in 1964, but the floor drains were suspected to be radioactively contaminated from the uranium-238 machining conducted in M-1building.

Consent Order investigations are complete for SWMU 01-001(b); the Site meets residential risk levels. NMED issued a CoC without controls for SWMU 01-001(b) in September 2010.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for LA-SMA-2.3 exceeded the TAL for gross alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Uranium-238, an alpha-emitting radionuclide, is known to have been associated with industrial material managed at this Site but was not detected above BVs in Consent Order samples. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is greater than the UTL for runoff from developed areas and less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-001(c)**
Site Name: **Former septic tank 137**
SMA: **LA-SMA-4.2**

Updated Site Description (2014):
SWMU 01-001(c) is the location of former septic tank 137 (structure 01-137), its associated inlet and outlet drainlines, and outfall in former TA-01. The septic tank was installed in 1945 and served D-2 Building, which operated as a laundry for radioactively contaminated clothing and recyclable equipment. It was converted to an electronics shop after laundry operations were relocated to TA-21. Septic tank 01-137 was identified as a potential source of plutonium contamination in the runoff area below the septic tank outfall pipe. Septic tank 01-137 and its outfall pipe were subsequently removed and disposed of at MDA G at TA-54. Low levels of radiological activity were detected in the sidewalls of the septic tank excavation. Soil was removed from the excavation until gross-alpha activity levels were below 25 pCi/g. Clean soil was used to backfill the excavation.

Decision-level data for SWMU 01-001(c) determined that the nature and extent for all chemicals detected were defined. All detected chemicals were below residential SSLs. Based on human health and ecological risk-screening assessments, no additional investigation or remediation activities are required at SWMU 01-001(c). NMED issued a CoC with controls in September 2010.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-001(d)**
Site Name: **Former septic tank 138 and hillside**
SMA: **LA-SMA-5.01**

Updated Site Description (2014):
SWMU 01-001(d) is the former location of septic tank 138 (structure 01-138), its associated inlet and outlet drainlines, and outfall in former TA-01. The septic was constructed of reinforced concrete, measured 3 ft by 6 ft by 5 ft deep, and was located southeast of Building Y (former structure 01-81). The septic tank was installed in 1943 and served Buildings K (former structure 01 40), V (former structure 01-70), and Y. Building K was a chemical stock room that contained a mercury still. Building V housed the original TA-01 uranium and beryllium machine shop. Dry-grinding of boron was also performed in Building V. Building Y housed a physics laboratory that handled tritium, uranium-238, and polonium-210. The buildings were connected to septic tank 138 by a sanitary waste line. The outfall was located east of Building Y and discharged over the rim of Los Alamos Canyon. This outfall area is known as Hillside 138. The septic tank was abandoned in place in 1956 and was removed in 1975 or 1976. Currently, the location of the former pipelines and former septic tank is privately owned and commercially developed with buildings and an asphalt parking lot. The outfall is located on undeveloped land owned by DOE. SWMU 01-001(d) overlaps the footprint of SWMU 01-006(h); the two Sites share the same hillside area. Sampling and remediation activities were implemented at the Site in 2008–2009 to remove soil with mercury exceeding the residential SSL and plutonium-239/240 exceeding the residential SAL.

A total of 48 samples were collected from 23 locations and analyzed for TAL metals, VOCs, SVOCs, and radionuclides at SWMUs 01-001(d) and 01-006(h).

Concentrations of plutonium-239/240 exceeded the residential SAL at three locations. Mercury concentrations also exceed the residential SSL at two locations. Additional sampling and soil removals are planned for SWMU 01-001(d). Soil removals will be performed to reduce concentrations to below the residential levels.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-001(e)**
Site Name: **Former septic tank 139**
SMA: **LA-SMA-3.1**

Updated Site Description (2014):
SWMU 01-001(e) is the location of former septic tank 139 (structure 01-139), its associated inlet and outlet drainlines, and outfall in former TA-01. The tank outfall discharged southeast of the buildings at the head of Bailey's Bridge Canyon. Septic tank 139 was constructed in 1944 of reinforced concrete and measured 3 ft × 36 ft × 5 ft deep and served the D-5 Sigma vault, I Building, and Delta Building. The tank was decommissioned and left in place in 1965. However, the tank was not found during the 1974–1976 radiological sampling of TA-01, nor was it found when the area was developed for residential use. The D-5 Sigma vault was used to store plutonium-239 and uranium-235. Radiological soil sampling (1974–1976) near the former D-5 Sigma vault showed minimal radiologic contamination, and no additional soil was removed. I Building was used between 1947 and 1958 to store and machine beryllium. Delta Building was used as a meeting place and as a laboratory in which fission-product tracers were used. Currently, the septic tank location is on private property under Oppenheimer Drive, residential buildings and adjacent yards, driveways, and sidewalks.

Consent Order investigations are complete for SWMU 01-001(e). NMED issued a CoC with controls in September 2010.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-001(f)**
Site Name: **Former septic tank 140 (hillside)**
SMA: **LA-SMA-2.1**

Updated Site Description (2014):
SWMU 01-001(f) is the location of a former septic tank (structure 01-140) that was installed in 1945 and served HT and FP Buildings. The septic tank outfall discharged into Los Alamos Canyon. The outfall area is known as Hillside 140. HT Building was used to heat-treat and machine natural and enriched uranium. FP Building was a foundry for nonradioactive and nonferrous metals. The heat treatment and machining operations likely resulted in discharges of radioactive waste to the tank and outfall, and the machining operations were likely the source of the PCBs detected in the SWMU 01-001(f) outfall and drainage, although the use of PCBs was not documented in historical records.

The septic system ceased to be used in 1965 and the septic tank, drainlines, and surrounding soil were removed in 1975–1976. In 1995, soil with elevated concentrations of total uranium was removed from the upper and lower slopes of Hillside 140. Currently, the entire mesa-top area of SWMU 01 001(f) is developed, and the locations of the former drainlines are under the pavement and buildings of Ridge Park Village. The location of the former septic tank is partially covered by a building. The outfall location and the drainage into which it discharged are on undeveloped land owned by DOE.

Two IM soil removal actions were performed pursuant to the Consent Order to remediate PCB-contaminated sediment and tuff (i.e., a 2009–2010 IM and a 2010 supplemental IM). A total of 2880 yd^3 of soil and tuff was removed, and two sediment detention basins were constructed in Los Alamos Canyon below the SWMU 01-001(f) drainage. Influent and wetland discharge samples collected concurrently on July 12, 2013, show PCBs in the influent to be 42 times higher than in the wetland discharge.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-2.1 exceeded TALs for copper, PCBs, and gross-alpha radioactivity. The TAL exceedances for copper and gross alpha are between the applicable background concentrations for developed and undeveloped sites.

- Copper is not known to be associated with industrial materials historically managed at this Site, although it was possibly associated with nonferrous metals used in foundry operations. Copper was detected above the tuff BV in 2 of 37 shallow (i.e., less than 3 ft bgs) Consent Order samples at a maximum concentration 1.8 times the tuff BV. These results are from samples collected in 2008 and may not be representative of conditions following soil removal during the two IMs.
- PCBs are known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow IM and supplemental IM samples. Aroclor-1254 was detected in 90 of 98 shallow samples with a maximum concentration 35 times the residential SSL. Aroclor-1260 was detected in 55 of 98 shallow samples with a maximum concentration 8.7 times the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241 and plutonium-238 were not detected above BVs or FVs or were detected at depths where FVs do not apply in 37 shallow sediment and tuff samples. Plutonium-239/240 was detected above FVs or detected at depths where FVs do not apply in 5 of 37 shallow sediment and tuff samples with a maximum activity 3.3 times the sediment FV. Uranium-234 was detected above BVs in 18 of 37 shallow sediment and tuff samples at a maximum activity 9.5 times sediment BV. Uranium-235/236 was detected above BVs in 18 of 37 shallow sediment and tuff

samples at a maximum activity 18 times sediment BV. Uranium-238 was detected above BV in 20 of 37 shallow sediment and tuff samples at a maximum activity 35 times sediment BV. These results are from samples collected in 2008 and may not be representative of conditions following soil removal during the two IMs.

Method of Treatment, Storage, or Disposal: Septic tank is no longer in service. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment, storage and disposal activities are described above.

Past and Present Materials Management Practices: Septic tank is no longer in service. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-001(g)**
Site Name: **Septic tank 141**
SMA: **LA-SMA-3.9**

Updated Site Description (2014):
SWMU 01-001(g) is the location of former septic tank 141 (structure 01-141), its associated inlet and outlet drainlines, and outfall in former TA-01. The tank measured 3 ft by 6 ft by 5 ft deep and was installed in 1943. The tank was located south of Building X (01-79) near the edge of Los Alamos Canyon and served Building X, where radioactive targets were tested. The tank received sanitary waste from Building X through one sanitary waste line. The outfall discharged over the rim of the canyon. The septic tank, outlet line, and about 151 ft of the inlet line were removed in 1975. At that time, structure 01-141, its surrounding soil, and the sludge in the structure tested free of radioactive contamination. Currently, the location of the former inlet pipeline is on private property under a condominium building, and the outfall location is on undeveloped land owned by DOE.

Consent Order sampling and remediation activities were implemented on the hillside below the former septic tank outfall on DOE property in 2008–2009 to remove soil with plutonium-239/240 exceeding the residential SAL. Based on the confirmation sampling data, additional removal and stabilization activities and confirmation sampling will be implemented at SWMU 01-001(g) in 2014/2015. SWMU 01-001(g) will then be recommended for corrective action complete in the future Phase II Upper Los Alamos Canyon Aggregate Area Investigation Report. SWMU 01-001(g) will be eligible for a CoC upon approval of the Phase II report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-002(b)-00**
Site Name: **Outfall associated with TA-01 (located in former TA-45)**
SMA: **ACID-SMA-2**

Updated Site Description (2014):
SWMU 01-002(b)-00 consists of a former industrial waste line outfall and its drainage into Acid Canyon. The outfall was located within the boundaries of former TA-45 at the head of a small branch of Acid Canyon known as the south fork of Acid Canyon. This outfall was used from 1943 to 1951 to discharge untreated RLW generated in laboratories and research facilities at former TA-01. Discharges of untreated RLW ceased when the TA-45 RLW treatment plant began operation in 1951. In 1966, the SWMU 01-002(b)-00 outlet pipe, associated weir box, tuff around the outfall, and tuff from the canyon wall below the outfall were removed. In September 1967, the TA-45 property was transferred to Los Alamos County.

SWMU 01-002(b)-00 was remediated during a 2001 IA. Although the focus of the IA was to remove plutonium-contaminated sediment, PCBs are collocated with plutonium; therefore, the IA also resulted in the removal of PCB–contaminated sediment. The entire drainage below the former outfall was remediated and sampled. Risk-assessment results indicated SWMU 01-002(b)-00 poses no unacceptable risk to recreational receptors and poses no risk to ecological receptors. Based on the results of the IA and the Los Alamos/Pueblo Canyon investigation, no additional characterization sampling for SWMU 01-002(b)-00 was required under the Consent Order Pueblo Canyon Aggregate Area investigation. SWMU 01-002(b)-00 is currently eligible for a CoC with controls, limiting land use to recreational. A CoC request has not been submitted because the Site is not owned by DOE and a mechanism for administering land use controls has to be agreed to by the property owner, Los Alamos County.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for ACID-SMA-2.1 exceeded TALs for PCBs and gross-alpha radioactivity.

- Although PCBs were not known to have been associated with industrial materials historically discharged from this outfall, the results of sediment samples collected below the outfall indicate PCBs were likely present in wastes discharged from the outfall. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow IA samples collected within that portion of SWMU 01-002(b)-00 in the ACID-SMA-2.1 drainage area. Aroclor-1254 was detected in 15 of 18 shallow samples with a maximum concentration 5.5 times of the residential SSL. Aroclor-1260 was detected in 8 of 18 shallow samples with a maximum concentration 6.0% of the residential SSL.
- Americium-241 and plutonium and uranium isotopes are known to have been associated with industrial materials historically managed at this Site. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from both developed and undeveloped areas. The concentrations of TAL constituents are below or between the range of undeveloped and developed background UTLs. These results indicate the concentrations of TAL constituents in the SMA sample are within the expected range, given the land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: The outfall is no longer operational, and the associated structures have been removed. Historical disposal activities are described above.

Past and Present Materials Management Practices: The outfall is no longer operational, and the associated structures have been removed. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Acid Canyon—Tributary to Pueblo Canyon

Site ID: **01-003(a)**
Site Name: **Landfill**
SMA: **LA-SMA-3.1**

Updated Site Description (2014):
SWMU 01-003(a), also known as Bailey's Bridge landfill, was a surface disposal area located at the head of Bailey's Bridge Canyon, a tributary to Los Alamos Canyon. The area was used between 1959 and 1978 to dispose of debris from the demolition of former TA-01 structures. Debris included broken-up concrete walls and flooring from the former Sigma Building, the D-5 vault, HT, Warehouse 19, and the sheet metal shop. Only debris with activity less than 2500 cpm of surface alpha contamination was disposed of in this landfill. Upon completion of TA-01 demolition activities, the remaining debris was covered with 4 ft of earthen fill. Additional fill was deposited over the landfill when the area was developed for residential housing in the 1980s; Bailey's Bridge no longer exists. The mesa-top portion of the SWMU is under pavement and a series of townhouses. The area downslope of the landfill is undeveloped DOE land.

Consent Order sampling and remediation activities were implemented in 2008–2009 to remove soil with PCBs and lead exceeding residential SSLs in the downslope portion of the Site. Based on the confirmation sampling data, additional removal and stabilization activities and confirmation sampling will be implemented at SWMU 01-003(a) in 2014 to reduce concentrations of PCBs and lead to below residential SSLs. SWMU 01-003(a) will then be recommended for corrective action complete in the future Phase II Upper Los Alamos Canyon Aggregate Area Investigation Report. SWMU 01-003(a) will be eligible for a CoC upon approval of the Phase II report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-003(b)**
Site Name: **Surface disposal site**
SMA: **LA-SMA-4.1**

Updated Site Description (2014):
AOC 01-003(b) is described in the 1990 SWMU Report as a surface disposal area for construction debris reported to be below the north rim of Los Alamos Canyon, approximately 450 ft east of Bailey Bridge Canyon. Site visits performed to locate the disposal area identified a few pieces of metal debris, but there was no evidence of a surface disposal area.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for LA-SMA-4.1 exceeded the TALs for copper, gross-alpha radioactivity, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 7 shallow (i.e., less than 3 ft bgs) Consent Order soil, sediment, and tuff samples.
- PCBs are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for PCBs because they were not identified as potential contaminants at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and uranium and plutonium isotopes, which are alpha emitters. Plutonium-238 and plutonium-239/240 were detected above soil and sediment BVs and sediment FVs, or detected where FVs are not applicable, in shallow Consent Order soil, sediment, and/or tuff samples. Plutonium-238 was detected in 1 of 8 shallow samples at an activity of 0.168 pCi/g in tuff; there is no FV for plutonium-238 in tuff. Plutonium-239/240 was detected in 6 of 8 shallow samples at a maximum activity 31 times the sediment FV. Americium and plutonium isotopes are not included in the definition of adjusted gross-alpha radioactivity.

The SMA receives runoff from developed and undeveloped areas. Concentrations of copper and PCBs detected in SMA samples are less than UTLs for urban runoff from developed areas and are above the Bandelier Tuff BV. The gross-alpha TAL exceedance is above the developed BV and below the Bandelier Tuff BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-003(d)**
Site Name: **Former surface disposal site**
SMA: **LA-SMA-5.2**

Updated Site Description (2014):
SWMU 01-003(d), also known as Can Dump Site, was a surface disposal area used to dispose of empty solvent and paint cans during the operations of the Zia Company (paint, carpentry, furniture repair, and sign shops and warehouses). No radioactive materials were handled in these warehouses because they were located outside the TA-01 security fence. Disposal operations likely ceased during the mid- to late 1950s, when the majority of TA-01 buildings were demolished. All cans and debris were removed from the Site during a 1995 VCA. SWMU 01-003(d) is located on an undeveloped hillside of Los Alamos Canyon, just south of the current Century Link building. Currently, the Site is located on undeveloped DOE land. Sampling data from the 2010 Phase II investigation showed antimony detected above the residential SSL. Therefore, soil removal and additional sampling will be implemented at SWMU 01-003(d).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-003(e)**
Site Name: **Surface disposal area**
SMA: **LA-SMA-5.02**

Updated Site Description (2014):
SWMU 01-003(e) was a surface disposal area on the mesa top and partly on the Los Alamos Canyon hillside where demolition debris from former TA-01 was placed in the 1950s. Surface debris on the hillside of SWMU 01-003(e) consisted primarily of concrete construction debris but also included utility boxes, piping, and other miscellaneous debris. Review of historical aerial photographs from the 1950s and 1960s indicates that when the buildings in the eastern portion of former TA-01 underwent D&D in the 1950s, debris from the 1940s era buildings was placed at the head of the canyon, and some of the debris was pushed down the hillside. Review of historical aerial photographs from the mid-1970s shows that additional fill was placed over the top of the mesa-top portion of the debris during the development of the former Los Alamos Inn, adjacent professional buildings, and associated parking lots. The mesa-top portion of SWMU 01-003(e) is currently paved with asphalt and the professional buildings remain in place.

Consent Order investigations are complete for SWMU 01-003(e); the Site meets residential risk levels. NMED issued a CoC with controls (storm water) for SWMU 01-003(e) in September 2010.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for LA-SMA-5.02 exceeded the TALs for copper and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 14 shallow Consent Order samples collected at the Site.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in 1 of 14 and 6 of 14 shallow Consent Order samples at maximum concentrations 12.5% and 1.7% of the residential SSLs, respectively.

The SMA receives runoff from developed and undeveloped areas. The concentration of copper detected in the SMA sample is greater than the UTL for runoff from undeveloped areas and less than the UTL for runoff from developed areas. The concentrations of PCBs detected in the SMA samples were greater than the UTLs for runoff from undeveloped and developed areas.

Method of Treatment, Storage, or Disposal: Historical disposal activities are described above.

Past and Present Materials Management Practices: Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-006(a)**
Site Name: **Former drainline and outfall**
SMA: **LA-SMA-3.9**

Updated Site Description (2014):
SWMU 01-006(a) is the former drainline and outfall that served a cooling tower (former structure 01-80) at former TA-01. The drainline and outfall were located on the east side of the cooling tower and south of Building X (former structure 01-79) near the north rim of Los Alamos Canyon. Currently, the location of the former pipeline is under a building of the privately-owned Los Arboles condominiums. Although no documentation was found on the removal of the drainline, it was likely removed during the construction of the residential building. The drainline was not encountered during the 2008–2009 Consent Order investigation activities.

Phase and II Consent Order investigations are complete for SWMU 01-006(a). All detected constituents are below residential SSLs and SALs. SWMU 01-006(a) is expected to be eligible for a CoC after submittal and approval of the Phase II investigation report.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.
Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-006(b)**
Site Name: **Former drainlines and outfall**
SMA: **LA-SMA-4.1**

Updated Site Description (2014):
SWMU 01-006(b) consists of the TA-01 former D Building (01-6) drainline and outfall that discharged to Los Alamos Canyon. Before its removal, D Building was used primarily to process plutonium. The types and quantities of liquids handled by the drainline are not known. During the 1974–1976 excavation of the D Building area, all drainlines were removed along with the areas of elevated radioactivity.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for LA-SMA-4.1 exceeded the TALs for copper, gross-alpha radioactivity, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the tuff BV in shallow (i.e., less than 3 ft bgs) Consent Order soil, sediment, and tuff samples. Copper was detected in 1 of 8 shallow Consent Order samples at a concentration equal to the tuff BV.
- PCBs are not known to be associated with industrial materials historically managed at the Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 2 to 5 shallow samples below the EQLs.
- Alpha-emitting radionuclides, specifically americium-241 and isotopes of plutonium, are known to be associated with industrial materials historically managed at the Site. However, americium and plutonium isotopes are excluded from the definition of adjusted gross-alpha radioactivity. No other alpha-emitting radionuclides are known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and uranium and plutonium isotopes, which are alpha emitters. Americium-241 was detected in 6 of 8 shallow samples with a maximum activity 1180 times the soil FV. Plutonium-239/240 was detected in 8 of 8 shallow samples at a maximum activity 19,074 times the sediment FV.

The SMA receives runoff from developed and undeveloped areas. Concentrations of copper and PCBs detected in SMA samples are less than UTLs for urban runoff from developed areas and are above the Bandelier Tuff BV. The gross-alpha TAL exceedance is above the developed BV and below the Bandelier Tuff BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-006(c)**
Site Name: **Former drainlines and outfall**
SMA: **LA-SMA-4.2**

Updated Site Description (2014):
SWMU 01-006(c) consists of the former drainlines and outfall that served building D-2 (former building 01-8). The SWMU 01-006(c) drainlines exited the southwest side of the building and discharged directly onto Hillside 137. Building D-2 was the laundry facility for radioactively contaminated clothing and recyclable equipment for all of TA-01 from 1943 to 1945. The laundry facility was moved to TA-21 in 1945. During the 1974–1976 radiological survey of former TA-01, contaminated soil was excavated in the areas of former Buildings D and D-2. Two drainlines at the southwest end of the building were encountered during the excavation activities and were removed; the excavated areas were backfilled with clean fill.

Decision-level data from a 2009 investigation indicate detected contaminant concentrations are below residential SSLs and/or SALs. Additional sampling is proposed at SWMU 01-006(c).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **01-006(d)**
Site Name: **Former drainline and outfall**
SMA: **LA-SMA-4.2**

Updated Site Description (2014):
SWMU 01-006(d) is the former drainline and outfall that served Building D-3 and discharged to Los Alamos Canyon at the former TA-01. The outfall is located on Hillside 137 in the same area as the former SWMU 01-006(c) drainline. Activities conducted at Building D-3 included counting radioactive filter papers from Building H-1. During the D&D of Buildings D and D-2, all drainlines were removed along with areas of elevated radioactivity. Because the main portion of the drainline from Building D-3 was located in close proximity to Building D-2, this drainline was likely removed during the excavation of contaminated soils beneath and around Buildings D and D-2. Clean soil was used to backfill the excavations. Currently, the area is undeveloped and privately owned. Clean soil was used to backfill the excavation. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. NMED issued a CoC with controls in September 2010.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: 01-006(h)
Site Name: Former storm drain
SMA: LA-SMA-5.01

Updated Site Description (2014):
SWMU 01-006(h) consists of the former storm water-drainage system that served the northwest side of former Building R and the east side of former Building Y with former TA-01. Building R housed model, glass, carpentry, and plumbing shops. Building Y housed a physics laboratory that handled tritium, uranium-238, and polonium-210. The outfall for this drainage system was located 25 ft south of Building Y on the north rim of Los Alamos Canyon, immediately west of Hillside 138. Currently, the entire drainage system area is located beneath privately owned commercial buildings.

Consent Order sampling and remediation activities will be implemented on the hillside below the former storm drain outfall on DOE property in 2014 to remove soil with mercury and plutonium-239/240 exceeding the residential SSL and SAL, respectively. SWMU 01-006(h) will then be recommended for corrective action complete in the future Phase II Upper Los Alamos Canyon Aggregate Area Investigation Report. SWMU 01-006(h) will be eligible for a CoC upon approval of the Phase II report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: 02-003(a)
Site Name: Valve house and gaseous effluent line
SMA: LA-SMA-5.51

Updated Site Description (2014):
AOC 02-003(a) encompasses the soil contamination associated with the former WBR's stack-gas valve house (former structure 02-019) and associated stainless-steel gaseous effluent vent lines (former lines 117 and 118) located at TA-02. The WBR is part of Site 03-004(a).

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to be associated with industrial materials historically managed at this Site. It was detected above the soil BV in shallow (i.e., less than 3 ft bgs) soil and sediment samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation. Mercury was detected above the BV in 5 of 9 shallow samples with a maximum concentration 4.1 times the soil BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 3 of 7 shallow samples and Aroclor-1260 was detected in 4 of 7 shallow samples with maximum concentrations 1.6% and 33% of the residential SSL, respectively.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this site. Consent Order and post–Cerro Grande fire samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241, plutonim-238, and uranium isotopes were not detected above BVs or FVs or detected where FVs do not apply in shallow soil and sediment samples. Plutonium-239/240 was detected above the soil FV in 2 of 8 shallow samples with a maximum activity 4.7 times the soil FV.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The valve house and effluent line are no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The valve house and effluent line are no longer in service. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-003(b)**
Site Name: **Former condensate trap**
SMA: **LA-SMA-5.52**

Updated Site Description (2014):
AOC 02-003(b) consists of a former condensate trap (structure 02-048) and a portion of an associated stainless-steel line (line 119) located at TA-02. The condensate trap was a concrete manhole superstructure with a small-diameter standpipe. The trap was located at the lowest point of line 119 between the stack-gas valve house [structure 02-019, AOC 02-003(a)] and the delay tanks [structure 02-131, AOC 02-003(c)]. Line 119 consisted of an approximately 78-ft-long east-west trending pipe section that ran from the stack-gas valve house (structure 02-019) to the condensate trap and a 205-ft-long north-south trending section that ran from the condensate trap to the delay tanks. Line 119 continued southward from the delay tanks, and that portion of the line is addressed as AOC 02-003(d). The condensate trap and the portion of line 119 between the valve house and the delay tanks were used until 1974 and remained inactive until they were removed and disposed of during D&D activities performed in 1985.

Consent Order investigations are complete for SWMU 02-03(b); the Site meets residential risk levels. SWMU 02-003(b) was recommended for corrective action complete in the Phase II Investigation Report for Middle Los Alamos Canyon Aggregate Area. SWMU 02-003(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-003(e)**
Site Name: **Holding tank near WBR**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-003(e) encompasses the soil contamination associated with the former WBR's 800-L stainless-steel holding tank (structure 02-62). The WBR is part of Site 03-004(a).

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to be associated with industrial materials historically managed at this Site. It was detected above the soil BV in shallow (i.e., less than 3 ft bgs) soil and sediment samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation. Mercury was detected above the BV in 5 of 9 shallow samples with a maximum concentration 4.1 times the soil BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 3 of 7 shallow samples and Aroclor-1260 was detected in 4 of 7 shallow samples with maximum concentrations 1.6% and 33% of the residential SSL, respectively.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this site. Consent Order and post–Cerro Grande fire samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241, plutonim-238, and uranium isotopes were not detected above BVs or FVs or detected where FVs do not apply in shallow soil and sediment samples. Plutonium-239/240 was detected above the soil FV in 2 of 8 shallow samples with a maximum activity 4.7 times the soil FV.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is unknown, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The holding tank is no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The holding tank is no longer in service. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-004(a)**
Site Name: **Former OWR facility**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-004(a) is the former OWR facility (former building 02 001), which consisted of the OWR, the OWR fuel-handling area, the OWR cooling-liquid recirculating piping, the OWR gaseous effluent vent line, the OWR material storage area, and the WBR. Before the OWR was constructed, former building 02-001 was used to house a 25-kW fast-neutron research reactor, Clementine, located in the western third of the building. The Clementine reactor was self-contained and operated from 1946 to 1953. Clementine was the precursor to the OWR and was dismantled in 1954.

The OWR was an 8 mW water-cooled tank-type research reactor fueled by enriched solid uranium. It was put online in 1956 and operated until it was put on standby status in 1993. The reactor remained inactive until it was decommissioned, removed, and disposed of in 2003. The OWR operated with a cooling-liquid recirculating system that consisted of a series of closed-loop pipes in a 100-ft-long corridor that extended from the OWR west to the reactor facility equipment building [former building 02-044, AOC 02-004(f)]. The water was routed through pumps, filters, and chillers in the reactor facility equipment building and back to the reactor. The cooling tower (former structure 02-049) was added in 1959 to supplement the building 02-044 chillers in this closed system. The recirculating system was active from 1956 to 1993, when it was put on standby status after a cooling system water leak was discovered.

Off-gas from the OWR was routed through the gaseous effluent vent line to a connection into line 119 on the east side of TA-02, where the effluent continued up to the mesa-top stack [former structure 02-009, SWMU 02 006(a)]. The gaseous effluent vent line teed off from the piping corridor between the OWR and OWR equipment building (former building 02 044).

The OWR fuel-handing area consisted of a fuel pit and a closed recirculating system that serviced only the fuel pit. It was located next to the OWR in the central portion of the building and was used for temporary storage of fuel rods before they were recycled.

Operation of the OWR included the temporary storage of material (isotope columns, through-put port metal sleeves, etc.) that became activated during contact in the reactor neutron flux field. The material was stored in a structure next to the guard quarters (former building 02-004), located south of the reactor, to await final disposition. The material storage structure was removed in 2000.

The WBR was the name used for a series of three small research reactors, LOPO, HYPO, and SUPO, located in the eastern third of former building 02 001. The reactors were each progressively stronger in power output, each consisted generally of a 1-ft-diameter sphere filled with liquid fuel, and each was surrounded with neutron-reflecting blocks sitting on a graphite base. The LOPO reactor became functional in May 1944. The LOPO was dismantled, removed, and disposed of in September 1944. The HYPO reactor became operational in December 1944 and was later upgraded to SUPO, which became operational in 1951. The SUPO was decommissioned, removed, and disposed of in 1990.

The reactors were surrounded by a 15-ft × 15-ft × 11-ft concrete biological shield and underlain by a shallow sand pit and a utility trench that were used to collect liquids and gases from the reactor and transport them to support structures on the east side of former building 02-001. The gases were managed through the WBR gaseous effluent vent line system. Some radionuclides may have been deposited on the ground surface as gaseous effluent drifted from this system, and condensate from the gaseous effluent may have leaked from portions of the vent line system. These releases are addressed as AOCs 02-003(a,b,c,d). Cesium-137 contamination was found in the OWR building (former

building 02-001) near the sand pit and the utility trench during SUPO decommissioning activities and removed.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury may have been associated with industrial materials historically managed at this Site. Mercury was detected above the soil BV in shallow samples collected during the 2007 Consent Order investigation. Mercury was detected above the BV in 30 of 32 shallow samples with a maximum concentration 82 times the soil BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 6 of 29 shallow samples, and Aroclor-1260 was detected in 9 of 29 shallow samples with maximum concentrations 59% of and 1.1 times the residential SSL, respectively.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site.
- Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241 and uranium isotopes were not detected above BVs or FVs or detected where FVs do not apply in 32 shallow Consent Order soil and sediment samples. Plutonium-239/240 was detected above the soil FV in 5 of 32 shallow samples with a maximum activity 16 times the soil FV.

The SMA receives run-on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The OWR and associated structures are no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment, storage and disposal activities are described above.

Past and Present Materials Management Practices: The OWR and associated structures are no longer in service. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: 02-005
Site Name: Soil contamination from drift loss, cooling tower blowdown
SMA: LA-SMA-5.5.1

Updated Site Description (2014):
SWMU 02-005 consists of an area of soil potentially affected by the airborne drift of potassium dichromate used to inhibit corrosion in the OWR cooling tower (former structure 02 049) located at TA-02. The cooling tower was installed and became operational in 1957. It was constructed with aluminum heat exchangers that were prone to corrosion. Potassium dichromate was added to the circulating water to inhibit corrosion of the heat exchangers. In 1975, stainless-steel heat exchangers were installed to eliminate the use of potassium dichromate. The cooling tower operated until the OWR was shut down in 1993. In 1995, all liquid was drained from the system. In 2000, the cooling tower structure and associated equipment were removed and disposed of at TA-54. In 2003, the remaining buried pipes and drains were removed.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was detected above the soil and sediment BVs in shallow samples collected during the 2007 and 2010 Consent Order investigations. Mercury was detected above the BVs in 1 of 40 shallow samples with a maximum concentration 22 times BVs.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Three PCB mixtures (Aroclor-1242, Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1242 was detected in 1 of 35 shallow samples at 0.3% of the residential SSL. Aroclor-1254 was detected in 11 of 35 shallow samples at a maximum concentration 18% of the residential SSL. Aroclor-1260 was detected in 28 of 35 shallow samples with a maximum concentration 1.9 times the residential SSL.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-006(b)**
Site Name: **Acid waste line**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
SWMU 02-006(b) is a former acid waste line located at TA-02. The waste line carried effluent from several laboratory rooms in the center of the OWR building (former building 02-001) south to a discharge point into Los Alamos Creek. The waste line was installed during the initial construction of building 02-001 in 1946 (engineering drawing C-1703) and was reportedly taken out of service in the 1960. According to the Omega West decommissioning report, all lines and connections associated with SWMU 02 006(b) were removed and disposed of in 2003.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury may have been associated with industrial materials historically managed at this Site. It was detected above soil and sediment BVs in shallow samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation. Mercury was detected above BVs in 19 of 19 shallow samples with a maximum concentration 60 times the BVs.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order and post–Cerro Grande fire samples. Aroclor-1254 was detected in 1 of 19 shallow samples at a maximum concentration 4% of the residential SSL. Aroclor-1260 was detected in 17 of 19 shallow samples with a maximum concentration 45% of the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site.
- Consent Order and post–Cerro Grande fire samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241, plutonium-238, uranium-234, and uranium-238 were not detected above BVs or FVs or were detected where FVs do not apply in 19 shallow soil and sediment samples. Plutonium-239/240 was detected above FV in 2 of 19 shallow samples at a maximum activity 31 times the sediment FV. Uranium-235/235 was detected in 1 of 19 shallow samples at 1.4 times the sediment BV.

Method of Treatment, Storage, or Disposal: The acid waste line is no longer in service. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment, storage and disposal activities are described above.

Past and Present Materials Management Practices: The acid waste line is no longer in service. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-006(c)**
Site Name: **Former sanitary waste line**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-006(c) is a former sanitary waste line located at TA-02. The waste line extended from the office area restrooms in the OWR building (former building 02-001) to a septic tank (former structure 02-043, SWMU 02-007). The 1990 SWMU report incorrectly describes AOCs 02-006(c) and 02-006(d). This report describes AOC 02-006(c) as the drainline that served the chemical room and several laboratories in the building and AOC 02-006(d) is described as the drainline that served the OWR building (02-001) reactor control room air conditioner, sink, backflow preventer valve, and drinking water fountain. The 1990 SWMU report states that both AOCs discharged to Los Alamos Creek. Engineering drawings C-1750 and C-1703 and the 2003 D&D records demonstrate that a single drainline served the laboratories and the control room air conditioner, sink, backflow preventer valve, and drinking water fountain was connected to a septic tank (former structure 02-043, SWMU 02-007) rather than discharging to Los Alamos Creek.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to been associated with industrial materials historically managed at this Site. Mercury was detected above the soil BV in shallow samples collected during the 2007 Consent Order investigation. Mercury was detected above BV in 7 of 7 shallow samples with a maximum concentration 14 times the BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 3 of 7 shallow samples at a maximum concentration 11% of the residential SSL. Aroclor-1260 was detected in 7 of 7 shallow samples with a maximum concentration 8% of the residential SSL.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241, plutonium-238, and uranium isotopes were not detected above BVs or FVs or were detected where FVs do not apply in 7 shallow soil samples. Plutonium-239/240 was detected above FV in 1 of 7 shallow samples at a maximum activity 2.1 times the soil FV.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The sanitary waste line is no longer in service. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment, storage and disposal activities are described above.

Past and Present Materials Management Practices: The sanitary waste line is no longer in service. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-006(d)**
Site Name: **Former sanitary waste line**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-006(d) is a duplicate of AOC 02-006(c). See updated IP Site narrative for AOC 02-006(c).

Significant Materials Exposed to Storm Water:
See updated IP Site narrative for AOC 02-006(c).

Method of Treatment, Storage, or Disposal: See updated IP Site narrative for AOC 02-006(c).

Past and Present Materials Management Practices: See updated IP Site narrative for AOC 02-006(c).

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-006(e)**
Site Name: **Former sump**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-006(e) is a former sump (former structure 02-026) and associated drainline located at TA-02. The sump and drainline received effluent from the OWR building (former building 02-001) reactor room. The sump and drainline were connected to floor drains in the main reactor room and became operational in 1944. The sump outfall overflow discharged directly to Los Alamos Creek. In 1990, a second collection sump (former structure 02-082) was connected to the AOC 02 006(e) drainline and is shown on engineering drawing C-45924. According to the Middle Los Alamos Canyon Aggregate Area historical investigation report and investigation work plan, a drainline from the sump 02 082 was connected directly to the AOC 02-004(e) acid pit (former structure 02-053); however, engineering drawings do not show a drainline connecting the two structures. Sumps 02-026 and 02-082 and the drainline remained in place until they were removed and disposed of during D&D activities in 2003.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury may have been associated with industrial materials historically managed at this Site. Mercury was detected above soil and sediment BVs in shallow samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation. Mercury was detected above BVs in 14 of 14 shallow samples with a maximum concentration 43 times BVs.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order and post–Cerro Grande fire samples. Aroclor-1254 was detected in 6 of 13 shallow samples at a maximum concentration 1.2 times the residential SSL. Aroclor-1260 was detected in 10 of 13 shallow samples with a maximum concentration 6% of the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order and post–Cerro Grande fire samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241, plutonium-238, and uranium isotopes were not detected above BVs, FVs or were detected where FVs do not apply in 14 shallow soil samples. Plutonium-239/240 was detected above FVs in 4 of 14 shallow soil and sediment samples at a maximum activity 14 times the sediment FV.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The sump is no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The sump is no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-007**
Site Name: **Former septic system**
SMA: **LA-SMA-5.52**

Updated Site Description (2014):
SWMU 02-007 consists of a former septic system that was located at (structure 02-043) TA-02. The septic tank was constructed of reinforced concrete and measured 13 ft long × 8 ft wide × 6 ft deep. The septic tank received effluent from laboratory sink drains in the OWR facility (former building 02-001). The septic tank was installed in 1944. In 1947, the chemical waste shack (former building 02-003, AOC 02-010) was connected to the septic system and remained connected until the chemical waste shack was decommissioned in 1971. Overflow from the tank discharged to Los Alamos Creek through a 6-in.-diameter VCP. However, the exact location of the outfall discharge is not known. The septic tank, overflow outfall, and surrounding soils were removed and disposed of in 1986. All remaining components of TA-02 were removed during D&D activities in 2003.

Consent Order investigations are complete at SWMU 02-007; the Site meets residential risk levels. SWMU 02-007 was recommended for corrective action complete in the Phase II Investigation Report for Middle Los Alamos Canyon Aggregate Area. SWMU 02-007 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-008(a)**
Site Name: **Former NPDES-permitted outfall**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
SWMU 02-008(a) is a former NPDES-permitted outfall (EPA 03A020) located at TA-02. The outfall discharged cooling water from the OWR cooling tower (former structure 02-049). The cooling tower became operational in 1957. Use of potassium dichromate to control corrosion of aluminum heat exchangers began in 1959. The aluminum heat exchangers were replaced by stainless steel ones in 1975, thus eliminating the use of potassium dichromate. In 1993, the shutdown of the OWR placed the cooling tower on standby status, and in 1995, all liquid waste was drained from the system. In 2000, the cooling tower structure and associated equipment were decommissioned and removed. In 2003, the remaining buried pipes and drains were removed and disposed of. The outfall (EPA 03A020) was removed from LANL's NPDES permit in July 1999.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was not detected above soil and sediment BVs in 6 shallow samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 3 of 5 shallow samples at a maximum concentration 17% of the residential SSL. Aroclor-1260 was detected in 4 of 5 shallow samples with a maximum concentration 11% of the residential SSL.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Consent Order and post–Cerro Grande fire samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241, plutonium-238, and uranium isotopes were not detected above BVs or FVs or were detected where FVs do not apply in 6 shallow soil and sediment samples. Plutonium-239/240 was detected above FVs in 6 of 6 shallow soil and sediment samples at a maximum activity 28 times the sediment FV.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is unknown, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The outfall is no longer in service. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Past and Present Materials Management Practices: The outfall is no longer in service. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-008(c)**
Site Name: **Former outfalls and drainlines**
SMA: **LA-SMA-5.52**

Updated Site Description (2014):
AOC 02-008(c) consists of two former outfalls and associated drainlines at TA-02. In 1985, the easternmost drainpipe was installed to discharge groundwater seepage from the OWR building 02-001 basement sump to Los Alamos Creek. In 1988, this drainpipe was plugged, left in place, and replaced with drainpipe that was installed approximately 100 ft west of the original drainpipe location. The second drainpipe also discharged groundwater seepage from the OWR basement sump to Los Alamos Creek. Both drainpipes were removed and disposed of during D&D activities in 2003.

Consent Order investigations are complete for AOC 02-008(c); the Site meets residential risk levels. SWMU 02-008(c) was recommended for corrective action complete in the Phase II Investigation Report for Middle Los Alamos Canyon Aggregate Area. SWMU 02-008(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-009(a)**
Site Name: **Area of potential radioactive soil contamination**
SMA: **LA-SMA-5.53**

Updated Site Description (2014):
SWMU 02-009(a) is an area of potential radioactive soil contamination at TA-02 identified during a survey conducted during the 1985 D&D of the Water Boiler Reactor. A survey of the area at the time of the D&D identified above-background levels of radioactivity directly south of former building 02-050. A small amount of soil was removed from the Site as part of the 1985 D&D activities. During the post-Cerro Grande fire recovery work performed in 2000, approximately 58 yd^3 of radioactively contaminated soil was removed from SWMU 02-009(a).

Consent Order investigations are complete for SWMU 02-009(a); the Site meets residential risk levels. SWMU 02-009(a) was recommended for corrective action complete in the Phase II Investigation Report for Middle Los Alamos Canyon Aggregate Area. SWMU 02-009(a) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-009(b)**
Site Name: **Soil contamination**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
Site 02-009(b) is an area of radioactive soil contamination located north of the former stack-gas valve house (former structure 02-019) and the east bridge at TA-02. This area was used for truck staging during D&D of the WBR. A survey of the area at the time of D&D identified detectable beta/gamma activity. A small amount of soil was removed from the Site and disposed of as part of the D&D activities.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was detected above soil and sediment BVs in shallow samples collected during the 2007 Consent Order investigation. Mercury was detected above soil and sediment BVs in 6 of 16 shallow samples with a maximum concentration 13 times the BVs.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 5 of 16 shallow samples at a maximum concentration 2% of the residential SSL. Aroclor-1260 was detected in 12 of 16 shallow samples with a maximum concentration 6% of the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order samples were not analyzed for gross alpha radioactivity, but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives run-on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The operations served by these drains are no longer in service. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The operations served by these drains are no longer in service. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-009(c)**
Site Name: **Nonintentional release**
SMA: **LA-SMA-5.54**

Updated Site Description (2014):
SWMU 02-009(c) is a leach field and an area of alpha-, beta-, and gamma-emitting radioactively contaminated soil south of the condensate trap [former structure 02-048, AOC 02-003(b)]. Radioactive soil contamination was identified at SWMU 02-009(c) during 1985–1986 D&D activities associated with the condensate trap. Two sections of contaminated 6-in.-diameter VCP, one 34 ft long and one 20 ft long and lying parallel to the septic tank overflow pipe, were uncovered during D&D activities at the condensate trap. The pipes were approximately 5 ft below and to either side of the septic tank overflow pipe. The purpose of the pipes is not known. The pipes were present at depths of 3–8 ft bgs. All structures (septic tank and pipes) and adjacent soil down to the saturated zone were removed and disposed of during the 1985–1986 D&D. The area was backfilled with clean tuff. A post–Cerro Grande fire survey in 2000 identified elevated radiation levels at one location at SWMU 02-009(c). Soil was excavated and removed, and the area was backfilled with clean soil and reseeded.

Consent Order Phase I and Phase II investigations are complete for this Site. Extent is defined and risk assessment results show acceptable human health risk and dose under current and future land use. The Site is not eligible for a CoC, however, because an ecological risk assessment has not been performed. The ecological risk assessment will be performed for the entire TA-02 core area and requires investigation and remediation of AOC 02-011(a) to be completed first.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.54 exceeded TALs for PCBs and gross alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. Three PCB mixtures (Aroclor-1248, Aroclor-1254, and Aroclor-1260) were detected in shallow (i.e., less than 3 ft bgs) Consent Order samples. Aroclor-1248 was detected in one sample at 0.2% of the residential SSL. Aroclor-1254 was detected in 13 of 19 shallow samples with a maximum concentration 13% of the residential SSL. Aroclor-1260 was detected in 16 of 19 shallow samples with a maximum concentration 7% of the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order and post–Cerro Grande fire samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sample results for PCBs and gross alpha are between the backgrounds for developed and undeveloped sites. The Site does not appear to be contributing to the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Not applicable

Site ID: **02-011(a)**
Site Name: **Drain segments and associated outfalls across TA-02**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-011(a) consists of the following 11 drain segments and associated outfalls across TA-02. These individual segments drain either directly or indirectly to Los Alamos Creek.

- An approximately 50-ft-long concrete storm drain (also described as a concrete flume), located northwest of the OWR building that drained into a drop inlet/catch basin (former structure 02-36), as shown on engineering drawing R-5102, sheet 2 of 2. There is no information indicating the drain handled anything but storm water.
- A 24-in.-diameter, 8-ft-long underground CMP between former catch basins 02-036 and 02-027, as shown on engineering drawing R-5102, sheet 2 of 2. There is no information that the drain handled anything but storm water.
- An 85-ft-long concrete storm drain (e.g., concrete flume) located northwest of the OWR building (former building 02-001) that drained into former catch basin 02-027, as shown on engineering drawing R-5102, sheet 2 of 2. The drain was reportedly used periodically for discharge of water from the fuel transfer pit.
- A 15-in.-diameter, 15-ft-long concrete storm drain west of the OWR building that drained into former catch basin 02-028, as shown on engineering drawing R-5102, sheet 2 of 2. There is no information that the drain handled anything but storm water.
- A 24-in.-diameter, 30-ft-long concrete storm drain between former catch basins 02-027 02-028, as shown on engineering drawing R-5102, sheet 2 of 2. This drain may have handled the fuel transfer pit water coming from the concrete flume, with associated contaminated aluminum shards.
- A 30-in.-diameter, 75-ft-long CMP between a catch basin (former structure 02-028) and Los Alamos Creek, as shown on engineering drawing R-5102, sheet 2 of 2. This drain may have handled the fuel transfer pit water from the concrete flume, with associated contaminated aluminum shards.
- A 6-in.-diameter, 18-ft-long pipe between the OWR building and the salvage basin (former structure 02 026) and Los Alamos Creek. AOC 02-011(a)(vii) is a duplicate of AOC 02 006(e), as noted in the 1990 SWMU report.
- An 18-in.-diameter, 75-ft-long CMP between the OWR building catch basin (unnumbered former structure within former building 02-001) and Los Alamos Creek, as shown on engineering drawing C-1699. There is no information verifying this drain handled anything but storm water runoff.
- A 3-in.-diameter, 75-ft-long pipe between the OWR building and the outfall to Los Alamos Creek. Wastewater system design memoranda indicate that floor drains from the eastern side of the WBR area drained to this outfall before 1990.
- A 12-in.-diameter, 30-ft long storm drain northeast of the OWR building that discharged to Los Alamos Creek through a series of concrete ditches and a CMP along the east side of the OWR building, as shown on engineering drawing C-1718. The total length of the drain and ditches to Los Alamos Creek is approximately 130 ft. The drains and concrete ditches remained in place until they were removed during D&D activities in 2003. There is no information verifying this drain handled anything but storm water.

- A 4-in.-diameter, 95-ft-long pipe between the OWR building and Los Alamos Creek. AOC 02-011(a)(xi) is a duplicate of the OWR acid waste line [SWMU 02-006(b)].

The drains in AOC 02-011(a) date from approximately the time of construction of the reactor building in 1944. Drains from operational areas of the facility may have received storm water until the 2003 D&D of the OWR facility, although the OWR was inactive from 1993 to 2003. Several of the drains were removed in either the 2000 or 2003 D&D activities, but five of the drains, or some portion of them, remained in place.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury may have been associated with industrial materials historically managed at this Site. Mercury was detected above soil and sediment BVs in shallow samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation. Mercury was detected above soil and sediment BVs in 29 of 41 shallow samples with a maximum concentration 66 times the BVs.
- PCBs are likely associated with industrial materials historically managed at this Site. Three PCB mixtures (Aroclor-1248, Aroclor-1254, and Aroclor-1260) were detected in shallow samples from the 2007 and 2010 Consent Order investigations. Aroclor-1248 was detected in 1 of 53 shallow samples at 9% of the residential SSL. Aroclor-1254 was detected in 29 of 53 shallow samples at a maximum concentration 21% of the residential SSL. Aroclor-1260 was detected in 49 of 53 shallow samples with a maximum concentration 13 times the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order, RFI, and post–Cerro Grande fire investigation samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The operations served by these drains are no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The operations served by these drains are no longer in service. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-011(b)**
Site Name: **Former drains**
SMA: **LA-SMA-5.5.1**

Updated Site Description (2014):
AOC 02-011(b) consists of two former drains and associated potential soil contamination affiliated with former building 02-19, the stack-gas valve house. One drain was a 9-ft-long × 15-in.-diameter CMP between former building 02-19 and a former drainage basin (former structure 02-35), and the second drain was a 9 ft long × 24-in.-diameter CMP from former structure 02-35 that drained outside the east fence. Potential contaminants at the drains would have come from operations of the Clementine reactor (no associated SWMUs or AOCs) and from the former WBR. The drains were removed, but the year they were removed is not known.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was detected above soil and sediment BVs in shallow samples collected during the 2007 Consent Order investigation and 2000 post–Cerro Grande fire investigation. Mercury was detected above BV in 3 of 7 shallow samples with a maximum concentration 4.6 times the BVs.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow samples from the 2007 Consent Order investigation. Aroclor-1254 was detected in 6 of 6 shallow samples at a maximum concentration 14% of the residential SSL. Aroclor-1260 was detected in 5 of 6 shallow samples with a maximum concentration 10% of the residential SSL.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order, RFI, and post–Cerro Grande fire investigation samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives run-on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Not applicable

Site ID: **02-011(c)**
Site Name: **Storm drain**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-011(c) is a former storm drain at TA-02 associated with the OWR equipment building [former building 02-044, AOC 02-004(f)]. The OWR equipment building operated from 1954 to 1993. The drainline was a 4-in.-diameter VCP that was approximately 12 ft long and drained to the surface west of the west fence. The drainline, which was installed in 1954, was removed and disposed of in 2003.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was not detected above the soil BV in a shallow sample collected during the 2007 Consent Order investigation.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in a shallow sample from the 2007 Consent Order investigation. Aroclor-1254 and Aroclor-1260 were both detected at 5% of residential SSLs.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Consent Order, RFI, and post–Cerro Grande fire investigation samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. Americium-241 and plutonium and uranium isotopes were not detected above BVs, FVs, or were detected where FVs do not apply in a shallow soil sample.

The SMA receives run-on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **02-011(d)**
Site Name: **Outfall from building 02-44**
SMA: **LA-SMA-5.51**

Updated Site Description (2014):
AOC 02-011(d) is a former NPDES-permitted outfall that discharged effluent from the reactor facility equipment building [former building 02-44, AOC 02-004(f)]. Discharges consisted of primary cooling water from an ion-exchange system. Primary cooling water was circulated in the ion-exchange system to remove contaminants. Periodically flushing municipal water through the system would regenerate the ion-exchangers. Before 1963, effluent discharged directly to Los Alamos Creek. From 1963 to 1968, the effluent was held in three 1200-gal. storage tanks [AOCs 02-004(b–d)] until short-lived radionuclides decayed or were diluted to a safe level before it was discharged to the creek. After 1968, the effluent transferred to the three 1200-gal. tanks was transported to the TA-50 RLWTF treatment. From 1957 to 1963, periodic sampling of the groundwater and creek water from monitoring points below the Site showed no detectable increase in activity levels. AOC 02-011(d) was removed from the NPDES-permit effective July 11, 1995. The outfall location was incorrectly identified in the RFI work plan as discharging from AOC 02-011(c), west of former building 02-44. The correct location is south of former building 02-44.

Significant Materials Exposed to Storm Water:
In 2013, an extended baseline storm water monitoring sample for LA-SMA-5.51 exceeded TALs for mercury, PCBs, and gross-alpha radioactivity.

- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was not detected above soil and sediment BVs in 4 shallow samples collected during the 2007 Consent Order and 2000 post–Cerro Grande fire investigations.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 2 of 2 shallow samples from the 2007 Consent Order investigation. Aroclor-1254 and Aroclor-1260 were both detected at maximum concentrations 11% and 4% of residential SSLs, respectively.
- Alpha-emitting radionuclides may have been associated with industrial materials historically managed at this Site. Consent Order, RFI, and post–Cerro Grande fire investigation samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives run on from developed and undeveloped areas. The developed and undeveloped background contribution for mercury is not known, and the SMA sample results for PCBs are less than developed site background.

Method of Treatment, Storage, or Disposal: The operations served by this former outfall are no longer in service. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The operations served by this former outfall are no longer in service. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **03-001(k)**
Site Name: **Former storage area**
SMA: **2M-SMA-1.8**

Updated Site Description (2014):
SWMU 03-001(k) is the former location of a less-than-90-day hazardous waste accumulation area located on the south side of building 03-16, the inactive Van de Graaff Building. SWMU 03-001(k) consists of two level asphalt areas each measuring approximately 20 ft × 30 ft. The areas are located next to doors on the south side of the building. Concrete pads located in front of each doorway are bounded by asphalt paving on three sides. SWMU 03-001(k) was used primarily as a storage yard for electrical equipment designated for salvage. Drums of vacuum oil, tritium-contaminated waste, and used solvents from experiments conducted in the building were also stored in this area. A 1986 field inspection of SWMU 03-001(k) noted oily unmarked drums where new vacuum oil for experiments was stored. Asphalt chip samples collected in 1989 indicated the presence of PCBs at a concentration of 7.8 mg/kg. A 1993 inspection found the asphalt and concrete pad devoid of stains.

Consent Order investigations have not been performed at SWMU 03-001(k), and no decision-level data are available for this Site. Soil and asphalt-chip sampling was performed in 2001 to support a previous request for NFA status for this Site. Data from the 2001 sampling are screening-level data.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for 2M-SMA-1.8 exceeded the TALs for copper and zinc.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above BV in 1 of 4 shallow soil samples collected at the Site in 2001 with a maximum concentration 2 times the soil BV.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above BV in 1 of 4 shallow soil samples collected at the Site in 2001 with a maximum concentration 1.2 times the soil BV.

Shallow soil samples collected at the Site in 2001 were analyzed for PCBs. Aroclor-1260 was detected in 2 of 4 samples with a maximum concentration 6% of the residential SSL. Aroclor-1260 was also detected in 4 of 4 asphalt chip samples with a maximum concentration of 0.63 mg/kg (28% of the residential SSL).

Monitoring location 2M-SMA-1.8 receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediment derived from Bandelier Tuff. The concentrations of copper in the SMA samples were less than the UTL for runoff from developed areas but greater than the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff. The concentrations of zinc in the 2011 SMA samples were below the UTLs for both runoff from developed areas and runoff from undeveloped areas containing sediment derived from Bandelier Tuff.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **03-003(a)**
Site Name: **Former storage area**
SMA: **2M-SMA-1.9**

Updated Site Description (2014):
SWMU 03-003(a) is a former outdoor storage area used for temporary storage of electrical equipment destined for salvage, some of which contained oil. The storage area was located on the north and west sides of building 03-0218. The northern portion of the storage area consisted of the asphalt paving next to the north side of building 03-0218. The western portion of the storage area consisted of a 44 ft long × 27 ft wide concrete pad surrounded by an 18 in. to 20 in. high concrete curb. The concrete pad and curb are bounded on three sides by soil covered with gravel. A 30 ft wide × 60 ft long area of asphalt paving abuts the south end of the concrete curb. During the 1986 CEARP survey, six 55-gal. drums were observed stored next to capacitors on asphalt in the storage area on the north side of building 03-0218; staining was visible on the asphalt beneath the drums. Capacitors and transformers labeled as containing less than 50 ppm PCBs were stored in the west portion of the former storage area. During a 1989 inspection, leaking capacitors, drums of epoxy, one or two batteries, and vacuum pumps were observed in the western portion of the storage area. In the early 1990s, a small area of oil stained asphalt was excavated to a depth of 3 in. around the storm drain located in the western portion of SWMU 03-003(a). Use of the SWMU 03-003(a) storage area ceased in the early 1990s.

Consent Order sampling has not yet been conducted at SWMU 03-003(a); no decision-level data are available for this Site.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for 2M-SMA-1.9 exceeded TALs for copper and zinc.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was not detected above the soil BV in shallow 1994 RFI soil samples; the 1994 RFI data are screening level only.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above the soil BV in 1 of 2 shallow soil samples with a maximum concentration 1.1 times the soil BV but less than the maximum soil background concentration. The 1994 RFI data are screening level only.

The SMA sampler receives runoff from a 0.25-acre developed area (parking lots, buildings, and roads). The patterns of detection of TAL constituents in storm water compared with background are consistent with what is expected for runoff from a developed area and, along with the site history, indicate the Site is not the source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **03-003(k)**
Site Name: **Area of potential soil contamination**
SMA: **2M-SMA-2.2**

Updated Site Description (2014):
AOC 03-003(k) is an area of potential soil contamination associated with the location of a former non-PCB transformer (less than 50 ppm PCB), reportedly staged on the east side of building 03-0316. No additional information is available for this site.

Consent Order or other environmental investigations have not been performed at AOC 03-003(k); there is no investigation data for this Site.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for 2M-SMA-2.2 exceeded the TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. There is no investigation data for AOC 03-003(k).
- Zinc is not known to be associated with industrial materials historically managed at the Site. There is no investigation data for AOC 03-003(k).
- PCBs are known to be associated with industrial materials historically managed at the Site. There is no investigation data for AOC 03-003(k).

The SMA receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediments derived from Bandelier Tuff. The concentrations of copper in the SMA samples were less than the UTL for runoff from developed areas but greater than the UTL for runoff from undeveloped areas containing sediments derived from Bandelier Tuff. Concentrations of zinc and PCBs in the bSMA samples are less than the UTLs for both runoff from developed and undeveloped.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **03-009(i)**
Site Name: **Inactive surface disposal area**
SMA: **S-SMA-3.51**

Updated Site Description (2014):
SWMU 03-009(i) consists of an inactive surface disposal area located on the east side of the liquid and compressed gas facility (building 03-170). This site consists primarily of clean fill from TA-03 construction sites with construction debris, including crushed tuff, pieces of concrete, and asphalt mixed in with some of the fill material. The original IP Site narrative incorrectly stated that the Site ceased to be used as a disposal area in 1980; the 1990 SWMU Report did not specify dates of operation. Aerial photographs from 1979 and 1986 show the Site was not used before 1980 and was still being used for fill placement in 1986. Site visits in the early 1990s confirmed that fill was periodically being placed at the Site. The date fill placement ceased is not known, but the Site is currently inactive.

SWMU 03-009(i) is included in the supplemental investigation report for the Upper Sandia Canyon Aggregate Area, submitted to NMED under the Consent Order on August 27, 2013; the Site meets residential risk levels and is recommended for corrective action complete in that report. SWMU 03-009(i) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-010(a)**
Site Name: **Former outfall**
SMA: **2M-SMA-1**

Updated Site Description (2014):
SWMU 03-010(a) is the former outfall area from a former vacuum repair shop at TA-03. The outfall area is located on a steep slope on the rim of Twomile Canyon about 30 ft west of a general warehouse (building 03-30). The outfall received discharges of waste oil containing mercury between 1950 and 1957. Former workers estimated that more than 100 lb of mercury was disposed at this Site. SWMU 03-010(a) was investigated and remediated between 1992 and 2010. The 1994 Phase II RFI confirmed that the contaminants of concern (mercury, petroleum hydrocarbons and volatile organic chemicals) in surface soil were no longer present above applicable SSLs.

RFI investigation and remediation activities were completed for SWMU 03-010(a) before the effective date of the Consent Order. Groundwater monitoring was conducted in accordance with the Consent Order and is complete. SWMU 03-010(a) was investigated concurrently with AOC 03-001(e), the former vacuum repair shop in building 03-0030. Residual contamination associated with AOC 03-001(e) may be located beneath building 03-0030. Therefore, further characterization and investigation of AOC 03-001(e) is delayed until the demolition of building 03-0030. As a result, a CoC has not been requested for SWMU 03-010(a).

Significant Materials Exposed to Storm Water:
In 2012, enhanced control storm water monitoring samples for 2M-SMA-1 exceeded the TAL for aluminum. Aluminum is not known to have been associated with industrial materials historically managed at this Site. Aluminum was not detected above soil, sediment, or tuff BVs in shallow (i.e., less than 3 ft bgs) RFI samples.

The SMA sampler receives runoff from developed areas (parking lots and roads) and undeveloped areas. The patterns of detection of aluminum in storm water compared with background is consistent with what is expected for runoff from a developed area and, along with the site history, indicate the Site is not the source of the aluminum TAL exceedance. SMA samples collected before and after the installation of enhanced controls showed similar concentrations of aluminum.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **03-012(b)**
Site Name: **Operational release and outfall**
SMA: **S-SMA-2**

Updated Site Description (2014):
SWMU 03-012(b) is the soil contamination associated with operational releases from the TA-03 power plant cooling towers, which is a current NPDES-permitted outfall (01A001). Discharge from a current NPDES-permitted outfall (13S) at the TA-46 Sanitary Wastewater Systems Consolidated plant is pumped to the TA-03 steam plant for reuse and discharges to the SWMUs 03 012(b)/03-045(b) outfall. The outfall received effluent from two cooling towers (structures 03-25 and 03-58) and also the chlorine building (building 03-24). Cooling tower 03-25 was demolished in 1990, but the concrete foundation remains. Storm water that collects in the concrete foundation of former cooling tower 03-25 also flows to this outfall from pipe valves that previously were connected to the cooling system. Cooling tower 03-58 remains but is inactive. From 1951 to 1985, the power plant used treated effluent water from the TA-03 WWTP as cooling tower liquids. Historically, chromates were used to treat the cooling-tower effluent. Outfall releases were investigated as part of SWMU 03-045(b) under the Consent Order.

The original IP Site narrative for Site 03-045(b) stated that Sites 03-012(b) and 03-045(b) are the same. The August 2013 supplemental investigation report for Upper Sandia Canyon Aggregate Area treats them separately: Site 03-012(b) addresses potential soil contamination associated with the historical operation of the cooling towers, and Site 03-045(b) is the outfall itself.

The outfall associated with Site 03-012(b) formerly received effluent from two power plant cooling towers (structures 03-25 and 03-58) and the chlorine building (structure 03-24). From 1951 until the mid-1970s, this cooling water contained chromate. The cooling tower (structure 03-25) was demolished in 1990, and a new cooling tower (structure 03-592) was constructed at the same location in 1998; the concrete foundation of structure 03-25 collected storm water that discharged to the outfall. The two cooling tower structures (03-58 and 03-592) currently operate during periodic testing of power plant equipment, and blowdown is discharged from the outfall. A sulfuric acid release to the SWMU 03-045(b) outfall from the power plant neutralization tank, structure 03-1381, occurred in May 1990. Low pH values were reported in a 2.5-mi section of the watercourse below the outfall. Soda ash was added along the watercourse to raise the pH. A subsequent survey detected no measurements below pH 6.9.

The Consent Order Phase I investigation has been completed for SWMUs 03-012(b), 03-045(b), and 03-045(c), and these Sites were included in the August 2013 supplemental investigation report for Upper Sandia Canyon Aggregate Area. SWMU 03-012(b) was recommended for corrective action complete without controls. A force majeure request was submitted to EPA on September 23, 2013, based upon the anticipated issuance by the NMED of a CoC without controls. This Site was also included in the alternative compliance request for S-SMA-2 that was submitted to EPA in October 2013.

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for S-SMA-2 exceeded TALs for copper, zinc, and PCBs. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was detected above the soil BV in shallow (i.e., less than 3 ft bgs) soil samples collected before construction activities in 2002 and 2003. Copper was detected above BV in 2 of 42 shallow samples at a maximum concentration 1.8 times the soil BV.
- Zinc is not known to be associated with industrial materials historically managed at this Site. Zinc was detected above soil BV in shallow soil samples collected before construction activities in 2002 and 2003. Zinc was detected above BV in 13 of 42 shallow samples at a maximum concentration 3.0 times the soil BV.
- PCBs are not known to have been present at low concentrations in cooling tower blowdown historically discharged from this outfall. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow samples collected before construction activities in 2003. Aroclor-1254 was detected in 3 of 4 shallow samples at a maximum concentration 30% of the residential SSL. Aroclor-1260 was detected in 4 of 4 shallow samples at a maximum concentration 42% of the residential SSL.

Chromium is known to be associated with industrial materials historically managed at this Site, and total chromium was detected in a small number of shallow samples (i.e., 3 samples out of 47) above the maximum background concentration. It was determined in the supplemental investigation report that the nature and extent of contaminants have been defined and that chromium did not pose a potential unacceptable human health risk under the residential scenario or an unacceptable ecological risk. No Site-related organics were detected above residential screening levels.

The SMA receives run-on primarily from developed areas in TA-03. The SMA results for copper and zinc are less than the backgrounds for developed sites. The SMA results for PCBs exceed the background for developed sites.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-013(a)**
Site Name: **Active storm drain**
SMA: **S-SMA-0.25**

Updated Site Description (2014):
SWMU 03-013(a) is a former 1500-ft-long CMP storm drain that served floor drains in the basement of building 03-38 (maintenance shops). The storm drain ran underground around building 03-38, east along the south side of the Otowi Building (building 03-261) and connected to four other storm drains before daylighting 100 ft east of the Otowi Building where it became an open concrete and rock-lined ditch. The open drain continued past transportable office buildings (buildings 03-1616 and 03-1617) and passed beneath streets and sidewalks to a point northeast of the Oppenheimer Study Center (building 03-207) where it discharged to the SWMU 03-052(f) outfall. Most of the CMP associated with SWMU 03-013(a) was removed in 2004 to accommodate the construction of the NSSB (03-1400) and a new parking structure (03-1402) east of the Otowi Building. The excavated CMP was managed as nonhazardous/nonradioactive industrial waste. Inspection of the drainline trench showed no evidence of a release from the drainpipe. A new storm drain pipe was installed west of SWMU 03-052(f) to manage storm water runoff from the new parking structure. The new storm drain discharges to the SWMU 03-052(f) outfall.

No sampling was proposed for SWMU 03-013(a) in the approved Upper Sandia Canyon Aggregate Area work plan because it was removed to accommodate the NSSB and the new parking structure. It was proposed that site characterization and investigation be delayed until the D&D of building 03-1400 and structure 03-1402.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for S-SMA-0.25 exceeded the TALs for copper, zinc, PCBs, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. No data are available, and Consent Order sampling has been delayed until the D&D of building 03-1400 and structure 03-1402.
- Zinc is not known to be associated with industrial materials historically managed at the Site. No data are available, and Consent Order sampling has been delayed until the D&D of building 03-1400 and structure 03-1402.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. No data are available, and Consent Order sampling has been delayed until the D&D of building 03-1400 and structure 03-1402.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at SWMU 03-013(a). No data are available, and Consent Order sampling has been delayed until the D&D of building 03-1400 and structure 03-1402. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA sampler receives runoff from a large storm drain system that captures runoff from roof drains, roads, and parking areas from a 33-acre developed area consisting of approximately 50% of TA-03. The concentrations of copper, zinc, and gross-alpha radioactivity detected in the SMA samples are less than

the developed area background UTLs, consistent with the Site not being the source of these TAL exceedances. The concentration of PCBs detected in the SMA sample is greater than the developed background UTL. Although the Site may contribute to the PCBs found in the SMA sample, the likely source of PCBs contributing to the TAL exceedance in the storm water at S-SMA-0.25 is urban "background" PCBs.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-014(b2)**
Site Name: **Outfall**
SMA: **S-SMA-3.53**

Updated Site Description (2014):
AOC 03-014(b2) is the former NPDES-permitted outfall (SSS01S) for the former TA-03 WWTP. The outfall received treated effluent from the WWTP via a 1.5-ft-diameter × 300-ft-long CMP. The outfall discharged to a rocky outcrop at the edge of Sandia Canyon. Outfall SSS01S was permitted for the discharge of treated wastewater and was removed from the NPDES permit in 1994. AOC 03-014(b2) received effluent from the former TA-03 WWTP from 1989 to 1992 when the WWTP was decommissioned. Permitted discharges from Outfall SSS01S [AOC 03 014(b2)] were monitored three times per month; radioactive constituents were the only exceedances observed from 1989 to 1992.

Outfall SSS01S [AOC 03-014(b2)] then received treated effluent from the WWTP plant at TA-46 from 1992 to 1998; the outfall is no longer on the Laboratory's NPDES permit and has received only storm water runoff since 1998.

AOC 03-014(b2) is included in the Supplemental Investigation Report for the Upper Sandia Canyon Aggregate Area submitted to NMED under the Consent Order on August 27, 2013, and is recommended for corrective action complete without controls in that report. AOC 03-014(b2) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for S-SMA-3.53 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site and was not detected above BVs in Consent Order samples collected at the Site.
- Copper is not known to be associated with industrial materials historically managed at the Site and was not detected above BVs in Consent Order samples collected at the Site.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order samples. Aroclor-1254 was detected in 5 of 10 samples at a concentration 6% of the residential SSL. Aroclor-1260 was detected in 5 of 10 samples at a maximum concentration 2.3% of the residential SSL.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at SWMU 03-014(b2). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. No alpha-emitting radionuclides were detected above BVs/FVs. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA sampler is located on Bandelier Tuff and receives runoff from undeveloped and developed areas. The concentrations of aluminum and gross-alpha radioactivity detected in the SMA samples are less than the undeveloped site UTLs and greater than the developed site UTLs. The concentration of copper detected in the SMA sample is greater than the undeveloped area UTL and less than the developed site UTL. PCBs detected in the SMA sample are greater than both UTLs. These results, along

with the lack of aluminum, copper and alpha-emitting radionuclide detections in Consent Order samples, are consistent with the Site not being the source of these TAL exceedances. The low magnitude and frequency of PCB detections in Consent Order samples, along with the fact that the SMA receives runoff from developed area within TA-03 of the Laboratory are also consistent with the Site not being the source of this TAL exceedance.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-014(c2)**
Site Name: **Former outfall**
SMA: **S-SMA-2.8**

Updated Site Description (2014):
AOC 03-014(c2) is the inactive overflow outfall that previously received treated effluent from the former TA-03 WWTP from 1975 until the WWTP chlorination system [SWMU 03-014(j)] was constructed in 1985. An evaluation of the former WWTP blueprints during the 1994 RFI identified the location of the original treated effluent outfall approximately 20 to 30 ft west of the original AOC 03-014(c2) outfall. The outfall was located on the north side of the chlorination system pump pit (structure 03-166). Effluent for this outfall discharged as sheet flow onto a steep slope containing an erosion channel from storm water runoff. The channel eventually trends northeast into Sandia Canyon. Soil and sediment were occasionally cleaned out of the channel with a backhoe and piled onto the upslope channel bank. Following the construction of the chlorination system, the outfall was rerouted underground from the pump pit to the chlorination dosing and contact chamber where the final effluent discharged freely into Sandia Canyon from a flow measurement weir north of the contact chamber. This outfall was abandoned in 1988 or 1989, when the WWTP effluent was routed to a new outfall, AOC 03-014(b2).

AOC 03-014(c2) is included in the supplemental investigation report for the Upper Sandia Canyon Aggregate Area submitted to NMED under the Consent Order on August 27, 2013; the Site meets construction worker and industrial risk levels. However, additional sampling was proposed to define the vertical extent of Aroclor-1254 and Aroclor-1260 at one sampling location. AOC 03-014(c2) will likely be recommended for corrective action upon completion of the Phase II sampling recommended in the Upper Sandia Canyon Aggregate Area investigation report.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-021**
Site Name: **Former outfall**
SMA: **S-SMA-3.52**

Updated Site Description (2014):
SWMU 03-021 is a former NPDES-permitted outfall (EPA 04A094) and associated daylight channel located approximately 60 ft north of the north exterior wall of the liquid and compressed gas facility (building 03-170). From 1964 to 1976, the outfall discharged caustic wash and rinse water from compressed-gas-cylinder cleaning operations. The cylinders were washed and stripped of paint using a caustic soda solution before they were repainted. They were screened for radioactive contamination and cleaned of any exterior oil, dirt, and grease before they were brought to building 03-170. Washing and stripping were done in a below-floor-grade pit in the northern part of building 03-170. A 2-in.-diameter iron outfall pipe in an open exterior ditch carried the caustic wash and rinse water from the pit. The end of the outfall pipe discharged into a northeast-trending surface ditch that continued about 180 ft to the main north-south drainage ditch. This outfall was not used after 1976, when the compressed gas suppliers assumed cylinder washing and painting responsibilities. The outfall was buried when 5 to 10 ft of fill material was placed over the former outfall area and graded during Site preparation activities for the construction of building 03-1650, the compressed-gas cylinder storage shed in 1985. The outfall was removed from the NPDES permit in 1997.

SWMU 03-021 is included in the supplemental investigation report for the Upper Sandia Canyon Aggregate Area, submitted to NMED under the Consent Order on August 27, 2013; the Site meets residential risk levels and is recommended for corrective action complete in the report. SWMU 03-021 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-029**
Site Name: **Asphalt landfill**
SMA: **S-SMA-1.1**

Updated Site Description (2014):
SWMU 03-029 was reportedly a 30-ft × 70-ft asphalt landfill located approximately 300 ft east of the former asphalt batch plant (former structure 03-073) near the rim of Sandia Canyon. The landfill reportedly received excess asphalt from the batch plant and was subsequently covered with sand. The fill raised and leveled the surface areas at the mesa rim. NMED issued a notice of violation to LANL in November 1990 concerning pieces of asphalt and an oily sheen found in the Sandia Canyon watercourse. In early 1993, LANL completed a corrective action next to SWMU 03-029 to remove the asphalt within the drainage to the south and on the associated slope, regrade the watercourse and slope to support vegetation, extend the drainage, and construct a concrete berm to prevent additional exposure of asphalt buried in the fill. Dense grass cover was established and maintained on all fill slopes and disturbed areas. Water samples collected from the storm drain indicated that oil, grease, or other chemicals typically associated with asphalt plant operations were not present indicating the effectiveness of the corrective action. The asphalt batch plant operated at TA-03 from 1953 to 1990.

In 2004, an ACA was proposed to complete the investigation and remediation of SWMU 03-029 to accommodate LANL's security perimeter road project. In May 2005, GPR and electromagnetic surveys were conducted at SWMU 03-029. The results identified two possible locations for buried asphalt, which were further investigated by trenching. In July 2005, a total of 12 trenches were excavated to the top of bedrock, approximately 2.0–4.0 ft bgs and varied in length from 20 ft to greater than 100 ft. Buried asphalt was not encountered in any of the trenches, nor was any other type of waste encountered in the trenches. Because buried asphalt was not encountered, the remaining proposed ACA activities for SWMU 03-029 were not implemented.

SWMU 03-029 is included in the supplemental investigation report for the Upper Sandia Canyon Aggregate Area, submitted to NMED under the Consent Order on August 27, 2013, and is recommended for corrective action complete without controls in that report. SWMU 03-029 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for S-SMA-1.1 exceeded TALs for copper and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above BVs in 2 of 6 shallow samples (i.e., less than 3 ft bgs) at a maximum concentration 2.8 times the soil BV but was not statistically different from background.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order samples. Aroclor-1254 was detected in 5 of 6 samples at a concentration 2.6% of the residential SSL. Aroclor-1260 was detected in 5 of 6 samples at a maximum concentration 1.2% of the residential SSL.

The SMA sampler receives runoff primarily from developed areas (buildings, parking lots, roads, and a former salvage yard (SWMU 03-059) as well as from landscape consisting of Bandelier Tuff sediment. The concentrations of copper detected in the SMA samples are less than the developed site UTL but are slightly above the undeveloped UTL, which is consistent with the land use in the S-SMA-1.1 drainage area. The concentrations of gross-alpha radioactivity detected in the SMA samples were below both background UTLs. These results, along with the low magnitude and frequency of copper detections in

Consent Order samples and no known use of alpha-emitting radionuclides, are consistent with the Site not being the source of the TAL exceedances for copper and gross-alpha radioactivity. The concentrations of PCBs detected in the SMA samples exceeded the developed site UTL. The SMA sampler receives runoff from portions of SWMU 03-059 where PCBs were detected in numerous shallow Consent Order soil samples collected in 2009 at a maximum concentration 11 times the residential SSL. SWMU 03-059 is not on the IP.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-045(b)**
Site Name: **Active NPDES-permitted outfall**
SMA: **S-SMA-2**

Updated Site Description (2014):
SWMU 03-045(b) is the NPDES-permitted outfall (Outfall 001) that currently receives treated sanitary effluent from the TA-46 SWSC plant and SERF as well as occasional discharges of power plant cooling tower blowdown. The NPDES permit number for the outfall was previously identified as EPA 01A001, but it is currently permitted as 001 on the 2013 NPDES authorization permit. The outfall is currently authorized to discharge power plant wastewater from cooling towers, boiler blowdown drains, demineralizer backwash, floor, and sink drains, and treated sanitary reuse to Sandia Canyon. The outfall discharges onto sand and gravel southeast of building 03-22 and into a small tributary of Sandia Canyon. The original IP Site narrative stated that Sites 03-012(b) and 03-045(b) are the same. However, the 1990 SWMU report, which originally identified these sites as SWMUs, describes SWMU 03-012(b) as former chilled water operational releases, including cooling tower drift loss and cooling water discharges to Sandia Canyon. SWMU 03-045(b) is described as the NPDES outfall for cooling towers 03-25 and 03-58. The August 2013 supplemental investigation report for Upper Sandia Canyon Aggregate Area, which was written in accordance with the Consent Order, also treats the SWMUs separately: SWMU 03-012(b) addresses potential soil contamination associated with operational releases from the TA-03 power plant cooling towers, and SWMU 03-045(b) is the permitted outfall itself.

Phase I Consent Order Phase investigations are complete for SWMU 03-045(b), and the Site was included in the August 2013 supplemental investigation report for Upper Sandia Canyon Aggregate Area. SWMU 03-045(b) was recommended for additional extent sampling. This Site was also included in the alternative compliance request for S-SMA-2 that was submitted to NMED in October 2013.

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for S-SMA-2 exceeded TALs for copper, zinc, and PCBs. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was not detected above soil BV in shallow (i.e., less than 3 ft bgs) 2009 Consent Order samples.
- Zinc is not known to be associated with industrial materials historically managed at this Site**.** Zinc was detected above the soil BV in 1 of 2 shallow 2009 Consent Order samples at a maximum concentration 1.1 times the soil BV, which is less than the maximum background concentration.
- PCBs are not known to have been present at low concentrations in wastewater historically discharged from this outfall. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow 2009 Consent Order samples. Aroclor-1254 was detected in 2 of 2 shallow samples at a maximum concentration 7% of the residential SSL. Aroclor-1260 was detected in 2 of 2 shallow samples at a maximum concentration 5% of the residential SSL.

The SMA receives run-on primarily from developed areas in TA-03. The SMA results for copper and zinc are less than the backgrounds for developed sites. The SMA results for PCBs exceed the background for developed sites.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The Site in an active NPDES-permitted outfall. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-045(c)**
Site Name: **Outfall**
SMA: **S-SMA-2**

Updated Site Description (2014):
SWMU 03-045(c) is an NPDES-permitted outfall (EPA 03A027), located approximately 55 ft east of SWMU 03-045(b). SWMU 03-045(c) previously received effluent from a cooling tower (structure 03-285) that served the generators powering a LANL computer system. Cooling tower 03-285 was constructed in 1968, and SWMU 03-045(c) may have historically received chromate-treated water. Cooling tower 03-285 was taken out of service several years ago and demolished in 2012, and SWMU 03-045(c) now receives blowdown from the cooling towers at the Strategic Computing Complex (building 03-2327), which became operational in 2002. Outfall 03A027 is currently permitted for the discharge of cooling tower blowdown water and other wastewater from structures 03-285 and 03-2327.

The Consent Order Phase I investigation has been completed for SWMUs 03-012(b), 03-045(b), and 03-045(c), and these Sites were included in the August 2013 supplemental investigation report for Upper Sandia Canyon Aggregate Area. SWMU 03-045(c) was recommended for additional sampling to define extent. This Site was also included in the alternative compliance request for S-SMA-2.0 that was submitted to EPA in October 2013.

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for S-SMA-2 exceeded TALs for copper, zinc, and PCBs. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was not detected above soil BV in shallow (i.e., less than 3 ft bgs) Consent Order soil samples.
- Zinc is not known to be associated with industrial materials historically managed at this Site. Zinc was detected above soil BV in shallow Consent Order soil samples. Zinc was detected above BV in 1 of 2 shallow samples at a maximum concentration 1.03 times the soil BV, which is less than the maximum background concentration.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 2 of 2 shallow samples at a maximum concentration 72% of the residential SSL. Aroclor-1260 was detected in 2 of 2 shallow samples at a maximum concentration 1.4 times the residential SSL.

The supplemental investigation report determined that the nature and extent of hexavalent chromium, benzo(a)pyrene, and Aroclor-1260 have not been defined, and further sampling is warranted. A revised Phase II investigation work plan will be developed based on the conclusions and recommendations presented in the supplemental investigation report. The revised Phase II investigation work plan will specify sampling locations, numbers of samples, and analytical suites required to define the extent of contamination for this Site. After the proposed Phase II sampling has been completed, the data will be used to confirm the extent of contamination has been defined and to complete human health and ecological risk-screening assessments for all remaining Sites. The results will be presented in a Phase II investigation report for the Upper Sandia Canyon Aggregate Area.

The SMA receives run-on primarily from developed areas in TA-03. The SMA results for copper and zinc are less than the backgrounds for developed sites. The SMA results for PCBs exceed the background for developed sites.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: SWMU 03-045(c) is an active NPDES-permitted outfall (EPA 03A027). Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-045(h)**
Site Name: **Former outfall**
SMA: **M-SMA-1.22**

Updated Site Description (2014):
SWMU 03-045(h) is a former NPDES-permitted outfall (EPA 03A024) located in TA-03 at the north perimeter of the Sigma Complex security fence, approximately 50 ft north of a cooling tower (structure 03-187). The outfall was formerly permitted for the discharge of treated cooling water and storm water. It served a former cooling tower from 1953 until the late 1980s when the cooling tower became inactive. The cooling tower remained inactive until early 1995, when it was reactivated. In 1997, the cooling tower was removed and the outfall pipe plugged. The outfall was removed from the NPDES permit in 2007. The area at the outfall pipe is about 3 ft wide × 6 ft long. Effluent drained into a corrugated metal storm drainpipe that trended northeast and east of structure 03-187 where it combined with more storm water runoff from surrounding areas. The drainage continued south and joined a channel north of Eniwetok Drive that ultimately drained into Sandia Canyon. Routine water treatment began in 1968. Treatment included biocides and fungicides to reduce algae growth and chelating agents such as ethylenediaminetetraacetic acid to inhibit corrosion.

SWMU 03-045(h) was included in the Supplemental Investigation Report for the Upper Sandia Canyon Aggregate Area, submitted to NMED under the Consent Order on August 27, 2013. The Site meets residential risk levels; however, because receiving waters for the Site are in Upper Mortandad Canyon, the Site will be recommended for corrective action complete without controls in the Upper Mortandad Canyon Aggregate Area supplemental investigation report, to be submitted to NMED in March 2014. SWMU 03-045(h) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for M-SMA-1.22 exceeded the TAL for copper. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum and copper.

- Copper is not known to be associated with industrial materials historically managed at the Site and was not detected above the BV in the single shallow Consent Order sample collected at the Site.

The Sire receives runoff primarily from nonurban industrial areas along with a small area of undeveloped landscape. The concentration of copper detected in the SMA sample is slightly above the undeveloped UTL and below the developed UTL. These results are consistent with the land use within the SMA drainage area, which consists of primarily of a nonurban industrially developed area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **03-049(a)**
Site Name: **Outfall**
SMA: **M-SMA-1.2**

Updated Site Description (2014):
SWMU 03-049(a) is an active NPDES-permitted outfall (03A022) located south of the Sigma Building (03-0066). The outfall formerly discharged treated cooling water from a former cooling tower (structure 03-0127), which served the Sigma Building, and continues to discharge runoff from six roof drains on the Sigma Building. The cooling tower operated from 1960 to 1999. From 1984 to 1990, the outfall also received discharge from rinse tanks associated with the electroplating operation in the Sigma Building. The tanks contained the final rinse from electroplating and surface-finishing experimental components. Although the rinse tanks were flushed continually with tap water to reduce contaminant buildup, trace amounts of metals, acids, cyanide, and DU were introduced into the rinse water. The NPDES permit allowed discharge of 4680 gal./d of treated cooling water and 24,000 gal./d of electroplating rinse water. The outfall predated the CWA and NPDES and was likely permitted in the mid-1970s; permit monitoring requirements are not available. Between 1990 and 1999, the outfall received treated cooling water and roof-drain runoff. The outfall currently discharges roof-drain runoff to upper Mortandad Canyon. SWMU 03-049(a) is permitted under LANL's NPDES industrial and sanitary Permit, NM0028355.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for M-SMA-1.2 exceeded TALs for arsenic and copper.

- Arsenic is not known to be associated with industrial materials historically managed at this Site. Arsenic was detected above the BV in 2 of 32 shallow (i.e., less than 3 ft bgs) soil, sediment, and tuff samples collected during the 1997 RFI and 2009 Phase I Consent Order investigation at a maximum concentration 1.5 times the sediment BV.
- Copper may have potentially been associated with industrial materials historically managed at this Site. Copper was detected above sediment, soil, and tuff BVs in 19 of 32 shallow RFI and Consent Order samples at a maximum concentration 55 times the sediment BV.

Total chromium (16 of 32 samples), cobalt (2 of 32 samples), lead (11 of 32 samples), nickel (5 of 32 samples), silver (1 of 32 samples), and zinc (16 of 32 samples) were found in shallow soil samples above maximum BV but did not exceed TALs in storm water. The only organic constituent found above residential SSLs was benzo(a)pyrene in 6 of 24 samples.

The SMA receives runoff from undeveloped areas and discharges from the SWMU 03-049(a) NPDES-permitted outfall. 2013 storm water samples for M-SMA-1.2 exceeded the TALs for arsenic and copper. The concentration of arsenic detected in the SMA sample exceeds the developed BV. There is no undeveloped BV for arsenic; however, the concentration detected in the SMA sample was well below the maximum undeveloped area concentration. The concentration of copper detected in the SMA samples exceeds the BVs for both developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: SWMU 03-049(a) is an active NPDES-permitted outfall (EPA 03A027). Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **03-049(e)**
Site Name: **Outfall**
SMA: **M-SMA-1.21**

Updated Site Description (2014):
SWMU 03-049(e) is identified in the 1990 SWMU report as an area located south of the Sigma Building (03-0066) that was potentially contaminated by an outfall pipe of unknown origin. The 1990 SWMU report also states that the outfall discharged to Mortandad Canyon. Subsequent investigation of the Sigma Building determined that three of the building's roof drains connect to a single pipe and discharge to the outfall area of SWMU 03-049(e).

With the exception of 4 PAHs, all detected inorganic and organic chemical concentrations and radionuclide activities detected during a 2001 RFI and 2009 Consent Order sampling were below residential SSLs and SALs. Additional sampling is proposed under a Phase II investigation to define the extent of PAHs.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: SWMU 35-016(f) is an active storm water diversion system associated with building 03-66. Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **03-050(a)**
Site Name: **Potential soil contamination from exhaust emissions from CMR**
SMA: **M-SMA-1**

Updated Site Description (2014):
SWMU 03-050(a) is an area of potential soil contamination associated with the exhaust emissions from 24 active stacks on the roof of building 03-29. Building 03-29, the CMR facility, was constructed in 1961 and houses an irradiated-fuel examination facility and analytical chemistry operations that involve handling radioactive materials containing uranium, plutonium, iodine, mixed-fission products, and tritium. The original IP Site narrative erroneously stated that the CMR building was constructed in 1952. High-efficiency particulate air, Aerosolve 95, and charcoal filters are used to remove radioactive particulates from stack effluent gas.

No Consent Order investigation, RFI, or other environmental investigations have been performed at SWMU 03-050(a).

Significant Materials Exposed to Storm Water:
In 2013, enhanced control confirmation storm water monitoring samples for M-SMA-1 exceeded TALs for copper, zinc, PCBs, and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 had also exceeded TALs for PCBs and gross-alpha radioactivity.

The SMA receives runoff from developed areas. Concentrations of constituents exceeding TALs in SMA samples are equal to or less than UTLs for urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **03-050(d)**
Site Name: **Potential soil contamination from TA-03 exhaust emissions**
SMA: **2M-SMA-2**

Updated Site Description (2014):
SWMU 03-050(d) consists of potential soil contamination from historical emissions of particulates possibly released from the former air-pollution control device on the exhaust system at the south side of the tech shops addition (building 03-102). The device was a shaker-type baghouse located on a concrete pad. Building 03-102 was built in 1957 for machining radioactive materials. Machined items included those with uranium-235 and -238, lithium hydride, and small quantities of other inorganic chemicals. The baghouse was the primary air-pollution control device to remove lithium hydride particulates in the gas stream to the stack. The baghouse was also used as a secondary air-pollution control device to remove uranium graphite particulates in the gas stream to the stack. The bag house ceased operating in 1992 because of failure in the dioctyl phthalate penetration test, which measures the efficiency of the collection system. All ventilation ducts associated with machining operations then were diverted to a high-flow-rate ventilation system connected to an operational baghouse located immediately east of the inoperative baghouse. Radionuclide air emissions at the inoperative baghouse were monitored from the beginning of its use in 1957. Release of radioactive uranium particulates to the concrete pad through the inoperative baghouse fabric filter also was documented. The concrete pad was painted in 1993 to immobilize any existing uranium particulates. Radiological survey results after the pad was painted showed no detectable activity on the pad or in the soil around the pad.

No Consent Order or other investigations have been conducted at SWMU 03-050(d).

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for 2M-SMA-2 exceeded TALs for copper, zinc, and PCBs. TALs for copper, zinc, and PCBs were also exceeded in baseline storm water monitoring samples collected in 2011. Copper, zinc, and PCBs are not known to be associated with industrial materials historically managed at this Site.

The SMA receives runoff from developed areas. Concentrations of copper, zinc, and PCBs in the SMA sample were less than the UTLs for runoff from developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **03-052(b)**
Site Name: **Storm drainage**
SMA: **S-SMA-2.01**

Updated Site Description (2014):
AOC 03-052(b) consists of five storm water collection areas at TA-03 about 20 ft north and west of the Sigma Building (03-66). Surface runoff flows from the area around the north end of the Sigma Building to three storm water collection areas within the building fence, which channel storm water to two storm water collection areas north of the building 03-66 fence. The area to the northeast of building 03-66 discharges to a storm drain outlet just north of Eniwetok Drive, and the area to the northwest of building 03-66 flows to a single storm drain that discharges to a low-lying grassy area northwest of building 03-66.

This AOC was investigated with AOC 03-056(k), a container storage area and loading dock at building 03-66. Contaminants associated with AOC 03-056(k) may have been released into the AOC 03-052(b) storm drain system. LANL conducted an RFI at this AOC in July 1997. The Consent Order Phase I investigation has been completed for AOC 03-052(b), and this Site was included in the August 2013 supplemental investigation report for Upper Sandia Canyon Aggregate Area. AOC 03-052(b) was recommended for corrective action complete without controls.

Significant Materials Exposed to Storm Water:
In 2013, a corrective action storm water monitoring sample for S-SMA-2.01 exceeded the TAL for PCBs. A baseline storm water monitoring sample collected in 2010 also exceeded the TAL for PCBs as well as the TALs for aluminum and copper. Two baseline monitoring samples collected in 2011 exceeded TALs for copper and PCBs. PCBs are not known to be associated with industrial materials historically managed at this Site.

Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow (i.e., less than 3 ft bgs) Consent Order soil samples. Aroclor-1254 was detected in 7 of 14 shallow samples at a maximum concentration 52% of the residential SSL. Aroclor-1260 was detected in 11 of 14 shallow samples at a maximum concentration 51% of the residential SSL. The highest PCB concentrations detected in shallow Consent Order samples at AOC 03-052(b) were from a sample collected in a storm water collection area upstream of the SMA sampler. The material sampled was covered with clean fill during implementation of enhanced controls and is no longer exposed to storm water. Other potential sources of PCBs include sludge-like material observed in a subsurface drain pipe that conveys storm water.

Lead was detected in 2 shallow samples out of 26 above the maximum BV. However, the supplemental investigation report concluded that nature and extent have been defined and that lead did not pose a potential unacceptable human health risk under the residential scenario or an unacceptable ecological risk.

The SMA receives run-on from developed and undeveloped areas in TA-03. The SMA results for PCBs exceed the background for developed sites.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-052(f)**
Site Name: **Outfall**
SMA: **S-SMA-0.25**

Updated Site Description (2014):
SWMU 03-052(f) is a former NPDES-permitted outfall (03A023) at TA-03 that received wastewater from floor drains, sinks, and water fountains in building 03-38 (a maintenance shop) until 1987 when the drains in building 03-38 were rerouted to the TA-03 sanitary sewer system. Stoddard solvent, dry acid, and caustic materials from the maintenance shop were discarded through sinks and floor drains to this outfall in 1968. Spent paint solvents and cutting oils contaminated with machined beryllium particles may also have been released to the floor drains during 1960s and 1970s. In addition, cooling water for welding torches was discharged directly to the drains. Two spills containing a wastewater and oil mixture from the former Syllac Building (former building 03-287) may have entered the drain system. One of the spills produced an oily sheen on the surface of the water at the outfall. A third spill occurred when approximately 15 gal. of diesel fuel was released from a ruptured truck fuel line into the utilities construction trench between buildings 03-1793 and 03-1794. The only discharge to the outfall since 1987 is storm water runoff from parking lots and the surrounding areas in the north-central portion of TA-03 including the SWMU 03-013(a) storm drain. Outfall 03A023 was removed from the NPDES permit on July 11, 1997.

SWMU 03-052(f) was included in the Supplemental Investigation Report for the Upper Sandia Canyon Aggregate Area, submitted to the NMED under the Consent Order on August 27, 2013. The Site meets industrial and construction worker risk levels and was recommended for a CoC with controls. SWMU 03-052(f) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for S-SMA-0.25 exceeded the TALs for copper, zinc, PCBs, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above BVs in 9 of 14 shallow Consent Order samples at a maximum concentration 2.1 times the tuff BV.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above BVs in 10 of 14 shallow Consent Order samples at a maximum concentration 3.1 times the soil BV.
- PCBs are known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order samples. Aroclor-1254 was detected in 10 of 14 samples at a concentration 0.11% of the residential SSL. Aroclor-1260 was detected in 11 of 14 samples at a maximum concentration 0.06% of the residential SSL.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at SWMU 03-052(f). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 isotopic plutonium, and isotopic uranium, which are alpha-emitting radionuclides. No alpha-emitting radionuclides were detected or detected above BVs/FVs. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA sampler receives runoff from a large storm drain system that captures runoff from roof drains, roads, and parking areas from a 33-acre developed area consisting of approximately 50% of TA-03. The concentrations of copper, zinc, and gross-alpha radioactivity detected in the SMA samples are less than the developed area background UTLs consistent with the Site not being the source of these TAL exceedances. The concentration of PCBs detected in the SMA sample is greater than the developed area background UTL. Although the Site may contribute to the PCBs found in the SMA sample, the likely source of PCBs contributing to the TAL exceedance in the storm water at S-SMA-0.25 is urban "background" PCBs.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-054(b)**
Site Name: **Outfall**
SMA: **2M-SMA-2**

Updated Site Description (2014):
SWMU 03-054(b) is an outfall at TA-03 that discharges into Twomile Canyon. This outfall, located southeast of building 03-1411 and southwest of building 03-1316, was formerly permitted as NPDES 03A009 to receive discharge water from the cooling tower effluent blowdown and noncontact cooling water from building 03-0102. This discharge was rerouted to the TA-46 sanitary WWTP in 1993, and the outfall is no longer on the NPDES permit.

Two active storm drain inlets [SWMUs 03-052(a) and 03-052(e)] are connected to a drainline that goes to the outfall. Storm water runoff from surface areas surrounding 26 buildings and 94 roof drains in TA-03 currently discharge to this outfall.

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for 2M-SMA-2 exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the soil BV in shallow (i.e., less than 3 ft bgs) site characterization samples collected in 2002 before construction activities began near the Site. Copper was detected above BV in 17 of 18 shallow samples with a maximum concentration 17 times the soil BV.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above the soil BV in shallow samples collected in 2002 before construction activities began near the Site. Zinc was detected above BV in 18 of 18 shallow samples with a maximum concentration 17 times the soil BV.
- PCBs are not known to be associated with industrial materials historically managed at the Site. Samples collected at the Site in 2002 were not analyzed for PCBs because they were not identified as a potential contaminant at this Site.

The SMA sampler receives runoff from a 10.2-acre developed area (parking lots, buildings, and roads) in TA-03. The patterns of detection of TAL constituents in storm water compared with background are consistent with what would be expected for runoff from other developed areas. Similar results were obtained from baseline monitoring SMA samples collected in 2011 (copper 5.5 µg/L and 14.9 µg/L, zinc 72.3 µg/L and 144 µg/L, and PCBs 65 ng/L).

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **03-054(e)**
Site Name: **Outfall**
SMA: **M-SMA-1**

Updated Site Description (2014):
SWMU 03-054(e) is an outfall located in upper Mortandad Canyon. The outfall typically discharges a steady, low-volume flow of effluent that originates from several sources at the CMR building. These sources include drainage from roofs over the west wing, where towers vent filtered exhaust, and surface water runoff from the asphalt area around the building. SWMU 03054(e) received effluent from an unintentional one-time release in 1974 from an industrial waste manhole (AOC C-03-006). The overflow resulted from a plug in the industrial waste line and was estimated to be between 500 gal. and 1000 gal. of RLW. The overflow spilled to the surrounding paved area, traveled north along Diamond Drive, flowed into the storm sewer through a storm drain grate, and ultimately discharged into upper Mortandad Canyon through the SWMU 03054(e) outfall. A small dam was built in the streambed at the base of the canyon to contain the effluent. Subsequent cleanup action, based on residual radioactive contamination cleanup levels of 25 pCi/g, removed approximately 142 ft^3 of contaminated soil from Mortandad Canyon.

Significant Materials Exposed to Storm Water:
In 2013, enhanced control confirmation storm water monitoring samples for M-SMA-1 exceeded TALs for copper, zinc, PCBs, and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for PCBs and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above the sediment BV in shallow (i.e., less than 3 ft bgs) Consent Order and RFI samples. Copper was detected above BV in 1 of 14 shallow soil, sediment, and tuff samples at a concentration 1.1 times the sediment BV.
- Zinc is not known to have been associated with industrial materials historically managed at this Site. Zinc was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Zinc was detected above BVs in 12 of 14 shallow samples, and the maximum detection above BV was 2.3 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor 1242, Aroclor-1254, and Aroclor-1260 were detected in shallow Consent Order and RFI samples. Aroclor-1242 and Aroclor 1254 were detected in 1 of 14 shallow samples each at concentrations 2.1% and 0.2% of the residential SSLs, respectively. Aroclor-1260 was detected in 4 of 14 shallow samples at a maximum concentration 2.7% of the residential SSL.
- Uranium and plutonium isotopes and possibly other alpha-emitting isotopes are known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium and plutonium isotopes, which are alpha emitters. Uranium and plutonium isotopes are, however, excluded from the definition of adjusted gross-alpha radioactivity.

The only other inorganic constituent found in shallow soil samples above maximum BV was total cyanide in 1 of 14 samples. Benzo(a)pyrene was found above residential SSLs in 1 of 14 shallow soil samples.

The SMA receives runoff from developed areas. Concentrations of constituents exceeding TALs in SMA samples are equal to or less than UTLs for urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Historical materials management activities are described above. The Individual Permit does not regulate storm water discharges associated with current conventional industrial activities at the Laboratory.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **03-055(a)**
Site Name: **Outfall**
SMA: **2M-SMA-1.7**

Updated Site Description (2014):
SWMU 03-055(a) is an outfall located approximately 50 ft south of the Van de Graaff facility (building 03-16). Roof drains and one floor drain in a generator room (room 68) discharged to the outfall, which is located at the edge of the mesa into Twomile Canyon. The outfall currently receives only storm water from Van de Graaff building roof drains. The Van de Graaff facility was constructed in 1952. The facility has been inactive since the late 1990s; radiological D&D activities began in 2005.

Consent Order or other environmental investigations have not been performed at SWMU 03-055(a), and there are no investigation data for this Site.

Significant Materials Exposed to Storm Water:
In 2011, a baseline storm water monitoring sample for 2M-SMA-1.7 exceeded the TAL for copper.

- Copper is not known to be associated with industrial materials historically managed at the Site.

Monitoring location 2M-SMA-1.7 receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediment derived from Bandelier Tuff. The concentration of copper in the baseline SMA sample collected in August 2011 is less than the UTL for runoff from developed areas but above the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff. The concentration of copper in a second baseline SMA sample collected in September 2011 is less than the UTLs for both runoff from developed areas and undeveloped areas and less than the TAL.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yrs. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **03-055(c)**
Site Name: **Outfall**
SMA: **LA-SMA-0.85**

Updated Site Description (2014):
SWMU 03-055(c) is an outfall located northeast of the fire station (building 03-41). SWMU 03-055(c) channels storm water toward Los Alamos Canyon through a galvanized CMP. Previously, the storm drain was connected to the building 03-41 (fire station) floor drains until 1991 but currently collects and channels only storm water runoff from parking lots and paved roadways located in the northern portion of TA-03. In 1992, the storm water drainage channel into which the outfall flows was sampled by EM-8 as part of a reconnaissance survey associated with the construction of the Industrial Partnership Center at TA-03. The Site is currently an undeveloped wooded area on DOE property. Consent Order Phase I and Phase II investigation sampling are complete. SWMU 03-055(c) is expected to be eligible for a CoC after submittal and approval of the Phase II investigation report.

Significant Materials Exposed to Storm Water:
In 2012, enhanced control storm water monitoring samples for LA-SMA-0.85 exceeded TALs for copper and zinc. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, lead, and zinc.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the sediment BV in 2 of 18 shallow (i.e., less than 3 ft bgs) Consent Order samples with a maximum concentration 1.4 times the BV.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above the sediment BV in 13 of 18 shallow Consent Order samples with a maximum concentration of 5 times the BV.

Aluminum and lead are also not associated with industrial materials historically managed at the Site. Aluminum was not detected above the sediment BV in 18 shallow Consent Order samples. Lead was detected above the sediment BV in 4 of 18 Consent Order shallow samples with a maximum concentration 3.6 times the BV. Aluminum and lead were not detected above TALs after installation of enhanced controls and gross-alpha radioactivity was only detected above TAL after installation of enhanced controls. Concentrations of copper and zinc were similar before and after installation of enhanced controls.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedances for aluminum, copper, and lead are above both the developed BVs and the Bandelier Tuff BVs. Concentrations of zinc are below the developed BV and above the Bandelier Tuff BV. Gross-alpha radioactivity is above the developed BV but below the Bandelier Tuff BV.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **03-056(c)**
Site Name: **Transformer storage area**
SMA: **S-SMA-2**

Updated Site Description (2014):
SWMU 03-056(c) is a former outdoor storage area located at TA-03 on the north side of a utilities shop, building 03-0223. The SWMU extends along the length of building 03-0223 to the south and is bounded by a security fence to the north. The outdoor storage area was used to store electrical equipment, capacitors, and transformers with PCB-containing dielectric fluids. Waste solvents used for cleaning electrical equipment were also stored at this location. The types of solvents used at the Site from 1967 to approximately 1981 are not known. Viking R30 (1,1,1-trichloroethane) was used from 1981 to 1990. Beginning in 1990 and continuing to 1992, a nonhazardous citrus-based solvent was used as a substitute for solvent-based cleaners. In addition, Transclene, which contains tetrachloroethene, may have been stored at the Site because it was used by an electrical equipment maintenance subcontractor to retrofill transformers in the field. It is believed that the maintenance crew disposed of all these waste materials at an approved waste-disposal facility. In 1991, the Site's facility manager placed approximately 1–2 ft of clean fill on the area occupying the former storage area to elevate it and to reroute run-on drainage away from this Site. In 1992, the storage area was decommissioned.

Two actions have been performed at SWMU 03-056(c) to remove historical PCB contamination. Approximately 1000 yd^3 of PCB-contaminated soil was removed from August to November 1995. The objective of the 1995 removal action was to remove all soil with PCB concentrations above 10 ppm.

An additional 2400 yd^3 of material was removed from September 2000 to March 2001. This second removal action was initiated through a VCA. PCB-contaminated soil was removed from the western and northern slope areas and the ephemeral slope drainage areas. Because of the Site's proximity to a watercourse, the PCB cleanup targets were less than 1 ppm of PCBs in soil in accordance with TSCA. The VCA plan was approved by NMED in 2002. The VCA also included placing clean backfill in excavated areas, stabilizing exposed backfill, seeding, stabilizing soil around trees, and the installing a gabion apron to dissipate the energy of storm water running off the asphalt pad on the edge of the mesa. Following removal of PCB-contaminated soil and tuff, a total of 93 confirmation samples were collected from 83 locations and analyzed for PCBs. Twenty-one samples were also analyzed for metals and VOCs. Arsenic and tetrachloroethene were identified as COPCs because of detected concentrations greater than BVs and their respective risk-based SALs, but assessment of the residual risk at the Site after the VCA indicated no unacceptable risks to human receptors. The VCA report for SWMU 03-056(c) was approved by EPA in November 2001 and by NMED in September 2002.

NMED issued a CoC with controls for SWMU 03-056(c) on February 18, 2011. In its certificate, NMED stated that the nature and extent of contamination were defined, confirmatory sample results indicated the Site met the EPA's PCB cleanup criterion, and the Site poses no potential unacceptable human health and ecological risks from PCBs or VOCs. The required controls were to institute and maintain a control on the Site by monitoring storm water discharge for potential off-site transport of residual PCB contamination. The basis for the required control under the Consent Order was the possibility that storm water discharge may mobilize residual contamination from the Site. NMED also indicated the storm water monitoring was currently implemented pursuant to the Individual Permit.

This Site was included in the alternative compliance request for S-SMA-2.0 that was submitted to NMED in October 2013. The Permittees proposed to install a catch basin and route storm water across the SWMU via a pipe to the canyon bottom. The objective of this proposal is to measurably improve storm water quality by reducing the contact of storm water with the residual PCB contamination at the Site and by minimizing erosion.

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for S-SMA-2 exceeded TALs for copper, zinc, and PCBs. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was detected above the soil BV in shallow VCA confirmation samples. Copper was detected above BV in 2 of 21 shallow soil and tuff samples at a maximum concentration 1.02 times the soil BV, which is less than the maximum background concentration.
- Zinc is not known to be associated with industrial materials historically managed at this Site. Zinc was detected above the soil BV in shallow VCA confirmation samples. Zinc was detected above the soil BV in 6 of 21 shallow soil and tuff samples at a maximum concentration 1.6 times the soil BV.
- PCBs may have been associated with industrial materials historically managed at this Site. A PCB mixture (Aroclor-1260) was detected in 56 of 84 shallow VCA samples at a maximum concentration 1.8 times the residential SSL. Site-specific storm water run-on samples collected within the SMA also demonstrate that urban "background" PCBs contribute to the TAL exceedance.

The SMA receives run-on primarily from developed areas in TA-03. The SMA results for copper and zinc are less than the backgrounds for developed sites. The SMA results for PCBs exceed the background for developed sites.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **04-001**
Site Name: **Former firing site**
SMA: **T-SMA-7.1**

Updated Site Description (2014):
SWMU 04-001 was a 10-ft^2 firing pit constructed in 1945. Debris in the vicinity of the firing pit included wire and shrapnel. The energy source for the firing experiments was HE, and shot sizes ranged from 0.5 to 2000 lb of HE. Use of the pit ceased in 1946. The pit was cleaned of all debris, backfilled, and recontoured in 1985 during the LASCP cleanup effort.

Consent Order investigations are complete for SWMU 04-001; the Site meets residential risk levels. A request for a CoC without controls was submitted to NMED in May 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **04-002**
Site Name: **Surface disposal site**
SMA: **T-SMA-7.1**

Updated Site Description (2014):
SWMU 04-002 is the 20-ft-wide canyon-side disposal site associated with 04-001. The Site is located on the north-facing slope of Mortandad Canyon immediately north of SWMU 04-001. After a shot, residual material from the firing site was bulldozed over the edge of the canyon to the area designated as the surface disposal site. The shot debris consisted of cables, wires, and possibly small amounts of uranium, beryllium, lead, aluminum, and HE. The material was not covered, and this Site was not addressed during the 1985 LASCP.

Consent Order investigations are complete for SWMU 04-002; the Site meets residential risk levels. A request for a CoC without controls was submitted to NMED in May 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **04-003(a)**
Site Name: **Former outfall**
SMA: **CDB-SMA-0.15**

Updated Site Description (2014):
SWMU 04-003(a) is a former outfall that was located approximately 15 ft southeast of former building 04-7 at former TA-04 (now TA-52). Former building 04-7 operated from 1948 to 1955 and housed a darkroom and photoprocessing laboratory that discharged to the outfall. Discharges to the outfall flowed to a trench southeast of former building 04-7 that eventually discharged into Cañada del Buey. Portions of the trench have since been covered by buildings 52-114 and 52-115 and an asphalt parking lot. Beta activity was detected in the darkroom in 1955, and portions of the floor were removed to remediate the contamination. Building 04-7 underwent D&D in 1956.

Phase I Consent Order sampling is complete for SWMU 04-003(a). All detected constituent concentrations were below residential SSLs and SALs, except for one detect ion of a single PAH, which was below the industrial SSL. Nature and extent will be reevaluated under the supplemental investigation report for Upper Cañada del Buey Aggregate Area, scheduled to be submitted to NMED in 2014. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC under the Consent Order upon approval of the report.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **04-003(b)**
Site Name: **Former outfall**
SMA: **T-SMA-7**

Updated Site Description (2014):
SWMU 04-003(b) is the former drainline and outfall from a former laboratory control building (04-3), located at former TA-04. The outfall discharged about 20 ft north of building 04-3 into Mortandad Canyon. No radioactivity was detected in a 1953 survey, and the building was demolished and partially removed in 1956. The concrete storm drain, electrical conduit, wood and other surface debris, and the drainpipe were removed during the 1985 LASCP cleanup effort. During the LASCP cleanup, a portable radiation monitor was used, and no radioactive contamination was detected. In a 1988 survey, gamma radiation was detected at nearly twice the background level.

All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. SWMU 04-003(b) was recommended for corrective action complete in the Investigation Report for Middle Mortandad/Ten Site Aggregate Area submitted to NMED. SWMU 04-003(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **04-004**
Site Name: **Potential soil contamination from former building 04-07**
SMA: **CDB-SMA-0.15**

Updated Site Description (2014):
AOC 04-004 is an area of potential soil contamination associated with the footprint of former building 04-7 at former TA-04 (now TA-52). Former building 04-7 operated from 1948 to 1955 and was used to develop film from 1948 to 1955. The former building housed a darkroom and photoprocessing laboratory and discharged to an outfall [SWMU 04-003(a)]. Building 04-7 underwent D&D in 1956.

Phase I Consent Order sampling is complete for AOC 04-004. All detected constituent concentrations were below residential SSLs and SALs, except for one detect of cobalt, which was below the industrial SSL. Nature and extent will be reevaluated under the supplemental investigation report for Upper Cañada del Buey Aggregate Area, scheduled to be submitted to NMED in 2014. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC under the Consent Order upon approval of the report.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **05-001(a)**
Site Name: **Firing site**
SMA: **M-SMA-12.8**

Updated Site Description (2014):
SWMU 05-001(a) is a former steel barricade firing pit, designated No. 1 (structure 05-07). The Site was used for implosion tests from 1944 to 1947. During the 1985 LASCP cleanup effort at structure 05-07, steel plates around the pit, a control box, and a wood platform were removed. No contamination was detected on the surface of the structures or in the soil directly beneath the firing pit. The soil in the area was contaminated in several spots; consequently, structure 05-7 and other material were taken to TA-54 for disposal. The pit was cleaned of all debris and backfilled.

SWMUs 05-001(a), 05-001(b), 05-002, and 05-006(h) are components of Consolidated Unit 05-001(a)-99 and are associated with the historical Beta Site. SWMUs 05-001(a), 05-00(b), and 05-002 were investigated together during the 1995 Phase I RFI and later in 2004. Based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMUs 05-001(a), 05-001(b), 05-002, and 05-006(h), and no potential ecological risk was found for any receptor.

Based on the results of human health and ecological risk-screening assessments, no additional investigation or remediation activities are required at SWMU 05-001(a). A CoC without controls was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **05-001(b)**
Site Name: **Firing site**
SMA: **M-SMA-12.9**

Updated Site Description (2014):
SWMU 05-001 (b) is a former steel barricade firing pit, designated No.2 (structure 05-15), which is associated with the historical Beta Site at TA-05. The pit was constructed in 1944 and was taken out of service in 1959. Experimental shots were set up at the Site and fired on open ground. As debris accumulated, a bulldozer cleared the pit area by pushing scrap and debris north to the edge of Mortandad Canyon. The shrapnel zone included the canyon sides, canyon bottom, and about 200 ft around the firing pits. During 1985 D&D activities, the firing pit was removed. During its removal, uranium contamination was found in the soil to a depth of 15 ft. The area was decontaminated and backfilled with clean soil.

SWMUs 05-001(a), 05-001(b), 05-002, and 05-006(h) are components of Consolidated Unit 05-001(a)-99 and are associated with the historical Beta Site. SWMUs 05-001(a), 05-00(b), and 05-002 were investigated together during the 1995 Phase I RFI and later in 2004. Based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMUs 05-001(a), 05-001(b), 05-002, and 05-006(h), and no potential ecological risk was found for any receptor.

Based on human health and ecological risk-screening assessments, no additional investigation or remediation activities are required at SWMU 05-001(b); a request for certificate of completion without controls was submitted to NMED in May 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **05-001(c)**
Site Name: **Firing site**
SMA: **M-SMA-13**

Updated Site Description (2014):
AOC 05-001(c) is a former firing point designated as the larger Beta Far Point Site at TA-05 and is known only by references on maps and memoranda. It reportedly was located several hundred feet east of SWMU 05-001(b) [now part of Consolidated Unit 05-001(a)-99], but its exact location, dates of operation, and types of potential releases are not known, as reported in the 1990 SWMU Report. Ultimately, Beta Far Point Site is believed to have been located 600 to 700 ft south-southeast of Firing Points 1 [SWMU 05-001(a)] and 2 [SWMU 05-001(b)]. It was located in Cañada del Buey off the toe of the south mesa, 20 to 30 ft below the mesa top. Two or three 2500-lb shots were detonated at the Site during its period of operation. Shot debris consisted of cabling, tuballoy, steel, aluminum, and wood. The shot debris radius was estimated to be 100 to 200 yd from the firing point.

AOC 05-001(c) was investigated in 1995 and later as part of the Middle Mortandad/Ten Site Aggregate Area investigation in 2004 and 2005. The approved 2010 investigation report concluded that based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist at AOC 05-001(c). Additionally, no potential ecological risk was found for any receptor. All detected chemicals concentrations and radionuclides activities were below residential SSLs and SALs.

No further investigation or remediation activities are warranted at AOC 05-001(c); LANL recommended this site as corrective action complete consistent with residential use in the approved investigation report in 2011.

Significant Materials Exposed to Storm Water: A baseline storm water sample collected on September 13, 2013, yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **05-002**
Site Name: **Canyon-side disposal site**
SMAs: **M-SMA-12.7, M-SMA-12.8, and M-SMA-12.9**

Updated Site Description (2014):
SWMU 05-002 is a canyon-side disposal site associated with firing pits 1 and 2 [SWMUs 05-001(a) and 05-001(b)]. As debris from experimental shots at the firing pits accumulated, a bulldozer was used to push the debris northward to the edge of Mortandad Canyon. The debris zone extended to the canyon bottom. This Site was used extensively for 3 yr. A 1976 radiation study showed contamination at this Site. During 1985 LASCP activities, visible surface shot debris was removed. Waste potentially disposed of at this Site included shot debris, cables, wire, and trace amounts of lead, uranium, beryllium, cadmium, and uranium-contaminated aluminum or steel. During the 1985 LASCP cleanup effort, all debris present at the Site was removed from SWMU 05-002.

SWMUs 05-001(a), 05-001(b), 05-002, and 05-006(h) are components of Consolidated Unit 05-001(a)-99 and are associated with the historical Beta Site. SWMUs 05-001(a), 05-00(b) and 05-002 were investigated together during the 1995 Phase I RFI and later in 2004. Based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMUs 05-001(a), 05-001(b), 05-002, and 05-006(h), and no potential ecological risk was found for any receptor.

Based on the results of the human health and ecological risk-screening assessments, no additional investigation or remediation activities are required at SWMU 05-002; a CoC without control was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **05-004**
Site Name: **Former septic system**
SMA: **M-SMA-12.6**

Updated Site Description (2014):
SWMU 05-004 is a former septic tank (structure 05-13), associated drainlines, and outfall located at the west end of TA-05 near the edge of Mortandad Canyon. The outfall, a 2-ft wide by 1-ft deep trench cut into the tuff, is located at the edge of the mesa. The tank was constructed in May 1948 to serve building 05-1 (a laboratory) and was decommissioned in place in December 1959. It was constructed of reinforced concrete and was 5 ft × 5 × 7 ft deep. As-built drawings show an inlet line running from building 05 1 to the septic tank and an outlet line discharging south into an unnamed tributary of Mortandad Canyon. From 1948 to 1949, the tank received industrial waste from a laboratory (building 05-1). A 1952 memorandum states that septic tank 05-13 was no longer needed to support use of building 05-1 and the structure was being returned to Engineering Division for disposition. The types of materials used in building 05-1 are not known. The septic tank and associated drainlines were removed in 1960.

SWMU 05-004 has been investigated under the Consent Order and recommended for corrective action complete without controls in the approved investigation report for Lower Mortandad/Cedro Canyons Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for M-SMA-12.6 exceeded the TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These isotopes are excluded from regulation under the CWA and are regulated under the AEA. The SMA receives runoff from undeveloped areas. The gross-alpha radioactivity detected in the SMA sample is less than UTLs for both undeveloped areas and urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **05-005(a)**
Site Name: **Soil contamination from former French drain**
SMA: **M-SMA-12.7**

Updated Site Description (2014):
SWMUs 05-005(a), 05-006(b), and 05-006(e) are components of Consolidated Unit 05-005(a)-00 and are associated with the historical Beta Site, established in 1944 as an adjunct test-firing site to Alpha Site (Consolidated Unit 04-001-99) for Manhattan Project personnel. SWMU 05-005(a) was a French drain that ran north from the firing site control building (05-4) toward Mortandad Canyon. The drain was constructed in 1945 and became inactive along with the control building in 1959. The control building was removed in 1960; however, the drainline was not removed until 1985 during the LASCP. Radioactive contamination associated with building 05-4 was detected during the 1985 LASCP; there is no record of a release of radionuclides or chemicals to the drainline. The entire area was razed when building 05-4 was removed in 1985. The individual SWMUs are no longer individually distinguishable.

After firing activities at Beta Site were halted in the late 1940s, other LANL groups used the site for various experiments involving radiation. In 1959, the experimental reactors Little Eva and Godiva operated at Beta Site. Beta Site officially ceased operations in 1959 but was used for periodic testing until the 1970s. Most of the 1985 D&D work revolved around a central area where DU contamination was detected. The area encompassed building 05-9, structures 05-7 and 05-15, and a platform not included in this consolidated unit.

SWMUs 05-005(a), 05-006(b), and 05-006(e) were investigated together during the 1995 Phase I RFI and later in a 2004 investigation. The approved investigation report concluded that the nature and extent of all detected chemicals and radionuclides are defined at Consolidated Unit 05-005(a)-00. Based on the human health and ecological risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMUs 05-005(a), 05-006(b), 05-006(e), and no potential ecological risk was found for any receptor. A CoC without controls was requested from NMED for SWMU 05-005(a) in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **05-005(b)**
Site Name: **Former Outfall**
SMA: **M-SMA-12.5**

Updated Site Description (2014):

SWMU 05-005(b) is an area of potentially contaminated soil associated with a former outfall located at the edge of Mortandad Canyon. The outfall, formerly associated with former building 05-05, was identified during a 1987 site reconnaissance conducted by the former ER Project. The outfall was located on the edge of the canyon, approximately 80 ft south of building 05-05. This building, which is associated with SWMU 05-006(c), was used as a shop, a calibration facility, and a photographic darkroom. The building was used as a darkroom from 1944 to 1947 to process photographs of experiments conducted at the TA-05 firing sites. In 1952, building 05-05 was used to calibrate high-range radiation meters. The building was operational from about 1944 to 1959 and was destroyed by burning in May 1960. The outfall is believed to have operated from 1944 to 1959. No evidence of the outfall exists at the Site; however a capped pipe was found at the ground surface at the former location of building 05-05 during the 2011 Consent Order investigation and was removed. This pipe may have been the drainline from the building. A drainage channel collects most of the runoff from the Site and is present at the edge of the mesa. Storm water BMPs are in place above and downslope of the Site.

Phase I Consent Order investigations are complete for SWMU 05-005(b); the Site meets residential risk levels. SWMU 05-005(b) was recommended for corrective action complete without controls in the approved investigation report for Lower Mortandad/Cedro Canyons Aggregate Area. The Site is eligible for a CoC without controls.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cedro Canyon—Tributary to Mortandad Canyon

Site ID: **05-006(b)**
Site Name: **Soil contamination from former building 05-4**
SMA: **M-SMA-12.7**

Updated Site Description (2014):
SWMU 05-006(b) is an area of potentially contaminated soil at the location of former control building 05-4. During 1985 LASCP D&D activities at TA-05, uranium-contaminated soil was encountered at the former site of building 05-4. The entire area was razed when building 05-4 was removed in 1985. As a consequence, the individual SWMUs are no longer individually distinguishable.

SWMUs 05-005(a), 05-006(b), and 05-006(e) are components of Consolidated Unit 05-005(a)-00 and are associated with the historical Beta Site, established in 1944 as an adjunct test-firing site to Alpha Site (Consolidated Unit 04-001-99) for Manhattan Project personnel. After firing activities were halted in the late 1940s, other LANL groups used the Site for various experiments involving radiation. In 1959, the experimental reactors Little Eva and Godiva operated at Beta Site. Beta Site officially ceased operations in 1959 but was used for periodic testing until the 1970s. Most of the 1985 D&D work revolved around a central area where DU contamination was detected. The area encompassed building 05-9, structures 05-7 and 05-15, and a platform not included in this consolidated unit.

SWMUs 05-005(a), 05-006(b), and 05-006(e) were investigated together during the 1995 Phase I RFI and later in a 2004 investigation. The approved investigation report concluded the nature and extent of all detected chemicals and radionuclides are defined at Consolidated Unit 05-005(a)-00. Based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMUs 05-005(a), 05-006(b), 05-006(e), and no potential ecological risk was found for any receptor. A CoC without controls was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **05-006(c)**
Site Name: **Area of potential soil contamination**
SMA: **M-SMA-12.5**

Updated Site Description (2014):
SWMU 05-006(c) is an area of potentially contaminated soil associated with the location of former building 05-05, a shop and darkroom. The shop was 16 ft^2, and the darkroom was 6 ft wide × 9 ft long. The building operated from about 1944 to 1959. The structure was originally used to support firing-site activities, including processing photographs of experiments conducted at the TA-05 firing sites. In 1952, J Division temporarily used the building to calibrate high-range radiation meters. A 1959 memorandum indicates this structure was contaminated with HE, as does a 1959 list generated by the LANL's H-3 Group. Potential soil contamination associated with SWMU 05-006(c) was reported to also include uranium. Building 05-05 was destroyed by intentional burning on March 5, 1960. Cleanup of the site of the former building was included in the 1985 LASCP. Surface debris, including wood, copper wire, scrap metal, and other building debris, was removed. No radioactive contamination was detected. During 2011 Consent Order investigation activities, a small amount of burned debris (charred wood, melted glass, and metal) was removed from the former location of building 05-05. An 18-in.-long capped pipe was also removed.

Phase I Consent Order investigations are complete for SWMU 05-006(c); the Site meets residential risk levels. SWMU 05-006(c) was recommended for corrective action complete without controls in the approved investigation report for Lower Mortandad/Cedro Canyons Aggregate Area. The Site is eligible for a CoC without controls.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **05-006(e)**
Site Name: **Soil contamination from former structure 05-19**
SMA: **M-SMA-12.7**

Updated Site Description (2014):
SWMU 05-006(e) is an area of potentially contaminated soil at TA-05 associated with a former platform (structure 05-19) next to building 05-04. The platform was a 6-ft × 6-ft wood structure that was mounted 26 ft above the ground on two 45-ft-tall wood poles. It was built in about 1953 and left in place in 1959. The entire area was razed when building 05-04 was removed in 1985. The individual SWMUs are no longer individually distinguishable at Consolidated Unit 05-005(a)-00.

SWMUs 05-005(a), 05-006(b), and 05-006(e) are components of Consolidated Unit 05-005(a)-00 and are associated with the historical Beta Site, established in 1944 as an adjunct test-firing site to Alpha Site (Consolidated Unit 04-001-99) for Manhattan Project personnel. After firing activities were halted in the late 1940s, other LANL groups used the site for various experiments involving radiation. In 1959, the experimental reactors Little Eva and Godiva operated at Beta Site. Beta Site officially ceased operations in 1959 but was used for periodic testing until the 1970s. Most of the 1985 D&D work revolved around a central area where DU contamination was detected. The area encompassed building 05-9, structures 05-7 and 05-15, and a platform not included in this consolidated unit. TA-05 is currently used as a security buffer zone and contains physical support facilities, such as an electrical substation, test wells, several archeological sites, and environmental monitoring areas.

SWMUs 05-005(a), 05-006(b), and 05-006(e) were investigated together during the 1995 Phase I RFI and later in a 2004 investigation. The approved investigation report concluded the nature and extent of all detected chemicals and radionuclides are defined at Consolidated Unit 05-005(a)-00. Based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMUs 05-005(a), 05-006(b), 05-006(e), and no potential ecological risk was found for any receptor. A CoC without controls was requested from NMED in February 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **06-001(a)**
Site Name: **Septic system**
SMA: **2M-SMA-1.42**

Updated Site Description (2014):
SWMU 06-001 (a) is an inactive septic tank (structure 06-40) with a volume of approximately 840 gal. (the precise volume is not known) and the associated outfall area. The septic tank system served buildings 06-1 and 06-3 (currently a storage building). The septic tank is located approximately 400 ft north of Twomile Mesa Road and about 100 ft north of building 06-3. Building 06-1 included a laboratory and a carpenter shop. The laboratory was used in 1944 to develop analytical procedures for nonradioactive cobalt-tracer shots. Although no further information exists on the use of the laboratory, the carpenter shop may have later expanded into the laboratory space. In the late 1950s, silver soldering may have been done in the shop. The building was not used after the carpenter shop closed in the early 1980s. Building 06-3 contained a restroom, a darkroom, and a laboratory with a lead-lined sink. Building 06-3 was first used as a control bunker for explosives shots; it was remodeled in 1944 with explosion-proof fixtures. From 1945 to 1948, the building housed offices, and from 1948 until the early 1950s, the building had a firing control panel and a bridgewire-testing laboratory. In 1972, the building was remodeled into a printed-circuit shop, and it was later used as a silk-screen facility until the mid-1980s. Since the mid-1980s, building 06-3 has been used for storage.

The septic system outfall drained to Tributary A of Twomile Canyon. The system ceased being used in December 1986, and its drainline was plugged in 1988. During a reconnaissance visit in 1992, the tank was located and found to be empty. Buildings 06-1 and 06-3 were demolished and removed in 2004. The septic system was left in place.

Consent Order investigations have not been performed at SWMU 06-001(a), and no decision-level data are available for this Site. Screening-level data are available from an RFI performed in 1994.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for 2M-SMA-1.42 exceeded the TALs for aluminum and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above BVs in shallow soil and sediment samples collected during the 1994 RFI.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected during the 1994 RFI were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical site activities.

Monitoring location 2M-SMA-1.42 is located on Bandelier Tuff, and no run-on occurs from developed facilities (i.e., buildings, pavement, and parking lots). The concentration of aluminum and the gross-alpha radioactivity in the SMA samples are below the UTLs for runoff from undeveloped areas containing sediment derived from Bandelier Tuff.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: 06-001(b)
Site Name: Septic system
SMA: 2M-SMA-1.44

Updated Site Description (2014):
SWMU 06-001(b) consists of a 960-gal.-capacity septic tank (structure 06-43) and associated drainlines, distribution box, filter trench, and outfall located approximately 200 ft north of former building 06-6. The septic system served former building 06-6 and operated from 1945 to the 1980s. Former building 06-6 originally housed laboratory operations related to detonator assembly, an electronics work room, a chemistry laboratory, two darkrooms, restrooms, and a sink. The sink drain received rinsate containing copper, brass, and steel parts dipped in nitric acid to remove silver solder flux and oxidized metals. Solvents were also used to degrease metal. Tin and lead soldering using paste and aqueous zinc/aluminum chloride fluxes was performed on electrical circuits. Manometric apparatuses containing liquid mercury were serviced in the building. Ionizing radiation, in the form of electrically generated x-rays, was used through the 1950s to about 1965. By 1961, the darkrooms, assembly room, and a storage area had been converted to offices. In the 1970s, former building 06-6 was used as a cable shop, where acetone, alcohol, and dilute acids may have been used. In the early 1980s, former building 06-6 was used for printed circuit production. Effluent from the septic tank discharged north to a distribution box and then to a filter trench consisting of two parallel trenches with perforated pipe surrounded by sand and covered with gravel. Overflow from the filter trench went north to an outfall that drained into Tributary A of Twomile Canyon. In 1989, the drainline was cut and capped. Building 06-6 was demolished and removed in 2004; however, the septic tank, drainlines, distribution box, and filter trenches were left in place.

The 1993 RFI work plan for Operable Unit 1111 and the 1997 RFI report state that plumbing in buildings 06-5 and 06-8 also drained to SWMU 06-001(b). However, engineering drawings for these two buildings show no drains or points of discharge. In addition, an engineering drawing of the sanitary sewer system at TA-06 shows no waste lines coming from either building. Thus, engineering records indicate the information in the 1993 RFI work plan and 1997 report concerning discharges from these buildings to SWMU 06 001(b) is incorrect.

Consent Order investigations have not been performed at SWMU 06-001(b) and there are no decision-level data for this Site. Screening-level data are available from an RFI conducted in 1994.

Significant Materials Exposed to Storm Water:
In 2013, a corrective action storm water monitoring sample for 2M-SMA-1.44 exceeded the TAL for copper.

- Copper is known to be associated with industrial materials historically managed at the Site. Solutions containing copper were discharged to the septic system. Copper was detected above BVs in 5 of 15 shallow samples collected during the 1994 RFI at a maximum concentration 2 times the soil BV.

Monitoring location 2M-SMA-1.44 is sited on Bandelier Tuff, and no run-on occurs from developed facilities (i.e., buildings, pavement, and parking lots). The concentration of copper in the 2013 SMA sample exceeds the UTLs for both runoff from developed and runoff from undeveloped areas containing sediment derived from Bandelier Tuff. The TAL for gross-alpha radioactivity was exceeded in a baseline storm water monitoring sample collected in 2011 but not in the 2013 corrective action sample. The gross-alpha radioactivity in both samples was less than the UTLs for runoff from developed and undeveloped areas containing sediment derived from Bandelier Tuff.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **06-003(h)**
Site Name: **Former firing site**
SMA: **2M-SMA-1.67**

Updated Site Description (2014):
SWMU 06-003(h) is a former firing site located north of Twomile Mesa Road at TA-06 where defective explosive lenses manufactured for use in the Fat Man implosion weapon were destroyed by detonation in 1945. Some of the lenses were described as consisting of the explosive Baratol, which contains barium and TNT. This Site was identified as distinct from MDA F and was added as a separate Site to LANL's hazardous waste permit in 1994.

This SWMU was investigated during a 1994 RFI; however, no sampling has been conducted under the Consent Order and no decision-level data are available.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **06-006**
Site Name: **Storage area**
SMA: **2M-SMA-1.45**

Updated Site Description (2014):
SWMU 06-006 includes a 300-ft × 20-ft concrete pad and an asphalt parking lot between former buildings 06-5 and 06-6. Containers and electrical equipment were stored at this Site during the 1980s. The containers and equipment are no longer present, but stains were observed on the asphalt and nearby soil during the 1988 field survey. SWMU 06-006 drains into Tributary A of Twomile Canyon.

Consent Order investigations have not been performed at SWMU 06-006, and no decision-level data are available for this Site. Screening-level data are available from an RFI conducted in 1994.

Significant Materials Exposed to Storm Water:
In 2011, a baseline storm water monitoring sample for 2M-SMA-1.45 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected during the 1994 RFI were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical site activities.

Shallow soil and sediment samples collected within and downgradient of the Site during the 1994 RFI were analyzed for PCBs. No PCBs were detected in 9 shallow soil and sediment samples. The PCB mixture Aroclor-1254 was detected in 2 of 3 samples of the storage pad material collected during the 1994 RFI, with a maximum concentration of 0.48 mg/kg (43% of the residential soil screening level).

Monitoring location 2M-SMA-1.45 receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediment derived from Bandelier Tuff. The concentration of gross-alpha radioactivity in the 2011 SMA sample is between the UTLs for runoff from developed areas and undeveloped areas containing sediment derived from Bandelier Tuff.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **07-001(a)**
Site Name: **Inactive firing site**
SMA: **2M-SMA-3**

Updated Site Description (2014):
SWMU 07-001(a) is an inactive firing pit located near the east end of TA-06. The Site consists of a circular depression, surrounded by an annular berm about 4 ft high and approximately 30 ft in diameter. The firing pit was used in the 1950s to destroy scrap detonators and explosives. Materials to be destroyed were mixed with Composition B scraps or flaked TNT and the mixture was detonated. A 1959 memorandum states this method was very effective in destroying detonators, with no intact detonators thrown out of a pit and no undestroyed detonators found during a site survey, although pellets of unexploded PBX were found in post-firing debris. Small amounts of lead or mercury compounds may have been present in the blasting caps used to set off the HE used to destroy the detonators. This method of destroying detonators was discontinued at this Site in 1959.

The original IP Site narrative stated that beryllium and DU may have been released at this Site. A thorough review of Site records did not identify the use of either beryllium or DU.

Consent Order investigations have not been performed at SWMU 07-001(a), and no decision-level data are available for this Site. An RFI was conducted at the Site in 1994. The RFI data are screening level only.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for 2M-SMA-3 exceeded TALs for aluminum and copper.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above the soil BV in any of the 11 shallow (i.e., less than 3 ft bgs) soil samples collected during the 1994 RFI at the Site.
- Copper was likely associated with industrial materials historically managed at the Site. Copper was not detected above the soil BV in any of the 11 shallow (i.e., less than 3 ft bgs) soil samples collected during the 1994 RFI at the Site.

The SMA receives runoff only from undeveloped areas. The concentration of aluminum detected in the SMA sample is above both the UTLs for urban runoff and undeveloped areas and the concentration of copper detected in the SMA sample is essentially the same as the undeveloped background UTL and below the developed background UTL.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **07-001(b) (2M-SMA-3)**
Site Name: **Inactive firing pit**
SMA: **2M-SMA-3**

Updated Site Description (2014):
SWMU 07-001(b) is an inactive firing pit located near the east end of TA-06. The Site consists of a circular depression, surrounded by an annular berm about 4 ft high and approximately 30 ft in diameter. The firing pit was used in the 1950s to destroy scrap detonators and explosives. Materials to be destroyed were mixed with Composition B scraps or flaked TNT and the mixture was detonated. A 1959 memorandum states this method was very effective in destroying detonators, with no intact detonators thrown out of a pit and no undestroyed detonators found during a site survey, although pellets of unexploded PBX were found. This method of destroying detonators was discontinued at this Site in 1959.

Consent Order investigations have not been performed at SWMU 07-001(b), and no decision-level data are available for this Site. An RFI was conducted at the Site in 1994. The RFI data are screening level only.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for 2M-SMA-3 exceeded TALs for aluminum and copper.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above the soil BV in any of the 12 shallow 1994 RFI soil samples collected at the Site.
- Copper was likely associated with industrial materials historically managed at the Site. Copper was detected above the soil BV 8 of 12 shallow 1994 RFI soil samples collected at the Site.

The SMA receives runoff only from undeveloped areas. The concentration of aluminum detected in the SMA sample is above both the UTLs for urban runoff and undeveloped areas, and the concentration of copper detected in the SMA sample is essentially the same as the undeveloped background UTL and below the developed background UTL.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **07-001(c)**
Site Name: **Inactive firing site**
SMA: **2M-SMA-3**

Updated Site Description (2014):
SWMU 07-001(c) is in an inactive amphitheater-shaped firing site, approximately 50 ft × 50 ft, located near the eastern boundary of TA-06. Soft metal disks imbedded with bullets have been found at this Site. Little is known about this Site's history, but it may have been used briefly to study ballistic initiation of critical mass through the study of projectiles fired at lead plates.

Consent Order investigations have not been performed at SWMU 07-001(c) and no decision-level data are available for this Site. An RFI was conducted at the Site in 1994. The RFI data are screening level only.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for 2M-SMA-3 exceeded TALs for aluminum and copper.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above the soil BV in any of the three shallow 1994 RFI soil samples.
- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above the soil BV in any of the three shallow 1994 RFI soil samples.

The SMA receives runoff only from undeveloped areas. The concentration of aluminum detected in the SMA sample is above both the UTLs for urban runoff and undeveloped areas and the concentration of copper detected in the SMA sample is essentially the same as the undeveloped background UTL and below the developed background UTL.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **07-001(d)**
Site Name: **Inactive firing site**
SMA: **2M-SMA-3**

Updated Site Description (2014):
SWMU 07-001(d) is an inactive firing site located near the eastern boundary of TA-06. The Site is an approximately 20-ft-diameter × 3-ft-deep crater. Detonator parts have been found near the crater. Little is known about this Site's operating history, but it is believed to be the location of a one-time "celebratory shot" fired in 1945 after the Japanese surrender at the end of World War II. No debris is visible at or around the Site.

Consent Order investigations have not been performed at SWMU 07-001(d), and no decision-level data are available for this Site. An RFI was conducted at the Site in 1994. The RFI data are screening level only.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for 2M-SMA-3 exceeded TALs for aluminum and copper.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above the soil BV in any of the 13 shallow 1994 RFI soil samples.
- Copper was likely associated with industrial materials historically managed at the Site. Copper was detected above the soil BV in 7 of 13 shallow 1994 RFI soil samples at a maximum concentration 5.3 times the soil BV.

The SMA receives runoff only from undeveloped areas. The concentration of aluminum detected in the SMA sample is above both the UTLs for urban runoff and undeveloped areas, and the concentration of copper detected in the SMA sample is essentially the same as the undeveloped background UTL and below the developed background UTL.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **08-009(d)**
Site Name: **Drains**
SMA: **STRM-SMA-1.5**

Updated Site Description (2014):
SWMU 08-009(d) consists of the drains located in the photo processing and x-ray rooms of building 08-22 (x-ray building) at TA-08. Building 08-22 was constructed in 1950 and housed x-ray machines used to radiograph various items. The SWMU 08-009(d) drains were dedicated to receiving photo processing and photo development solutions containing silver salts, chromium, pentachlorophenol, and other chemicals used during the radiography process. Before they were plugged, the drains discharged effluent to a formerly NPDES-permitted outfall (EPA 06A074), located approximately 300 ft northeast of building 08-22. The outfall drained into Starmer Gulch, a tributary of Pajarito Canyon. The drains were plugged between 1995 and 1997. The outfall was removed from the NPDES permit effective September 19, 1997.

Consent Order investigations have not been performed at SWMU 08-009(d) and no decision-level data are available for this Site. Screening-level data are available from an RFI performed in 1994.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for STRM-SMA-1.5 exceeded the TALs for cadmium, mercury, silver, acid-dissociable cyanide, gross-alpha radioactivity, and radium-226 and radium-228.

- Cadmium is not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected downgradient of the Site outfall during the 1994 RFI were analyzed for cadmium. Cadmium was detected above BV in 1 of 2 shallow soil samples but was not detected above the maximum soil background concentration. Data from the 1994 RFI are screening-level data.
- Mercury is not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected downgradient of the Site outfall during the 1994 RFI were analyzed for mercury. Mercury was detected above BV in 1 of 2 shallow soil samples at a maximum concentration 1.9 times the maximum soil background concentration. Data from the 1994 RFI are screening-level data.
- Silver is known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected downgradient of the Site outfall during the 1994 RFI were analyzed for silver. Silver was detected above BV in 4 of 4 shallow soil samples at a maximum concentration 177 times the soil BV. Data from the 1994 RFI are screening-level data.
- Cyanide is not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected downgradient of the Site outfall during the 1994 RFI were not analyzed for cyanide because cyanide was not identified as a COPC.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected downgradient of the Site outfall during the 1994 RFI were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because alpha-emitting radionuclides were not identified as COPCs.
- Radium isotopes are not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected downgradient of the Site outfall during the 1994 RFI were not analyzed for radium-226 and radium-228 because radium was not identified as a COPC.

Monitoring location STRM-SMA-1.5 receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediment derived from

Bandelier Tuff. The concentration of cadmium in the SMA sample was above the UTL for runoff from developed areas. There is no UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff. There are no UTLs for mercury, silver, or cyanide for either runoff from developed areas or undeveloped areas containing sediment derived from Bandelier Tuff. The gross-alpha radioactivity and radium-226 and -228 activity in the SMA sample are below the UTLs for runoff from undeveloped areas containing sediment derived from Bandelier Tuff and above the UTLs for runoff from developed areas.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer's Gulch

Site ID: **08-009(f)**
Site Name: **Outfall**
SMA: **STRM-SMA-1.05**

Updated Site Description (2014):
AOC 08-009(f) consists of an inactive outfall located approximately 40 ft southeast of building 08-22 (the x-ray building). Fluorescent penetrants (mixtures of dyes and surfactants) were used in building 08-22 to detect cracks in parts being prepared for installation into a weapons assembly; copper was not a component in the fluorescent penetrants. Historically, fluorescent penetrants, developers, and emulsifiers were discharged to the outfall through drains and drainlines located within building 08-22. The valves to the sinks that discharged to the drains were disconnected in 1992, and the drains were rerouted to the building 08-22 sanitary sewer system. After 1992, secondary containers were used to collect the chemicals for disposal.

Significant Materials Exposed to Storm Water:
In 2013, enhanced control storm water monitoring samples for STRM-SMA-1.05 exceeded TALs for copper. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for copper. Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was not detected above the soil BV in shallow (i.e., less than 3 ft bgs) RFI soil samples. The RFI data are screening level only.

The SMA receives runoff from developed and undeveloped areas. Concentrations of copper in the SMA samples were less than the UTLs for runoff from developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer's Gulch

Site ID: **09-004(g)**
Site Name: **Decommissioned sump**
SMA: **PJ-SMA-4.05**

Updated Site Description (2014):
SWMU 09-004(g) is the decommissioned sump (structure 09-190) located at TA-09 on the east side of building 09-50 (a shipping and receiving building). The original IP Site narrative described the SWMU as a settling tank but the structure is a sump. The sump, installed between 1950 and 1952, is made of reinforced concrete and formerly received industrial waste from building 09-50. Activities in the building involved shipping, receiving, short-term storage of HE, and small-scale laser experiments. Since 1993, building 09-50 has been used for storage only. The sump collected settling HE particles that were not filtered out by the building's waste system and discharged effluent to a former NPDES-permitted outfall (EPA 04A155), which is part of SWMU 09-005(g), a septic system that formerly received sanitary wastewater from building 09-50. Periodically, the sump was inspected, debris was removed using specially equipped trucks, and the sump was cleaned. In October 2006, the sump was removed.

No Consent Order investigation, RFI, or other investigations have been conducted at SWMU 09-004(g).

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for PJ-SMA-4.05 exceeded the TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. The SMA receives runoff from undeveloped areas. The gross-alpha radioactivity detected in the SMA sample is less than UTL for undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **09-004(o)**
Site Name: **Sump**
SMA: **PJ-SMA-3.05**

Updated Site Description (2014):
SWMU 09-004(o) is an active sump (structure 09-198) that receives industrial waste from an HE machining building (09-48) at TA-09. The sump, installed between 1950 and 1952, is made of aluminum-lined reinforced concrete and receives industrial waste from building 09-48. Activities in the building involve HE machining. The below grade sump collects settled HE particles that are not filtered out by the building's waste system. Originally, effluent from the sump was discharged to an NPDES-permitted outfall (EPA 05A068). The sump outlet was plugged and the outfall was removed from the Permit in the 1990s. The sump is now periodically cleaned by pumping to a specially equipped truck, which transports the wastewater to a treatment facility. The sump is equipped with an overfill alarm and is regularly inspected.

Consent Order investigations have not been performed at SWMU 09-004(o). Decision-level data are available from an RFI performed in 1999. RFI samples, however, were only analyzed for HE.

Significant Materials Exposed to Storm Water:
In 2011, a baseline storm water monitoring sample for PJ-SMA-3.05 exceeded the TALs for weak acid-dissociable cyanide and gross-alpha radioactivity.

- Cyanide is not known to be associated with industrial materials historically managed at the Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site.

The PJ-SMA-3.05 SMA drainage is located on Bandelier Tuff and no run-on occurs from developed facilities (i.e., buildings, pavement, and parking lots). The gross-alpha radioactivity in the SMA sample is below the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff. There are no UTLs for weak acid dissociable cyanide in runoff from developed or undeveloped areas.

Method of Treatment, Storage, or Disposal: SWMU 09-004(o) was identified as a Site because of historic waste releases. No Site-related wastes have been treated, stored, or disposed in the last 3 yr. Historical disposal activities are described above. IP does not regulate storage of wastewater associated with current conventional industrial activities at LANL.

Past and Present Materials Management Practices: SWMU 09-004(o) was identified as a Site because of historic waste releases. No Site-related materials have been managed in the last 3 yr. Historical materials management practices are described above. The IP does not regulate storage of wastewater associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **09-008(b)**
Site Name: **Decommissioned oxidation pond**
SMA: **STRM-SMA-4.2**

Updated Site Description (2014):
SWMU 09-008(b) is the decommissioned oxidation pond (structure 09-212) located next to the western boundary of TA-09, approximately 200 ft east of Anchor Ranch Road. Installed in 1969, the pond measures 15 ft wide × 65 ft long × 6 ft deep, is lined with clay covered with emulsified asphalt water proofing, and is surrounded by an 8-ft-high chainlink fence. An overflow pipe, located at the southeast corner of the pond, discharged to a drainage channel that flows into Starmer Canyon. The pond treated sanitary waste received from the SWMU 09-005(d) septic tank (structure 09-211), which received effluent from buildings 08-20, 08-21, 08-22, 08-23, and 08-24. These buildings had various uses including radiography of nuclear fuel elements, photoprocessing, photodevelopment, and x-ray operations. A strontium-90 spill occurred in Building 08-24 in 1954; it is not known if any of the strontium-90 reached the pond. The pond was decommissioned and abandoned in place in 1988.

Consent Order investigations have not been performed at SWMU 09-008(b), no decision-level data are available for this Site. Screening-level data are available from an RFI performed in 1994.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for STRM-SMA-4.2 exceeded the TALs for aluminum. Corrective action monitoring samples collected in 2013 also exceeded the TAL for copper.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Shallow sediment samples collected within the pond and in the drainage below the outfall during the 1994 RFI were not analyzed for metals.

The STRM-SMA-4.2 drainage area is located on Bandelier Tuff, and no run-on occurs from developed facilities (i.e., buildings, pavement, and parking lots). The concentrations of aluminum in the two baseline SMA samples were equivalent to and less than the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff. The gross-alpha radioactivity in both baseline SMA samples was less the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer's Gulch—Tributary to Pajarito Canyon

Site ID: **09-009**
Site Name: **Decommissioned sanitary surface impoundment**
SMA: **PJ-SMA-2**

Updated Site Description (2014):
SWMU 09-009 consists of a decommissioned surface impoundment (structure 09-218) and two associated decommissioned sand filters at TA-09. The surface impoundment is located approximately 120 ft northeast of building 09-40, and the associated sand filters are approximately 120 ft northeast of the surface impoundment. The surface impoundment is 32 ft wide × 60 ft long × 7 ft deep; the sides are constructed of concrete and the bottom of bentonite. The two sand filters, which cover a total area of 33 ft wide × 60 ft long and approximately 4 ft deep, have a flexible membrane liner (butyl rubber), and are surrounded by a concrete curb. The surface impoundment was constructed in 1961 to treat sanitary waste from buildings 09-20, 09-21, 09-28, 09-29, 09-32, 09-33, 09-34, 09-35, 09-37, and 09-38 and discharged to an outfall approximately 300 ft to the northwest. After the sand filters were installed in 1974, the surface impoundment discharged effluent to the sand filters. After flowing through the sand filters, effluent discharged to a former NPDES-permitted outfall (55502S). In 1986, the sewer lines from TA-08 were connected to the surface impoundment, including the sewer line from building 08-24, where a strontium-90 spill occurred in 1954. The surface impoundment and sand filter system were decommissioned when the SWSC came online in 1992. All active buildings formerly connected to the impoundment continue to discharge sanitary wastewater to the SWSC.

SWMU 09-009 is included in the Consent Order as part of the Starmer/Upper Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Starmer/Upper Pajarito Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by December 31, 2014. Decision-level data are not available for SWMU 09-009.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer's Gulch - tributary to Pajarito Canyon

Site ID: **09-013**
Site Name: **MDA M**
SMA: **PJ-SMA-1.05**

Updated Site Description (2014):
SWMU 09-013 is MDA M, which consists of two surface disposal areas at TA-09, a main area and a smaller satellite area. The main area occupies about 3.2 acres and is located approximately 1600 ft southwest of building 22-120. The 150-ft-wide × 260-ft-long satellite area is located approximately 750 ft northwest of the main area. MDA M was created during the demolition of the Old Anchor Ranch East and West sites. Structures were flash burned to remove any HE residue and deposited over the MDA surface. Debris from the construction of current TA 08 and TA 09 facilities (1949−1965) and other sites (1960–1965) were also deposited at MDA M. Materials present at the MDA included metal debris, wood debris, laboratory appliances and fixtures, and metal and glass containers. The main disposal area was surrounded by an earth berm that eroded through by surface-water runoff. MDA M has been inactive since 1965. All debris and contaminated soil were removed from MDA M during an EC conducted in 1995–1996.

A Consent Order investigation has not been performed at SWMU 09-013, and no decision-level soil sampling data are available for this Site. Sampling was performed at the Site during a 1994 RFI and the 1995–1996 EC.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for PJ-SMA-1.05 exceeded the TAL for PCBs. Based on descriptions of the wastes present at MDA M, PCBs are not known to have been associated with industrial materials historically managed at this Site. PCBs were detected in RFI samples with Aroclor-1254 being detected above the 1 mg/kg SAL in two samples, both collected within the main (i.e., southern) area. The maximum concentration of Aroclor-1254 is 2.3 times the residential SSL. The PCB hotspots identified during the RFI were removed during the EC, and confirmation samples were collected from grids. Three PCB mixtures (Aroclor-1248, Aroclor-1254, and Aroclor-1260) were detected in shallow (i.e., 0 to 3 ft bgs) EC confirmation samples. Aroclor-1248 was detected in 5 of 11 shallow samples collected within the main area and was not detected in 2 shallow samples from the satellite area. The maximum concentration was 3% of the residential SSL. Aroclor-1254 was detected in 4 of 11 shallow samples collected within the main area and 1 of 2 shallow samples from the satellite area. The maximum concentration was 3% of the residential SSL. Aroclor-1260 was detected in 4 of 11 shallow samples collected within the main area and 1 of 2 shallow samples from the satellite area. The maximum concentration was 1% of the residential SSL. The RFI and EC data are screening-level data.

The SMA receives runoff from undeveloped areas. Although PCBs are present above residential SSLs in screening level RFI data, the concentration of PCBs detected in the SMA sample is less than background UTLs for both undeveloped areas and urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: The former disposal has been cleaned up. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon / Starmer's Gulch

Site ID: **10-001(a)**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
SWMU 10-001(a) is a former firing site located in Bayo Canyon at former TA-10. The firing site consisted of five structures: a battery building (power source), a fire control building, an electronics chamber, an x-unit chamber, and an inspection building. The SWMU 10-001(a) firing site was used in rotation with the SWMUs 10-001(b–d) firing sites from 1943–1961 for experiments using HE in conjunction with nuclear weapons research. After a shot, residual material was moved to the SWMU 10-005 disposal pit located near the firing sites. Because of the proximity and overlapping dispersion areas of each firing site and use of the disposal pit, source terms cannot be separated by SWMU or AOC. Former TA-10 underwent extensive D&D, including razing all structures, from 1960 to 1963. All excavations were backfilled and the Site graded. All concrete structures associated with each firing site were demolished using dynamite. All explosives testing ceased in 1961. The Site was released to Los Alamos County in 1967.

SWMU 10-001(a) was investigated as part of Consolidated Unit 10-001(a)-99 along with SWMUs 10-001(b-d) and AOC 10-008. Consent Order investigations are complete for SWMU 10-001(a). The Site meets recreational risk levels. SWMU 10-001(a) was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed To Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-001(b)**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
SWMU 10-001(b) is a former firing site located in Bayo Canyon at former TA-10. The firing site consisted of five structures: a battery building (power source), a fire control building, an electronics chamber, an x-unit chamber, and an inspection building. The SWMU 10-001(b) firing site was used in rotation with the SWMUs 10-001(a, c, and d) firing sites from 1943–1961 for experiments using HE in conjunction with nuclear weapons research. After a shot, residual material was moved to the SWMU 10-005 disposal pit located near the firing sites. Because of the proximity and overlapping dispersion areas of each firing site and use of the disposal pit, source terms cannot be separated by SWMU or AOC. Former TA-10 underwent extensive D&D, including razing all structures, from 1960 to 1963. All excavations were backfilled and the Site graded. All concrete structures associated with each firing site were demolished using dynamite. All explosives testing ceased in 1961. The Site was released to Los Alamos County in 1967.

SWMU 10-001(b) was investigated as part of Consolidated Unit 10-001(a)-99, along with SWMUs 10-001(a, c, and d) and AOC 10-008. Consent Order investigations are complete for SWMU 10-001(b). The Site meets recreational risk levels. SWMU 10-001(b) was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed To Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-001(c)**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
SWMU 10-001(c) is a former firing site located in Bayo Canyon at former TA-10. The firing site consisted of five structures: a battery building (power source), a fire control building, an electronics chamber, an x-unit chamber, and an inspection building. The SWMU 10-001(c) firing site was used in rotation with the SWMUs 10-001(a, b, and d) firing sites from 1943–1961 for experiments using HE in conjunction with nuclear weapons research. After a shot, residual material was moved to the SWMU 10-005 disposal pit located near the firing sites. Because of the proximity and overlapping dispersion areas of each firing site and use of the disposal pit, source terms cannot be separated by SWMU or AOC. Former TA-10 underwent extensive D&D, including razing all structures, from 1960 to 1963. All excavations were backfilled and the Site graded. All concrete structures associated with each firing site were demolished using dynamite. All explosives testing ceased in 1961. The Site was released to Los Alamos County in 1967.

SWMU 10-001(c) was investigated as part of Consolidated Unit 10-001(a)-99, along with SWMUs 10-001(a, b, and d) and AOC 10-008. Consent Order investigations are complete for SWMU 10-001(c). The Site meets recreational risk levels. SWMU 10-001(c) was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-001(d)**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
SWMU 10-001(d) is a former firing site located in Bayo Canyon at former TA-10. The firing site consisted of five structures: a battery building (power source), a fire control building, an electronics chamber, an x-unit chamber, and an inspection building. The SWMU 10-001(d) firing site was used in rotation with the SWMU 10-001(a–c) firing sites from 1943–1961 for experiments using HE in conjunction with nuclear weapons research. After a shot, residual material was moved to the SWMU 10-005 disposal pit located near the firing sites. Because of the proximity and overlapping dispersion areas of each firing site and use of the disposal pit, source terms cannot be separated by SWMU or AOC. Former TA-10 underwent extensive D&D, including razing all structures, from 1960 to 1963. All excavations were backfilled and the Site graded. All concrete structures associated with each firing site were demolished using dynamite. All explosives testing ceased in 1961. The Site was released to Los Alamos County in 1967.

SWMU 10-001(d) was investigated as part of Consolidated Unit 10-001(a)-99, along with SWMUs 10-001(a–c). Consent Order investigations are complete for SWMU 10-001(d). The Site meets recreational risk levels. SWMU 10-001(d) was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed To Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-004(a)**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
SWMU 10-004(a) was a former 1060-gal. septic tank (former structure 10-40) that discharged to a pit with associated lines and to an outfall located in a stream channel northeast of SWMU 10-002(a). The tank served the personnel building (former building 10-21) from 1949 to 1963 and was removed during the 1963 D&D activities. No information is available regarding the removal of the 4-in.-diameter tile drain or the soil surrounding the outfall; however, a 2007 geophysical survey did not identify subsurface anomalies, indicating the buried pipe was removed during previous D&D activities.

Consent Order investigations are complete for SWMU 10-004(a). The Site meets residential risk levels. SWMU 10-004(a) was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-004(b)**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
SWMU 10-004(b) is a former reinforced-concrete sanitary septic tank that served the radiochemistry laboratory from 1944 to 1963. The tank was 4 ft × 10 ft × 4 ft deep, with a 540-gal. capacity. The tank handled sanitary waste but was suspected to have received liquid wastes from the radiochemistry laboratory. Overflow from the tank drained through a 4-in., open-joint, VCP drainline to the stream channel. The tank was removed during D&D activities in 1963 and disposed of at TA-54, Area G. A 2007 geophysical survey did not identify subsurface anomalies, indicating the buried pipe was removed during previous D&D activities.

SWMU 10-004(b) was investigated as part of Consolidated Unit 10-002(a)-99, along with 18 other SWMUs that are not IP Sites. Consent Order investigations are complete for SWMU 10-004(b). The Site meets residential risk levels. SWMU 10-004(b) was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-008**
Site Name: **Former firing site**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
AOC 10-008 is a former satellite firing site located approximately 1400 ft northwest of the former primary firing sites [SWMUs 10-001(a-d)]. During a 1994 IA, shrapnel was found embedded in the northwestern sides of trees in this area (opposite the known primary firing sites). Because of the proximity and overlapping dispersion areas of each firing site and use of the disposal pit, source terms cannot be separated by SWMU or AOC.

AOC 10-008 was investigated as part of Consolidated Unit 10-001(a)-99, along with SWMUs 10-001(a–d). Consent Order investigations are complete for AOC 10-008. The Site meets recreational risk levels. AOC 10-008 was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **10-009**
Site Name: **Former landfill**
SMA: **B-SMA-0.5**

Updated Site Description (2014):
AOC 10-009 is a former landfill discovered during routine surface shrapnel characterization activities in Bayo Canyon. A small depression was noted that contained materials, including asbestos siding, heavy-gauge and coaxial wire and cable, glass laboratory equipment, and other debris. A geophysical survey conducted in the area showed additional anomalies. The landfill area differed from the surrounding area; interviews conducted with former area workers confirmed the area had been used for disposal. EPA was notified of a new AOC in May 1995. The Site was fenced in 1995, pending further investigation and/or remediation. AOC C-10-001 is located within the fenced area that encompasses AOC 10-009 and consists of two former radioactive (strontium-90) soil contamination areas.

Consent Order investigations are complete for AOC 10-009. The Site meets recreational risk levels. AOC 10-009 was recommended for corrective action complete without controls in May 2008. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for B-SMA-0.5 exceeded TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 2007 Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from a 1088-acre area that is mostly undeveloped, with a minor contribution from the Los Alamos townsite in the upper watershed. The detected gross-alpha radioactivity in storm water is less than the background for undeveloped areas, which is consistent with what would be expected for runoff from a mostly undeveloped area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Bayo Canyon

Site ID: **11-001(c)**
Site Name: **Former firing pit**
SMA: **W-SMA-6**

Updated Site Description (2014):
SWMU 11-001(c) is a former firing pit located at TA-16, northwest of former building 16-370 near the edge of Water Canyon. According to the 1990 SWMU report, the firing pit was similar in construction to Firing Pit 11-0014, which was a 37-ft semicircular wall that was 12.5 ft high and 4.5 ft thick. The SWMU 11-001(c) firing pit was first used in 1944. The date use of the firing pit ceased is not documented; however, it would have been before construction of building 16-370 in the 1953. An RFI and a VCA were conducted in 1995 and 1996, respectively. However, during preparation of the Upper Water Canyon Aggregate Area investigation work plan, it was determined from engineering drawing R-126 that samples from the RFI and VCA were collected from the wrong location. The firing pit was actually located northwest of the area that was sampled.

Consent Order sampling has not yet been conducted at SWMU 11-001(c); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. Decision-level are not available from the 1995 RFI or 1996 VCA.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable.

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable.

Receiving Water: Water Canyon

Site ID: **11-002**
Site Name: **Former HE burn area**
SMA: **W-SMA-10**

Updated Site Description (2014):
SWMU 11-002 is a 30-ft-diameter burning area located east of the drop tower at the edge of its asphalt apron. Beginning in 1948, this area was used as an experimental burning area for components on or in assembled configurations with HE, propellants, and jet fuel. HE and propellant burns were conducted directly on the sand pad, and jet fuel was burned within an open-top steel containment tank. Burning activities continued through 1992.

SWMU 11-002 is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. No investigations were conducted before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and sampling data, the Site is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas, including the former HE burn area, and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-012(c)**
Site Name: **Area of potential soil contamination**
SMA: **W-SMA-9.5**

Updated Site Description (2014):
AOC 11-012(c) is an area of potential surface-soil contamination associated with the footprint of former storage magazine 11-9 and is located approximately 500 ft west of building 11-4 at TA-11. Constructed of wood, the 16-ft square by 9-ft high magazine 11-9 was built in 1945 and was destroyed by intentional burning in 1960.

AOC 11-012(c) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. No investigations were conducted before the Consent Order went into effect in March 2005.

Significant Materials Exposed To Storm Water: To date, this SMA has not sampled and is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—tributary to Water Canyon

Site ID: **11-003(b)**
Site Name: **Former mortar impact area**
SMA: **W-SMA-10**

Updated Site Description (2014):
AOC 11-003(d) is a former mortar impact area used as a target by the decommissioned air gun facility (building 11-24). This AOC is located immediately adjacent to the inactive drop tower complex at TA-11 (K-Site). The air gun facility was completed in 1956. The gun was used to launch experimental packages into targets located south of building 11-24. The targets, located 150 ft to 250 ft south of building 11-24, were 12-ft^2-, 12-in.-thick concrete slabs set in line with the gun bore. Firing into the targets tested various weapons packages designed to withstand extremes of acceleration and deceleration. Some devices contained HE and DU. On a single occasion in 1972, an impact test involved an inert mockup consisting of a 12-in.-diameter, hollow-steel sphere filled with steel or lead ball bearings suspended in a graphite matrix. The sphere fractured upon impact, potentially leaving behind 0.5-in.-diameter steel or lead balls.

AOC 11-003(d) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. No investigations were conducted before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history, AOC 11-003(b) is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas, including the former HE burn area, and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-005(a)**
Site Name: **Septic system**
SMA: **W-SMA-10**

Updated Site Description (2014):
SWMU 11-005(a) is an active septic system located at TA-11 approximately 70 ft southwest of building 11-24. This septic system consists of a septic tank (structure 11-20), associated drainlines from buildings 11-1 and 11-4, and a tile drain field that extends to an outfall on a sloped area to the south of the septic tank. The septic system began operation in 1944. The drainline from building 11-1 has been plugged. Currently, discharge to the septic system comes only from a restroom in building 11-4. Building 11-1 is currently a storage area for electrical equipment but was originally used as a control building for the Betatron Facility (building 11-2) and the Cloud Chamber (building 11-3). Building 11-4 is currently the control building for the Vibration-Test Facility (building 11-30), although it was historically used as a machine shop and photoprocessing facility. A memorandum from 1950 indicated a mercury spill occurred in building 11-4; however, the location, source, and extent of the spill are not known. The outflow drainline from SWMU 11-005(a) was plugged in 1992; since that time the septic tank has been pumped out on a regular basis.

Phase I Consent Order sampling is complete for SWMU 11-005(a). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 11-005(a) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 11-005(a) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, SWMU 11-005(a) is an unlikely source of the TAL exceedance. The SMA receives runoff from industrially developed areas including the former HE burn area and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-005(b)**
Site Name: **Septic system**
SMA: **W-SMA-10**

Updated Site Description (2014):
SWMU 11-005(b) is an active septic system located at TA-11, approximately 70 ft south of building 11-3. This septic system consists of a septic tank (structure 11-43), an outlet drainline to an outfall to the south of the septic tank, and a drain field west of the drainline. The septic system serves restrooms added to the exterior of building 11-3 and was tied to a floor drain in the test room of building 11-3 until 1992 when the drain was plugged. Engineering drawings confirm the drainline for floor drains in building 11-24 was tied into the septic tank in 1992. Building 11-24 houses an office and light machine shop.

Phase I Consent Order sampling is complete for SWMU 11-005(b). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 11-005(b) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area to be submitted to NMED in 2015. SWMU 11-005(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, SWMU 11-005(b) is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas, including the former HE burn area, and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-005(c)**
Site Name: **Former outfall**
SMA: **W-SMA-9.8**

Updated Site Description (2014):
SWMU 11-005(c) is a former outfall with a capped drainline north of the former Betatron building (11-2) at TA-11. The drainline was installed in 1944 and served a sink, a hot water heater, and a floor drain. The outfall discharged to a slightly sloped area consisting of fill from an adjacent roadbed. The drainline was capped before the drop tower complex was constructed in 1956. Building 11-2 was used as a control room for the drop tower and is currently vacant.

Phase I Consent Order sampling is complete for SWMU 11-005(c). All detected constituent concentrations were below residential SSLs and SALs. Nature and extent will be reevaluated under the supplemental investigation report for S-Site Aggregate Area, scheduled to be submitted to NMED in late 2014 or early 2015. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC under the Consent Order upon approval of the report.

Significant Materials Exposed to Storm Water: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-006(b)**
Site Name: **Inactive catch basin and outfall**
SMA: **W-SMA-9.9**

Updated Site Description (2014):
SWMU 11-006(b) is one of three inactive catch basins and a former NPDES-permitted outfall (located EPA 05A069) at TA-11 near the drop tower complex. The SWMU 11-006(b) catch basin is located on the north side of the drop tower complex and consists of a concrete basin (structure 11–50) measuring 6 × 4 × 2 ft, equipped with an overflow drain. Historically, SWMU 11-006(b) received washdown water from the concrete pad and asphalt apron at the base of the drop tower via an HE sump [SWMU 11-006(a)]. Any HE particles remaining in the washdown water after it exited the sump were further filtered out in the catch basin. After exiting the catch basin, the remaining wash water was channeled to a drainage and the NPDES-permitted outfall on the northeast side of the catch basin. Waste collected from the catch basin was disposed of at the TA-16 burning ground. The outfall was removed from the NPDES permit in May 1998 after drop tower activities ceased. The drop tower underwent D&D in 2004. Currently, the catch basin is capped and sealed; however, the outfall still receives storm water runoff. Any runoff collected in the concrete pad and asphalt apron is now diverted to the other two catch basins associated with the former drop tower.

Phase I Consent Order sampling is complete for SWMU 11-006(b). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 11-006(b) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 11-006(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for W-SMA-9.9 exceeded the TAL for gross-alpha radioactivity. The baseline storm water monitoring sample collected in 2011 exceeded TALs for aluminum and gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, the Site is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas and from undeveloped areas. The concentrations of gross-alpha radioactivity detected in the SMA samples are above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-006(c)**
Site Name: **Catch basin and former outfall**
SMA: **W-SMA-10**

Updated Site Description (2014):
SWMU 11-006(c) is one of three catch basins and its associated outfall located at TA-11 near the drop tower complex. The SWMU 11-006(c) catch basin is located on the southeast side of the drop tower complex and consists of a concrete basin (structure 11-51) measuring 6 × 4 × 2 ft and a former NPDES-permitted outfall (EPA05A096) that discharged into Water Canyon. Historically, SWMU 11-006(c) received washdown water from the concrete pad and asphalt apron at the base of the drop tower via an HE sump [SWMU 11-006(a)]. Any HE particles remaining in the washdown water after it exited the sump were further filtered out in the catch basin. After exiting the catch basin, the remaining washdown water flowed through an asphalt-lined drainage channel to a natural drainage channel and the NPDES-permitted outfall. HE waste collected from the catch basin was disposed of at the TA-16 burning ground. The outfall was removed from the NPDES permit in May 1998 after drop tower operations ceased and discharges to the drainage channels stopped. Any storm water runoff collected in the catch basin since 1998 is pumped to the SWMU 11-006(d) basin.

Phase I Consent Order sampling is complete for SWMU 11-006(c). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 11-006(c) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 11-006(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, SWMU 11-006(c) is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas, including the former HE burn area, and from undeveloped areas. The concentration of gross alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-006(d)**
Site Name: **Catch basin and outfall**
SMA: **W-SMA-10**

Updated Site Description (2014):
SWMU 11-006(d) is one of three catch basins and its associated outfall located at TA-11 near the drop tower complex. The SWMU 11-006(d) catch basin is located on the south side of the drop tower complex and consists of a concrete basin (structure 11–52) measuring 6 × 4 × 2 ft and a former NPDES-permitted outfall (EPA05A097) that discharged to Water Canyon. Historically, SWMU 11-006(d) received washdown water from the concrete pad and asphalt apron at the base of the drop tower via an HE sump [SWMU 11-006(a)]. Any HE particles remaining in the washdown water after it exited the sump were further filtered out in the catch basin. After exiting the catch basin, the remaining washdown water flowed through an asphalt-lined drainage to a natural drainage channel and then east into Water Canyon. HW waste collected from the catch basin was disposed of at the burning grounds at TA-16. Since drop tower operations ceased in 1998, this catch basin has collected only storm water runoff that drains to the outfall.

Phase I Consent Order sampling is complete for SWMU 11-006(d). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 11-006(d) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 11-006(d) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, SWMU 11-006(d) is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas, including the former HE burn area, and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **11-011(a)**
Site Name: **Former NPDES outfall from building 11-30**
SMA: **W-SMA-9.7**

Updated Site Description (2014):
SWMU 11-011(a) is an inactive NPDES-permitted outfall (EPA-03A130) located at TA-11 north of the K-Site complex and approximately 6 ft northeast of the Electrodynamics Vibration Test Facility (building 11-30), which housed water-cooled electronic equipment. Potential contaminants are organic chemicals. The outfall consisted of a 2-in. pipe that discharged northward to a tributary of Water Canyon. The outfall received untreated cooling tower blowdown from building 11-30. This outfall was removed from the NPDES permit during the 2013 permit renewal.

Consent Order Phase I investigation sampling is complete at this Site.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring sample for W-SMA-9.7 exceeded the TAL for copper. Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was detected above BV in 4 of 10 shallow (i.e., less than 3 ft bgs) 2010 Consent Order soil samples at a maximum concentration 6.6 times the soil BV.

The SMA receives runoff from undeveloped and industrially developed areas. The concentration of copper detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: **11-011(b)**
Site Name: **Inactive outfall from building 11-30A**
SMA: **W-SMA-9.7**

Updated Site Description (2014):
SWMU 11-011(b) is an outfall located at TA-11 north of the Electrodynamics Vibration Test Facility (building 11-30). The inactive outfall consists of a 3-in. pipe that extends about 10 in. beyond the side of a hill. The outfall received discharges from floor drains in building 11-30 from the early 1960s until 1990.

A report prepared by Santa Fe Engineering stated the only potential discharges from floor drains would be deionized water and residual HE potentially released from containers processed on shakers in the building.

Consent Order Phase I investigation sampling is complete at this Site.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring sample for W-SMA-9.7 exceeded the TAL for copper. Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was detected above BVs in 2 of 11 shallow 2010 Consent Order soil samples at a maximum concentration 5.1 times the soil BV.

The SMA receives runoff from undeveloped and industrially developed areas. The concentration of copper detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: **11-011(d)**
Site Name: **Inactive outfall**
SMA: **W-SMA-10**

Updated Site Description (2014):
SWMU 11-011(d) is an outfall located at TA-11 south of building 11-24, the air gun facility. The outfall consisted of a 4-in. steel pipe tied to floor drains the air gun facility. Originally, operations at building 11-24 consisted of acceleration and impact tests on full-scale warhead mockups. After World War II, building 11-24 was converted to an office and light machine shop. The drainline was tied into the SWMU 11-005(d) septic tank in 1992 and all discharges to the outfall ceased.

Phase I Consent Order sampling is complete for SWMU 11-011(d). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 11-011(d) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 11-011(d) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, SWMU 11-011(d) is unlikely a source of the TAL exceedance. The SMA receives runoff from industrially developed areas including the former HE burn area, and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **13-001**
Site Name: **Inactive firing site**
SMA: **CDV-SMA-2.3**

Updated Site Description (2014):
SWMU 13-001 is an inactive firing site located east of former building 16-340. The firing site is associated with firing activities conducted at P-Site (former TA-13). The area contains shrapnel and debris, including firing cables, lead balls, and chunks of steel and copper.

Phase I Consent Order sampling is complete for SWMU 13-001. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs, except for two detections of arsenic in two subsurface tuff samples. SWMU 13-001 will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 13-001 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon/Cañon de Valle

Site ID: **13-002**
Site Name: **Inactive surface disposal area**
SMA: **CDV-SMA-2.3**

Updated Site Description (2014):
SWMU 13-002 is an inactive surface disposal area located east of former building 16-340. The disposal area contains debris and shrapnel associated with firing activities conducted at P-Site (former TA-13). A portion of the TA-16 WWTP [Consolidated Unit 16-004(a)-99] is located above the southern tip of the surface disposal area.

Phase I Consent Order sampling is complete for SWMU 13-002. All detected inorganic and organic chemical concentrations from Consent Order samples were below residential SSLs. SWMU 13-002 will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 13-002 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon/Cañon de Valle

Site ID: **14-001(g)**
Site Name: **Active firing pad**
SMA: **CDV-SMA-6.01**

Updated Site Description (2014):
SWMU 14-001(g) is an active firing pad (structure 14-35) located south of control building 14-23 at TA-14. Installed in 1964, the reinforced concrete pad is 5 $ft^2 \times 2$ ft thick and surrounded on three sides with a blast shield. At the base, the shield is a 6-$ft^2 \times 2$-ft-thick concrete pad overlain by a neoprene shock pad, a 4.5-in.-thick steel plate, and several inches of sand. The shield directs the force of detonations away from nearby control building 14-23. The AOC 14-001(g) firing pad is used to conduct test shot experiments.

Since SWMU 14-001(g) is an active firing point, Consent Order samples were collected in sediment catchment areas in the drainage downgradient of the Site to determine if contaminants are migrating from the Site. Consent Order sampling data indicate all detected inorganic and organic chemical concentrations and radionuclide activities are below residential SSLs and confirmed that contaminants are not migrating from the Site. Consent Order investigations will not be conducted at SWMU 14-001(g) until firing point activities cease.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr; however, the Site is impacted by active firing point operations. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr; however, the Site is impacted by active firing point operations. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **14-002(c)**
Site Name: **Former firing site**
SMA: **CDV-SMA-6.02**

Updated Site Description (2014):
SWMU 14-002(c) is a decommissioned firing site (structure 14-5) located in the southeastern portion of TA-14. Structure 14-5 consisted of a control building and firing pad. Constructed in 1944, the wood-framed control building measured 11 ft wide × 18 ft long × 10 ft high and was surrounded on three sides by an earthen berm. A 10-ft-square × 8-ft-high concrete firing pad faced with a 0.5-in. steel plate was attached to the exterior south wall of the control building. The firing site was used to conduct small-scale explosive tests until the mid-1950s. The control building was converted to a storage site in 1961 and used to store cyanogen gas from 1965 to the 1970s. In 1980, a 5-ft-diameter metal sphere was installed on the firing pad at the south side of building 14-5. The sphere was used to conduct slow-combustion experiments, which continued until 1985, when building operations ceased. The firing pad was removed at an unknown date. The control building was partially destroyed by the Cerro Grande fire in 2000; only the concrete portions of the roof and walls remain.

Phase I Consent Order investigation is complete for SWMU 14-002(c). Consent Order sampling data indicate all detected inorganic and organic chemical concentrations are below residential SSLs. SWMU 14-002(c) is expected to be eligible for a certificate of completion under the Consent Order after submittal and approval of the Supplemental Investigation Report for Cañon de Valle Aggregate Area for TA-14.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for CDV-SMA-6.02 exceeded the TALs for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was not detected above BVs in any of the five shallow RFI samples collected at this Site.
- Mercury is not known to be associated with industrial materials historically managed at this Site. Mercury was not detected or was not detected above BVs in any of the five shallow RFI samples collected at this Site.
- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for total uranium, which contains alpha-emitting radionuclides, and for uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Site history and Consent Order sampling data indicate the Site is unlikely a source of the TAL exceedances. The Site is impacted by active firing site operations. The SMA receives run-on from undeveloped and industrially developed areas. The concentrations of copper detected in the SMA samples are above background levels for undeveloped areas and below the BV for developed areas. The developed and undeveloped background contribution for mercury is not known. The concentrations of gross-alpha radioactivity detected in the SMA samples are above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **14-002(d)**
Site Name: **Decommissioned firing site**
SMA: **CDV-SMA-6.02**

Updated Site Description (2014):
Review of the SWMUs within CDV-SMA-6.02 and the monitoring constituents in the IP Appendix B has identified that SWMUs 14-002(d) and 14-002(e) were misidentified as the relevant sites to be covered under the IP. The site intended for monitoring is SWMU 14-002(c). A complete site narrative for SWMU 14-002(c) is included in Section IV Part B.

Significant Materials Exposed to Storm Water: Not applicable

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **14-002(e)**
Site Name: **Decommissioned firing site**
SMA: **CDV-SMA-6.02**

Updated Site Description (2014): Review of the SWMUs within CDV-SMA-6.02 and the monitoring constituents in the IP Appendix B has identified that SWMUs 14-002(d) and 14-002(e) were misidentified as the relevant sites to be covered under the IP. The site intended for monitoring is SWMU 14-002(c). A complete site narrative for SWMU 14-002(c) is included in Section IV Part B.

Significant Materials Exposed to Storm Water: Not applicable

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **14-006**
Site Name: **Decommissioned HE sump and outfall**
SMA: **CDV-SMA-6.01**

Updated Site Description (2014):
SWMU 14-006 is a decommissioned HE sump (structure 14-31), associated drainline, and outfall located at TA-14 approximately 45 ft east of control building 14-23. Installed in 1952, the steel-lined sump is constructed of reinforced concrete and measures approximately 4.5 ft wide × 8 ft long × 5 ft deep. The sump received discharges from sink and floor drains in building 14-23 and discharged to an outfall approximately 55 ft southeast of the sump. The sump has been filled with concrete and its outlet is plugged (date not known). Currently, the outfall receives only storm water.

Phase I Consent Order sampling is complete for SWMU 14-006. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs, except for one detection of uranium-238, which was below the industrial SSL. SWMU 14-006 will be recommended for corrective action complete in the supplemental investigation report for Cañon de Valle Aggregate Area, to be submitted to NMED in 2015. SWMU 14-006 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **14-009**
Site Name: **Surface disposal area**
SMA: **CDV-SMA-3**

Updated Site Description (2014):
SWMU 14-009 is a surface disposal area located south and west of building 14-43 at TA-14. The disposal area measures approximately 30 ft × 140 ft and consists of sand and ruptured sandbags used during explosives tests performed at nearby firing sites [SWMUs 14-002(a) and 14-002(b)].

Phase I Consent Order investigation is complete for SWMU 14-009, and the Site is expected to be eligible for a CoC under the Consent Order after submittal and approval of the Supplemental Investigation Report for Cañon de Valle Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for CDV-SMA-3 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to be associated industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for uranium isotopes, all of which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and industrially developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is slightly above the UTL for runoff from developed areas and below the UTL for runoff from undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **14-010**
Site Name: **Former HE sump**
SMA: **CDV-SMA-4**

Updated Site Description (2014):
SWMU 14-010 is a former HE sump that was located on the exterior south wall of a former firing chamber [structure 14-2, SWMU 14-002(a)]. The sump received wastewater from a floor drain in firing chamber 14-2 and discharged to an outfall located approximately 24 ft southeast of the sump. In 1973, contaminated portions of structure 14-2 were removed and disposed of at TA-54; the remainder of the building was demolished and burned, and the sump and majority of the drainline were removed. During the 1997 VCA conducted at the Site, contaminated surface soil and sediment in the drainage area below the former outfall were excavated and removed.

Phase I Consent Order sampling is complete for SWMU 14-010. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs. SWMU 14-010 will be recommended for corrective action complete in the supplemental investigation report for Cañon de Valle Aggregate Area, to be submitted to NMED in 2015. SWMU 14-010 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **15-004(f)**
Site Name: **Inactive firing site**
SMA: **PT-SMA-1**

Updated Site Description (2014):
SWMU 15-004(f) is an inactive firing site, E-F Firing Site, that consists of three inactive firing points (D, E, and F) covering a total area of approximately 60 acres at TA-15. E-F Firing Site began operating in 1946 and was last used in 1981. It was operated extensively from 1947 to 1973 and was the largest firing site at the Laboratory. Originally, E-F Firing Site consisted of a single firing point (D) that was built in 1946 and that ceased to operate in 1949. In 1947, the firing area was expanded to include Firing Point E, which was used for large-scale shots containing up to 2500 lb of HE, and Firing Point F, which was used for smaller-scale shots. Firing Points E and F were approximately 650 ft apart and were wired to an underground control bunker (structure 15-27). Tests at the two firing points were conducted on the ground and created depressions in the ground. After test shots, the firing points were either regraded or backfilled with gravel to fill in the depressions. Eventually, nearby soil was mounded on the north and south sides of Firing Point E to protect TA-15 structures from shrapnel. Tests at E-F Firing Site involved HE, uranium (metal and depleted), beryllium, lead, and mercury.

Phase I Consent Order sampling is complete for SWMU 15-004(f). The objective of the investigation was to identify areas and depths of soil requiring corrective action and determine if contaminants are migrating from the site. Although several constituents were detected above industrial SSLs/SALs, the Site does not pose a current risk because of the administrative controls that are in place. Additional samples will be collected during the Phase II investigation to verify the distribution of potential contamination; subsequently, potential corrective actions for the Site will be identified and evaluated. Although several constituents were detected above industrial SSLs/SALs, the site does not pose a current risk because of the administrative controls that are in place. The migration of potential contaminants from SWMU 15-004(f) is limited to the drainage downgradient of the site for most constituents and does not extend beyond Potrillo Canyon Reach PO-3.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for PT-SMA-1 exceeded TALs for aluminum, copper, zinc, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was detected above BVs in 7 of 69 shallow Consent Order and RFI samples at a maximum concentration 1.6 times the tuff BV.
- Copper was likely associated with industrial materials historically managed at this Site. Copper was detected above BVs in 38 of 69 shallow Consent Order and RFI samples at a maximum concentration 561 times the soil BV.
- Zinc may have been associated with industrial materials historically managed at this Site. Zinc was detected above BVs in 14 of 69 shallow Consent Order and RFI samples at a maximum concentration 14.7 times the soil BV.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Shallow Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed (E-F Firing Site) areas and undeveloped areas. The concentrations of aluminum and gross-alpha radioactivity detected in the SMA samples are above the BVs for runoff from developed areas and below the BVs for runoff from undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for undeveloped areas and below the BV for developed areas. The concentration of zinc detected in the SMA sample was below the BVs for runoff from developed and undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **15-004(h)**
Site Name: **Inactive firing site**
SMA: **W-SMA-14.1**

Updated Site Description (2014):
AOC 15-004(h) is inactive Firing Site H located west of the PHERMEX facility at TA-15. Firing Site H is located approximately 100 ft north of the power control building for PHERMEX (structure 15-185). This firing site was built in 1948 and included an instrument chamber (structure 15-17) and a camera chamber (structure 15-92) and was used for explosives testing. The exact nature of the materials used during tests is not known, but are believed to include DU, beryllium, lead, and HE. Firing site operations were discontinued in 1953. The surface of the site was reportedly regraded in 1992. The camera chamber (structure 15-92) remains on-site.

AOC 15-004(h) will be included in the future Consent Order Lower Water/Indio Canyons Aggregate Area investigation. No investigations were conducted at AOC 15-004(h) before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for W-SMA-14.1 exceeded the TAL for gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for copper and zinc.

- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from industrially developed (PHERMEX firing site) areas and from undeveloped areas. The concentration gross-alpha radioactivity detected in the SMA sample was slightly above the BV for runoff from developed areas and well below the BV for runoff from undeveloped areas. These results are consistent with land use within the SMA.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. The Site is located with the active PHERMEX firing site. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. The Site is located with the active PHERMEX firing site. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **15-006(a)**
Site Name: **Active firing site**
SMA: **PT-SMA-1.7**

Updated Site Description (2014):
SWMU 15-006(a) is the PHERMEX firing site at TA-15 that consists of a firing chamber (structure 15-184) and related equipment. The PHERMEX firing site and associated facilities were built in the early 1960s. Past environmental surveys at the PHERMEX firing site include an aerial radiological survey conducted in 1982 that identified elevated levels of uranium-238. A 1991 surface radiation survey identified elevated contact exposure rates believed to be associated with chunks of DU at the PHERMEX firing site.

SWMU 15-006(a) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. However, Consent Order samples were collected in sediment catchment areas in the drainage downgradient of the Site to determine if contaminants are migrating from the Site. The migration of potential contaminants from SWMU 15-006(a) is limited to the drainage downgradient of the site for most constituents and does not extend beyond Potrillo Canyon Reach PO-4. Detected concentrations of inorganic and organic chemicals and radionuclides in Consent Order drainage samples were all below residential SSLs, except the single detection of arsenic, which was well below industrial SSL.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring sample for PT-SMA-1.7 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed (PHERMEX firing site) areas and undeveloped areas. The concentration gross-alpha radioactivity detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: The Site is an active firing site. Historical disposal activities are described above.

Past and Present Materials Management Practices: The Site is an active firing site. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **15-006(b)**
Site Name: **Firing site**
SMA: **3M-SMA-0.4**

Updated Site Description (2014):
SWMU 15-006(b) is the Ector firing site. Located along the eastern side of TA-15, the firing site was used for dynamic radiography of explosion-driven weapons components. It was originally established in 1973 and was used periodically until 1982. The Ector radiography machine was constructed at this Site, and the Site has operated with this machine from the mid-1980s to the present. Structures associated with the firing site are the firing point chamber (structure 15-276), the multidiagnostic hydrotest (building 15-306), and the blast-protection structure (15-319).

Investigation of SWMU 15-006(b) is deferred per Table IV-2 of the Consent Order. The NMED-approved investigation work plan proposed no sampling for this Site.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for 3M-SMA-0.4 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from undeveloped areas and industrial developed areas including the active SWMU 15-006(b) firing site. The detected gross-alpha radioactivity measured in the storm water sample is less than the background for runoff undeveloped areas and above the background for runoff from developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. The Site is affected by active firing site operations. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. The Site is affected by active firing site operations. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **15-006(c)**
Site Name: **Inactive firing site (R-44)**
SMA: **3M-SMA-0.5**

Updated Site Description (2014):
SWMU 15-006(c) is the inactive firing site R-44. This firing site, located along the eastern side of TA-15, was originally constructed in 1951 and was used extensively from 1956 to 1978 for diagnostic tests of weapons components. After the PHERMEX and Ector firing sites became operational, firing site R-44 was used only for small experiments. Firing site R-44 was last used in 1992. Materials used in the tests included uranium, tritium, beryllium, lead, and HE. This firing site is located on a flat open area on a narrow mesa that overlooks Threemile Canyon. Debris from explosives tests has scattered onto the slope and into the canyon.

SWMU 15-006(c) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site, and no decision-level data are available for SWMU 15-006(c). Screening-level data from the 1995 RFI showed numerous inorganic chemicals detected above residential SSLs, several inorganic chemicals detected above industrial SSLs, and the HE RDX detected above residential and industrial SSLs; HDX was not detected above the residential SSL, and tritium was not detected above the residential SAL.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **15-007(b)**
Site Name: **Surface disposal area**
SMA: **CDV-SMA-9.05**

Updated Site Description (2014):
SWMU 15-007(b) is a surface disposal area known as MDA Z that is located northwest of Firing Site G [SWMU 15-004(g)] in the south-central portion of TA-15 on the south side of the road leading to building 15-233. A geophysical survey conducted during the 1995 RFI yielded the following: MDA Z is roughly triangular in shape and approximately 225 ft long × 50 ft wide with a surface area of approximately 11,250 ft^2; the volume of MDA Z measures approximately 2000 yd^3. Beginning in 1965, MDA Z received construction and shot debris from PHERMEX consisting of used sandbags filled with concrete and steel blast matting. Disposal activities at MDA Z ceased in the 1980s. When the Site was surveyed after the 2000 Cerro Grande fire, only minor burning of ground cover was noted. The presence of DU in surface soils at the Site was noted during the RFI and during a site visit in 2010.

Consent Order investigations have not yet begun; decision-level data are not available for SWMU 15-007(b).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **15-008(a)**
Site Name: **Inactive firing site**
SMA: **PT-SMA-1**

Updated Site Description (2014):
SWMU 15-008(a) is the former location of two small surface disposal areas that were located on the edge of Potrillo Canyon, south and east of E-F Firing Site [SWMU 15-004(f)], at TA-15. The disposal areas were located within approximately 350 ft of each other, with each disposal area having dimensions of approximately 8 ft in diameter × 2 ft high. Both areas were used to dispose of debris from tests conducted at E-F Firing Site, including soil, rock, pebbles, metal fragments, plastic, electrical cable, and electrical accessories. The exact period of operation of the surface disposal areas is not known but probably falls within the period of operation for E-F Firing Site (1946 to 1981). All debris and soil were removed from both surface disposal areas during the 2010 Consent Order investigation.

Phase I Consent Order sampling is complete for SWMU 15-008(a). The Site meets industrial and construction worker risk levels. SWMU 15-008(a) is located within the boundary of E-F Firing Site [SWMU 15-004(f)], and will likely not be eligible for a CoC until additional investigation and corrective actions are complete for E-F Firing Site.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for PT-SMA-1 exceeded TALs for aluminum, copper, zinc, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was detected above BVs in 4 of 22 shallow Consent Order samples at a maximum concentration 2.1 times the tuff BV.
- Copper was likely associated with industrial materials historically managed at this Site. Copper was detected above BVs in 15 of 22 shallow Consent Order samples at a maximum concentration 525 times the soil BV.
- Zinc may have been associated with industrial materials historically managed at this Site. Zinc was detected above BVs in 5 of 22 shallow Consent Order samples at a maximum concentration 3.3 times the soil BV.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at this Site. Shallow Consent Order samples were not analyzed for gross alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed (E-F firing site) areas and undeveloped areas. The concentrations of aluminum and gross-alpha radioactivity detected in the SMA samples are above the BVs for runoff from developed areas and below the BVs for runoff from undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for undeveloped areas and below the BV for developed areas. The concentration of zinc detected in the SMA sample was below the BVs for runoff from developed and undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **15-008(b)**
Site Name: **Surface disposal site**
SMA: **3M-SMA-0.6**

Updated Site Description (2014):
SWMU 15-008(b) is a surface disposal area at TA-15, located north of Firing Site R-44 [SWMU 15-006(c)] and extending along the edge of the mesa and downslope into Threemile Canyon. The surface disposal area covers approximately 8.5 acres. Firing Site R-44 was built in 1951 for diagnostic tests of weapons components and used extensively until 1978 and sporadically until 1992. Soil and debris from the firing site activities were disposed of at SWMU 15-008(b). An expedited cleanup was performed in July 2000 after the Cerro Grande fire, which included removing 20 yd^3 of firing site debris from the SWMU and surrounding area and installing erosion-control features, such as straw wattles, rock check dams, and silt fencing to control run-on and runoff.

Soil samples were analyzed for TAL metals, explosive compounds, PCBs, and radionuclides from investigations in 1994 and 2010. Aluminum, antimony, arsenic, copper, lead, and uranium were detected above residential SSLs in 1 to 12 samples but well below industrial SSLs; lead concentrations exceed the industrial SSL at 3 locations. All detected organic chemicals are below residential SSLs. All detected radionuclides were below residential SALs, except uranium-238, which was detected above the residential SAL in 10 samples but below the industrial SAL.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **15-008(d)**
Site Name: **Surface disposal**
SMA: **CDV-SMA-7**

Updated Site Description (2014):
SWMU 15-008(d) is an inactive surface disposal area located south of former storage building 15-22 on the west side of TA-15. The disposal area consists of a small pile of building debris. The source of the building debris and the date it was placed at this location is unknown.

Consent Order sampling has not been conducted at SWMU 15-008(d); no historical investigations were conducted before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water: In 2013, the baseline storm water monitoring samples for CDV-SMA-7 exceeded the TAL for aluminum, selenium, and gross-alpha radioactivity. Based on the site history, the Site is unlikely a source of the aluminum, selenium, and gross alpha radioactivity.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **15-008(f)**
Site Name: **Sand mounds at I-J Firing Site (TA-36)**
SMA: **PT-SMA-2**

Updated Site Description (2014):
AOC 15-008(f) consists of several sand mounds located next to I-J Firing Site [AOC 36-004(e)] at TA-15. I-J Firing Site is located on a mesa overlooking Potrillo Canyon and was originally located in TA-15 when it was constructed in 1948 but is now part of TA-36.

AOC 15-008(f) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. However, Consent Order samples were collected in sediment catchment areas in the drainages downgradient of I-J Firing Site [AOC 36-004(e)], which includes AOC 15-008(f), to determine if contaminants are migrating from the Site. The migration of potential contaminants from AOCs 15-008(f) and 36-004(e) is limited to the drainage downgradient of the Site for most constituents and does not extend beyond Potrillo Canyon Reach PO-4. Detected contaminant concentrations in Consent Order drainage samples were below residential SSLs and SALs, except uranium-238, which was detected above the residential SAL but below the industrial SAL in two samples from one location in the drainage downgradient of AOCs 15-008(f) and 36-004(e).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **15-009(c)**
Site Name: **Septic system**
SMA: **3M-SMA-0.5**

Updated Site Description (2014):
SWMU 15-009(c) is a septic system located at Firing Site R 44 at TA-15. The septic system consisted of a septic tank (former structure 15-62), associated drainlines, and an outfall. The septic tank was constructed in 1951 of reinforced concrete with a 540-gal. capacity. The system received effluent from restroom facilities in the firing site control building 15-44. The drainlines are constructed of cast iron and discharged to an outfall into the south fork of Threemile Canyon. The outfall is located approximately 25 ft downgradient of the tank. A 2003 engineering drawing shows that the outfall has been plugged and the septic tank was removed during the 2009–2010 site investigation, but the drainlines remain in place.

A Phase I investigation was conducted in 2010. Based on the 2010 data and data from a 1998 interim action RFI, no chemical or radionuclide constituents were detected above residential SSLs or SALs.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **15-009(e)**
Site Name: **Decommissioned septic tank**
SMA: **PT-SMA-0.5**

Updated Site Description (2014):
SWMU 15-009(e) is a decommissioned 1500-gal. septic tank (structure 15-72) at E-F Firing Site [SWMU 15-004(f)] at TA-15. The septic tank was constructed in 1947 and received sanitary waste from the E-F Firing Site control building (15-27), located approximately 175 ft northeast of the tank. The drainline goes around structure 15-463, which is a transportable used for storage. The septic tank is constructed of 4- to 6-in. reinforced concrete and measures 5 ft long × 9 ft deep × 7 ft wide. The septic tank was used until 1981 when E-F Firing Site last operated. Discharges from the septic tank flowed through a VCP to an outfall located approximately 30 ft from the tank at the edge of Potrillo Canyon. During the 1997 VCA conducted at SWMU 15-009(e), the septic tank contents were removed, the interior of septic tank was pressure-washed, concrete-chip samples were collected from the tank interior to demonstrate the adequacy of the corrective action and the tank and drainlines were filled and plugged with expandable concrete and left in place.

Phase I Consent Order sampling is complete for SWMU 15-009(e). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order and VCA confirmation samples were below residential SSLs. SWMU 15-009(e) will be recommended for corrective action complete in the Supplemental Investigation Report for Potrillo and Fence Canyons Aggregate Area, to be submitted to NMED in 2015. SWMU 15-009(e) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
The baseline storm water monitoring sample collected in 2011 exceeded TALs for aluminum, copper, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was not detected above BVs in any of the 13 shallow Consent Order and VCA confirmation samples collected at SWMU 15-009(e).
- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was detected above the BV in 1 of 13 shallow Consent Order and VCA confirmation samples collected at SWMU 15-009(e) at a concentration equivalent to the soil BV.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 15-009(e); however, they are associated with industrial materials managed at adjacent E-F Firing Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, the Site in unlikely a source of the TAL exceedances. The SMA receives runoff from industrially developed (E-F Firing Site) areas and undeveloped areas. The concentrations of aluminum and gross-alpha radioactivity detected in the SMA sample are above the BVs for runoff from developed areas and below the BVs for runoff from undeveloped areas. The concentration of copper detected in the SMA sample is slightly above BV for runoff from undeveloped areas and below the BV for runoff from developed areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **15-010(b)**
Site Name: **Inactive settling tank**
SMA: **3M-SMA-0.2**

Updated Site Description (2014):
SWMU 15-010(b) is a settling tank (structure 15-147) located in the northwest corner of TA-15 near former shop building 15-8. The tank, constructed in 1947 of concrete, measures 5 ft × 5 ft × 5.5 ft with an approximate capacity of 900 gal. The tank was originally designed to be a septic tank; however, subsequent engineering records confirm the tank was used as an HE settling tank. The settling tank served former building 15-8, which housed HE-machining operations during the 1950s, and discharged to an outfall at the edge of Threemile Canyon. The tank is no longer in operation; however, the date it ceased to be used is not known. The investigation work plan proposed removing the tank. However, facility restrictions on the handling of HE prevented removing the tank, which was found to contain liquid, until the contents were characterized. The liquid content was sampled for waste characterization purposes and found to be nonhazardous and nonradioactive and was removed. The facility closed the tank in place and filled it with concrete in 2012.

Phase I Consent Order sampling is complete for SWMU 15-010(b); the Site meets residential risk levels. Re-evaluation of nature and extent will be completed under the supplemental investigation report for Threemile Canyon Aggregate Area scheduled to be submitted to NMED in 2015. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **15-011(c)**
Site Name: **Reported dry well**
SMA: **CDV-SMA-8**

Updated Site Description (2014):
SWMU 15-011(c) is a purported dry well located west of the former electron gun building (15-194) near the edge of Cañon de Valle. Engineering drawing C-19082 depicts the dry well design and location; however, the drawing is not an as-built, and it is likely the dry well was never constructed. The Operable Unit 1086 RFI work plan states that no evidence of the dry well was found during work plan development and concludes that effluent from the building was discharged directly to the canyon via the drainage located north and west of the former Hollow buildings. This conclusion is consistent with the CEARP report and the SWMU report.

This effluent consisted of the discharge from two acid-cleaning sinks within former building 15-50. The sinks were removed before 1986. Building 15-194 and 15-50 were decommissioned in the mid-1990s, sustained severe damage in the 2000 Cero Grande fire, and were subsequently demolished in 2004. The 1996 RFI Report for Sites within TA-15 describes the SWMU as the drainage located (north and) west of the buildings located at the Hollow; however, the drainage north and west of the former buildings 15-194 and 15-50 is SWMU 15-014(g).

Consent Order investigations have not yet started; decision-level data are not available for SWMU 15-011(c).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **15-014(a)**
Site Name: **Inactive drainline and outfall**
SMA: **CDV-SMA-8.5**

Updated Site Description (2014):
SWMU 15-014(a) is an inactive drainline and outfall associated with former building 15-183. The drainline received effluent from former photoprocessing operations in building 15-183 and discharged to a former NPDES-permitted outfall (EPA 06A123), located approximately 130 ft from the edge of Cañon de Valle. The drainline and outfall began receiving effluent in 1961 when building 15-183 was first constructed. The drainline and the outfall discharge point were plugged in 1997 when the drainline was tied into the TA-16 sanitary sewer system. The outfall was removed from the NPDES permit as of January 14, 1998. Building 15-183 is currently used as a general nonnuclear laboratory.

Consent Order investigations have not yet begun; decision-level data are not available for SWMU 15-014(a).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **15-014(l)**
Site Name: **Drainline and outfall**
SMA: **W-SMA-14.1**

Updated Site Description (2014):
SWMU 15-014(l) is a drainline and formerly permitted outfall (EPA 03A028) for a cooling tower (structure 15-202) located within the PHERMEX facility in TA-15. This drainline and outfall received blowdown discharge from the cooling tower that was built in 1961. It is not known if the outfall is still active.

SWMU 15-014(l) will be included in the future Consent Order Lower Water/Indio Canyons Aggregate Area investigation. No investigations were conducted at SWMU 15-014(l) before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for W-SMA-14.1 exceeded the TAL for gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for copper and zinc.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from industrially developed (PHERMEX Firing Site) areas and from undeveloped areas. The concentration gross-alpha radioactivity detected in the SMA sample was slightly above the BV for runoff from developed areas and well below the BV for runoff from undeveloped areas. These results along with the Site history confirm that SWMU 15-014(l) is unlikely a source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. The Site is located with the active PHERMEX firing site. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. The Site is located with the active PHERMEX firing site. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-001(e)**
Site Name: **Closed dry well**
SMA: **W-SMA-5**

Updated Site Description (2014):
SWMU 16-001(e) is an inactive dry well located at TA-16 approximately 170 ft east of HE processing building 16-306. Constructed in the 1980s, the dry well never functioned properly, because it drained to impermeable tuff (Qbt 4). Eventually, the dry well was filled with soil and capped with concrete.

Consent Order Phase I investigation sampling is complete. The current Consent Order Phase II investigation work plan identified the collection of 22 samples at 9 locations and the removal of an isolated area of elevated HE at a depth of 0 to 4 ft from the surface for SWMU 16-026(e).

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for W-SMA-5 exceeded the TAL for copper. Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the soil BV in shallow (i.e., less than 3 ft bgs) Consent Order samples. Copper was detected above BV in 2 of 4 shallow samples with a maximum concentration 1.9 times the soil BV.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance is below the developed BV and above the Bandelier Tuff BV, which is consistent with land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: **16-003(a)**
Site Name: **HE sump and inactive outfall**
SMA: **W-SMA-4.1**

Updated Site Description (2014):
SWMU 16-003(a) is an HE sump and an inactive former NPDES-permitted outfall (05A053) that served assembly building 16-410. The concrete subsurface sump is located on the exterior southeast wall of the building and measured 12 ft long × 4 ft wide × 5 ft high. The sump served floor, roof, and equipment drains and removed suspended HE solids from process water before it was discharged to the outfall, which is located approximately 320 ft southeast of the building. The sump was installed in the early 1950s and modified in 1966 to improve its effectiveness and to reduce HE handling. The outfall was plugged in 1992 and removed from the NPDES permit effective January 14, 1998. The sump remains active and is pumped out on a regular basis.

Consent Order investigations have not yet begun at SWMU 16-003(a); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-003(f)**
Site Name: **Two inactive sumps**
SMA: **W-SMA-5**

Updated Site Description (2014):
SWMU 16-003(f) consists of two HE sumps at TA-16 that served building 16-304. The sumps discharged to an outfall. Building 16-304 was a plastics and plastic-component development and production facility. Polycarbonate components were fabricated using injection-molding machines. Other components were made using hydraulic presses. Large high-temperature ovens were used to dry-mold powders and to cure thermoset plastics. Solvents also were used at building 16-304. By 1993, solvents were containerized and sent off-site for disposal, and HE operations in the building had ceased.

Consent Order Phase I investigation sampling is complete. This Site is expected to be eligible for a CoC through the Consent Order supplemental investigation report process.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for W-SMA-5 exceeded the TAL for copper. Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BV in one shallow Consent Order soil sample collected at the Site.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance is below the developed BV and above the Bandelier Tuff BV, which is consistent with land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-003(n)**
Site Name: **Former HE sump and outfall**
SMA: **CDV-SMA-2.3**

Updated Site Description (2014):
SWMU 16-003(n) consists of a former sump that was located on the exterior northeast wall of former building 16-342 at TA-16. Installed in the early 1950s, the sump was constructed of reinforced concrete and measured approximately 3.5 ft wide × 6.5 ft long × 3 ft deep. The sump received effluent from building 16-342, an HE-processing building, and discharged to a former NPDES-permitted outfall (EPA 05A062) located in Fishladder Canyon, a tributary of Cañon de Valle. The outfall was removed from LANL's NPDES permit effective July 31, 1996. Building 16-342, the sump, and drainlines were decommissioned in 1999 and underwent D&D in 2004 and 2005.

Phase I Consent Order sampling is complete for SWMU 16-003(n). SWMU 16-003(n) meets industrial risk levels. A request for corrective action complete with controls was submitted to NMED for SWMU 16-003(n) in September 2008, however no response has yet been received.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-003(o)**
Site Name: **Former HE sumps and outfall**
SMA: **CDV-SMA-2.3**

Updated Site Description (2014):
SWMU 16-003(o) consists of the six former HE sumps and an outfall associated with the former explosives synthesis building (structure 16-340) at TA-16. The sumps were connected to the former NPDES-permitted outfall via a 10-in. VCP, which originally discharged to a hill slope east of building 16-340. Building 16-340 was used to produce the plastics explosive, PBX (potassium butyl xanthate). VOCs were used in this preparation, but most VOCs were distilled during the processing. The remaining solvents historically were discharged with the wastewater to the sumps. In the late 1980s a trough functioning as an air stripper was installed at the outfall and was designed to trap and volatilize residual solvents in the wastewater. The air stripper resembled a fish ladder. The air stripper discharged approximately 250 ft east of the sumps into Fishladder Canyon, a tributary of Cañon de Valle. The outfall was removed from LANL's NPDES permit on July 20, 1998. Building 16-340, the sumps, and drainlines were decommissioned in 1999 and underwent D&D in 2004 and 2005, when all aboveground and subsurface structures and contaminated soil were removed. Approximately 100 yd^3 of soil was removed from SWMU 16-003(o).

Phase I Consent Order sampling is complete for SWMU 16-003(o). SWMU 16-003(o) meets industrial risk levels. Alluvial wells downgradient of SWMU 16-003(o) continue to be monitored.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-004(a)**
Site Name: **Inactive Imhoff tank**
SMA: **W-SMA-8.7**

Updated Site Description (2014):
SWMU 16-004(a) is the inactive Imhoff tank (structure 16-530) that was used for sewage treatment at the TA-16 sanitary WWTP. The structure is approximately 20 ft × 35 ft with a total area of 700 ft^2 and a depth of 22 ft. The tank was taken out of service in 1992. Located southeast of the former TA-16 340 Complex and north of the communitor (a cutting device for sewage solids), the Imhoff tank received effluent that flowed over a weir into a dosing siphon. Any sludge that may have collected in the tank was digested before being discharged to drying beds [SWMUs 16-004(d) and 16-004(f)]. The tank had an emergency overflow pipe that discharged onto a slope northeast of the tank.

SWMU 16-004(a) was investigated under the Consent Order and recommended for corrective action complete. NMED did not concur and directed LANL to conduct additional sampling. Existing data for this Site will be reevaluated using the supplemental investigation report process to determine if additional sampling is warranted and whether a CoC can be requested.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for W-SMA-8.7 exceeded the TAL for aluminum. Aluminum is not known to be associated with industrial materials historically managed at this Site. Samples collected during the 2010 Consent Order investigation were all deep (i.e., greater than 22 ft bgs) samples collected beneath the bottom of the Imhoff tank. No shallow sample data are available for this site.

The SMA receives runoff from predominately undeveloped areas. The concentration of aluminum detected in the SMA sample is less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-004(c)**
Site Name: **Inactive WWTP clarifier**
SMA: **W-SMA-8.71**

Updated Site Description (2014):
SWMU 16-004(c) is the inactive clarifier or final tank (structure 16-532) used for sewage treatment at the former TA-16 sanitary WWTP. The structure is approximately 20 × 20 ft with a total area of 400 ft^2. The clarifier was located southeast of the trickling filter. The clarifier received discharge from the trickling filter; water flowed through an outlet in the clarifier and discharged to formerly NPDES-permitted outfall EPA-SSS03S and eventually into a tributary of Water Canyon. At full capacity, structure 16-532 could manage 117,600 gal./d. The formerly NPDES-permitted outfall (EPA-SSS03S) for the WWTP was monitored for inorganic chemicals, organic chemicals, and pesticides. Effluent was monitored bimonthly for radionuclides and standard parameters for wastewater systems (e.g., biological oxygen demand, chemical oxygen demand, and total dissolved solids). The former TA-16 sanitary WWTP was constructed in 1953 and was decommissioned in 1992; some of the concrete foundations remain in place.

Phase I Consent Order sampling is complete for SWMU 16-004(c). All detected inorganic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs/SALs. SWMU 16-004(c) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 16-004(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2013, enhanced storm water monitoring samples for W-SMA-8.71 exceeded TALs for copper, mercury, and zinc. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at this Site. No shallow Consent Order samples were collected from this Site; potential contamination expected in the subsurface (i.e., greater than 20 ft bgs). However, copper was not detected above BVs in any of the subsurface Consent Order samples collected at SWMU 16-004(c).
- Mercury is not known to be associated with industrial materials historically managed at this Site. No shallow Consent Order samples were collected from this Site; potential contamination expected in the subsurface (i.e., greater than 20 ft bgs). However, mercury was not detected above BVs in any of the subsurface Consent Order samples collected at SWMU 16-004(c).
- Zinc is not known to be associated with industrial materials historically managed at this Site. No shallow Consent Order samples were collected from this Site; potential contamination expected in the subsurface (i.e., greater than 20 ft bgs). However, zinc was not detected above BVs in any of the subsurface Consent Order samples collected at SWMU 16-004(c).

Based on the Site history (no surface contamination) and Consent Order sampling data (no detects of TAL exceedance constituents), the Site is unlikely a source of the TAL exceedances. The SMA receives runoff from former industrially developed areas, including the WWTP sludge beds and from undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for undeveloped areas and below the BV for developed areas. The developed and undeveloped background contribution for mercury is not known. The concentration of zinc detected in the SMA sample was below the BVs for runoff from developed and undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **16-006(c)**
Site Name: **Inactive septic tank**
SMA: **W-SMA-7.9**

Updated Site Description (2014):
SWMU 16-006(c) is an inactive septic system located just west of former building 16-370. The septic system served building 16-370 and consisted of a 1200-gal. concrete septic tank (structure 16-371) and outfall drainline. The 1990 SWMU report states the septic tank discharged to a drain field. However, engineering drawings verify that a drain field was never constructed. The tank was constructed in 1953 and served floor drains and bathrooms on the third floor of building 16-370. Associated drainlines connect to a manhole (structure 16-813), which drained to the septic tank. The outlet line drained to an outfall approximately 260 ft south of the septic tank. The outfall discharged at the edge of Water Canyon. After the drainline was plugged in 1992, the tank was pumped regularly during the time building 16-370 remained operational until 2000. Building 16-370 underwent partial D&D in 2004; only a portion of the wall and the concrete slab remain.

Consent Order investigations have not yet begun at SWMU 16-006(c); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-010(b)**
Site Name: **Closed RCRA flash pad**
SMA: **CDV-SMA-2.42**

Updated Site Description (2014):
SWMU 16-010(b) consists of a former flash pad (structure 16-387) that was located at the TA-16 Burning Ground. The flash pad was enclosed within a 100-ft × 100-ft fenced area and consisted of a layer of sand several inches thick over a soil base. The pad was built in 1951 and was used to flash-burn solid and scrap HE, HE-contaminated equipment and debris, and HE-contaminated combustible material. Sands and residues from flash pad operations were disposed of at MDA P (SWMU 16-019). The flash pad operated as a hazardous waste treatment unit under RCRA interim status and underwent RCRA closure between 1999 and 2005. Closure activities included removal of the flash pad and associated debris and removal of soil and bedrock below and adjacent to the former pad. The former flash pad and MDA P were closed and remediated together along with adjacent SWMUs known as Consolidated Unit 16-016(c)-99; for cleanup and closure purposes, the Sites were referred to as MDA P Site. Confirmation samples were collected as part of the closure of MDA P Site and included SWMU 16-010(b). The Site Closure Certification Report was approved by NMED on November 10, 2005. SWMU 16-010(b) is a formerly dual-regulated corrective action unit and has been removed from the list of corrective action units in LANL's Hazardous Waste Facility Permit; therefore, this unit is no longer subject to the Consent Order.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for CDV-SMA-2.42 exceeded the TALs for copper, PCBs, and gross-alpha radioactivity. Based on site history and RCRA Closure confirmation sampling, the Site is unlikely a source of the TAL exceedances for copper, PCBs, and gross-alpha radioactivity. The SMA receives runoff primarily from undeveloped and formerly industrially developed areas. The concentrations of copper and PCBs detected in the SMA samples were above the UTLs for undeveloped areas and below UTLs for developed areas. The concentration of the gross-alpha radioactivity detected in the SMA sample is above the UTL for urban runoff and below the UTL for undeveloped areas. Because the Site has been clean-closed under the RCRA permit, it is no longer a SWMU.

Method of Treatment, Storage, or Disposal: The Site has been clean-closed under the RCRA permit. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment and disposal activities are described above.

Past and Present Materials Management Practices: The Site has been clean-closed under the RCRA permit. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-010(c)**
Site Name: **Active HE flash pad/burn tray**
SMA: **CDV-SMA-2.5**

Updated Site Description (2014):
SWMU 16-010(c) is a former burn table that was converted to a flash pad/burn tray (structure 16-388) located at the TA-16 Burning Ground. The burn table was used to treat HE scrap. The 100-ft × 100-ft enclosed area consisted of a concrete pad that was used to unload explosives and a 16-ft × 4-ft metal tray that was approximately 2 ft above the ground surface. Scrap HE was placed on the tray and burned. The current flash pad consists of a 22-ft × 22-ft concrete pad set on a secondary containment area and surrounded on three sides by a concrete wall. Before treatment, the HE-contaminated wastes are placed on steel pallets or steel trays. Propane burners are used as heat sources to treat the wastes at the flash pad, which can be covered with a movable steel roof when the pad is not in use. The current burn tray consists of a stainless-steel kettle that is 30 in. in diameter and 24 in. high. Propane burners are used to treat HE-contaminated liquid wastes at the burn tray. The entire assembly, which can be covered with a retractable cover, is provided with secondary containment.

No investigations have been conducted at this Site. SWMU 16-010(c) is a formerly dual-regulated corrective action unit that was removed from the list of corrective action units in LANL's Hazardous Waste Facility Permit in November 2010; therefore, this unit is no longer subject to the Consent Order.

Significant Materials Exposed to Storm Water:
Baseline storm water samples were collected on September 1, 2011, and October 12, 2012, and yielded no TAL exceedances. However, the semivolatile organic results for the sample collected at CDV-SMA-2.5 on October 12, 2012, were rejected as an outcome of data validation and are not usable for confirmation sampling assessment.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-010(d)**
Site Name: **Active HE burn tray**
SMA: **CDV-SMA-2.5**

Updated Site Description (2014):
SWMU 16-010(d) is a former burn table that was converted to a burn tray (structure 16-399) located at the TA-16 Burning Ground. The 100-ft^2 enclosed area consists of a concrete pad, a burn table that is approximately 2 ft above the ground surface, and a 16-ft × 4-ft metal tray situated on the table. Scrap HE is placed on the tray and burned. A metal-covered rain guard can be rolled back to expose the tray.

No investigations have been conducted at this Site. SWMU 16-010(d) is a formerly dual-regulated corrective action unit that was removed from the list of corrective action units in LANL's Hazardous Waste Facility Permit in November 2010; therefore, this unit is no longer subject to the Consent Order.

Significant Materials Exposed to Storm Water:
Baseline storm water samples were collected on September 1, 2011, and October 12, 2012, and yielded no TAL exceedances. However, the semivolatile organic results for the sample collected at CDV-SMA-2.5 on October 12, 2012, were rejected as an outcome of data validation and are not usable for confirmation sampling assessment.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-010(i)**
Site Name: **Burn pad**
SMA: **CDV-SMA-2.51**

Updated Site Description (2014):
SWMU 16-010(i) is structure 16-392, an inactive burn pad that formerly was a filter bed that received wash water from the basket-wash facility. The wash water was received through a trough (structure 16-1136). Filtered wash water from the basket-wash facility collected within perforated piping along the bottom of the filter bed and drained via gravity through a pipe to an adjacent outfall southeast of the filter bed. The filter bed was modified to a burn pad to burn suspected uranium-contaminated objects. The basket-wash facility and discharge trough were removed in 2003; the filter bed is still in place. SWMU 16-010(i), along with numerous other SWMUs and AOCs, is a component of Consolidated Unit 16-010(h)-99, the Burning Ground Structures.

Consent Order sampling has not been conducted at SWMU 16-010(i); however, decision-level data are available from soil samples collected under the 1995 RFI.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for CDV-SMA-2.51 exceeded the TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at the Site. Shallow (i.e., less than 3 ft bgs) 1995 RFI samples collected at the Site were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides. However, samples were analyzed for total uranium, which has alpha-emitting isotopes. This radionuclide is exempt from regulation under the CWA. Although this radionuclide may be associated with the gross-alpha radioactivity detected in the IP sample, it is excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from undeveloped and formerly industrially developed areas. The concentration of the gross-alpha radioactivity detected in the SMA sample is below both the UTL for urban runoff and the UTL for undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-016(g)**
Site Name: **Former outfall**
SMA: **W-SMA-8**

Updated Site Description (2014):
SWMU 16-016(g) is a surface disposal area associated with former building 16-370. Debris includes cans and pipes that were distributed over a 20-ft-diameter area and located in a drainage ditch approximately 60 ft south of the building. Building 16-370 was constructed in 1953 as a barium nitrate–grinding facility and later converted to a metal forming shop for steel and aluminum. Building 16-370 was demolished in March 2005. HE was never used in the building. The surface disposal area lies in the drainage ditch shared by both SWMUs 16-026(a) and 16-028(b). Field observations indicated the debris was construction debris and not operational waste.

Consent Order sampling has not yet been conducted at SWMU 16-016(g); SWMU 16-016(g) will sampled during the future Upper Water Canyon Aggregate Area investigation. No previous investigations have been conducted at the Site.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for W-SMA-8 exceeded the TAL for aluminum and copper.

- Aluminum may have been associated with industrial materials historically managed at this Site. No soil data are available to evaluate whether the Site is a potential source of the TAL exceedances.
- Copper may have been associated with industrial materials historically managed at this Site. No soil data are available to evaluate whether the Site is a potential source of the TAL exceedances.

The SMA receives runoff from undeveloped areas and from the SWMU 16-016(g) surface disposal area. The concentration of aluminum detected in the SMA sample is less than UTL for undeveloped areas and greater than the UTL for developed areas. The concentration of copper detected in the SMA sample exceeds the UTL for undeveloped areas and is less than the UTL for developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-017(a)-99**
Site Name: **Former HE machining building**
SMA: **CDV-SMA-1.3**

Updated Site Description (2014):
Site 16-017(a)-99 consists of a former HE machining building (structure 16-92) that was located at TA-16. Constructed in 1950, the wooden building measured 20 ft wide × 60 ft long × 11 ft high and was surrounded by an earthen berm that was packed against steel pilings. The building was originally used for HE machining and was later used to clean and refurbish HE-contaminated equipment. By 1970 the building was used entirely for storage. The building was removed in 1996. This Site was originally a component of SWMU 16-017, which consisted of a group of 24 structures within TA-16. During the 1999 Annual Unit Audit, SWMU 16-017 was split into 24 separate SWMUs to facilitate investigation. Structure 16-92 was given the individual SWMU identification of SWMU 16-017(a)-99 at that time.

SWMUs 16-017(a)-99 and 16-026(m) along with numerous other SWMUs and AOCs are part of Consolidated Unit 16-008(a)-99, the former 90s Line, and were investigated under the Consent Order as a single site. The same surface sampling data set applies to both Sites.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for CDV-SMA-1.3 exceeded the TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow (i.e., less than 3 ft bgs) 2006 Consent Order and 1996 VCA soil samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical Site activities.

The SMA receives runoff primarily from undeveloped (formerly industrially developed) areas. The concentration of the gross-alpha radioactivity detected in the SMA sample is slightly above the UTL for urban runoff and well below the UTL for undeveloped areas. This result is consistent with the land use in the SMA.

Method of Treatment, Storage, or Disposal: The HE machining building has been demolished. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical storage activities are described above.

Past and Present Materials Management Practices: The HE machining building has been demolished. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-017(b)-99**
Site Name: **Former HE machining building**
SMA: **CDV-SMA-1.2**

Updated Site Description (2014):
SWMU 16-017(b)-99 is a former HE machining building (former structure 16-93) that was located at TA-16. Constructed in 1950, the wooden building measured 20 ft wide × 60 ft long × 11 ft high and was surrounded by an earthen berm that was packed against steel pilings. The building was originally used for HE machining and later was used as an electroplating facility. By 1970, the building was used only for storage. Building 16-93 was removed in 1996.

Consent Order sampling has not yet been conducted at SWMU 16-017(b)-99; the Site will be sampled during the future Cañon de Valle Aggregate Area investigation. No investigations were conducted at the Site before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water: A baseline storm water sample was collected on September 12, 2013, and yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-017(j)-99**
Site Name: **Former magazine**
SMA: **W-SMA-1**

Updated Site Description (2014):
SWMU 16-017(j)-99 is a former HE magazine (structure 16-63) at TA-16. The magazine was a 24 ft × 26 ft × 9 ft wood-framed structure surrounded by an earthen berm on three sides and the top. The magazine was built in 1945 to store HE and was removed in 1998. This SWMU was originally designated as part of SWMU 16-017, a group of 24 structures in central TA-01. In 1999, SWMU 16-017 was separated into 24 SWMUs, each consisting of a single structure.

Consent Order sampling has not yet been conducted at SWMU 16-017(j)-99; the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. No investigations were conducted at the Site before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for W-SMA-1 exceeded TALs for aluminum and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed and undeveloped areas. The concentration aluminum detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. The detected concentration of gross-alpha radioactivity in the SMA sample was below the BV for undeveloped areas and above the BV developed areas. These results along with the Site history indicate that SWMU 16-017(j)-99 is unlikely a source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-018**
Site Name: **MDA P**
SMA: **CDV-SMA-2.41**

Updated Site Description (2014):
SWMU 16-018 is the former location of MDA P, north of the TA-16 burning ground near the south rim of Cañon de Valle. MDA P operated from 1950 to 1984 as a disposal site for debris remaining from burning HE and HE-contaminated material at TA-16. Concrete and construction debris was deposited directly on the slopes leading down into the canyon. Other materials were burned at one of the nearby open-burn units, and the resulting debris or residue was pushed over the mesa rim into the canyon. The western area of MDA P primarily received construction debris from the demolition of World War II buildings; the eastern area received debris and residue from the open-burn units. MDA P underwent RCRA closure between 1999 and 2005. During closure, approximately 55,000 yd^3 of soil, rock, metal, and concrete debris was excavated from MDA P. Of this quantity, 21,506 $yd^3$of soil was disposed as hazardous waste. The remainder of this quantity consisted of industrial waste soils, concrete and metal debris that was recycled or managed as industrial waste, and rock that was decontaminated and then used as riprap within TA-16. Other excavated waste included 3947 lb of asbestos-containing material; 888 containers of unknown content; 95 miscellaneous metal objects; 3240 lb of LLW; 5389 lb of mixed waste; and various smaller quantities of HE, HE-contaminated debris, and residuals from treating HE. Scrap metal and concrete were shipped to recycling facilities. Contaminated soils and industrial wastes were shipped to off-site solid waste landfills. Solid, nonhazardous wastes were disposed of at MDA J.

Consent Order sampling has not been conducted at SWMU 16-018; however, decision-level data are available from confirmation samples collected during the RCRA Closure of MDA P Site. The Site was segregated into zones (biological and exposed tuff) for cleanup and confirmation sampling purposes and a 30- × 30-ft sampling grid was placed over the entire Site.

The approved 2005 MDA P Site closure certification report concluded that the nature and extent had been defined for chemicals and radionuclides detected at SWMU 16-018. The Site meets residential risk levels. NMED approved the SWMU 16-018 RCRA closure report in 2005. SWMU 16-018 was a formerly dual-regulated corrective action unit, and was removed from the LANL Hazardous Waste Facility Permit in 2010; therefore, this unit is no longer subject to the Consent Order.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for CDV-SMA-2.41 exceeded the TALs for PCBs and gross-alpha radioactivity.

- PCBs were potentially associated with industrial materials historically managed at SWMU 16-018. The PCB mixture (Aroclor-1260) was detected in 1 of 7 shallow soil confirmation samples collected at a concentration 2.8% of the residential SSL.
- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Confirmation samples were not analyzed for gross-alpha radioactivity but were analyzed for gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for uranium isotopes, which are alpha emitters. Alpha-emitting radionuclides were not detected above BVs or FVs in any of the confirmation samples collected at SWMU 16-018. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from undeveloped and formerly industrially developed areas. The concentration PCBs detected in the SMA sample was above the UTL for undeveloped areas and below UTL for developed areas. The concentration of the gross-alpha radioactivity detected in the SMA sample is above the UTL for urban runoff and below the UTL for undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related materials management practices have occurred in the last 3 yr. Historical disposal practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-019**
Site Name: **MDA R**
SMA: **CDV-SMA-1.7**

Updated Site Description (2014):
SWMU 16-019, MDA R, consists of the original World War II S-Site burning ground and associated inactive waste disposal site. Located at TA-16 north of building 16-260 and south of Cañon de Valle, the MDA was used to burn HE wastes and began operating in the mid-1940s. Initially, the HE wastes were burned directly on the ground surface in an area cleared of grass and shrubs. By 1949, burning operations were conducted in three adjacent shallow burn pits, each approximately 75 ft square, constructed in the eastern portion of the MDA, approximately 150 ft from the edge of the canyon.

Burning operations at MDA R ceased in the early 1950s when the buildings comprising the 260-Line were constructed. During the construction of the 260-Line, the burn pits were backfilled with material from the associated berms and the entire area was leveled. In May 2000, the Cerro Grande fire burned over MDA R and continued to burn underground within the MDA for several weeks. As part of emergency response and fire suppression efforts, portions of the MDA were excavated and stabilized and erosion-control measures were installed. The area is currently covered with grasses, small trees, and shrubs.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDV-SMA-1.7 exceeded the TALs for copper, cyanide, RDX, and gross-alpha radioactivity. Consent Order investigations have not been performed at this Site; however, decision-level data are available.

- Copper is potentially associated with industrial materials historically managed at the Site. Copper was detected above BVs in 6 the 44 shallow (i.e., less than 3 ft bgs) 1998 and 2000 RFI soil samples collected at the Site at a maximum concentration 1563 times the soil BV.
- Cyanide is not known to be associated with industrial materials historically managed at the Site. None of the 44 shallow 1998 and 2000 RFI samples were analyzed for cyanide.
- RDX is known to be associated with industrial materials historically managed at the Site. RDX was detected in 16 of 44 shallow soil samples at a maximum concentration 2577% of the residential SSL.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. None of the 44 shallow 1998 and 2000 RFI samples were analyzed for alpha-emitting radionuclides.

The SMA receives runoff primarily from an undeveloped area consisting of MDA R; it may also receive some runoff from developed area on the north end of building 16-260. The concentrations of copper and gross-alpha radioactivity detected in storm water are in between the developed urban BV and the Bandelier Tuff BV.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-020**
Site Name: **Former outfall**
SMA: **CDV-SMA-1.4**

Updated Site Description (2014):
SWMU 16-020 is a formerly permitted outfall (EPA 06A037) located 300 ft south of former building 16-222 in the northern portion of TA-16. From 1951 to 1979, the outfall received untreated effluent from the sink and floor drains in photoprocessing building 16-222 and discharged to a drainage channel that empties into Cañon de Valle. In 1979, a silver recovery unit was installed to treat the photoprocessing solutions before discharge. Discharges to the outfall ceased when building 16-222 was decommissioned in 1995. In 2000, approximately 200 yd^3 of soil was removed from the outfall area as part of an IM. After soil removal, the outfall and a portion of the drainage channel were stabilized with rock pavements, check dams, and straw wattles. Building 16-222 underwent D&D in 2003. The outfall drainline is still in place.

Consent Order investigations have not yet begun for this Site; however, decision-level data are available from confirmation samples collected following the 2000 IM conducted at SWMU 16-020.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring sample for CDV-SMA-1.4 exceeded the TAL for silver. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for silver.

- Silver is known to be associated industrial materials historically managed at the Site. Silver was detected above BVs in 20 of 20 shallow IM confirmation samples at a maximum concentration 720 times the soil BV.

The SMA receives runoff from undeveloped and formerly industrially developed areas. The developed and undeveloped background contribution for silver is not known; however, the concentration measured in the SMA sample exceeded the maximum detected concentrations in both the undeveloped and developed area background data sets, confirming SWMU 16-020 is a likely source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-021(c)**
Site Name: **Industrial outfall from HE building 16-260**
SMA: **CDV-SMA-2**

Updated Site Description (2014):
SWMU 16-021(c) consists of a formerly NPDES permitted outfall (260 Outfall) for 13 HE sumps [SWMU 16-003(k)] that served HE machining building 16-260 at TA-16. Wastewater from the sumps flowed through a concrete trough to the outfall, located approximately 200 ft east of the building. Discharge from the outfall flowed to a settling pond that was approximately 50 ft long and 20 ft wide and that was located approximately 45 ft below the outfall. The drainage channel continued approximately 600 ft northeast from the outfall to the bottom of Cañon de Valle. A 15-ft near-vertical cliff is located approximately 400 ft from the outfall and marks the break between the upper and lower drainage channels. Building 16-260 was constructed in 1951 to process and machine HE. Wastewater from machining operations contained dissolved HE and entrained HE cuttings. Wastewater treatment consisted of routing the water to 13 settling sumps to recover entrained HE cuttings. In 1994, outfall discharge volumes were measured at several million gallons per year. The discharge volumes were likely higher during the 1950s when HE production output from building 16-260 was substantially greater than it was in the 1990s. In the past, barium had been a constituent of certain HE formulations, and thus barium was also present in the outfall wastewater from building 16-260. Discharge to the outfall continued until 1996 when the sumps were plugged. The outfall was removed from the permit in January 1998.

During an IM performed in 2000 and 2001, more than 1300 yd^3 of contaminated soil was removed from the former settling pond and drainage channel. A low-permeability cap consisting of a 20-in.-thick crushed tuff/bentonite mixture was installed on top of the former settling pond during the IM. A CMI conducted in 2009 and 2010 included the removal of soil and tuff contaminated with HE and other constituents in the former 260 Outfall channel and in the alluvial systems of Cañon de Valle and Martin Spring Canyon, confirmation sampling, and installation of four HE treatment systems. Risk assessment results for the 260 Outfall drainage channel indicates the Site meets residential risk levels. Groundwater contamination continues to be assessed, monitored, and treated.

Consent Order soil investigations for the SWMU 16-021(c) drainage channel are complete.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring sample for CDV-SMA-2 exceeded the TALs for gross-alpha radioactivity. The Site receives runoff from the industrially developed area—building 16-260 and remediated drainage channel. Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. None of the Consent Order soil samples were analyzed for alpha-emitting radionuclides. The gross-alpha TAL exceedance is below or between the range of undeveloped and developed background UTLs, which is consistent with the land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: The outfall has been plugged. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment and disposal activities are described above.

Past and Present Materials Management Practices: The outfall has been plugged. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-026(b)**
Site Name: **Inactive outfall from structure 16-307**
SNMA: **W-SMA-5**

Updated Site Description (2014):
SWMU 16-026(b) is an inactive outfall located to the east of a rest house (building 16-307). The outfall formerly received discharge from two HE sumps [SWMU 16-029(a)] located near the exterior southeast wall of the rest house. The outfall discharged to Water Canyon. The sumps were plugged in 1990–1991. The rest house was used to store molds and materials for plastics development and also previously housed a solvent disassembly tank used to remove HE from test devices.

Consent Order Phase I investigation sampling is complete. This Site is expected to be eligible for a CoC through the Consent Order supplemental investigation report process.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for W-SMA-5 exceeded the TAL for copper. Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in 8 shallow Consent Order and RFI soil, sediment, and tuff samples.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance is below the developed BV and above the Bandelier Tuff BV, which is consistent with land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: **16-026(b2)**
Site Name: **Former outfall**
SMA: **W-SMA-1.5**

Updated Site Description (2014):
SWMU 16-026(b2) is an outfall that served decommissioned small machine (millwright) shop located in room 138 of building 16-202 at TA-16. The outfall is located approximately 135 ft southeast of building 16-202 and daylighted in the drainage ditch along Anchor Ranch Road. The outfall received overflow from an oil/water separator, which consisted of a 3- × 3- × 3-ft cement pit located below floor level. The separator was installed in 1952, when building 16-202 was built and remains in place. By 1977, room 138 was no longer used as shop and use of the separator ceased. The building has been used for administrative offices since 1995.

Consent Order sampling has not yet been conducted at SWMU 16-026(b2); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. No investigations were conducted at the Site before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for W-SMA-1.5 exceeded TALs for copper, zinc, and gross-alpha radioactivity.

- Copper may have been associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site.
- Zinc is not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed and undeveloped areas. The concentration copper detected in the SMA sample was above the BV for runoff from undeveloped areas and below the BV for runoff from developed areas. The detected concentrations of zinc and gross-alpha radioactivity in the SMA samples were below the BVs for developed and undeveloped areas. These results along with the Site history indicate that SWMU 16-026(b2) is unlikely a source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-026(c)**
Site Name: **Inactive outfall from structure 16-305**
SMA: **W-SMA-5**

Updated Site Description (2014):
SWMU 16-026(c) is an inactive outfall located at TA-16 to the south of a rest house (building 16-305). The outfall formerly received discharge from two HE sumps [SWMU 16-029(b)] located near the exterior southwest wall of the rest house. The outfall discharged to Water Canyon. One soil sample was taken from the outfall at structure 16-305 in 1970. Analytical results showed no TNT, RDX, or HMX, although some unknown HE decomposition products may have been present at low levels. The sumps were plugged in 1990–1991. The rest house was used to store chemicals and solvents for plastics development and production and was also used for filament winding of developmental weapons components.

Consent Order Phase I investigation sampling is complete. This Site is expected to be eligible for a CoC through the Consent Order supplemental investigation report process.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for W-SMA-5 exceeded the TAL for copper. Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above BVs in 5 of 13 shallow samples with a maximum concentration 3.8 times sediment BV.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance is below the developed BV and above the Bandelier Tuff BV, which is consistent with land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: **16-026(c2)**
Site Name: **Former outfalls**
SMA: **W-SMA-1**

Updated Site Description (2014):
SWMU 16-026(c2) is consists of the two outfalls that served chemical storage building 16-462 at TA-16. The outfalls are located approximately 30 ft southeast of the building. Floor troughs within 16-462 drain to 6-in.-diameter VCP drainlines that exit the south and southeast side of the building. Effluent flowed from the drainlines southeast to a drainage ditch. Building 16-462 was built in 1952 to store chemicals for use in the analytical chemistry laboratory (building 16-460). All drains at building 16-462 were plugged in 1991. There is no record of chemical spills in building 16-462.

Consent Order sampling has not yet been conducted at SWMU 16-026(c2); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. No investigations were conducted at the Site before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for W-SMA-1 exceeded TALs for aluminum and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed and undeveloped areas. The concentration of aluminum detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. The detected concentration of gross-alpha radioactivity in the SMA sample was below the BV for undeveloped areas and above the BV developed areas. These results along with the Site history indicate that SWMU 16-026(c2) is unlikely a source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-026(d)**
Site Name: **Inactive outfall from structure 16-303**
SMA: **W-SMA-5**

Updated Site Description (2014):
SWMU 16-026(d) is an inactive outfall located to the southeast of a rest house (building 16-303). The outfall formerly received discharge from two HE sumps [SWMU 16-029(c)] located on the exterior southwest wall of the rest house. Potential contaminants were HE, inorganic chemicals, and organic chemicals. The outfall discharged to Martin Spring Canyon. Two samples were taken at the SWMU 16-026(d) outfall in 1970. Samples showed elevated levels of HMX and/or RDX and TNT. The sumps were plugged in 1990–1991.

Consent Order Phase I investigation sampling is complete. This Site is expected to be eligible for a certificate of completion through the Consent Order supplemental investigation report process.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for W-SMA-5 exceeded the TAL for copper. Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above soil and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above the BVs in 3 of 16 shallow soil and tuff samples with a maximum concentration 4.5 times soil BV.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance is below the developed BV and above the Bandelier Tuff BV, which is consistent with land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: 16-026(e)
Site Name: Inactive outfall from structure 16-301
SMA: W-SMA-5

Updated Site Description (2014):
SWMU 16-026(e) is an inactive outfall located to the south of building 16-301. The outfall formerly received discharge from two HE sumps [SWMU 16-029(d)] located on the exterior west side of building 16-301. The outfall discharged to Martin Spring Canyon. Building 16-301 originally housed mock-HE processing operations and stored raw materials that were used to prepare mock HE. Building 16-301 was later used as an environmental testing laboratory for research into the effects of temperature, pressure, and humidity on weapons and components. The sumps were plugged in 1990–1991.

Consent Order Phase I investigation sampling is complete. This Site is expected to be eligible for a certificate of completion through the Consent Order supplemental investigation report process.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for W-SMA-5 exceeded the TAL for copper. Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected only slightly above soil and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above the BVs in 3 of 19 shallow soil and tuff samples with a maximum concentration above BV 1.7 times the tuff BV.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance is below the developed BV and above the Bandelier Tuff BV, which is consistent with land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: S-Site Canyon—Tributary to Water Canyon

Site ID: **16-021(i)**
Site Name: **Former outfall**
SMA: **CDV-SMA-1.45**

Updated Site Description (2014):
SWMU 16-026(i) consists of a former outfall and drainline from former x-ray building 16-224 at TA-16. Finished packaged HE components were x-rayed in building 16-224 and returned to adjacent rest houses for storage; in some cases, HE components were unwrapped before they were x-rayed . Reportedly, HE dust and small chips would periodically break off unpackaged components during the x-ray process and could have entered the floor drains. Floor drains in building 16-224 discharged to an outfall northeast of former building 16-224; the discharges consisted of small volumes of washdown water discharged onto a gradual, grass-covered slope. The floor drains in building 16-224 were plugged in 1991; building 16-224 underwent D&D in 2003.

Consent Order investigations have not yet started; no decision-level data are available for SWMU 16-026(i).

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for CDV-SMA-1.45 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. No decision-level data are available for SWMU 16-026(i). Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and formerly industrially developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is equivalent to the TAL and is therefore below the UTLs for runoff from developed and undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: Historical disposal practices are described above.

Past and Present Materials Management Practices: Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-026(j2)**
Site Name: **Former outfall**
SMA: **W-SMA-8.7**

Updated Site Description (2014):
SWMU 16-026(j2) consists of the former outfall from a former HE sump [SWMU 16-029(f)] associated with a former resthouse (structure 16-345) located on the 340-Line at TA-16. The resthouse and sump were constructed in 1952 and served as a HE storage facility for former building 16-340. The sump was located on the southeast exterior wall and received discharge generated during cleaning activities. The outfall received effluent from the sump and discharged southeast of the sump location. The resthouse, sump, and associated drainlines were all removed in 2005.

SWMU 16-026(j2) was investigated under the Consent Order and recommended for corrective action complete. NMED approved the investigation report but required LANL to conduct additional surface water and groundwater sampling for the TA-16-340 Complex as well as to maintain the BMPs.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for W-SMA-8.7 exceeded the TAL for aluminum. Aluminum is not known to have been associated with industrial materials historically managed at this Site. Aluminum was detected above sediment and tuff BVs in 2 of 14 shallow soil, sediment, and tuff samples collected during 2005 and 2008 Consent Order investigations. Aluminum was detected at a maximum concentration 2 times the sediment BV.

The SMA receives runoff from predominately undeveloped areas. The concentration of aluminum detected in the SMA sample is less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-026(l)**
Site Name: **Former outfalls**
SMA: **CDV-SMA-1.4**

Updated Site Description (2014):
SWMU 16-026(l) consists of two former outfalls that were located on the east side of former x-ray building 16-220 in the northern portion of TA-16. Both outfalls received stormwater discharges from separate roof drains. Engineering records state that neither drainline nor outfall could be located in the field. Building 16-220 underwent D&D in 2003.

Consent Order investigations have not yet started for this Site; no decision-level data are available for SWMU 16-026(l).

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring sample for CDV-SMA-1.4 exceeded the TAL for silver. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for silver.

- Silver is not known to be associated industrial materials historically managed at the Site. Decision-level data are not available for SWMU 16-026(l).). However, a likely source of the cyanide TAL exceedance in SWMU 16-020 a former outfall located 300 ft south of former building 16-222 that received untreated effluent from the sink and floor drains in photoprocessing building 16-222 and discharged to a drainage channel that empties into Cañon de Valle. The SWMU 16-020 outfall is downstream of SWMU 16-026(l) and directly upstream of the SMA sampler.

The SMA receives runoff from undeveloped and formerly industrially developed areas. The developed and undeveloped background contribution for silver is not known; however, the concentration measured in the SMA sample exceeded the maximum detected concentrations in both the undeveloped and developed area background data sets, confirming SWMU 16-020 is a likely source of the TAL exceedance. Based on the Site history, SWMU 16-026(l) is likely not a source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-026(m)**
Site Name: **Former drainlines and outfalls**
SMA: **CDV-SMA-1.3**

Updated Site Description (2014):
SWMU 16-026(m) consists of two outfalls from two sumps [SWMU 16-029(l)] that served former HE machining building 16-92, which were located near the 90s-Line Pond area at TA-16. The sumps were located on the east and west sides of building 16-92. The eastern sump discharged to a VCP drainline that extended north and west to its discharge point approximately 260 ft north of the building. The western sump discharged to a VCP that extended north and then west of the building where it discharged to an open drainage channel. Constructed in 1950, the building was used for machining HE until 1955. Subsequently, the building was used for the cleaning and refurbishing HE-contaminated equipment. The sumps were filled with gravel during the mid-1960s and by 1970, the building was devoted entirely to storage. The building, its sumps and drainlines were all removed in 1996. SWMUs 16-017(a)-99 and 16-026(m), along with numerous other SWMUs and AOCs are part of Consolidated Unit 16-008(a)-99, the former 90s Line, and were investigated under the Consent Order as a single site. The same surface sampling data set applies to both Sites.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for CDV-SMA-1.3 exceeded the TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow (i.e., less than 3 ft bgs) 2006 Consent Order and 1996 VCA soil samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because these constituents are not associated with historical Site activities.

The SMA receives runoff primarily from undeveloped (formerly industrially developed) areas. The concentration of the gross-alpha radioactivity detected in the SMA sample is slightly above the UTL for urban runoff and well below the UTL for undeveloped areas. This result is consistent with the land use in the SMA.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-026(v)**
Site Name: **Former outfall**
SMA: **W-SMA-1**

Updated Site Description (2014):
SWMU 16-026(v) is a former NPDES-permitted outfall (05A072) that served decommissioned analytical chemistry laboratory building 16-460 at TA-16. The outfall is located approximately 60 ft southeast of the building and received effluent from a sump [SWMU 16-003(c)], building floor drains, steam-cup drains, sink drains, and a drinking fountain. The outfall was plugged in 1992. It was removed from the NPDES permit effective September 19, 1997.

Consent Order sampling has not yet been conducted at SWMU 16-026(v); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. However, decision-level data are available from the 1995 RFI.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for W-SMA-1 exceeded TALs for aluminum and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was detected in 1 of 9 shallow RFI samples at a concentration equivalent to the tuff BV.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Shallow RFI samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because they are not potential contaminants at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed and undeveloped areas. The concentration aluminum detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. The detected concentration of gross-alpha radioactivity in the SMA sample was below the BV for undeveloped areas and above the BV for developed areas. These results along with the Site history and RFI data indicate that SWMU 16-026(v) is unlikely a source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-026(y)**
Site Name: **Former outfall**
SMA: **W-SMA-3.5**

Updated Site Description (2014):
SWMU 16-026(y) is a former outfall that served building 16-411. The outfall drainline consists of a 4-in.-diameter VCP that exits the west side of building 16-411, then turns south to terminate at a discharge point on the hill slope of Water Canyon. The discharge point is located south of a double security fence at the edge of Water Canyon. Building 16-411 was constructed in 1951 and used for the assembly of finished HE components. The outfall received discharges from an equipment room floor drain, a sink, roof drains, a water fountain, and an eyewash station. In the 1990s, the roof drains were rerouted to a separate outfall, and all other drains were either plugged or rerouted to a holding tank.

Consent Order investigations have not yet begun at SWMU 16-026(y); the Site will sampled during the future Upper Water Canyon Aggregate Area investigation. Decision-level data are not available for the Site.

Significant Materials Exposed to Storm Water:
To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-028(a)**
Site Name: **Drainage channel**
SMA: **CDV-SMA-2.5**

Updated Site Description (2014):
SWMU 16-028(a) is the south drainage channel located at the TA-16 Burning Ground. The drainage channel is located south of the Burning Ground road and east of a water treatment shed (structure 16-363). The drainage receives runoff from the entire Burning Ground and flows into a tributary of Cañon de Valle.

Consent Order investigations have not yet started for this Site; however, decision-level data from 1995 and 1997 RFIs are available for SWMU 16-028(a). Several inorganic chemicals were detected above BVs in shallow RFI samples, and PAHs and HE were detected at concentrations below residential SSLs.

Significant Materials Exposed to Storm Water:
Baseline storm water samples were collected on September 1, 2011, and October 12, 2012, and yielded no TAL exceedances. However, the semivolatile organic results for the sample collected at CDV-SMA-2.5 on October 12, 2012, were rejected as an outcome of data validation and are not usable for confirmation sampling assessment.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-028(b)**
Site Name: **Former outfall**
SMA: **W-SMA-8**

Updated Site Description (2014):
SWMU 16-028(b) is a formerly NPDES-permitted outfall (04A092) that served former building 16-370. The outfall is located approximately 50 ft south of building 16-370. The outfall drainline consists of a 6-in. VCP that exits building 16-370 from its west side and daylights in Water Canyon. The outfall formerly received effluent from 29 floor drains, an eyewash station, a drinking fountain, and a sink. Building 16-370 was built in 1953 as a barium nitrate–grinding facility. In the late 1950s, it was converted to a metal-forming shop for steel and aluminum. Building 16-370 was demolished in March 2005. All drains that discharged to the outfall were plugged in the 1990s. The outfall was removed from the NPDES permit effective January 14, 1998. In July 2000, as part of the post–Cerro Grande fire recovery, debris removal, mulching, and permanent seeding were conducted at this Site as BMPs. Straw wattles were also installed to stabilize the Site and to prevent storm water run-on and runoff.

Consent Order sampling has not yet been conducted at SWMU 16-028(b); the Site will sampled during the future Upper Water Canyon Aggregate Area investigation. However, decision-level data are available from the 1998 investigation.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for W-SMA-8 exceeded the TAL for aluminum and copper.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was not detected above the soil BV in the single shallow sample collected during the 1998 investigation.
- Copper may have been associated with industrial materials historically managed at this Site. Copper was detected at a concentration 32 times the soil BV in the single shallow sample collected during the 1998 investigation.

The SMA receives runoff from undeveloped areas and from the SWMU 16-016(g) surface disposal area. The concentration of aluminum detected in the SMA sample is less than UTL for undeveloped areas and greater than the UTL for developed areas. The concentration of copper detected in the SMA sample exceeds the UTL for undeveloped areas and is less than the UTL for developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-028(c)**
Site Name: **Former outfall**
SMA: **CDV-SMA-1.4**

Updated Site Description (2014):
SWMU 16-028(c) is a former NPDES-permitted outfall (04A070) and drainline that received discharges from eight floor drains in former building 16-220. Wastewater included noncontact cooling water, chiller condensate, periodic discharges from an HE vacuum pump, and washwater from cleaning building floors. The 6-in. VCP drainline discharged to an outfall located in a rocky ditch southeast of the building and flowed to a flat grassy field. The floor drains in former building 16-220 were plugged in 1991, and the outfall was removed from the Laboratory's NPDES permit on September 19, 1997. Building 16-220 underwent D&D in 2003. The outfall drainline is likely still in place.

Consent Order investigations have not yet started for this Site; no decision-level data are available for SWMU 16-028(c).

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring sample for CDV-SMA-1.4 exceeded the TAL for silver. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for silver.

- Silver is not known to be associated industrial materials historically managed at the Site. Decision-level data are not available for SWMU 16-028(c). However, a likely source of the cyanide TAL exceedance in SWMU 16-020 a former outfall located 300 ft south of former building 16-222 that received untreated effluent from the sink and floor drains in photoprocessing building 16-222 and discharged to a drainage channel that empties into Cañon de Valle. The SWMU 16-020 outfall is downstream of SWMU 16-028(c) and directly upstream of the SMA sampler.

The SMA receives runoff from undeveloped and formerly industrially developed areas. The developed and undeveloped background contribution for silver is not known; however, the concentration measured in the SMA sample exceeded the maximum detected concentrations in both the undeveloped and developed area background data sets, confirming SWMU 16-020 is a likely source of the TAL exceedance. Based on the Site history, SWMU 16-028(c) is likely not a source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-028(d)**
Site Name: **Outfall**
SMA: **W-SMA-1.5**

Updated Site Description (2014):
SWMU 16-028(d) is a former NPDES-permitted outfall (04A083) located at TA-16 approximately 80 ft southeast of building 16-202. The outfall formerly served a decommissioned machine shop in building 16-202 and connected to the building through an 8-in.-diameter VCP. The outfall received noncontact cooling water and wash water from two floor drains, effluent from two non-HE sumps, discharge from two sink drains, and rainwater from 16 roof drains. In 1995, building 16-202 was converted to office space, and the drainlines within the building were modified so that the outfall only receives storm water from the building's roof drains. The outfall was removed from the NPDES permit effective September 19, 1997.

Consent Order sampling has not yet been conducted at SWMU 16-028(d); SWMU 16-028(d) will be sampled during the future Upper Water Canyon Aggregate Area investigation. No investigations were conducted at the Site before the Consent Order went into effect in 2005.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for W-SMA-1.5 exceeded TALs for copper, zinc, and gross-alpha radioactivity.

- Copper may have been associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site.
- Zinc is not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. No investigations have been conducted at this Site. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed and undeveloped areas. The concentration copper detected in the SMA sample was above the BV for runoff from undeveloped areas and below the BV for runoff from developed areas. The detected concentrations of zinc and gross-alpha radioactivity in the SMA samples were below the BVs for developed and undeveloped areas. These results along with the Site history indicate that SWMU 16-028(d) is unlikely a source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-028(e)**
Site Name: **Former outfall**
SMA: **W-SMA-2.05**

Updated Site Description (2014):
SWMU 16-028(e) is a formerly NPDES-permitted outfall (04A091) that served materials testing laboratory building 16-450 at TA-16. The outfall was located southeast of building 16-450 and received discharges through a drainline from an HE sump [SWMU 16-029(g)]. The outfall discharged outside the security fence at the edge of Water Canyon. The sump was removed in 1997, and the drainline to the outfall was plugged but left in place. The outfall was removed from the NPDES permit effective September 19, 1997.

Consent Order sampling has not yet been conducted at SWMU 16-028(e); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. However, decision-level data are available from the 1995 RFI.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-2.05 exceeded the TAL for aluminum.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was detected above the tuff BV in 1 of 10 shallow RFI samples at a concentration 1.4 times the tuff BV.

The SMA receives runoff from industrially developed and undeveloped areas. The concentration aluminum detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. These results along with the Site history and RFI sampling data indicate that SWMU 16-028(e) is unlikely a source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-029(e)**
Site Name: **HE sump and former outfall**
SMA: **W-SMA-7**

Updated Site Description (2014):
Review of the SWMUs and AOCs in the area within W-SMA-7 identified that SWMU 16-026(h2) was incorrectly associated with the potential source of industrial materials to be monitored at the SMA. The only Site intended for monitoring within W-SMA-7 is 16-029(e), not SWMU 16-026(h2).

SWMU 16-029(e) consists of an HE sump and formerly NPDES-permitted outfall (05A159) that served HE equipment assembly building 16-360. The sump is a 12 × 4 × 5 ft subsurface reinforced concrete structure located on the exterior southeast side of the building. The sump received wash water from historical cleaning activities and discharged southeast to the outfall through a 6-in.-diameter drainline. The sump outlet was plugged in the early 1990s; the outfall was removed from the NPDES permit effective August 16, 1995.

Consent Order sampling has not yet been conducted at SWMU 16-029(e); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-029(h)**
Site Name: **Inactive/former drainlines and outfall**
SMA: **CDV-SMA-2.3**

Updated Site Description (2014):
SWMU 16-029(h) consists of an inactive outfall and two inactive/former drainlines (one known and one suspected) from the HE sump [AOC 16-003(p)], located on the south side of former building 16-478. The known drainline exits the southeast corner of the sump and extends 80 ft east of the sump to the rim of Cañon de Valle. This drainline discharged directly into Cañon de Valle before the drainline was plugged in 1987. A second drainline is alleged to be present. The second drainline is reportedly a French drain that extends south of the sump. Former building 16-478 was used as a bunker, utility room, control room, and high-speed machining room for tests on experimental HE. When the building was removed in 2005, the sump was left in place. During the investigation activities conducted in 2009–2010, no evidence of the French drain was found.

Phase I Consent Order sampling is complete for SWMU 16-029(h). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs, except for two detections of arsenic in two subsurface tuff samples. SWMU 16-029(h) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 16-029(h) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon/Cañon de Valle

Site ID: **16-029(k)**
Site Name: **Former HE sumps**
SMA: **CDV-SMA-1.2**

Updated Site Description (2014):
SWMU 16-029(k) consists of two former HE sumps that served former electroplating building 16-93 at TA-16. Constructed in 1950, the 5-ft-wide × 15-ft-long × 5-ft-deep concrete sumps were situated on the northeast and southeast corners of the building. Two VCP drainlines extended north from each sump and eventually merged into a single drainline that continued for approximately 500 ft to an outfall located north of the K-Site Road. In the 1960s, the sumps were filled with gravel. The building, sumps, and drainlines were removed during D&D operations in 1996.

SWMU 16-029(k) along with numerous other SWMUs and AOCs are part of Consolidated Unit 16-008(a)-99, the former 90s Line, and were investigated and remediated under the Consent Order as a single site. Consent Order investigations are complete for SWMU 16-029(k). The Site meets residential risk levels and was recommended for corrective action complete without controls.

Significant Materials Exposed to Storm Water: To date, this SMA has not sampled and is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon/Cañon de Valle

Site ID: **16-030(c)**
Site Name: **Former outfalls**
SMA: **CDV-SMA-1.4**

Updated Site Description (2014):
SWMU 16-030(c) consists of three former outfalls from four roof drains at a former rest house (former structure 16-222) at TA-16. The 1990 SWMU Report describes SWMU 16-030(c) as consisting of two outfalls originating from roof drains located on the northwest and northeast corners of building 16-222. Engineering drawings show that building 16-222 had four roof drains located at each roof corner that discharged to three outfalls. The roof drain on the northeast corner of the building discharged via a 6-in. vitrified clay pipe (VCP) to an outfall located approximately 65 ft southeast of building 16-222. The northwest corner roof drain discharged via a 6-in. VCP to an outfall located approximately 20 ft west of building 16-222. The southeast and southwest corner roof drains were connected to a 6-in. VCP that discharged to an outfall located approximately 15 ft southwest of building 16-222. Building 16-222 was constructed in 1953 and underwent D&D in 2003. All surface and subsurface structures were removed in 2003.

Consent Order investigations were not conducted at SWMU 16-030(c). NMED issued a COC without controls for SWMU 16-030(c) in January 2008.

Significant Materials Exposed To Storm Water:
In 2012, the baseline storm water monitoring sample for CDV-SMA-1.4 exceeded the TAL for silver. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for silver.

- Silver is not known to be associated industrial materials historically managed at the Site. Decision-level data are not available for SWMU 16-030(c).

The SMA receives runoff from undeveloped and formerly industrially-developed areas. The developed and undeveloped background contribution for silver is unknown; however, the concentration measured in the SMA sample exceeded the maximum detected concentrations in both the undeveloped and developed area background data sets confirming that SWMU 16-020 is a likely source of the TAL exceedance. Based on the Site history, SWMU 16-030(c) is likely not a source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-030(g)**
Site Name: **Outfall**
SMA: **W-SMA-9.05**

Updated Site Description (2014):
SWMU 16-030(g) is a former NPDES-permitted outfall (05A052) located south of building 16-380 at TA-16. The outfall received effluent from a sump [SWMU 16-003(m)], two roof drains, a steam-heating system, and a drop inlet from a parking lot and discharged to Water Canyon. The outfall was removed from the NPDES permit in 1993. The sump and the steam-heating system discharge lines have been plugged, and the outfall currently receives only roof drain and parking lot runoff.

Consent Order investigations have not yet begun at SWMU 16-030(g); the Site will sampled during the future Upper Water Canyon Aggregate Area investigation.

Significant Materials Exposed to Storm Water: A baseline storm water sample was collected on September 30, 2013, and yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-031(a)**
Site Name: **Former outfall**
SMA: **W-SMA-7.8**

Updated Site Description (2014):
SWMU 16-031(a) is an outfall that served a former cooling tower (building 16-372) at TA-16. The outfall discharged approximately 150 ft south of the cooling tower at the edge of Water Canyon. The outfall drainline was a 6-in.-diameter VCP that originated from a drain inside the southeast corner of the cooling tower. The cooling tower served building 16-370, a barium nitrate–grinding facility and metal-forming shop. The cooling tower was built in 1953 and burned down during the Cerro Grande fire in 2000. The concrete foundation remains in place.

Consent Order investigations have not yet begun at SWMU 16-031(a); the Site will be sampled during the future Upper Water Canyon Aggregate Area investigation. Decision-level data are not available for the Site.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **16-031(h)**
Site Name: **Former outfall**
SMA: **CDV-SMA-2.3**

Updated Site Description (2014):
SWMU 16-031(h) consists of a former NPDES-permitted outfall (EPA04A134) located approximately 300 ft northeast of former building 16-340. The outfall received discharges only from the sink and floor drain of a utility room (engineering drawing ENG-C-14851) within former structure 16-478. The outfall only received discharges from the former utility room. Structure 16-478 (formerly structure 13-4) was used for photographing explosives tests and was later modified for testing the effects of machining HE remotely. In July 1995, building 16-478 was decommissioned and subsequently underwent D&D in 2005.

Phase I Consent Order sampling is complete for SWMU 16-031(h). All detected inorganic and organic chemical concentrations from Consent Order samples were below residential SSLs. SWMU 16-031(h) will be recommended for corrective action complete in the supplemental investigation report for S-Site Aggregate Area, to be submitted to NMED in 2015. SWMU 16-031(h) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañon de Valle

Site ID: **16-035**
Site Name: **Soil contamination from control bunker 13-2 (renumbered as 16-476)**
SMA: **W-SMA-8.7**

Updated Site Description (2014):
SWMU 16-035 is an area of potential soil contamination located approximately 200 ft east of former building 16-340. The soil contamination is associated with a former control bunker (former structure 13-2 renumbered to 16-476). The control bunker was one of several buildings constructed at TA-13 in 1944 to support the Manhattan Project. Former TA-13 was built in 1944 to support the HE project of the Manhattan Project and has been used since then for a variety of LANL activities. It was principally designed as a site for counter x-ray diagnostics of HE lens configurations. Activities that supported the diagnostics included operating counter x-ray equipment, HE assembly, and research in the magnetic method program. The control bunker was removed during D&D activities in 2005.

SWMU 16-035 was investigated under the Consent Order and recommended for additional sampling to define extent. Existing data for these Sites will be reevaluated using the supplemental investigation report.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for W-SMA-8.7 exceeded the TAL for aluminum. Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was not detected above BVs in 29 shallow (i.e., less than 3 ft bgs) soil and tuff samples collected during the 2010 Consent Order investigation.

The SMA receives runoff from predominately undeveloped areas. The concentration of aluminum detected in the SMA sample is less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon/Cañon de Valle

Site ID: **18-002(a)**
Site Name: **Former firing site**
SMA: **PJ-SMA-13**

Updated Site Description (2014):
SWMU 18-002(a) consists of an inactive HE firing site at TA-18 in Pajarito Canyon south of the present location of building 18-0023 (Kiva 1). The firing site was used from 1944 to 1945 and consisted of two structures: former structure 18-0003, a firing chamber 2 ft wide × 2 ft long × 2.2 ft deep constructed from 1-in.-thick steel, and former structure 18-0002, an aboveground armored bunker, commonly called a "battleship," used to protect shot instrumentation. The firing chamber was open on the top and set flush with the ground west of the bunker, which was designated as storage for HE in the historical TA-18 structure log. Structure 18-0003 was removed in 1945, and structure 18-0002 is no longer in use.

SWMU 18-002(a) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 18-002(a).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer's Gulch—Tributary to Pajarito Canyon

Site ID: **18-002(b)**
Site Name: **Former firing points**
SMA: **3M-SMA-4**

Updated Site Description (2014):
SWMU 18-002(b) is the former location of a firing points at TA-18 in Threemile Canyon near the former location of former building 18-32. The firing site was used from 1944 to 1945. The site consisted of a 2-ft-long × 2-ft-wide × 2-ft-deep firing chamber (former structure 18-04) constructed from 1-in.-thick steel and an aboveground armored bunker (structure 18-05), commonly called a "battleship," used to protect shot instrumentation. The top of the firing chamber was open and set flush with the ground west of structure 18-05. A ground-level wooden structure (former structure 18-06), located east of structure 18-05, was the battery building for the firing site cable conduit system and contained racks of lead-acid batteries. Structure 18-04 was removed in 1945, structure 18-06 was dismantled in 1951, and structure 18-05 underwent D&D in 2011 and 2012. Three additional former firing points that were located upcanyon and west of the first former firing point are associated with SWMU 18-002(b). Firing Point C (beneath former building 18-0032) and Firing Point G (located at the southeast corner of the former storage building 18-0122) were used in firing operations involving smaller charges, while the third firing point, Medium Firing Point, was built to handle HE charges of up to 2 tons. A flat graded area west of former building 18-32 marks the former location of this firing point. The firing points were removed in the late 1940s, before the construction of former building 18-32.

SWMU 18-002(b) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 18-002(b).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **18-003(c)**
Site Name: **Septic system**
SMA: **3M-SMA-4**

Updated Site Description (2014):
SWMU 18-003(c) is an inactive septic system at TA-18 that received sanitary waste from former building 18-32 (a former critical assembly building) from 1952 to 1995. The system includes an inlet line, a reinforced concrete septic tank (structure 18-42), a discharge line, a drain field, and an outfall. The septic tank is located approximately 15 ft east of former building 18-128 and approximately 90 ft northeast of former building 18-32. The tank had a capacity of 650 gal. The inlet line leading to the tank is approximately 130 ft in length, and the total length of the outlet line is approximately 115 ft. The drain field begins approximately 60 ft east of the septic tank and extends east 55 ft. The drain field consists of four drainlines spaced approximately 10 ft apart. Each drainline is approximately 75 ft long. An outfall, located at the distal end of the drain field, discharged into the stream channel in Threemile Canyon. During the 1996 IA conducted at the Site, the septic tank content were removed and disposed of offsite and the tank was pressure washed. In addition, the floor drains in former building 18-32 were sealed by fastening a gasket and metal plate over the drain opening; water service to the building was shut off. During the 2000 VCM conducted at the Site, samples were collected from the tank interior and from subsurface soils around and beneath the tank; the tank was filled with pea gravel and closed in place. Buildings 18-32 and 18-128 underwent D&D in 2011and 2012.

SWMU 18-003(c) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **18-003(e)**
Site Name: **Inactive septic system**
SMA: **PJ-SMA-14.3**

Updated Site Description (2014):
SWMU 18-003(e) consists of an inactive septic system at TA-18 that includes two inlet lines, a cylindrical septic tank (structure 18-40), an outlet line, a drain field, and a former outfall. The septic tank is located approximately 50 ft southwest of building 18-37 and approximately 50 ft east of building 18-29 (a log cabin). The tank is constructed of reinforced concrete and measures 6 ft in diameter × 6 ft deep. The septic system received sanitary waste from building 18-31 (a utility building), building 18-37 (Guard Station 205), building 18-129 (a reactor subassembly building), building 18-189, and building 18-190. While it was in operation from 1951 to 1969, the septic system may have also received industrial waste from a sink in building 18-28 (a warehouse). Septic tanks associated with SWMUs 18-003(g and h) (structure 18-43 and structure 18-152, respectively) may have discharged to this septic system. Effluent discharged into a drain field that has four drainlines, each of which is approximately 40 ft long. The drainlines, which are 10 ft apart from each other, merge at the distal end of the drain field and continue an estimated 100 ft to the former outfall. In 1969, sanitary waste from the buildings was connected to the sewer system at the Site that routed effluent to the former TA-18 sanitary sewage lagoons. At that time, the septic tank was backfilled with sand.

SWMU 18-003(e) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 18-003(e).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Not applicable

Site ID: **18-010(b)**
Site Name: **Outfall**
SMA: **PJ-SMA-13.7**

Updated Site Description (2014):
AOC 18-010(b) consists of an active outfall that receives storm water from a drainage ditch running southward along the west side of the paved area west of the former main laboratory and office building at TA-18 (former building 18-30). The outfall discharges to a flat, grassy area at the fence southwest of former building 18-30. This discharge point is approximately 25 ft north of the stream channel in Pajarito Canyon. The storm water discharged to this area from AOC 18-010(b) generally infiltrates the ground a short distance from the outfall, although heavy flow may reach the stream channel. The date this outfall became operational is not known, but building 18-30 was constructed in 1951. The RFI work plan describes a 1988 photograph that noted spillage from a former refueling platform at structure 18-110 into the drainage ditch. Building 18-30 and most of the other TA-18 structures were demolished in 2010–2011.

Consent Order investigations have not been performed at AOC 18-010(b), and no decision-level data are available for this Site. Screening-level data are available from an RFI performed in 1994.

Significant Materials Exposed To Storm Water:
In 2011, a baseline storm water monitoring sample for PJ-SMA-13.7 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides, including isotopes of uranium and plutonium, are known to be associated with industrial materials historically managed at TA-18; these materials were handled only inside structures and were not exposed to storm water. Shallow soil samples collected during the 1994 RFI were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides but were analyzed for total uranium, which has alpha-emitting isotopes. Total uranium was detected above BV in 7 of 8 shallow RFI soil and sediment samples with a maximum concentration 5.7 times the maximum value in the background data set. Data collected during the 1994 RFI are screening-level data.

Monitoring location PJ-SMA-13.7 receives storm water run-on from developed environments, including paved parking lots and roads, as well as landscape containing sediment derived from Bandelier Tuff. The gross-alpha radioactivity in the SMA sample was below the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff and slightly above the UTL for runoff from developed areas.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **18-010(d)**
Site Name: **Outfall**
SMA: **PJ-SMA-14.4**

Updated Site Description (2014):
AOC 18-010(d) consists of an outfall at TA-18 that receives discharge in the form of sheet flow from a storm drainage collection area that drains the paved area northeast of a former guard station (building 18-37). The outfall discharges to a flat graveled and grassy area southeast of former building 18-37 and west of building 18-258. The discharge point is approximately 100 ft north of the stream channel in Pajarito Canyon. The date this outfall became operational is not known, but it is likely that the outfall has been operational from the time building 18-37 was constructed in 1951. Building 18-37 underwent D&D in 2011 and 2012.

AOC 18-010(d) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for AOC 18-010(d).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **18-010(e)**
Site Name: **Outfall**
SMA: **PJ-SMA-14.6**

Updated Site Description (2014):
AOC 18-010(e) consists of an outfall at TA-18 that receives discharge from a storm sewer drainage that drains the paved area between buildings 18-28 and 18-147. Discharge enters a storm drain that runs southeast under the paved area west of building 18-129, to an area east of building 18-190 , where the storm drain turns south. The storm drain reaches the outfall south of building 18-129, which discharges to a small grassy gully leading to the main stream channel in Pajarito Canyon. The outfall is located approximately 200 ft north of the stream channel. Buildings 18-28 and 18-147 underwent D&D in 2011 and 2012.

AOC 18-010(e) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for AOC 18-010(e).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **18-010(f)**
Site Name: **Former outfall**
SMA: **3M-SMA-4**

Updated Site Description (2014):
AOC 18-010(f) is a former outfall at TA-18 that received discharges from the roof and floor drains associated with former building 18-32. Roof and floor drains associated with former building 18-32 discharged to a drainline that was located at the northeast corner of the building. The drainline ran under the pavement and discharged to an outfall located approximately 100 ft north of former building 18-32, on the south side of the stream channel in Threemile Canyon. Building 18-32 was built in 1951 and used for nuclear critical assembly work. The date this outfall became operational is not known, but it is likely that the outfall has been operational from the time building 18-0032 was constructed in 1951. Building 18-32 was decommissioned in 2008 and underwent D&D in 2011 and 2012; the storm drainline was cut and capped at the foundation of former building 18-32 during D&D activities.

SWMU 18-010(f) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 18-010(f).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **18-012(a)**
Site Name: **Former outfall**
SMA: **PJ-SMA-14.8**

Updated Site Description (2014):
SWMU 18-012(a) consists of a former outfall at TA-18 for a combined industrial drain and storm sewer drain for former building 18-116 (Kiva 3). Drainlines that discharged to this outfall were connected to building 18-116 roof drains, floor drains, and sinks. The outfall, found during 1992 field inspections using a dye-trace test, is located approximately 120 ft northeast of building 18-116 and approximately 150 ft from the stream channel in Pajarito Canyon. Building 18-116 was built in 1960 and used for uranium mockup tests for the Rover Program—a nuclear rocket propulsion program conducted from 1955 to 1972. The date this outfall became operational is not known, but it is likely that the outfall has been operational from the time building 18-116 was completed in 1960. Building 18-116 underwent D&D in 2011 and 2012.

SWMU 18-012(a) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 18-012(a).

Significant Materials Exposed to Storm Water: Baseline storm water samples were collected in July and August 2011 and yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **18-012(b)**
Site Name: **Former outfall**
SMA: **PJ-SMA-14.2**

Updated Site Description (2014):
SWMU 18-012(b) consists of a former outfall at TA-18 is an outfall that received discharge from several sources in buildings 18-30 and 18-31. The outfall, which was active from the time the buildings were constructed in 1950, is located south of building 18-31, approximately 20 ft north of the main drainage channel in Pajarito Canyon. The outfall received discharge from an associated sump [SWMU 18-001(c)], floor drains, sinks, storm water from the east-wing roof of building 18-31, and a welding quench tank in building 18-30. The outfall also received discharge from machine shop floor drains and storm water from the roof of building 18-31. Discharges from both buildings were transported to the outfall via a series of 4-in. polyethylene pipes connected to the sources within the buildings. All drains in both buildings were plugged in 1992 and 1993, with exception of the storm water roof drains. The outfall received only storm water from the east-wing roof of building 18-30 from 1993 to 2011. Buildings 18-30 and 18-31 underwent D&D in 2011 and 2012.

SWMU 18-012(b) is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 18-012(b).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **20-002(a)**
Site Name: **Former firing site**
SMA: **S-SMA-3.95**

Updated Site Description (2014):
SWMU 20-002(a) is the location of a former firing pit (former structure 20-6) used from 1945 to 1948 to conduct initiator tests. The firing pit was located on the far west end of former TA-20, south of East Jemez Road. The steel-lined pit was constructed following the failure of the Dumbo, a steel vessel designed to contain the firing test shot debris. The firing pit had interior dimensions of 14 ft 8 in. × 14 ft 8 in. × 12 ft deep. The walls and floor of the pit consisted of 0.75-in.-thick steel plate backed by 12 in. × 12-in. timbers. The pit was covered by a steel framework overlain by a mat of 0.25-in.-diameter steel rods spaced 1 in. apart. According to a 1947 report, the framework and mat, presumably installed to contain shot debris, failed after the first few shots. LANL facility engineering records indicate the pit was removed in April 1948. A memorandum dated April 20, 1948, describing cleanup efforts in Sandia Canyon notes one "cage" was excavated and the "interior checked negative after clearing." The SWMU 20-002(a) firing pit is presumed to be the "cage" referred to in the memorandum.

Uranium-234 and uranium-238 were not detected above BVs in 18 shallow Consent Order tuff samples. Uranium-235/236 was detected above the tuff BV in 2 of 18 shallow Consent Order samples at a maximum activity 1.07 times tuff BV.

Significant Materials Exposed To Storm Water:
In 2013, a baseline storm water monitoring sample for S-SMA-3.95 exceeded the TAL for gross-alpha radioactivity. Uranium isotopes were not known to have been associated with industrial materials historically managed at this Site. Shallow (i.e., less than 3 ft bgs) samples collected during the 2010 Consent Order investigation were not analyzed for gross-alpha radioactivity. Consent Order samples were analyzed for uranium isotopes, which are alpha-emitting radionuclides. These isotopes are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped areas. The gross-alpha radioactivity detected in the SMA sample is less than UTLs for both runoff from undeveloped areas and urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **20-002(c)**
Site Name: **Former firing point**
SMA: **S-SMA-5**

Updated Site Description (2014):
SWMU 20-002(c) is a former firing point located near the southern edge of TA-53 close to the boundary of TA-72. This firing point was used for tests with explosive charges of up to 50 lb. The firing point is depicted in engineering drawing ENG-C 1778, Revision 1, as a pad bordered on three sides by an earthen berm. Engineering records show that the structure associated with this firing point (structure 20-9) was removed in April 1948. A memorandum dated April 20, 1948, describing cleanup efforts in Sandia Canyon notes seven "shot areas" were excavated and the "ground checked negative after removal". It is likely that the SWMU 20-002(c) firing point is one of the seven shot areas. The north side of this Site is currently covered by the road embankment for East Jemez Road.

Phase I Consent Order sampling is complete for SWMU 20-002(c). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs. SWMU 20-002(c) will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area, to be submitted to NMED in 2015. SWMU 20-002(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **20-002(d)**
Site Name: **Former firing point**
SMA: **S-SMA-4.5**

Updated Site Description (2014):
SWMU 20-002(d) is a former firing point located near a former manhole (structure 20-3) in the central part of former TA-20. Fewer than 10 implosion shots were fired near structure 20-3. One of these shots, containing 500 lb of Composition B (unspecified HE compounds), did not detonate completely. A 1962 LANL memorandum describes two cleanup efforts related to this incident: one conducted immediately after the incident and a second that was part of the 1948 Sandia Canyon cleanup conducted before the construction of East Jemez Road. Other historical documents indicate small pieces of HE were found and removed from this Site at various times, including in July 1966, July 1967, and June 1969. No HE was found during subsequent inspections conducted in April 1971, May 1973, and June 1975.

Phase I Consent Order sampling is complete for SWMU 20-002(d). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs. SWMU 20-002(d) will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area to be submitted to NMED in 2015. SWMU 20-002(d) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: 20-003(c)
Site Name: Former U.S. Navy gun site
SMA: S-SMA-5.2

Updated Site Description (2014):
AOC 20-003(c) is the site of a former U.S. Navy gun mount located approximately 90 ft north of East Jemez Road in Sandia Canyon. The former gun site was used between 1945 and 1948. A 10-ft × 10-ft concrete pad with a steel-plate surface (former structure 20-16) was used as a mount for the gun. Engineering drawing ENG-C 1778 shows a 30-ft-long earth-bermed timber-frame bin filled with tamped earth (former structure 20-10) located near the gun and on the slope at the toe of the canyon wall. At the end nearest the gun, the timber frame was 12 ft wide and 10 ft high, and at the far end it was 20 ft wide and 5 ft high. The gun was fired into the earth-filled bin so the projectile could be recovered. LANL engineering records show that in April 1948 structures 20-10 and 20-16 were removed and that structure 20-28, a conduit manhole, was left in place. The disposition of the soil that filled the frame is not known. During the 1995 VCA conducted at AOC 20-003(c), the top 4 ft of the 6-ft-thick concrete pad, conduits, manhole (former structure 20-28), and miscellaneous metal debris were removed. The remaining portion of the concrete pad that was not removed was covered with 5–6 ft of clean fill.

Phase I Consent Order sampling is complete for AOC 20-003(c). All detected inorganic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs. AOC 20-003(c) will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area to be submitted to NMED in 2015. AOC 20-003(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **20-005**
Site Name: **Former septic system**
SMA: **S-SMA-5.5**

Updated Site Description (2014):
SWMU 20-005 is a former septic system (septic tank and drainlines) located south of East Jemez Road in the central portion of the aggregate area. The system served a toilet, restroom sink, and darkroom sink in former building 20-1. The system was constructed in 1945 and it operated until 1948. Engineering drawings show the tank (structure 20-27) as having 6-in.-thick concrete walls with interior dimensions of 3 ft × 6 ft × 5 ft high and a capacity of 540 gal. The discharge point of the tank is not known. The septic system could not be located during a 1985 program LANL conducted to remove existing structures from Sandia Canyon. A pit-like depression was noted in the tuff in the area where the tank was believed to have been located. According to the 1985 report, excavation surrounding the area of the "pit" identified no evidence of the tank or associated drainlines. During the 1995 Phase I RFI conducted at SWMU 20-005, a geophysical survey was conducted to locate the tank. Survey data indicated no subsurface anomalies, confirming the septic tank had been removed.

Phase I Consent Order sampling is complete for SWMU 20-005. All detected inorganic and organic chemical concentrations from Consent Order samples were below residential SSLs. SWMU 20-005 will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area, to be submitted to NMED in 2015. SWMU 20-005 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **21-006(b)**
Site Name: **Former disposal pit**
SMA: **LA-SMA-6.3**

Updated Site Description (2014):
SWMU 21-006(b) was a seepage pit (former structure 21-202), drainline, and outfall installed in 1945 during the construction of building 21-2. Waste from the extraction process that was part of the original TA-21 plutonium purification process was discharged to a 3-in. cast iron drainline that exited the southeast side of building 21-2 and extended 160 ft to the south to the seepage pit. A 2-in. cast iron outlet line exited the sump and extended approximately 100 ft to the south to an outfall approximately 8 ft above the surface of a bench below the mesa top. It is not known when the seepage pit ceased to be used. The seepage pit consisted of a brick manhole placed within a trench. The seepage pit and piping were removed during the 2006–2007 DP Site Aggregate Area investigation. The section of the drainline that lies beneath the road was left in place because the road is active and continues to service DP East. SWMU 21-006(b) along with SWMUs 21-006(a), 21-006(c), and 21-006(d) comprise Consolidated Unit 21-006(c)-99.

SWMU 21-006(b) was investigated along with SWMUs 21-006(a), 21-006(c), and 21-006(d) as part of Consolidated Unit 21-006(c)-99. Samples were collected from 2007 to 2010 and analyzed for TAL metals, perchlorate, nitrate, cyanide, SVOCs, VOCs, pH, americium-241, gamma-emitting radionuclides, isotopic plutonium, isotopic uranium, tritium, and strontium-90.

All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. SWMU 21-006(b) was recommended for corrective action complete in the Phase II investigation report for DP Site Aggregate Area, submitted to NMED in 2010. SWMU 21-006(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-009**
Site Name: **Former waste treatment laboratory**
SMA: **LA-SMA-5.91**

Updated Site Description (2014):
AOC 21-009 is a former waste treatment laboratory (building 21-33) that was built in 1948 and operated until 1965. It was a wooden-frame single floor structure, built on concrete pillars and measuring 16 ft × 48 ft. Building components and laboratory furniture were contaminated with plutonium dust. Perchloric acid was used and may have contaminated the exhaust hoods. Wastewater from the laboratory was discharged to septic tank 21-33, which discharged to an outfall at the rim of Los Alamos Canyon. The tank was removed during demolition of building 21-33 in 1965; however, the drainline from the laboratory to the septic tank may remain in place. The outfall and tank associated with this waste line were designated as SWMU 21-023(c).

Consent Order investigations are complete for AOC 21-009; the Site meets residential risk levels. AOC 21-009 will be recommended for corrective action complete in Revision 2 of the Phase II investigation report for DP Site Aggregate Area to be submitted to NMED in late 2014 or early 2015. AOC 21-009 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for LA-SMA-5.91 exceeded the TAL for gross-alpha radioactivity. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for gross alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for amercium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and formerly industrially-developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is equivalent to the TAL and is therefore below the UTLs for runoff from developed and undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: Historical disposal practices are described above.

Past and Present Materials Management Practices: Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-011(k)**
Site Name: **Former outfall**
SMA: **DP-SMA-1**

Updated Site Description (2014):
SWMU 21-011(k) consists of the former NPDES-permitted outfall for treated industrial wastewater from the former wastewater treatment plants (buildings 21-37 and 21-257) and the former drainline. The drainline carried treated wastewater from two holding tanks (structures 21-112 and 21-113) to an outfall on the north-facing slope of DP Canyon. Wastewater discharged to the outfall consisted of treated plutonium-extraction-process effluents and potentially contained a variety of radioactive and chemical constituents. The discharge point was the end of a 4-in. cast-iron pipe located approximately 55 ft north of the TA-21 perimeter road. A gently sloping rocky surface extends from the former outfall approximately 30 ft north to the canyon rim, where there is a steep drop into DP Canyon. Discharges of treated industrial wastewater to the outfall were discontinued in July 1986. In January 2001, approximately 55 gal. of partially tritiated wastewater was unintentionally released from holding tank 21-113 through the SWMU 21-011(k) and infiltrated surface soils within 50 ft of the outfall. The drainline was plugged later in January 2001. In 1996, an IA was implemented on the hillside below SWMU 21-011(k) to remove radioactively contaminated soil and sediment and to install storm water control measures. During the 2002 and 2003 VCM conducted at the Site, the plugged outfall drainline was removed along with all radioactively contaminated soil, tuff, and sediment on the hillside and in the drainage below the former outfall until confirmation sampling results indicated no risk to recreational receptors. Excavated portions of the hillside were backfilled with clean fill, regraded, and reseeded and storm water controls were installed.

Investigation and remediation of SWMU 21-011(k) were complete before the Consent Order went into effect in 2005. The Site meets recreational risk levels and will be recommended for a CoC with controls in 2014.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

Site ID: **21-013(b)**
Site Name: **Surface disposal site**
SMA: **LA-SMA-5.92**

Updated Site Description (2014):
SWMU 21-013(b), is the former location of a surface disposal area on the southern edge of DP Mesa, southwest of former MDA V in TA-21. This area contained concrete building debris from the 1965 demolition of a waste treatment laboratory (former building 21-33). A radiological contamination survey of the building interior before demolition showed that various surfaces were contaminated with plutonium dust. It is not known if other materials were disposed of at SWMU 21-013(b). All debris was removed and the entire site was re-graded in 2005. NMED issued a CoC with controls under the Consent Order for the Site in June 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for LA-SMA-5.92 exceeded the TAL for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the BV in 1 of 101 shallow (i.e., less than 3 ft bgs) soil samples collected during the 1994 RFI and 2004–2005 Phase I Consent Order investigation at a concentration 1.4 times the soil BV.
- Mercury is not known to be associated with industrial materials historically managed at the Site. Mercury was detected above the BVs in 12 of 101 shallow soil and tuff samples collected during the 1992, 1994, and 1996 RFIs, and 2005–2006 Phase I Consent Order investigation at a maximum concentration 4.3 times the soil BV.
- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. Americium and plutonium and uranium isotopes are excluded from the definition of adjusted gross-alpha radioactivity. Shallow soil and tuff samples collected during the 1994 RFI and 2004–2005 Phase I Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are all alpha emitters.

The SMA receives runoff primarily from SWMUs 21-013(b) and 21-013(g), which were remediated in 2005. The area is currently undeveloped. The concentration of copper and the gross-alpha radioactivity detected in the SMA sample are in between the UTLs for urban runoff and undeveloped areas (there are no UTLs for mercury). These results are consistent with the land use in the SMA.

Method of Treatment, Storage, or Disposal: The surface disposal site is no longer used. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-013(c)**
Site Name: **Former surface disposal area**
SMA: **DP-SMA-3**

Updated Site Description (2014):
SWMU 21-013(c) is the former location of a surface disposal area located at the eastern end of DP Mesa. The site consisted only of construction debris, including piles of fill, asphalt, and concrete, an excavated trench, an earthen berm that contained scattered concrete, asphalt, and metal debris, and four large concrete pylons. Other surface debris included glass, scrap metal, wood, cans, paper, and plastic. It is not known when the materials were disposed of at this site. During the 1995 VCA implemented at SWMU 21-013(c), all debris was removed.

Decision-level data presented for the Site in the Phase II Delta Prime (DP) Site Aggregate Area investigation report indicates the Site poses no risk to residential receptors. The Phase II DP Site Aggregate Area investigation report recommended SWMU 21-013(c) for a CoC without controls.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for DP-SMA-3 exceeded the TALs for aluminum, copper, and gross alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at the Site. Aluminum was detected above BVs in 3 of 48 shallow Consent Order soil and tuff samples at a maximum concentration 1.3 times the tuff BV.
- Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was detected above BVs in 8 or 48 shallow Consent Order samples at a maximum concentration 3 times the tuff BV.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow Consent Order soil and tuff samples collected at the Site were not analyzed for gross alpha radioactivity but were analyzed for americium-241, isotopic plutonium, and isotopic uranium, which are all alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and undeveloped areas. The concentration of aluminum detected in the SMA sample was above the developed area UTL and below the undeveloped area UTL. The concentration of copper detected in the SMA sample is equivalent to the undeveloped area UTL and below the developed area UTL. The concentration of gross-alpha radioactivity detected in the SMA sample was above the developed area UTL and below the undeveloped area UTL. These results, along with the low magnitude and frequency of aluminum and copper detections in Consent Order samples, are consistent with the Site not being the source of the TAL exceedances for aluminum, copper, and gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

Site ID: **21-013(g)**
Site Name: **Former surface disposal area**
SMA: **LA-SMA-5.92**

Updated Site Description (2014):
AOC 21-013(g) the former location of a surface disposal area south of MDA Vin TA-21 on the south-facing slope leading into BV Canyon. The Site consisted of miscellaneous building debris, the origin of which is not known. All debris was removed 2005. NMED issued a CoC with controls under the Consent Order for the Site in June 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for LA-SMA-5.92 exceeded the TAL for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BV in any of the 12 shallow soil and sediment samples collected during the 1994 RFI and the 2004–2005 Phase I Consent Order investigation.
- Mercury is not known to be associated with industrial materials historically managed at the Site. Mercury were not detected above BVs in any of the 12 shallow soil and sediment samples collected during the 1994 RFI and the 2004–2005 Phase I Consent Order investigation.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Shallow soil and tuff samples collected during the 1994 RFI and 2004–2005 Phase I Consent Order investigation were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for americium-241 and plutonium, thorium, and uranium isotopes, which are all alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from SWMUs 21-013(b) and 21-013(g), which were remediated in 2005. The area is currently undeveloped. The concentration of copper and the gross alpha radioactivity detected in the SMA sample are in between the UTLs for urban runoff and undeveloped areas (there are no UTLs for mercury). These results are consistent with the land use in the SMA.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: BV Canyon—Tributary to Los Alamos Canyon

Site ID: **21-018(a)**
Site Name: **Former MDA V**
SMA: **LA-SMA-5.92**

Updated Site Description (2014):
SWMU 21-018(a),former MDA V, consisted of three interconnected liquid waste absorption beds on approximately 1-acre immediately south of the former DP laundry facility [SWMU 21-018(b), former building 21-20]. The cobble- and gravel-filled absorption beds with dimensions of 25 ft wide × 220 ft long × 5 ft to 6 ft deep were constructed to receive RLW from the former laundry facility and were designed to enhance liquid infiltration into the tuff. The average discharge rate to MDA V was 6000 gal. to 8000 gal. per day. Discharged wastewater flowed into pit 1, which overflowed into pit 2 and then into pit 3. Historical evidence shows the beds were underdesigned for the volume of wastewater discharged, resulting in overflows into adjacent drainages and into BV Canyon, a tributary of Los Alamos Canyon. The absorption beds were used continuously from 1945 to 1961 and remained on standby status until September 1963, when they were permanently removed from service. A soil cover was placed over the Site to repair erosion damage in 1985.

All absorption bed material, associated piping, and contaminated soil/tuff were removed and the Site fully characterized between 2005 and 2007. Risk-assessment results showed no potential unacceptable risk to residential and ecological receptors; no further investigation is required. NMED issued a CoC with controls under the Consent Order for the Site in June 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for LA-SMA-5.92 exceeded the TAL for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 6 shallow soil and tuff samples collected during the 1992, 1994, and 1996 RFI, 2005–2006 Phase I Consent Order investigation, and remediation, and 2007 supplemental investigation and remediation.
- Mercury is not known to be associated with industrial materials historically managed at the Site. Mercury was detected above the BV in 1 of 6 shallow soil and tuff samples collected during the 1992, 1994, and 1996 RFIs, 2005–2006 Phase I Consent Order investigation and remediation, and 2007 supplemental investigation and remediation at a concentration 1.5 times the soil BV (0.1 mg/kg versus 0.15 mg/kg).
- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. Shallow soil and tuff samples collected during the 1992, 1994, and 1996 RFIs and 2005–2007 Phase I Consent Order investigation and remediation were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are all alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from SWMUs 21-013(b) and 21-013(g), which were remediated in 2005. The area is currently undeveloped. The concentration of copper and the gross-alpha radioactivity detected in the SMA sample are in between the UTLs for urban runoff and undeveloped areas (there are no UTLs for mercury). These results are consistent with the land use in the SMA.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: BV Canyon—Tributary to Los Alamos Canyon

Site ID: 21-021
Site Name: Surface soil contamination from former stack emissions (sitewide)
SMAs: DP-SMA-2.35, DP-SMA-3, LA-SMA-5.91, and LA-SMA-6.395

Updated Site Description (2014):
SWMU 21-021 consists of surface soil contamination resulting from emissions from stacks throughout TA-21. This Site covers two SMAs: DP-SMA-3 and LA-SMA-5.91.The estimated area of soil contamination is approximately 300,000 m^2 and overlaps all of TA-21, a developed industrial area. Radionuclides were known to have been released from stacks throughout TA-21. There is no documentation of nonradioactive chemical releases associated with historical TA-21 stack emissions.

During the 1992 RFI, 155 shallow soil samples were collected from locations on a 40 × 40-m grid across TA-21. The NMED approved the DP Site Aggregate Area investigation work plan, which indicated the investigation of SWMU 21-021 was complete and no additional investigations were required. Because SWMU 21-021 overlies all other SWMUs and AOCs within TA-21, a request for a CoC is not expected to be made until investigation of all other TA-21 Sites is complete.

DP-SMA-2.35

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for DP-SMA-2.35 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to be associated with the stack emissions historically associated with this Site, although stack emissions would not be considered management of industrial materials. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides, and total uranium, which has alpha-emitting isotopes. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

DP-SMA-2.35 receives runoff from undeveloped and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is less than the UTLs for both urban runoff and undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

DP-SMA-3

In 2011, baseline storm water monitoring samples for DP-SMA-3 exceeded the TALs for aluminum, copper, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above BVs in any of the 3 shallow soil samples collected within the SMA boundary of DP-SMA-3 during the 1992 TA-21 RFI surface-wide soil investigation.
- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 3 shallow soil samples collected within the SMA boundary of DP-SMA-3 during the 1992 TA-21 RFI surface-wide soil investigation.
- Alpha-emitting radionuclides are known to be associated with the stack emissions historically associated with this Site, although stack emissions would not be considered management of industrial materials. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides, and total uranium, which has alpha-emitting isotopes. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

DP-SMA-3 receives runoff from undeveloped and undeveloped areas. The concentration of aluminum detected in the SMA sample was above the developed area UTL and below the undeveloped area UTL. The concentration of copper detected in the DP-SMA-3 sample is equivalent to the undeveloped area UTL and below the developed area UTL. The concentration of gross-alpha radioactivity detected in the DP-SMA-3 sample was above the developed area UTL and below the undeveloped area UTL. These results, along with the lack of aluminum and copper detections in RFI samples, are consistent with the Site not being the source of the TAL exceedances for aluminum, copper, and gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr**.** Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

LA-SMA-5.91

In 2013, the enhanced storm water monitoring sample for LA-SMA-5.91 exceeded the TAL for gross-alpha radioactivity. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to be associated with the stack emissions historically associated with this Site, although stack emissions would not be considered management of industrial materials. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides, and total uranium, which has alpha-emitting isotopes. Any alpha-emitting

radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

LA-SMA-5.91 receives runoff from undeveloped and former industrially developed areas. The concentration of gross-alpha radioactivity detected in the LA-SMA-5.91 sample is equivalent to the TAL and is therefore below the UTLs for runoff from developed and undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

LA-SMA-6.395

In 2013, baseline storm water monitoring samples for LA-SMA-6.395 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to be associated with the stack emissions historically associated with this Site, although stack emissions would not be considered management of industrial materials. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides, and total uranium, which has alpha-emitting isotopes. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

LA-SMA-6.395 receives runoff from undeveloped and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is greater than the UTL for urban runoff and less than the UTL for undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-022(h)**
Site Name: **Former sump, drainline, and outfall**
SMA: **LA-SMA-6.34**

Updated Site Description (2014):
SWMU 21-022(h) is the former location of a sump (structure 21-202), outlet drainline, and a formerly permitted outfall located at TA-21. Structure 21-202 was constructed in 1962 from 36-in. CMP. The sump received industrial wastewater and discharges from basement floor drains and roof drains in the plutonium fuel service building (21-150). The outlet drainline from the sump consisted of a 24-in.-diameter pipe that discharged to Los Alamos Canyon. As of May 1991, the outfall discharged only treated cooling water. Quantitative information about effluent discharged through structure 21-202 is not available. The SWMU sump (structure 21-202) and associated piping were removed in 2007. The section of the drainline that lies beneath the road was left in place because the road is active and continues to service DP East.

Decision-level data for SWMU 21-022(h) indicate the nature and extent of chemicals and radionuclides have been defined and determined that elevated concentrations of benzo(a)pyrene, lead, and plutonium-239 are present at the outfall area. Benzo(a)pyrene is present at concentrations above the industrial scenario, and lead and plutonium-239 are present at concentrations above the construction worker and residential scenarios. Safety personnel concluded the outfall area cannot be excavated safely with mechanical equipment. SWMU 21-022(h) was recommended to have no additional investigations or excavations performed because of the cliff-side hazards of the outfall area as well as the remote location. NMED has not yet approved or commented on the recommendation.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: BV Canyon—Tributary to Los Alamos Canyon

Site ID: **21-023(c)**
Site Name: **Former septic system**
SMA: **LA-SMA-5.91**

Updated Site Description (2014):
SWMU 21-023(c) is a former septic system and associated outfall located immediately west of former MDA V. The septic system consisted of a concrete tank (structure 21-62) that measured 3.5 ft wide × 7 ft long × 5.8 ft deep and a 4-in. VCP drainline. The septic system was intended only for sanitary waste and served a waste treatment laboratory (building 21-33) from 1948 to 1965. Sewage was pumped from the sump in building 21-33 through the septic tank and was discharged approximately 30 ft from the canyon edge above BV Canyon, a tributary to Los Alamos Canyon. It is not known what volume of wastewater was handled by the septic system or if any releases occurred, other than intentional releases to the outfall. The septic tank was removed in 1965.

Consent Order investigations are complete for SWMU 21-023(c); the Site meets residential risk levels. NMED issued a CoC with controls (storm water) for SWMU 21-023(c) in June 2011.

Significant Materials Exposed To Storm Water:
In 2013, the enhanced storm water monitoring sample for LA-SMA-5.91 exceeded the TAL for gross-alpha radioactivity. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for amercium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and former industrially developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is equivalent to the TAL and is therefore below the UTLs for runoff from developed and undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: No SWMU-related materials management practices have occurred in the last 3 yr. Historical disposal practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-024(a)**
Site Name: **Former septic system**
SMA: **LA-SMA-6.36**

Updated Site Description (2014):
SWMU 21-024(a) consists of a former septic system that served the old steam plant (building 21-009) at TA-21. The septic system was constructed in 1945 and consisted of a reinforced concrete septic tank (structure 21-53) that measured 9 ft × 5.75 ft × 7.25 ft deep, a 6-in.-diameter VCP inlet line, and a 4-in. or 6-in.-diameter VCP outlet line. The outfall discharged to the surface on the south rim of DP Mesa above Los Alamos Canyon. The septic system was decommissioned in 1966. The septic tank and inlet and outlet drainlines were removed in 2007. The section of the drainline that lies beneath the road was left in place because the road is active and continues to service DP East.

All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. SWMU 21-024(a) was recommended for corrective action complete in the Phase II investigation report for DP Site Aggregate Area, submitted to NMED in 2010. SWMU 21-024(a) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-024(c)**
Site Name: **Former septic system**
SMA: **LA-SMA-6.38**

Updated Site Description (2014):
SWMU 21-024(c) consists of a former septic system that served buildings 21-54 and 21-61 at TA-21. The septic system was constructed in 1945 and consisted of a reinforced concrete septic tank (structure 21-56) that measured 4 ft long × 8 ft wide × approximately 5 ft deep with 4-in.-diameter VCP inlet and outlet drainlines. The outfall discharged to the surface on the south rim of DP Mesa above Los Alamos Canyon. The septic system was decommissioned in 1966. The septic tank and inlet and outlet drainlines were removed in 2006 along with PCB-contaminated soil and tuff. Additional PCB-contaminated soil and tuff were removed in 2009.

Results from the Phase I investigation of 21-024(c) determined PCB concentrations were above the TSCA cleanup level of 1 mg/kg and remediation effort were performed in 2009. A total of 142 preexcavation samples, and 368 postexcavation samples were collected and analyzed for PCBs. The Site has been remediated to less than or equal to 1 mg/kg total PCBs. Phase II investigations of SWMU 21-024(c) were combined with Consolidated Unit 21-003-99. The nature and extent of contamination have not been defined, and additional sampling is proposed at 21-024(c).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-024(d)**
Site Name: **Former septic system**
SMA: **LA-SMA-6.25**

Updated Site Description (2014):
SWMU 21-024(d) consists of a former location septic system that served building 21-01. The septic system was constructed in 1945 at the same time building 21-01 was built. The septic system consisted of a reinforced concrete septic tank (structure 21-106) that measured 17.5 ft × 9.5 ft × 8.83 ft deep, with 6-in.-diameter VCP inlet and outlet drainlines. The outfall discharged to the surface on the south rim of DP Mesa above Los Alamos Canyon. The septic system was decommissioned in the early 1960s. In 1995, the septic tank was filled with gravel, and the inlet and outlet lines were grouted with concrete and left in place. The septic tank and all remaining inlet and outlet drainlines were removed in 2007.

The Phase II investigation at SWMU 21-024(d) determined the detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs, with the exception of arsenic, which was just above the residential SSL but below the industrial SSL. However, the vertical extent of americium-241, SVOCs, and tritium were not defined. Therefore, additional sampling is proposed for SWMU 21-024(d).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-024(h)**
Site Name: **Former septic system**
SMA: **DP-SMA-2**

Updated Site Description (2014):
SWMU 21-024(h) consists of a septic system that routed sewage from building 21-151, an administrative building and shop, through a sump (structure 21-175) and then through a septic tank (structure 21-163) to the surface on the north rim of DP Mesa above DP Canyon. The septic system was constructed in 1945 at the same time building 21-151 was built. The septic system consisted of a reinforced concrete septic tank that measured 11.33 ft × 6.33 ft × 8.67 ft deep, with 6-in.-diameter VCP inlet and outlet drainlines. Building 21-151 was removed in the early 1960s, and building 21-152, a polonium-processing and high-temperature laboratory, was subsequently tied into the SWMU 21-024(h) septic tank in 1965. The septic system was decommissioned in 1966; the septic tank was filled with pea gravel and inlet and outlet lines were grouted with concrete and left in place in 1996. The septic tank and inlet and outlet drainlines were removed in 2007.

Consent Order investigations for SWMU 21-024(h) are complete. The Site meets residential risk levels and will be recommended for a CoC with without controls in 2014.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

Site ID: **21-024(i)**
Site Name: **Former septic system**
SMA: **LA-SMA-6.5**

Updated Site Description (2014):
SWMU 21-024(i) consists of a former septic system that served polonium-processing laboratory, structure 21-152, and high-temperature chemistry building, structure 21-209. The septic tank also received blowdown from former cooling towers 21-166 and 21-167. The septic system was constructed in 1945 and consisted of a reinforced concrete septic tank that measured 6-ft × 10-ft × 8-ft-ft deep, with 6-in.-diameter VCP inlet and outlet drainlines. The outfall discharged approximately 30 ft from the southeastern edge of DP Mesa above Los Alamos Canyon. Portions of the inlet line, the septic tank, the outlet line, and contaminated soil and tuff at the outfall were removed in 2001 as part of an IA. The remaining portion of the inlet line was removed in 2007.

All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. SWMU 21-024(i) was recommended for corrective action complete in the Phase II investigation report for DP Site Aggregate Area submitted to NMED. SWMU 21-024(i) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: 21-024(j)
Site Name: Former septic system
SMA: LA-SMA-6.395

Updated Site Description (2014):
SWMU 21-024(j) consists of a septic system that routed sanitary sewage from building 21-155, a warehouse/laboratory through a septic tank (structure 21-94) to the surface on the south rim of DP Mesa above Los Alamos Canyon. Building 21-155 housed the TSTA facility. The septic system was constructed in 1961 and consisted of a reinforced concrete septic tank that measured 5 ft × 3 ft × 6 ft deep with 4-in.-diameter VCP inlet and outlet drainlines. The septic tank was located off the southwest corner of building 21-155 near the south edge of the perimeter road. The septic system was decommissioned in 1966; the septic tank was filled with dirt and left in place. The septic tank and inlet and outlet drainlines were removed in 2007. SWMU 21-024(j) was recommended for a CoC without controls.

Consent Order investigations are complete for SWMU 21-024(j). The Site meets recreational risk levels. SWMU 21-024(j) was recommended for corrective action complete without controls in October 2010. The Site will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for LA-SMA-6.395 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for amercium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and former industrially developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is greater than the UTL for runoff from develop areas and less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related materials management practices have occurred in the last 3 yr. Historical disposal practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-024(l)**
Site Name: **Former outfall**
SMA: **DP-SMA-0.6**

Updated Site Description (2014):
SWMU 21-024(l) is the location of a former outfall that received liquid waste from the floor drain of the building 21-21 mechanical room. The 3-in. cast-iron drainline ran north from the building 21-21 mechanical room to the outfall near the south rim of DP Canyon. From 1946 to 1974, building 21-21 housed a vault used to store uranium and plutonium. The building was decommissioned in 1974. During the 2007 DP Site Aggregate Area investigation, the drainline was removed, and contaminated soil and sediment were excavated from the outfall area to a depth of approximately 3 ft bgs.

Consent Order investigations for SWMU 21-024(l) are complete. The Site meets residential risk levels and will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

Site ID: **21-024(n)**
Site Name: **Former drainlines**
SMA: **DP-SMA-2.35**

Updated Site Description (2014):
SWMU 21-024(n) originally consisted of a CMP that exited building 21-155 and an outfall on the north edge of DP Canyon. Building 21-155 was constructed in 1949 and housed a warehouse and laboratory. Three additional drainlines originating from building 21-155 (or next to building 21-155) that followed a parallel path to, and west of, the SWMU 21-024(n) drainline were found in engineering drawings and during site visits in the early 1990s and were subsequently added to SWMU 21-024(n). Each of the parallel drainlines discharged to the same hillside as the SWMU 21-024(n) outfall. Discharges from each drainline flowed downslope to a ditch on the south side of the TA-21 perimeter road. From the ditch, the path of the effluent flowed to one of two culverts (one to the east and one to the west) that crossed under the perimeter road and emptied onto the ground surface that sloped toward DP Canyon. All four drainlines were removed in 2007.

Decision-level data for SWMU 21-024(n) determined the lateral and vertical extent of plutonium-239 and uranium-238 were not defined. Additional sampling and remediation will be conducted at SWMU 21-024(n) during the DP Aggregate Area Phase III investigation.

Significant Materials Exposed To Storm Water:
In 2013, a baseline storm water monitoring sample for DP-SMA-2.35 exceeded TALs for gross-alpha radioactivity.

- The only alpha-emitting radionuclides known to be associated with industrial materials historically managed at the Site are polonium and actinium. Shallow Consent Order soil and tuff samples collected at the Site were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, isotopic plutonium and isotopic uranium, which are all alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is less than the UTLs for both urban runoff and undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

Site ID: **21-027(a)**
Site Name: **Former drainlines and outfall**
SMA: **LA-SMA-6.31**

Updated Site Description (2014):
SWMU 21-027(a) consists of former drainlines that received effluent from floor drains in building 21-3, a surface-drainage system, and a former outfall at the south of DP Canyon that discharged to Los Alamos Canyon. Building 21-3 was constructed in 1945 as part of original DP West plutonium facilities. A 4-in. VCP ran beneath a paved area south of building 21-3 for approximately 30 ft and emptied into a storm drain. A 12-in.-diameter culvert ran from the storm drain underground for approximately 50 ft, emptying onto the ground at a ponding area on the southwest corner of the footprint of a former cooling tower (structure 21-143, AOC C-21-027). From the cooling tower footprint, runoff flowed in an unlined ditch to a 24-in.-diameter CMP culvert that carried runoff beneath the south TA-21 perimeter road to the mesa edge. The CMP extended approximately 3 ft over the mesa edge into Los Alamos Canyon. In 1994 and 1995, building 21-3, including all building drains and the drainlines beneath the building, and the cooling tower were removed during TA-21 D&D activities. The 4-in.-diameter pipe beneath the paved area was left in place as was the storm drain, which collected runoff from nearby parking lots. During the 2007 DP Site Aggregate Area investigation, remaining drainlines were removed along with the top foot of soil at the former ponding area. The section of drainline beneath the TA-21 perimeter road was left in place because the road is active and continues to service DP East.

Decision-level data for SWMU 21-027(a) indicate the presence of elevated concentrations of dioxins/furans at levels above the industrial SSLs and concentrations of dioxins/furans and isotopic plutonium above the construction worker and residential SSLs and SALs. Additional sampling and remediation will be conducted at SWMU 21-027(a) during the DP Aggregate Area Phase III investigation.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-027(c)**
Site Name: **Former outfall**
SMA: **LA-SMA-6.25, LA-SMA-6.27**

Updated Site Description (2014):
SWMU 21-027(c) consists of a former drainline and outfall that discharged 50 ft inside the south TA-21 perimeter fence to a broad, gently sloping area on the south rim of DP mesa toward Los Alamos Canyon. Building 21-6 was constructed in 1945 as a cafeteria and machine shop. A 4-in. VCP drainline exited the southeast corner of the building and discharged sanitary wastewater to the SWMU 21-027(c) outfall. Building 21-6 was removed in 1966; however, the drainline was left in place. The entire drainline was removed in 2007.

All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. SWMU 21-027(c) was recommended for corrective action complete in the Phase II investigation report for DP Site Aggregate Area, submitted to NMED in 2010. SWMU 21-027(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **21-027(d)**
Site Name: **Former drainline and outfall**
SMA: **LA-SMA-5.91**

Updated Site Description (2014):
SWMU 21-027(d) consists of the former drainline and outfall for the secondary containment that was around a former aboveground diesel fuel tank (AOC C-21-028). The concrete secondary containment structure was built around the tank in 1948 to contain any potential releases from the tank. A sump was constructed in the center of the south side of the containment, and a drainline was installed in the drainage ditch from the tank containment. The first segment of the drainline (approximately 5 ft) from the sump to a gate valve just outside the containment wall was a 4-in. steel pipe. At the gate valve, the drainline changed to a VCP. When the wastewater treatment laboratory (former structure 21-33, AOC 21-009) was built, the drainage ditch was rerouted around the building and south toward the rim of DP Mesa. The new containment drainline was then installed below ground surface. The outfall for the drainline began near the mesa edge and continued down the hillside toward BV Canyon. The fuel tank and concrete containment were removed in 1960, and the drainline was removed in March 1965. There was no record or evidence of a release from the fuel tank or containment area.

Consent Order investigation are complete for SWMU 21-027(d); the Site meets residential risk levels. SWMU 21-027(d) will be recommended for a CoC without controls in 2014.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for LA-SMA-5.91 exceeded the TAL for gross-alpha radioactivity. The baseline storm water monitoring sample collected in 2011 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for amercium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped and former industrially developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is equivalent to the TAL and is therefore below the UTLs for runoff from developed and undeveloped areas. This result is consistent with the Site not being the source of the TAL exceedance for gross-alpha radioactivity.

Method of Treatment, Storage, or Disposal: No SWMU-related materials management practices have occurred in the last 3 yr. Historical disposal practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: 21-029
Site Name: Soil contamination area
SMA: DP-SMA-0.3

Updated Site Description (2014):
SWMU 21-029, DP Tank Farm, is the former location at TA-21 of 15 storage tanks and 2 fill stations that contained various petroleum hydrocarbon products. DP Tank Farm was operational from 1946 to 1985 and is a 3.5-acre Site located between the eastern boundary of the Knights of Columbus property line and the western boundary of the Los Alamos County Fire and Training Station. DP Tank Farm was the primary fueling station supporting LASL operations until the late 1970s, when some of the fuel storage and distribution operations were moved to TA-03. Thirteen of the tanks were installed belowground, and two were installed aboveground. To contain any petroleum hydrocarbon release, an earthen berm was constructed on the northern perimeter of the Site sometime between 1974 and 1986. The berm was approximately 397 ft long × 4 ft high.

All storage tanks and structures (including piping, fill stations, and valve boxes) were decommissioned and removed in 1988. The excavation for each underground tank was backfilled with the soil that had covered the tanks. During decommissioning activities, one tank (structure-21-ATF-10) had a leaking gasket. The remaining tanks were reportedly in excellent condition, as documented by the 1980 corrosion inspections. Approximately 4 yd^3 of contaminated soil was removed from beneath the former location of structure-21-ATF-10. In addition, approximately 75 yd^3 of contaminated soil was removed from the former locations of the two fill stations. Clean fill was brought in to fill the depression caused by the removal of contaminated soil beneath structure-21-ATF-10. Clean soil from the soil berm was used to regrade the Site. Piping and concrete were disposed of at Los Alamos County landfill. Petroleum-contaminated soil excavated during decommissioning activities was removed. In addition, in 1996, 1720 yd^3 of petroleum-contaminated soil and tuff was excavated and removed from the former location of the East Fill Station. The excavation was backfilled, regraded, and reseeded.

SWMU 21-029 was investigated and remediated prior to the Consent Order and recommended for NFA. NFA was approved by NMED in 2002 and no additional investigation was required under the Consent Order.

Significant Materials Exposed to Storm Water: In 2013, two corrective action storm water monitoring samples for DP-SMA-0.3 exceeded the TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Shallow (i.e., less than 3 ft bgs) samples collected during the 1995 RFI, 1996 VCA, and 2000–2001 Phase II RFI were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because these were not potential contaminants at this Site The SMA receives runoff primarily from undeveloped areas. Concentrations of gross-alpha radioactivity detected in the SMA samples are between the UTLs for urban runoff and undeveloped areas. These results are consistent with land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The soil contamination associated with the former tank farm has been remediated. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: The soil contamination associated with the former tank farm has been remediated. Historical materials loading activities are described above.

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: DP Canyon

Site ID: **22-010(b)**
Site Name: **Inactive septic system**
SMA: **PJ-SMA-5.1**

Updated Site Description (2014):
Review of the SWMUs within PJ-SMA-5.1 and the monitoring constituents in the IP Appendix B has identified that SWMU 22-016 was misidentified as the relevant site to be covered under the IP. The site intended for monitoring is SWMU 22-010(b). A complete site narrative for SWMU 22-010(b) follows.

SWMU 22-010(b) is an inactive septic system located at TA-22 approximately 90 ft south of building 22-0001. The septic system consists of a septic tank (structure 22-0051), drainlines, a leach field, sand filter, and outfall. The septic tank was installed in 1948 and originally served buildings 22-0001 (an assembly building), 22-0004 (an office and fabrication building), and 22-0005 (a shop and laboratory building). In the 1950s, buildings 22-0032 (a guard shack) and 22-0052 (a plating and circuit etching shop) were constructed and added to the septic system. In 1984, buildings 22-0090 (an office building), 22-0091 (an assembly building), and 22-0093 (a detonator development building) were constructed and added to the system. In 1973, a sand filter was constructed (east of the leach field) to replace the leach field. The sand filter discharged through a 6-in.-diameter VCP that extended south 120 ft before terminating at an outfall. The sand filter operated until the 1990s when it was rerouted to the SWSC.

Consent Order or other environmental investigations have not been performed at SWMU 22-010(b), and no investigation data are available for this Site.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for PJ-SMA-5.1 exceeded TALs for copper, zinc, and gross-alpha radioactivity.

- Copper is known to be associated with industrial materials historically managed at the Site.
- Zinc may have been known to be associated with industrial materials historically managed at the Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site.

Monitoring location PJ-SMA-5.1 receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediment derived from Bandelier Tuff. The concentrations of copper in the baseline SMA samples were above the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff but less than the UTL for runoff from developed areas. The concentrations of zinc in the baseline SMA samples were less than the UTLs for runoff from undeveloped areas containing sediment derived from Bandelier Tuff and runoff from developed areas. The gross-alpha radioactivity in the baseline SMA samples were less the UTL for runoff from undeveloped areas containing sediment derived from Bandelier Tuff and slightly above the UTL for runoff from developed areas.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **22-014(a)**
Site Name: **Active sump**
SMA: **2M-SMA-1.43**

Updated Site Description (2014):
SWMU 22-014(a) consists of an active HE sump, an associated inactive drainline, and an inactive seepage pit. The sump is located immediately south of building 22-0093. The sump is constructed of concrete containing an inset aluminum tank and measures approximately 4 ft deep × 9 ft long × 3 ft wide. The sump system began operations in 1985 and receives rinse water from a washing facility for parts and clothing from explosives compacting operations in rooms C112 and C114 in building 22-0093. Before 1995, the sump discharged approximately 100 gal. of wastewater each week through a drainline to a seepage pit located 150 ft south of the sump in the upper part of Tributary B of Twomile Canyon. The seepage pit is 4 ft in diameter and 40 ft deep. In 1995, the drainline from the sump was capped, rendering the sump drainlines and seepage pit inactive. Operations in building 22-0093 continue to discharge wastewater to the sump, where the effluent is retained and suspended solids settle out as sludge. The sump contents are periodically removed for disposal at approved facilities at TA-16. The sump is equipped with a level monitor and an alarm that are monitored remotely in a manager's office.

Consent Order investigations have not been performed at SWMU 22-014(a); no decision-level data are available for this Site.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for 2M-SMA-1.43 exceeded the TALs for aluminum and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Shallow (i.e., less than 3 ft bgs) soil samples collected during the 1994 RFI at the Site were not analyzed for inorganic chemicals since these constituents are not associated with historical Site activities.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected during the 1994 were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical site activities.

All samples collected during the 1994 RFI conducted at SWMU 22-014(a) were analyzed for HE only. HMX was detected in 1 of 8 shallow soil samples collected next to the subsurface sump, outlet line, and former seepage pit at a concentration 0.028% of the residential SSL. HE was not detected in the sample collected from the sump contents during the 1994 RFI. The RFI data are screening level only.

The SMA receives runoff from an asphalt road, grassy areas, and undeveloped areas potentially impacted by surface releases from SWMU 22-015(a). The concentration of aluminum and the gross-alpha radioactivity in the SMA sample are between the UTLs for runoff from developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **22-014(b)**
Site Name: **Inactive sump system**
SMA: **2M-SMA-1.5**

Updated Site Description (2014):
SWMU 22-014(b) consists of an inactive explosives sump and outfall that serves rooms 101 through 113 in laser laboratory building 22-0034 at TA-22. The concrete sump is located on the northeast corner of building 22-0034 and is 4 ft × 2 ft × 3 ft deep with an inset aluminum tank. Building 22-0034 was completed in 1953 and previously housed a chemistry laboratory, an explosives laboratory, and a photographic laboratory. The sump effluent drained north to an outfall located in a marshy area in the upper part of Tributary B of Twomile Canyon until 1994 when the sump outlet was plugged. The sump has not been used since 1994.

Consent Order investigations have not been performed at SWMU 22-014(b); no decision-level data are available for this Site.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **22-015(a)**
Site Name: **Drainlines and dry wells**
SMA: **2M-SMA-1.43**

Updated Site Description (2014):
Site 22-015(a), situated on Twomile Mesa in the central-east area of TA-22, consists of two inactive seepage pits (Pits A and B), located east of building 22-91 in an open, grass-covered area. Each pit had an outside diameter of 4 ft and is filled with crushed gravel with a central 4-in. polypropylene perforated pipe vented to the surface. Pit A was 26 ft deep, and Pit B was 20 ft deep. The pits served rooms B102, B107, B121, B123, 8145, and B160 of building 22-91, which housed printed circuit-board etching operations. From 1985 to 1987, waste from the etching operations in building 22-91 was discharged through a 6-in.-diameter PVC drainpipe to the seepage pits. Before discharge, waste material was pretreated to remove contaminants. However, small quantities of dissolved contaminants and fine particulates may have been carried as effluent into the pits. The seepage pits were intended to enable liquids to percolate into the surrounding soils and tuff, while retaining potential contaminants in the seepage pit sediments and immediate (surrounding) soil matrix. The system failed because the effluent production rate exceeded the infiltration rate of liquid into the tuff, resulting in seepage pit overflow. In 1987, the pits were disconnected from their drainlines and left in place. After the pits were disconnected, effluent was allowed to daylight for only a few months before the drainlines were tied into the TA-16 WWTP.

Consent Order investigations have not been performed at Site 22-015(a), and no decision-level data are available for this Site.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for 2M-SMA-1.43 exceeded the TALs for aluminum and gross-alpha radioactivity.

- Aluminum may potentially be associated with industrial materials historically managed at the Site. Aluminum was not, however, detected above the BV in any of the three shallow 1994 RFI soil samples collected at the Site. Shallow samples were not collected during the 1997 RFI.
- Alpha-emitting radionuclides are not associated with historical site activities. Shallow soil samples collected during the 1994 RFI were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical site activities.

The SMA receives runoff from an asphalt road, grassy areas, and undeveloped areas potentially impacted by surface releases from SWMU 22-015(a). The concentration of aluminum and the gross-alpha radioactivity in the SMA sample are between the UTLs for runoff from developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **22-015(c)**
Site Name: **Outfall**
SMA: **PJ-SMA-5**

Updated Site Description (2014):
SWMU 22-015(c) consists of a former NPDES-permitted outfall (06A077) located at TA-22 approximately 80 ft south of building 22-52. The outfall received discharge from the floor drains in building 22-52, which were connected to the outfall via a 6-in.-diameter VCP drainline. The outfall daylighted in a channel that drained to a pond located near the edge of the mesa. Drainage from the pond eventually discharged into Pajarito Canyon. Beginning in 1952, building 22-52 was used as a plating laboratory and was later converted into a printed-circuit etching laboratory. Although most waste from the plating and etching operations at building 22-52 was collected manually, effluent from the rinse tanks overflowed to the floor drains. Discharge to the outfall was discontinued in 1977, when all liquid wastes were collected in drums and sent off-site for treatment. During the 1995 EC of SWMU 22-015(c), 260 yd^3 of contaminated soil were excavated from the drainage below the outfall and disposed of off-site.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for PJ-SMA-5 exceeded TALs for copper. Copper was associated with industrial materials historically managed at the Site. Copper was detected above soil and tuff BVs in shallow (i.e., less than 3 ft below ground surface bgs) RFI and EC confirmation samples. Copper was detected above BV in 11 of 11 shallow samples with a maximum concentration 7800 times the soil BV.

The SMA receives runoff from developed and undeveloped areas. The concentration of copper detected in the SMA sample is above both the UTL for urban runoff from developed areas and the UTL for the Bandelier Tuff BV.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Discharge to this outfall ceased in 1977. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **22-016**
Site Name: **Inactive septic tank**
SMA: **PJ-SMA-5.1**

Updated Site Description (2014):
Review of the SWMUs within PJ-SMA-5.1 and the monitoring constituents in the IP Appendix B has identified that SWMU 22-016 was misidentified as the relevant site to be covered under the IP. The site intended for monitoring is SWMU 22-010(b). A complete site narrative for SWMU 22-010(b) is included in Section IV Part B.

Significant Materials Exposed to Storm Water: Not applicable

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **26-001**
Site Name: **Surface disposal area**
SMA: **LA-SMA-9**

Updated Site Description (2014):
SWMU 26-001 is a surface disposal area that contains debris from a five-room concrete storage vault (structure 26-1) and is located within TA-73 on the south-facing slope of Los Alamos Canyon. The vault was constructed in 1946 for storing radioactive materials; however, the type and quantity of radioactive materials is not known. The vault was later used for storing HE. The vault was decommissioned and dismantled in 1966. Before it was decommissioned, some components of the vault, including shelving, drainlines, the sump, and ductwork, were removed and disposed of in MDA C. The remaining structure was bulldozed onto the south-facing slope of Los Alamos Canyon. In the 1970s, most of the vault debris rested on the bench below the mesa top; however, some debris may have fallen as far as the canyon floor. The debris on the ledge was covered with approximately 3 ft of soil.

Decision-level data for SWMU 26-001 determined that the lateral and vertical extent of contamination have not been defined for antimony, chromium, nickel, and copper. Additional sampling is proposed for SWMU 26-001.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **26-002(a)**
Site Name: **Former sump system**
SMA: **LA-SMA-9**

Updated Site Description (2014):
SWMU 26-002(a) is a former acid sump system located within TA-73 and situated on the south rim of Los Alamos Canyon. Installed in 1948, the sump system consisted of a 6-in. VCP floor drain that discharged to a collection sump located outside the concrete storage vault (structure 26-1). The sump discharged to an outfall [SWMU 26-002(b)] that drained to Los Alamos Canyon. The sump was decommissioned and removed in 1966.

Decision-level data for SWMU 26-002(a) determined that the lateral and vertical extent of contamination have not been defined for antimony, chromium, nickel, and copper. Additional sampling is proposed for SWMU 26-002(a).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **26-002(b)**
Site Name: **Former drainline**
SMA: **LA-SMA-9**

Updated Site Description (2014):
SWMU 26-002(b) is a former drainline located at within TA-73 and situated on the south rim of Los Alamos Canyon. The 4-in. VCP drainline served the equipment room of the former concrete storage vault (structure 26-1) and discharged directly to Los Alamos Canyon. The drainline was removed in 1966.

Decision-level data for SWMU 26-002(b) determined that the lateral and vertical extent of contamination have not been defined for antimony, chromium, nickel, and copper. Additional sampling is proposed for SWMU 26-002(b).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **26-003**
Site Name: **Septic system**
SMA: **LA-SMA-9**

Updated Site Description (2014):
SWMU 26-003 is a sanitary septic system that served a restroom in the former concrete storage vault (structure 26-1) at former TA-26. Installed in 1948, the septic system consisted of 4-in. VCP drainline connected to a 250-gal. steel septic tank. The septic tank may have been removed at the same time as the sump [SWMU 26-002(a)]; however, there is no documentation verifying removal of the septic tank.

Decision-level data for SWMU 26-003 determined that the lateral and vertical extent of contamination have not been defined for antimony, chromium, nickel, and copper. Additional sampling is proposed for SWMU 26-003.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **27-002**
Site Name: **Inactive firing site**
SMA: **PJ-SMA-16**

Updated Site Description (2014):
SWMU 27-002 is an inactive firing site in Pajarito Canyon used between 1944 and 1947. The Site consists of five former firing pits situated on both sides of Pajarito Road, approximately 0.9 mi southeast of TA-18. Firing Pit 1 is located in the grassy area approximately 100 ft south of the TA-36 fence. Firing Pits 2 and 3 are approximately 200 ft east of Firing Pit 1, between the fence and Pajarito Road. Firing Pit 4 has been impacted by the construction of Pajarito Road but is located on the north side of Pajarito Road. Firing Pit 5 is located on a small curve on the north side of Pajarito Road. The pits were used for explosives testing with materials such as beryllium, thorium, and uranium. A 1946 bullet sensitivity test at Firing Pit 1 caused a block of Composition B explosive to undergo a low-order explosion, scattering unexploded HE over a 250-yd radius.

SWMU 27-002 is included in the Consent Order as part of the Lower Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Lower Canyon Aggregate Area was approved in December 2010; the investigation report for the aggregate area is due to NMED by July 31, 2014. Decision-level data are not available for SWMU 27-002.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Not applicable

Site ID: **31-001**
Site Name: **Former septic system**
SMA: **P-SMA-2.15**

Updated Site Description (2014):
SWMU 31-001 consists of a former septic system located in former TA-31. This septic system consisted of a septic tank (structure 00-7), two sanitary sewer manholes (structures 00-41 and 00-42), associated waste lines, and an outfall. The septic tank was constructed in 1949, operated until 1954, and was removed in 1988. The waste line was not encountered when the septic tank was removed in 1988. The contents of the septic tank were sampled when the tank was removed and was found to contain no hazardous materials. The septic system served former building 31-7, which was constructed in 1949 and served as the main warehouse at former TA-31. TA-31 served as the receiving area for all truck shipments to LANL from 1945 to 1954. The septic tank (former structure 00-7) was constructed of reinforced concrete and was 4 ft × 3 ft and believed to be several feet in depth. This septic tank was located aboveground on a small bench above the rim of Pueblo Canyon, north of building 31-7; the outfall from the tank discharged into Pueblo Canyon. Former TA-31 was located in what is now the eastern residential area of Los Alamos, just west of the Los Alamos Airport. During the 1995 VCA conducted at SWMU 31-001, soil was excavated to the underlying tuff from an area approximately 2 ft upgradient of the outfall to 4 ft downgradient of the outfall, to depths ranging from 1 to 2 ft bgs.

Phase I and Phase II Consent Order sampling is complete for SWMU 31-001. SWMU 31-001 meets residential and recreational risk levels. A request for CoC for SWMU 31-001 was submitted to NMED in October 2010.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **32-002(b1)**
Site Name: **Former septic system**
SMA: **LA-SMA-5.361**

Updated Site Description (2014):
SWMU 32-002(b1) is part of a former septic system that served former buildings 32-01 and 32-02. SWMU 32-002(b1) is the portion of the former septic system that is located on property currently owned by the Los Alamos School Board. The remainder of the septic system is located on property owned by DOE and is designated as SMWU 32-002(b2). Former SWMU 32-002(b) was split into two new SWMUs [32-002(b1) and 32-002(b2)] in December 2012 to expedite completion of corrective actions on the portion of the Site owned by the Los Alamos School Board. The septic system was installed directly northwest and slightly upgradient of the SWMU 32-002(a) septic tank, near the edge of Los Alamos Canyon. This system was installed when the SWMU 32-002(a) septic system could no longer meet the usage requirement of the laboratory (building 32-01) and consisted of a reinforced concrete tank (former structure 32-08) with an outlet drainline that discharged to an outfall at the edge of Los Alamos Canyon. The influent line from the SWMU 32-002(a) septic system was diverted to the former SWMU 32-002(b) septic system, which also received effluent from former building 32-02, the medical research annex. The outfall was located at the edge of Los Alamos Canyon, approximately 15 ft southwest of the SWMU 32-002(a) outfall. The septic tank was removed in 1988, and the influent drainline was removed in 1996. Research activities in former building 32-01 involved radionuclides and potentially inorganic and organic chemicals. Because no industrial waste line served former TA-32, it is possible that chemical and radioactive wastes may have been disposed of in sinks and drains connected to the SWMU 32-002(b1) septic system.

Consent Order investigations are complete for SWMU 32-002(b1); the Site meets industrial risk levels. NMED issued a CoC with controls for new SWMU 32-002(b1) in December 2012.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **32-002(b2)**
Site Name: **Former septic system**
SMA: **LA-SMA-5.361**

Updated Site Description (2014):
SWMU 32-002(b2) is part of a former septic system that served former buildings 32-01 and 32-02. SWMU 32-002(b2) is the portion of the former septic system that is located on property owned by the DOE. The remainder of the septic system is located on property owned by the Los Alamos School Board and is designated as SMWU 32-002(b1). Former SWMU 32-002(b) was split into two new SWMUs [32-002(b1) and 32-002(b2)] in December 2012 to expedite completion of corrective actions on the portion of the Site owned by the Los Alamos School Board. The septic system was installed directly northwest and slightly upgradient of the SWMU 32-002(a) septic tank, near the edge of Los Alamos Canyon. This system was installed when the SWMU 32-002(a) septic system could no longer meet the usage requirement of the laboratory (building 32-01) and consisted of a reinforced concrete tank (former structure 32-08) with an outlet drainline that discharged to an outfall at the edge of Los Alamos Canyon. The influent line from the SWMU 32-002(a) septic system was diverted to the former SWMU 32-002(b) septic system, which also received effluent from former building 32-02, the medical research annex. The outfall was located at the edge of Los Alamos Canyon, approximately 15 ft southwest of the SWMU 32-002(a) outfall. The septic tank was removed in 1988, and the influent drainline was removed in 1996. Research activities in former building 32-01 involved radionuclides and potentially inorganic and organic chemicals. Because no industrial waste line served former TA-32, it is possible that chemical and radioactive wastes may have been disposed of in sinks and drains connected to the SWMU 32-002(b2) septic system.

Phase I and II Consent Order investigations are complete for SWMU 32-002(b2). Mercury was detected at concentrations above residential SSLs at numerous sampling locations on the bench below the former septic tank outfall in Los Alamos Canyon and on DOE Property. Approximately 60 yd^3 of mercury-contaminated soil will be removed from the SWMU 32-002(b2) bench at a later date; results will be reported in the Phase II investigation report for Upper Los Alamos Canyon Aggregate Area.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **32-003**
Site Name: **Former transformer station**
SMA: **LA-SMA-5.362**

Updated Site Description (2014):
AOC 32-003 is the location of a former transformer station (structure 32-10), which consisted of three transformers on a wooden platform suspended on poles approximately 20 ft off the ground. AOC 32-003 was discovered northwest of the SWMU 32-002(b) septic tank and directly south of former building 32-01 during the 1993 Phase I RFI at former TA-32. PCB-contaminated soil was removed from AOC 32-003 during the 1996 VCA and 2010 Phase II Consent Order investigation and confirmation samples were collected during the 2010 Phase II investigation.

Consent Order investigations are complete for AOC 32-003; the Site meets residential risk levels. NMED issued a CoC without controls for AOC 32-003 in December 2012.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **32-004**
Site Name: **Former drainline and outfall**
SMA: **LA-SMA-5.33**

Updated Site Description (2014):
AOC 32-004 consists of a former drainline and outfall that served former building 32-03 and discharged to Los Alamos Canyon. Building 32-03 was an office building and contained a vault room where a radioactive source was stored. The drainline at AOC 32-004 led directly to an outfall at the edge of the mesa without passing through a septic tank. Building 32-03 was removed when TA-32 was decommissioned in 1954. During the 1996 Phase II RFI and VCA conducted at AOC 32-004, the 37.5-ft section of the drainline located on Los Alamos County property was removed. Because the drainline was found not to be contaminated, the portion of the drainline located on DOE property was left in place and grouted at both ends.

Consent Order investigations are complete for AOC 32-004; the Site meets industrial and construction worker risk levels. NMED issued a CoC with controls for AOC 32-004 in December 2012.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for LA-SMA-5.33 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed urban and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is greater than the UTL for runoff from developed areas and less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No AOC-related materials management practices have occurred in the last three yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **33-002(d)**
Site Name: **Former outfall**
SMA: **CHQ-SMA-1.01**

Updated Site Description (2014):
SWMU 33-002(d) is a former NPDES-permitted outfall that discharged noncontact cooling water from former building 33-0086, the former high-pressure tritium facility. This outfall was created when the SWMU 33-002(c) seepage pit was deactivated and disconnected from the building 33-0086 drainline. At that time, the drainline to the seepage pit was extended 90 ft to the east to create an outfall for the discharge of noncontact cooling water. Operations at building 33-0086 ceased in 1990, including discharges to the SWMU 33-002(d) outfall; building 33-0086 underwent D&D in the mid-1990s. The outfall was removed from LANL's NPDES permit on July 11, 1995. The drainline that discharged to this outfall was removed in 2005 during an ACA implemented for other SWMUs associated with the former high-pressure tritium facility.

SWMU 33-002(d) is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. No decision-level data are available for SWMU 33-002(d).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-004(d)**
Site Name: **Septic system**
SMA: **CHQ-SMA-2**

Updated Site Description (2014):
SWMU 33-004(d) consists of an active septic tank (structure 33-121) and associated drainline and drain field located in TA-33, Area 6. Septic tank 33-121 is located approximately 50 ft southeast of building 33-1. Building 33-1 was used from 1948 to 1955 to support nonexplosive initiator tests conducted at Area 6. After 1955, building 33-1 was used as office space and for storage until use of the building was discontinued in 1991. A 1993 study of drains and discharges at TA-33 identified the only discharges to the septic system were from a lavatory, toilet, and sink drain. Although the building was removed from the Site in 1994, the septic tank is still in place.

The septic tank is constructed of corrugated iron and has a capacity of 500 gal. Septic tank 33-121 received wastewater from a toilet and sink in a laboratory building (33-1). While building 33-1 was in use, effluent was discharged from the septic tank to a drain field located approximately 20 ft east of the tank. The drain field is constructed of a single row of vitrified-clay tiles installed in gravel approximately 5 ft belowgrade. In addition, the RFI work plan stated that there is a buried outfall from the drain field in a side wash of Chaquehui Canyon. Land surface at the tank location slopes east approximately 200 ft to a shallow drainage eroded into the bedrock that flows south.

Significant Materials Exposed to Storm Water:
In 2012, baseline storm water monitoring samples for CHQ-SMA-2 exceeded TALs for aluminum, copper, and gross-alpha radioactivity. No soil sampling has been performed under the Consent Order. RFI samples were analyzed for TCLP metals rather than total metals, so aluminum and copper were not analytes. RFI samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because they were not identified as potential contaminants at this Site. Aluminum, copper, and alpha-emitting radionuclides are not associated with industrial materials historically managed at the Site, although laboratory bench-scale quantities of aluminum were used in growing crystals.

The SMA receives runoff primarily from undeveloped areas. Concentrations of aluminum and gross-alpha radioactivity detected in SMA samples are above BVs for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV. The copper exceedance is slightly above the Bandelier Tuff BV and well below the developed area background. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: The building that formerly discharged to the septic tank has been removed. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment and disposal activities are described above.

Past and Present Materials Management Practices: The building that formerly discharged to the septic tank has been removed. No SWMU-related materials management activities have occurred in the last 3 yr. Historical material management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-004(g)**
Site Name: **Former outfall**
SMA: **CHQ-SMA-0.5**

Updated Site Description (2014):
SWMU 33-004(g) is reportedly an outfall and associated drainline that discharged wastewater from building 33-0016. The outfall is located at the end of a VCP that runs west approximately 50 ft from the northwest corner of building 33-0016. The pipe daylights at the edge of a level area above a drainage channel that leads to a tributary of Chaquehui Canyon. The ground surface below the outfall slopes steeply down to the tributary channel, which is approximately 70 ft lower than the outfall. A culvert under a roadway, approximately 60 ft southwest of the outfall, receives runoff from most of the paved portions of Area 6. Building 33-0016 was constructed in 1949 as a gun building for initiator tests. It housed a gas gun that was used to fire projectiles as well as electronic equipment used to measure neutron production. Large-bore (2-in. to 5-in.-diameter) guns were also mounted on concrete pads around building 33-0016 and used to fire projectiles containing initiator test assemblies. These activities continued until 1955. Photographs may have been developed in building 33-0016 or in a small trailer parked next to the drainage from the Site. In 1956, building 33-0016 was used to make and machine laminating materials that contained barium, lead, titanium, and zinc. Toxic fumes were reportedly released from a fume hood in the building used to cure epoxy resins. Building 33-0016 later was used as a library and storage building and has been empty and unused since 1991. The 1992 Santa Fe Engineering study of drains and discharges at TA-33 was conducted to identify all sources of discharges from TA-33 buildings. This study identified no discharges from building 33-0016. Thus, the source of any potential discharge to the SWMU 33-004(g) outfall is not known.

SWMU 33-004(g) is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. No decision-level data are available for SWMU 33-004(g).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-004(h)**
Site Name: **Possible outfall**
SMA: **CHQ-SMA-1.02**

Updated Site Description (2014):
SWMU 33-004(h) consists of a reported outfall associated with a warehouse (building 33-0020) located at the south side of Main Site. The warehouse was constructed in 1950 and used from 1952 to 1972 to store materials associated with initiator tests, including beryllium and uranium. The building subsequently was cleaned and used by other groups as a light laboratory and for general storage. The RFI work plan for Operable Unit 1122 states historical engineering drawings show an 8-in.-diameter VCP drain exiting the southeast corner of the building, which reportedly discharged to an outfall. A study of building drains at TA-33 identified two floor drains in building 33-0020 but could not locate an outfall. The study also noted there was no source of water in the building. A geophysical survey conducted in 1993 found no evidence of a drainline.

Consent Order investigations have not been performed at SWMU 33-004(h) and but RFI screening-level data are available for this Site.

Significant Materials Exposed to Storm Water:
In 2013, enhanced control storm water monitoring samples for CHQ-SMA-1.02 exceeded TALs for copper and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in the three shallow (i.e., less than 3 ft bgs) 1993 RFI samples.
- PCBs are not known to be associated with industrial materials historically managed at the Site. The 1993 RFI samples were not analyzed for PCBs because they are not known to be associated with industrial materials historically managed at this Site.

The SMA receives runoff from paved roadways, unpaved access roads, building roof drains, and potentially from a former PCB transformer location, and a former storage area where PCB oil was potentially stored within Main Site. The concentration of copper detected in the SMA sample is slightly above the BV for runoff from undeveloped areas and below BVs for developed areas. The concentrations of PCBs detected in the SMA samples were slightly above the BV for runoff from undeveloped areas and below BVs for developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-004(j)**
Site Name: **Former Outfall**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-004(j) is an outfall at the end of a 4-in. steel pipe used to drain storm water from the entrance pad to building 33-26. Building 33-0026 is the X-unit vault for the South Site firing pad at TA-35 and formerly housed electronics used to control experiments conducted on the firing pad. These experiments were conducted from 1950 to 1956, and the vault is now empty. Structure 33-0026 was abandoned in 1956 along with the drainline and outfall.

The vault was cut into the tuff and the entrance pad to the vault is located belowgrade. The drainline runs from the entrance pad, which is on the south side of building 33-26, approximately 200 ft south to the outfall. The outfall is located in a small arroyo that drains south to Chaquehui Canyon. A culvert at the upper end of this arroyo, upstream of the outfall, also may have received storm runoff from the vault entrance pad. No hazardous materials are known to have been used in building 33-26, but the entrance pad may have been contaminated with debris from the SWMU 33-006(a) firing pad, located above the vault.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross-alpha radioactivity**.**

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the sediment BV in shallow (i.e., less than 3 ft bgs) RFI samples. Copper was detected above the sediment BV in 4 of 4 samples at a maximum concentration 4.6 times the sediment BV. The RFI data are screening level only.
- Isotopic uranium is the only alpha-emitting radionuclide associated with industrial materials historically managed at the Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for total uranium, which has alpha-emitting isotopes. Uranium was detected above the sediment BV in 4 of 4 shallow samples with a maximum concentration 10 times the sediment BV. However, uranium isotopes are excluded from the definition of adjusted gross-alpha radioactivity. The RFI data are screening level only.

The SMA sampler receives runoff from developed (buildings, parking lots, roads) and undeveloped areas within South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. The sump is no longer used. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-004(k)**
Site Name: **Reported drainline and outfall**
SMA: **A-SMA-6**

Updated Site Description (2014):
SWMU 33-004(k) consists of a suspected outfall from building 33-87 located at East Site at TA-33. Building 33-87 was constructed in 1955 to support firing site experiments at East Site. The firing tests that structure 33-87 supported were conducted until the early 1970s. The outfall reportedly received discharge from a toilet, sink, floor drains, and an electrical water cooler within the building. Structure 33-87 was used to house electronic equipment, and there is no recorded use of radioactive materials in this building. The RFI work plan indicated that photoprocessing may have occurred. Engineering drawing C-3304 shows a cast-iron drainpipe exiting the south wall of the building and extending approximately 125 ft southeast of the building where it terminates at the outfall. The engineering drawing describes the drainline as consisting of 54 ft of 8-in.-diameter cast-iron pipe and 71 ft of 8-in.-diameter VCP. Attempts to locate the drainline and outfall in 1994 and 1995 using geophysics and test trenches were unsuccessful. An inspection of the building performed in 1996 revealed that no floor drains existed in the building. The sink and toilet in the building discharge to septic tank 33-96 [SWMU 33-004(c)], located north of the building. Therefore, the drainline and outfall likely never existed.

SWMU 33-004(k) is included in the Consent Order as part of the South Ancho Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. No decision-level data are available for SWMU 33-004(k).

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for A-SMA-6 exceeded TALs for copper and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at this Site.
- Gross-alpha radioactivity is not known to be associated with industrial materials historically managed at this Site.

The SMA receives runoff primarily from undeveloped areas, with some contribution from nonurban developed areas. The concentration of copper in the SMA sample was between the UTLs for runoff from undeveloped and developed urban areas and gross-alpha radioactivity was below the UTLs for both undeveloped and developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: South Ancho Canyon

Site ID: **33-006(a)**
Site Name: **Firing site (inactive)**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-006(a) consists of an inactive shot pad at TA-33 South Site and the surrounding area that potentially was impacted by shrapnel and debris from implosion tests conducted at the pad. This area extends to a radius of approximately 1.1 mi around the shot pad. Operations at South Site began in June 1950 and continued until 1955. The shot pad has been inactive since that time. The shot pad is approximately 40 ft in diameter and encompasses building 33-26, which housed electronic equipment associated with the tests. The tests conducted at SWMU 33-006(a) involved initiator devices placed inside uranium shells and imploded with HE. The amount of HE used in each test ranged from 275 lb to 5000 lb. Before detonations, the assemblies were placed in copper cans for electrical shielding and covered with wooden boxes. The detonations spread shrapnel, including copper and uranium, throughout the South Site valley. Reportedly, two to three shots were made per week. Runoff from the firing pad flows to an arroyo, which drains south to Chaquehui Canyon.

An IA was performed at SWMU 33-006(a) in 1996 to remove contaminated debris within a half-mile radius from the shot pad and to prevent the off-site migration into Chaquehui Canyon. Firing-site shrapnel and debris were removed from mesa-top areas and drainages along the southern rim of Chaquehui Canyon within Bandelier National Monument, from drainage channels along the northern rim of Chaquehui Canyon, and from the canyon bottom. Since 1996, the entire area south of building 33-0025 [SWMU 33-007(b)] has been significantly disturbed by the installation of new utilities during the complete renovation of building 33-0025. Currently, the pad is covered with up to a foot or more of sand and firing site debris.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross-alpha radioactivity. Although no soil samples have been collected under the Consent Order, soil data were collected pursuant to the 1994 RFI.

- Copper is known to be associated with industrial materials historically managed at the Site. Copper was detected above soil and sediment BVs in shallow RFI samples. Copper was detected above the sediment BV in 11 of 11 drainage samples at a maximum concentration 36.3 times the sediment BV. Copper was also detected above the soil BV in 25 of 46 mesa top samples at a maximum concentration 1585 times the soil BV. The RFI data are screening level only.
- Uranium isotopes are known to have been associated with industrial materials historically managed at this Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for total uranium, which has alpha-emitting isotopes. Uranium was detected above the sediment BV in 11 of 11 shallow samples with a maximum concentration 183 times the sediment BV. Uranium was also detected above the soil BV in 28 of 46 mesa top samples at a maximum concentration 373 times the soil BV. Uranium isotopes are excluded from the definition of adjusted gross-alpha radioactivity. The RFI data are screening level only.

The SMA receives runoff entirely from developed and undeveloped areas within and around South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. These results are consistent with elevated concentrations of copper detected in soil and sediment samples. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The shot pad is no longer in operation. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-007(a)**
Site Name: **Inactive firing range**
SMA: **A-SMA-6**

Updated Site Description (2014):
SWMU 33-007(a) is a gun firing site located at East Site at TA-33. The firing site consists of three gun mounts (structures 33-116, 33-117, and 33-135) and two former catcher boxes (structures 33-118 and 33-136). Firing site activities began in the mid-1950s and included firing projectiles from large cannons into the catcher boxes filled with vermiculite and sand. Other activities included experiments using scintillation fluids and x-rays. Cobalt-60 was used in some of the firing site activities. Firing site activities ceased in 1972. In 1984, the catcher boxes and their contents were removed and disposed of in a landfill [SWMU 33-008(b)] located at East Site. A narrow asphalt road runs the length of the Site, as does an asphalt drainage ditch.

SWMU 33-007(a) is included in the Consent Order as part of the South Ancho Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. No decision-level data are available for SWMU 33-007(a).

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for A-SMA-6 exceeded TALs for copper and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was not detected above BV in 35 shallow (i.e., less than 3 ft bgs) soil and sediment samples collected during the 1994 RFI at the Site.
- Gross alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium, which has alpha-emitting isotopes. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from undeveloped areas, with some contribution from nonurban developed areas. The concentration of copper in the SMA sample was between the UTLs for runoff from undeveloped and developed urban areas and gross-alpha radioactivity was below the UTLs for both undeveloped and developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: South Ancho Canyon

Site ID: **33-007(b)**
Site Name: **Inactive firing range**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-007(b) consists of two inactive gun-firing sites at TA-33. The first area is located approximately 600 ft north of structure 33-0026 [SWMU 33-006(a)] and consists of a 6-ft × 6-ft concrete pad and gun mount (structure 33-0085), a u-shaped soil berm (structure 33-0043), and a catcher box. The berm and catcher box were constructed in August 1950. The concrete pad and gun mount were constructed in June 1952. This area was used to test free-recoil weapons. Tests involved firing projectiles into the berm and the catcher box. Projectiles fired from the guns contained uranium, beryllium, titanium, and tritium housed inside steel casings.

The other gun-firing site was located on the west side of South Site and included a gun building (structure 33-0025) and a berm (structure 33-0063). The gun building housed 2- to 4-in. bore guns that were used to fire projectiles into the structure 33-0063 berm, which consisted of a mound of soil approximately 50 ft × 50 ft × 10 ft high. The projectiles used at this Site contained uranium, beryllium, and tungsten. South Site activities were discontinued in the late 1950s. The Site was used to support atmospheric physics measurements in the late 1980s and early 1990s. Structures associated with these activities include a tower (structure 33-203) constructed in 1987 and two trailers (structures 33-201 and 33-202).

A VCA was performed in 1999 during which time berm 33-0063 was removed. Treated soil was returned back to the location of the former berm, and the Site was graded and compacted. Recently, approximately 1 to 2 ft of engineered fill has been placed over the location of the former berm. Building 33-0025 was renovated in 2005 and 2006.

Consent Order sampling has not been performed and there are no decision level soil data for this Site. Screening-level data are available from the 1995 RFI and the 1999 VCA.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross-alpha radioactivity. The following discussion is based on soil data that were collected pursuant to the 1999 VCA and the 1995 RFI.

- Copper was likely associated with industrial materials historically managed at the Site. Copper was detected above the soil and sediment BVs in 2 of 9 shallow RFI and VCA samples with a maximum concentration 1.4 times the sediment BV.
- Uranium isotopes are known to have been associated with industrial materials historically managed at this Site. RFI and VCA samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha emitters. Uranium-234, uranium-235/236, and uranium-238 were each detected above BVs in 2, 1, and 2 of 9 shallow soil and sediment samples with maximum activities 2.8, 1.6, and 3.1 times soil BVs, respectively. Uranium isotopes are excluded from the definition of adjusted gross-alpha radioactivity.

The SMA receives runoff entirely from developed and undeveloped areas within and around South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. These results are consistent with elevated concentrations of copper detected in soil and sediment samples. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Both firing ranges are no longer active. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-007(c)**
Site Name: **Abandoned firing sites**
SMA: **CHQ-SMA-0.5**

Updated Site Description (2014):
SWMU 33-007(c) consists of abandoned firing sites associated with the initiator tests conducted at Area 6. The firing sites included firing pads and two catcher boxes. One pad was located immediately west of building 33-0016. The catcher boxes were located approximately 20 ft south of building 33-0016 and were approximately 6 ft × 6 ft, constructed of timber, and filled with soil, wood chips, and vermiculite. Guns (2-in. to 5-in. bore) were placed on the concrete pads and used to fire projectiles containing test assemblies into targets placed in front of the catcher boxes. Materials used in the projectiles included beryllium, polonium-210, uranium, copper, lead, tungsten, and stainless steel. The projectiles frequently cracked open, contaminating the pads and surrounding area with polonium-210. Contaminated areas on the guns and pads were painted with lead-based paint to fix surface contamination. Several other firing pads were on a level area excavated into a basaltic cinder cone southwest of building 33-0016. This area was used to test nuclear gun mock-ups. A 4-in. to 5-in. bore gun was used to fire projectiles into the back of the excavation. The back of the excavation currently extends about 75 ft farther back than when the Site was used. A 1951 memorandum describes a test at Area 6 that resulted in leakage of radioactive material from a projectile. The Site was cleaned up by using a bulldozer to scrape away the contaminated soil and embankment. A 1954 memorandum describes decontamination of one of the Area 6 gun barrels. The memorandum describes removing loose material and leaving impregnated spots as high as 1 million cpm. Contaminated surface dirt was bulldozed from the shot area into the adjacent canyon.

During the 1995 IA conducted at SWMU 33-007(c), the Site was stabilized to prevent migration of metals and isotopic uranium contamination identified during the RFI. In 1996, approximately 200 yd^3 of soil was removed from the catcher boxes and processed as part of a pilot test to verify the effectiveness of processes for remediating uranium-contaminated soil. Sampling results for the processed soil showed mean activities for uranium-234, uranium-235, and uranium-238 of 15.8 pCi/g, 0.515 pCi/g, and 15.7 pCi/g, respectively; the processed soil was returned to the catcher boxes. Experimental projectiles totaling 1720 lb were also discovered in the soil from the catcher boxes and were subsequently characterized and disposed of as LLW.

SWMU 33-007(c) is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. No decision-level data are available for SWMU 33-007(c).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-008(c)**
Site Name: **Former surface disposal area**
SMA: **CHQ-SMA-1.03**

Updated Site Description (2014):
AOC 33-008(c) is a former surface disposal area located east of Main Site buildings 33-39 and 33-113 outside of the Main Site security fence. This former disposal site consists of two areas: one near a culvert discharge where glass bottles and other debris were discovered and the other an area of surface debris situated north of the culvert. The culvert receives storm water runoff from Main Site, is directly east of building 33-39, and is located in a drainage channel that discharges to a tributary of Chaquehui Canyon. Debris observed included machined metal turnings, cable, glass bottles, and general trash on the ground surface and in the channel downstream of the culvert. The outlines of a possible trenched area are visible in aerial photographs from 1958. A small asphalt pad is located at the west end of the northern area, and a partially full chemical bottle was present on the ground surface. In 1999, a BMP was performed and all visible debris was removed from the watercourse.

AOC 33-008(c) is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. Decision-level data are available for AOC 33-008(c) from the 1996 RFI.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring samples for CHQ-SMA-1.03 exceeded the TALs for copper, PCBs, and gross-alpha radioactivity.

- Copper is likely associated with industrial materials historically managed at the Site. Copper was detected above BVs in 15 of 17 shallow RFI samples at a maximum concentration 2250 times the sediment BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. RFI samples were not analyzed for PCBs because they are not known to have been associated with industrial materials historically managed at the Site.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at the Site. RFI samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides but were analyzed for uranium, which contains alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA receives storm water runoff from industrially developed areas as well as from landscape consisting of Bandelier tuff sediments. The TAL exceedance for PCBs is below both the developed and undeveloped background UTLs, indicating the Site is not a source. The concentration of copper detected in the SMA sample was above the undeveloped background UTL and below the developed background UTL, indicating the Site is not a source. The concentration of gross-alpha radioactivity detected in the SMA sample was slightly above the developed background UTL and well below the undeveloped background UTL, indicating the Site is not a source.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-009**
Site Name: **Former surface disposal area**
SMA: **CHQ-SMA-0.5**

Updated Site Description (2014):
SWMU 33-009 is a former surface disposal area located in Area 6, west of the TA-33 Main Site. The disposal Site includes an area approximately 100 ft long × 75 ft wide that has been leveled into the side of a natural basaltic cinder cone as well as an area that extends approximately 80 ft down the slope of the cinder cone. The slope continues below the disposal Site until it reaches a tributary of Chaquehui Canyon. The debris within this surface disposal area is believed to be associated with the activities at a nearby gun-firing site [SWMU 33-007(c)]. This gun-firing site operated from 1949 to 1955. When the firing area became contaminated as a result of firing activities, contaminated soil and debris were bulldozed over the edge of the canyon. SWMU 33-009 also received debris from general operations at TA-33, including metal wastes, light bulbs, tires, and drums. In 1960, the Site received uranium turnings from the building 33-0113 machine shop. In addition, from 1967 to 1972, the Site served as a storage and disposal area for defective electrical capacitors from the Sherwood Project. These capacitors had an average weight of 300 lb and were about 4 to 6 ft^3 in volume. Disposal of the capacitors at this Site ceased in 1972, at which time defective capacitors were sent off-site for disposal. In December 1974, the Site was partially cleaned up as part of general cleanup activities conducted at TA-33. Several truckloads of material were taken to MDA G for disposal. Material removed from the Site included DU pieces, electrical capacitors, metal turnings, old tires, and fluorescent light tubes. A radiation survey was performed after the cleanup. The area was surveyed at intervals of about 10 ft across the slope and 16 ft up and down the slope. Radiation above background was not detected. Not all material was removed in 1974. Broken glass and chunks of metal were still present when the RFI was conducted in 1993. An empty capacitor containing small amounts of PCB-contaminated oil was also discovered partially buried at the Site in 1994 and was removed.

SWMU 33-009 is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. No decision-level data are available for SWMU 33-009.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-010(a)**
Site Name: **Surface disposal**
SMA: **A-SMA-6**

Updated Site Description (2014):
SWMU 33-010(a) is a surface disposal area located on a cliff ledge above Ancho Canyon at East Site at TA-33. Much of the debris was associated with the initial clearing of East Site and included dead tree trunks, rocks, and scraped earth. Other debris, such as metal scrap, timber, and plastic foam, is associated with firing site operations conducted from 1955 to 1972. Debris was scattered at the rim of the canyon and within 15 ft below the rim. A VCA performed in 1995 removed 8 yd^3 of nonhazardous, nonradioactive debris and 0.2 yd^3 of radioactive debris from the surface of the Site. No confirmation samples were collected.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for A-SMA-6 exceeded TALs for copper and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was not detected above BVs in 8 shallow screening-level soil samples collected during the 1994 RFI at the Site.
- Gross alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium, which has alpha-emitting isotopes. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff primarily from undeveloped areas, with some contribution from nonurban developed areas. The concentration of copper in the SMA sample was between the UTLs for runoff from undeveloped and developed urban areas and gross-alpha radioactivity was below the UTLs for both undeveloped and developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **33-010(c)**
Site Name: **Surface disposal area**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-010(c) consists of a former surface disposal area located at South Site on the northern rim of Chaquehui Canyon, approximately 230 ft south of structure 33-0026. The disposal area dimensions were approximately 50 ft × 30 ft × 2 ft to 4 ft deep. The area is located along the western edge of the main South Site drainage channel. From approximately 1950 to 1955, this site was used to dispose of debris from the implosion tests conducted at SWMU 33-006(a). Debris disposed of at the site includes copper and aluminum shrapnel, pieces of electronic cable, and wood. Between shots, the shot pad and surrounding area were scraped and the debris deposited at SWMU 33-010(c).

During the 1999 VCA, the debris pile was excavated and removed. Soil with radioactivity levels above the cleanup criterion removed during the VCA was disposed of at Area G; soil with radioactivity levels below the cleanup criterion was returned to the SWMU boundaries. The treated soil was then regraded, compacted, and reseeded with native vegetation. Confirmation samples collected during the 1999 VCA included samples from four locations within the excavated area and three surface samples from the drainage east of the disposal area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross-alpha radioactivity.

- Copper is known to have been associated with industrial materials historically managed at the Site. Copper was detected above the sediment BV in 5 of 5 shallow RFI samples with a maximum concentration 123 times the sediment BV. Copper was detected above soil, sediment, and tuff BVs in shallow VCA confirmation samples with a maximum concentration 52 times the sediment BV.
- Uranium isotopes are known to have been associated with industrial materials historically managed at this Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for total uranium, which has alpha-emitting isotopes. Uranium was detected above soil and sediment BVs in 12 of 12 shallow samples with a maximum concentration 118 times the soil BV. VCA samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha emitters. Uranium-234, uranium-235/236 and uranium-238 were each detected above BVs in 9 of 10 shallow soil and sediment samples with maximum activities 8, 6, and 11 times soil BVs, respectively. Uranium isotopes are excluded from the definition of adjusted gross-alpha radioactivity.

The SMA receives runoff entirely from developed and undeveloped areas within and around South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. These results are consistent with elevated concentrations of copper detected in soil and sediment samples. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: This former surface disposal area is no longer in use. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-010(d)**
Site Name: **Former canyon-side disposal area**
SMA: **A-SMA-4**

Updated Site Description (2014):
SWMU 33-010(d) is a former canyon-side disposal area situated in the northeastern portion of East Site at TA-33 directly north of the former gun-firing site berms [SWMU 33-006(b)]. Debris scattered along the canyon rim and in a small drainage leading to Ancho Canyon consisted of concrete blocks, empty glass specimen vials, pieces of foam, cable, and metal cans. The date this debris was deposited at the Site is not known, but operations at East Site occurred between 1948 and 1972. During the 1995 VCA implemented at the Site, 2 yd^3 of nonhazardous/nonradioactive debris and 0.1 yd^3 of radioactive debris were removed from Site.

SWMU 33-010(d) is included in the Consent Order as part of the South Ancho Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for the South Ancho Canyon Aggregate Area is currently due to NMED by June 30, 2014. No decision-level data are available for SWMU 33-010(d).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **33-010(f)**
Site Name: **Surface disposal area**
SMA: **CHQ-SMA-3.05**

Updated Site Description (2014):
SWMU 33-010(f) consists of a surface disposal area at TA 33. The history of the Site and the origins of the wastes are not known. The 1990 SWMU report states the SWMU was observed during a 1987 ER Project reconnaissance and describes it as concrete, cans, and metal pieces that littered the area east of former building 33-0086. The RFI report describes this SWMU as consisting of two small surface disposal areas located 300 ft southeast of former building 33 0086 and approximately 50 ft apart. One of the areas is described as approximately 15 ft^2 and the other as approximately 200 ft^2. Materials at the Site included pieces of concrete; piles of tuff and cured asphalt; rusted metal cans, rebar, and strapping bands; and other debris. Although the source of these materials is not known, some are believed to be associated with roadwork activities. During the 2005 VCA implemented at SWMUs 33-002(a, b and c), directly northwest of SWMU 33-010(f), no debris was visible at this SWMU or anywhere around the SWMU.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-3.05 exceeded TALs for PCBs and gross-alpha radioactivity. Although no soil samples have been collected under the Consent Order, screening-level RFI data are available for this Site. Soil samples collected from during the 1993 RFI at the Site were not analyzed for PCBs because they are not known to have been associated with industrial materials historically managed at this Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed by gamma spectroscopy. However, alpha-emitting radionuclides were not included because they are not known to have been associated with industrial materials historically managed at this Site.

The SMA receives runoff primarily from undeveloped areas. The concentration of PCBs detected in the SMA sample is below both BVs for urban runoff from developed areas and runoff from undeveloped areas. The gross-alpha radioactivity detected in the SMA sample was greater than the BV for urban runoff from developed areas and was below the BV for runoff from undeveloped areas. Because the SMA receives runoff primarily from undeveloped areas, these results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-010(g)**
Site Name: **Former surface disposal area**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-010(g) consists of a former disposal area that was located on the south side of TA-33 South Site at the edge of Chaquehui Canyon. Debris was scattered along the rim and upper walls of the canyon. This former disposal area is located within the boundaries impacted by former activities at the SWMU 33-006(a) gun-firing site. The firing pad for SWMU 33-006(a) is located approximately 500 ft northwest of the SWMU 33-010(g) disposal area. Some debris present at SWMU 33-010(g) (such as dead tree trunks, rocks, and scraped earth) reportedly resulted from the initial clearing of South Site. Other debris included chunks of metal. The period of operation for this disposal Site is not known, but firing-site operations associated with initiator testing at South Site were conducted from 1950 through 1956. A VCA conducted in 1995 resulted in the removal of 4 yd^3 of nonhazardous, nonradioactive debris and 2 ft^2 of radioactive debris from the site.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in shallow RFI samples.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Uranium was not detected or detected above BVs in shallow RFI samples.

The SMA receives runoff entirely from developed and undeveloped areas within and around South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. These results are consistent with elevated concentrations of copper detected in soil and sediment samples from other Sites within this SMA. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) background value. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. This surface disposal site is no longer in use. Historical disposal activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-010(h)**
Site Name: **Former surface disposal area**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-010(h) consists of a surface disposal area located approximately 450 ft northeast of structure 33-0026 and immediately south of berm 33-0043. The area is a mound of dirt, and firing-site debris is scattered on the soil surface. The debris includes metal, wood, cable, and shrapnel. The area is approximately 100 ft × 100 ft. There is no documentation regarding the history of the disposal area. The main drainage for South Site bounds the disposal area on the west, and an unimproved road is located to the east. During the 1994 Phase I RFI, a geophysical survey was conducted to determine the presence of subsurface anomalies; none were identified. A backhoe was used to excavate a 42-ft-long trench (0.5 ft to 2 ft deep) through the center of the Site. Debris was not observed during the trenching activities. No shallow surface samples were collected during the RFI.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross-alpha radioactivity. Neither copper nor alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site.

The SMA receives runoff entirely from developed and undeveloped areas within and around South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. These results are consistent with elevated concentrations of copper detected in soil and sediment samples at other sites within this SMA. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: This former surface disposal area is no longer in use. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-011(b)**
Site Name: **Former equipment and material storage area**
SMA: **CHQ-SMA-4.5**

Updated Site Description (2014):
AOC 33-011(b) consists of a former storage area located just outside the northwest corner of the National Radio Astronomy Observatory site at TA 33. This storage area was approximately 300 ft wide × 600 ft long. Beginning in the 1950s, the Site served as a storage area for equipment and materials such as tungsten, uranium, and beryllium. Equipment used at the TA-33 firing sites was also stored at the Site. The storage area was cleaned in 1984, and most materials and debris were removed at that time, although some debris remained. Approximately 75% of the area was scraped and leveled to or near the tuff bedrock. During the 1996 VCA, all remaining surface debris was removed from the Site. A total of 2 yd^3 of nonhazardous/nonradioactive debris and 0.5 ft^3 of radioactive debris was removed. No confirmation samples were collected during the VCA because no soil was removed.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-4.5 exceeded TAL for gross-alpha radioactivity. Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. None of the 10 shallow 9 i.e., less than 3 ft bgs) samples collected during the 1994 RFI were analyzed for gross-alpha radioactivity but were analyzed by gamma spectroscopy, which is capable of detecting americium-241 and uranium-235. No alpha-emitting radionuclides were detected. Although no soil samples have been collected under the Consent Order, RFI screening-level soil data are available for this Site.

The SMA receives runoff from undeveloped and undeveloped areas. The gross-alpha radioactivity detected in the SMA sample was greater than the BV for urban runoff and less than the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The storage area has been cleaned. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-011(d)**
Site Name: **Former storage area**
SMA: **CHQ-SMA-1.02**

Updated Site Description (2014):
SWMU 33-011(d) consists of a former a storage area located on the asphalt next to a warehouse (building 33-0020) near the south side of TA-33 Main Site. Beryllium and uranium were stored around building 33-0020 from 1950 to 1972. In addition, recovered scrap from shots containing uranium, beryllium, and tungsten was stored south of building 33-0020. Much of the material stored here was salvaged for use elsewhere. A 1987 site survey found no materials remaining in storage at this location.

Consent Order investigations have not been performed at SWMU 33-011(d), and no decision-level data are available for this Site. The RFI data are screening level only.

Significant Materials Exposed to Storm Water:
In 2013, enhanced control storm water monitoring samples for CHQ-SMA-1.02 exceeded TALs for copper and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. RFI samples were not analyzed for copper.
- PCBs are not known to be associated with industrial materials historically managed at the Site. The 1993 RFI samples were not analyzed for PCBs.

The SMA receives runoff from paved roadways, unpaved access roads, building roof drains, and potentially from a former PCB transformer location and a former storage area where PCB oil was potentially stored within Main Site. The concentration of copper detected in the SMA sample is slightly above the BV for runoff from undeveloped areas and below BVs for developed areas. The concentrations of PCBs detected in the SMA samples were slightly above the BV for runoff from undeveloped areas and below BVs for developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-011(e)**
Site Name: **Former drum storage area**
SMA: **CHQ-SMA-4**

Updated Site Description (2014):
SWMU 33-011(e) is a former drum-storage area located at the south end of TA-33 Main Site, approximately 30 ft northwest of building 33-0022, a former HE storage magazine. The area is unpaved and gradually slopes to the southwest. Drums containing unknown materials were previously stored in this area. The date the materials were first stored at this Site is not known. At the time the Operable Unit 1122 RFI work plan was prepared in 1992, all drums had been removed from the Site and the area had been cleared. The Site has not been used since that time.

SWMU 33-011(e) is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. No decision-level data are available for SWMU 33-011(e).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-012(a)**
Site Name: **Former drum storage area**
SMA: **CHQ-SMA-1.03**

Updated Site Description (2014):
SWMU 33-012(a) is the location of a former drum storage area for a machine shop (building 33-39). This storage area was located on an asphalt pad on the east side of building 33-39, between the building and a storage shed. The asphalt pad is approximately 20 ft wide × 20 ft long. The area was used to accumulate 55-gal. drums of solvents and solvent-contaminated oil that may have been contaminated with PCBs and unknown metals. The drums were placed on pallets or directly on the asphalt pad. The 1990 SWMU report notes the presence of multiple oil stains at this site. The 1992 RFI work plan, however, states no evidence of oil staining was found at the Site. The asphalt pad is level, and the ground surface east of building 33-09 slopes to the east. The beginning date of operation of the storage area is not known; however, building 33-39 was constructed in 1951. The storage area was deactivated in 1992 or 1993. SWMU 33-012(a) lies within the boundary of former SWMU 33-017, which includes areas impacted by operational releases from TA-33 Main Site.

SWMU 33-012(a) is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. Only screening-level data are available for SWMU 33-012(a) from the 1993 RFI.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring samples for CHQ-SMA-1.03 exceeded the TALs for copper, PCBs, and gross-alpha radioactivity.

- Copper may have been associated with industrial materials historically managed at the Site. Copper was not detected above BVs in shallow RFI samples; however, the data are screening level only.
- PCBs may have been associated with industrial materials historically managed at the Site. The PCB mixture Aroclor-1254 was detected in 2 of 2 shallow RFI samples at a maximum concentration 205% of the residential SSL; however, the data are screening level only.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at the Site. RFI samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because they are not associated with industrial materials historically managed at the Site. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA receives storm water runoff from industrially developed areas as well as from landscape consisting of Bandelier tuff sediments. The TAL exceedance for PCBs is below both the developed and undeveloped background UTLs. The concentration of copper detected in the SMA sample was above the undeveloped background UTL and below the developed background UTL. The concentration of gross-alpha radioactivity detected in the SMA sample was slightly above the developed background UTL and well below the undeveloped background UTL. These results, along with the low magnitude and frequency of copper detections in RFI samples, are consistent with the Site not being a source of the TAL

exceedance for gross-alpha radioactivity. PCBs were historically managed at this Site and were detected in RFI samples. It is not known if copper was historically managed at the Site.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-014**
Site Name: **Former burn site**
SMA: **CHQ-SMA-6**

Updated Site Description (2014):
SWMU 33-014 consists of a former location of an open burn area located approximately 300 ft north of the fence surrounding MDA E [Consolidated Unit 33-001(a)-99]. This burn area was believed to have been established in 1950 when operations at South Site began and may have served all of TA-33. Materials burned at this Site may have included construction debris, timber, and sawdust used in catcher boxes, and black powder. It is not known when burning operations were discontinued at this Site. The soil at the burn site was scraped to bedrock, and some bedrock is blackened from burning.

Consent Order sampling has not been performed, and no decision level soil data are available for this Site. Screening-level data are available from the 1994 RFI.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-6 exceeded TALs for copper and gross-alpha radioactivity.

- Copper is not known to be an industrial material historically managed at this Site. Copper was detected above the soil BV in 4 of 5 shallow RFI samples with a maximum concentration 99 times the soil BV. Copper is, however, attributed to former firing site activities at nearby Site 33-006(a).
- Alpha-emitting radionuclides are not known to be industrial materials historically managed at this Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for total uranium, which has alpha-emitting isotopes. Uranium was detected above soil BV in 4 of 5 shallow RFI samples with a maximum concentration 32 times the soil BV. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff entirely from developed and undeveloped areas within and around South Site. The concentration of copper detected in the SMA sample is above both the BVs for urban runoff from developed areas and runoff for undeveloped areas. These results are consistent with elevated concentrations of copper detected in soil and sediment samples. Gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the Bandelier Tuff (i.e., undeveloped site) BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquequi Canyon

Site ID: **33-015**
Site Name: **Former Incinerator**
SMA: **CHQ-SMA-1.02**

Updated Site Description (2014):
SWMU 33-015 consists of the former location of a small incinerator (former structure 33 0110) approximately 50 ft southeast of building 33-0039 on a hillside that slopes to a tributary of Chaquehui Canyon. The incinerator measured approximately 4 ft × 4 ft × 6 ft high and was mounted on a concrete base. The incinerator was first used in 1955 to burn uncontaminated office trash. The date it ceased to be used is not known; however, it was no longer in use during the 1993 RFI and was no longer present at the site by 1995.

Consent Order investigations have not been performed at SWMU 33-015, and no decision-level data are available for this Site. The RFI data are screening level only.

Significant Materials Exposed to Storm Water:
In 2013, enhanced control storm water monitoring samples for CHQ-SMA-1.02 exceeded TALs for copper and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Shallow RFI samples were not analyzed for copper.
- PCBs are not known to be associated with industrial materials historically managed at the Site. The 1993 RFI samples were not analyzed for PCBs.

The SMA receives runoff from paved roadways, unpaved access roads, building roof drains, and potentially from a former PCB transformer location and a former storage area where PCB oil was potentially stored within Main Site. The concentration of copper detected in the SMA sample is slightly above the BV for runoff from undeveloped areas and below BVs for developed areas. The concentrations of PCBs detected in the SMA samples were slightly above the BV for runoff from undeveloped areas and below BVs for developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-016**
Site Name: **Former sump**
SMA: **CHQ-SMA-4.1**

Updated Site Description (2014):
SWMU 33-016 consists of a formerly used sump and associated drainline and outfall at a process bunker (structure 33-0023) located in the southern portion of Main Site at TA-33. The concrete sump is 3 ft × 2 ft × 2 ft deep and is located next to the northwest corner of the bunker's exterior wall, near the door. A drainline leads from the sump to an outfall approximately 250 ft southwest of the building to a small side canyon to Chaquehui Canyon. The sump was connected to a sink and floor drain in the bunker, which was constructed in 1950. From 1950 to 1972, the bunker was used as a trim building to prepare propellant charges for gun tests at South Site. Structure 33-0023 was subsequently used until 1994 to store lithologic cores from the Hot Dry Rock Program. In addition to the sink and floor drain, the sump also may have received rainwater and snowmelt. The VCA implemented at SWMU 33-016 in 1995 involved removing the sump contents, filling the sump with approximately 3 yd^3 of sand and gravel and capping the sump with 1 ft of concrete. The sump contents were characterized and determined to be nonhazardous.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CHQ-SMA-4.1 exceeded TAL for gross-alpha radioactivity. None of the 5 shallow (i.e., less than 3 ft bgs) samples collected during the 1993 RFI at the Site were analyzed for gross-alpha radioactivity or any other radionuclides because they are not known to have been associated with industrial materials historically managed at this Site. Radionuclides were not detected in the sludge removed from the sump. The RFI data are screening level only; no decision-level data are available for this Site. The gross-alpha radioactivity detected in the SMA sample was below the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The sump is filled. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **33-017**
Site Name: **Areas potentially impacted by operational releases**
SMA: **CHQ-SMA-1.03**

Updated Site Description (2014):
SWMU 33-017 consists of areas potentially impacted by operational releases from the TA-33 Main Site. SWMU 33-017 is located at the northern and eastern edges of Main Site and is approximately 8.26 acres. The site generally slopes downward to the east and is at the head of a small drainage tributary of Chaquehui Canyon. SWMU 33-017 is potentially impacted by runoff from the paved areas of the TA-33 Main Site complex by deposition from airborne releases from TA-33 Main Site facilities and by operational releases from an area east of building 33-39 used for vehicle maintenance. Operations conducted within Main Site included uranium processing and machining, cadmium and silver welding and soldering, lead melting and casting, cadmium and beryllium machining, and tritium processing and decontamination. These operations began in 1949 and most continued until 1972. Following these operations, some of the facilities were used for offices and electronics laboratories.

SWMU 33-017 is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. Decision-level data are available for SWMU 33-017 from the 1996 RFI.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring samples for CHQ-SMA-1.03 exceeded the TALs for copper, PCBs, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not analyzed in any shallow RFI samples.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow RFI samples. Aroclor-1254 was detected in 5 of 7 samples at a maximum concentration 124% of the residential SSL. Aroclor-1260 was detected in 7 of 7 samples at a maximum concentration 248% of the residential SSL.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at the Site. RFI samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because they are not associated with industrial materials historically managed at the Site. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA receives storm water runoff from industrially developed areas as well as from landscape consisting of Bandelier Tuff sediments. The TAL exceedance for PCBs is below both the developed and undeveloped background UTLs. The concentration of copper detected in the SMA sample was above the undeveloped background UTL and below the developed background UTL. The concentration of gross-alpha radioactivity detected in the SMA sample was slightly above the developed background UTL and well below the undeveloped background UTL. These results, along with the low magnitude and frequency of copper detections in RFI samples, are consistent with the Site not being the source of the TAL

exceedances for copper and gross-alpha radioactivity. PCBs were detected in RFI samples but are attributed to other Sites in the SMA [SWMU 33-012(a) and AOC C-33-001].

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **35-003(h)**
Site Name: **Former wastewater retention tank**
SMAS: **Pratt-SMA-1.05**

Updated Site Description (2014):
SWMU 35-003(h) is the former location of a concrete retention tank that was added to the TA-35 WWTP in 1961. The retention tank had dimensions of 8 ft × 12 ft × 10 ft deep and was connected to buildings 35-10 and 35-41 by 4-in.-diameter stainless-steel underground pipes. The retention tank and associated piping were removed in February 1985 during LANL's RLW treatment consolidation project. During decommissioning, no leaks or discharges from the tank were documented. The tank and excavated soil were field-screened for radioactivity during removal; no radioactivity above background levels was detected.

A request was submitted to NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

Sites 35-003(h) and 35-003(p) along with numerous other SWMUs and AOCs, are part of Consolidated Unit 35-003(a)-99, the former TA-35 WWTP, and were investigated as a single Site. The same surface sampling data set applies to both Sites.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded TAL for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at these Sites. Aluminum was not detected above the soil BV in the 11 shallow (i.e., less than 3 ft bgs) Consent Order and RFI samples collected at Consolidated Unit 35-003(a)-99.
- Mercury is not known to have been associated with industrial materials historically managed at these Sites. Mercury was detected slightly above the soil BV in 5 of 11 shallow samples with a maximum concentration 2.1 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at these Sites. PCBs were not detected in the shallow soil samples collected at Consolidated Unit 35-003(a)-99.
- Alpha-emitting radionuclides may have been associated with industrial materials historically managed at the Sites. Shallow samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for isotopic plutonium and uranium which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-003(p)**
Site Name: **Former air-filter building**
SMA: **Pratt-SMA-1.05**

Updated Site Description (2014):
SWMU 35-003(p) is the location of the former air-filter building (35-7). Radioactively contaminated air from work areas in building 35-2 was filtered in building 35-7. The air filters were cleaned with tap water or wastewater from the TA-35 WWTP tank farm [Consolidated Unit 35-003(d) 00]; the wastewater was contaminated with strontium-89 and strontium-90, which are beta emitters. Buildup of isotopic strontium in the air filters required increased filter washings, which produced more radioactive wastewater. The large volumes of waste water exceeded the storage capacity of the system leading to unplanned spills andoverflows to Pratt Canyon. The air-filter building was decommissioned in 1980 and removed in 1996.

Phase I Consent Order investigations are complete for SWMU 35-003(p); the Site meets residential risk levels. A request was submitted to NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

Sites 35-003(h) and 35-003(p), along with numerous other SWMUs and AOCs, are part of Consolidated Unit 35-003(a)-99, the former TA-35 WWTP, and were investigated as a single Site. The same surface sampling data set applies to both Sites.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded TAL for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at these Sites. Aluminum was not detected above the soil BV in the 11 shallow (i.e., less than 3 ft bgs) Consent Order and RFI samples collected at Consolidated Unit 35-003(a)-99.
- Mercury is not known to have been associated with industrial materials historically managed at these Sites. Mercury was detected slightly above the soil BV in 5 of 11 shallow samples with a maximum concentration 2.1 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at these Sites. PCBs were not detected in the shallow soil samples collected at Consolidated Unit 35-003(a)-99.
- Alpha-emitting radionuclides may have been associated with industrial materials historically managed at the Sites. Shallow samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for isotopic plutonium and uranium which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage; however, SWMU 35-003(p) is not a potential source of the PCBs.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-003(r)**
Site Name: **Former outfall**
SMA: **Pratt-SMA-1.05**

Updated Site Description (2014):
AOC 35-003(r) is the location of a former outfall for liquid sludge effluent associated with the former 35-10 holding tanks, [SWMU 35-003(d)] and the former TA-35 WWTP. This Site is located in Pratt Canyon and extends from the eastern edge of Ten Site Mesa (the headwall of Pratt Canyon) to the confluence of Pratt and Ten Site Canyons. The former TA-35 WWTP that released the effluent ceased operation in 1963 when the new RLWTF came on line at TA-50. The former structures associated with this consolidated unit are collectively referred to as the "Tank Farm."

The former TA-35 WWTP received and processed air and liquid wastes from radiochemistry laboratories and from the operation of radioactive lanthanum-140 hot cells located in building 35-2, where kilocurie sources of lanthanum-140 were prepared during the 1950s. The liquid wastes from the building 35-2 laboratories were acidic and included barium-140, lanthanum 140, strontium-89, strontium-90, and yttrium-90, all beta emitters. From 1951 to 1955, the treated wastewater was stored in four concrete tanks (Tank Farm 35-10) for approximately 6 mo to allow the lanthanum-140 to decay. The water was either allowed to evaporate or used to wash air-cleaning filters from the filter building. If the incoming waste volumes were greater than losses through evaporation, the stored water was released to Pratt Canyon, a small side canyon east of the TA-35 WWTP. Because the Tank Farm 35-10 holding tanks did not have a gravity drainline to the canyon, all contents were pumped through building 35-7 (the air-filter building) for treatment and discharged through a daylight diversion channel into Pratt Canyon. Several reports mention that the 35-10 holding tanks accidentally overfilled and spilled contaminated liquids directly into Pratt Canyon. These occasional spills were the only discharges that did not flow through the daylight diversion channel.

The TA-35 WWTP operated from 1951 to 1963. All buildings, foundations, and structures associated with Consolidated Unit 35-003(d)-00 were removed during D&D activities in 1981 and 1985. After the 1985 removal, the area was backfilled with clean fill material and native tuff.

AOC 35-003(r) along with SWMUs 35-003(d, l, and q) comprise Consolidated Unit 35 003(d)-00; the SWMUs were investigated as a single Site.

A request was submitted to NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded TAL for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at this Site. Aluminum was not detected above the soil, sediment, or tuff background values (BVs) in the 19 shallow Consent Order and RFI samples collected at Consolidated Unit 35-003(a)-99.
- Mercury was likely associated with industrial materials historically managed at this Site. Mercury was detected above the sediment BV in 10 of 11 shallow samples with a maximum concentration 16 times the sediment BV.
- PCBs were likely associated with industrial materials historically managed at this Site. PCBs were also associated with industrial material historically managed at several SWMUs and AOCs upstream of AOC 35-003(r), including SWMUs 35-003(j), 35-003(k), 35-014(b), and 35-015(b)

and AOCs 35-014(c), 35-014(d), and 35-018(a). These SWMUs and AOCs include the former locations of dielectric oil spills from leaking equipment and/or containers and resulting areas of stained soil and tuff. The dielectric oil likely contained low concentrations (<50 mg/kg) PCBs. The equipment and containers have been removed, and many of the Sites were remediated; however, impacted soil and tuff likely remain within the source areas for AOC 35-003(r). Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow sediment samples collected at Consolidated Unit 35-003(a)-99 at maximum concentrations 1% and 20% of residential SSLs, respectively. These data are from shallow samples in the hillside drainage that was not remediated.

- Alpha-emitting radionuclides may have been associated with industrial materials historically managed at the Sites. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for isotopic plutonium and uranium, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-004(a)**
Site Name: **Container storage area**
SMA: **T-SMA-4**

Updated Site Description (2014):
SWMU 35-004(a) consists of a former outdoor SAA located on asphalt adjacent to the southeast corner of building 35-25. Waste accumulated in the SAA reportedly included small quantities of waste oils and solvents. Staining was observed at the Site during a 1988 reconnaissance and during a 1990 inspection, but they were reportedly cleaned up before the 1992 RFI work plan was completed. A temporary, metal, flammable storage structure (35-386) was placed at the Site in 1990 and used as the SAA. According to the LANL RCRA database, the SWMU 35-004(a) SAA was taken out of service for hazardous waste accumulation in April 1997; however, structure 35-386 remains at the Site for hazardous materials storage.

The Consent Order investigation for SWMU 35-004(a) is complete. A CoC without controls was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for T-SMA-4 exceeded the TALs for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. No shallow (i.e., less than 3 ft bgs) Consent Order samples were collected at SWMU 35-004(a) and shallow RFI samples were not analyzed for metals.
- Mercury is not known to have been associated with industrial materials historically managed at this Site. No shallow (i.e., less than 3 ft bgs) Consent Order samples were collected at SWMU 35-004(a) and shallow RFI samples were not analyzed for metals.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed areas and undeveloped areas. Concentrations of copper and gross-alpha radioactivity detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas. There are no UTLs for mercury.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **35-004(h)**
Site Name: **Former container storage area**
SMA: **35-004(h)**

Updated Site Description (2014):
SWMU 35-004(h) consists of a former outdoor hazardous waste SAA located near the northeast corner of the former air filter building (former building 35-7) and next to former waste line manhole 35-11. Waste accumulated in the SAA reportedly included small quantities of potentially hazardous oils solvents and Freon. A 1979 photograph shows what appears to be a small storage container/drum on the asphalt paving next to the northeast corner of former building 35-7. A 1983 photograph shows that the container/drum had been replaced by a small rectangular storage cabinet. The SAA was decommissioned before D&D activities began in 1985, when the sections of the waste lines next to the east and north side of former building 35-7 were removed. The SWMU 35-004(h) storage area was situated over the former building 35-7 waste lines and manhole 35-1; when these waste lines were removed, the location of the storage area was also removed. In 1996, building 35-7, its foundation, and all remaining inactive buried waste lines were removed to a depth of approximately 15 ft bgs. After these structures were removed, the entire area was backfilled with clean fill and regraded.

A request was submitted to NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded TAL for aluminum, mercury, polychlorinated biphenyls (PCBs), and gross alpha radioactivity. Shallow Consent Order and RFI samples collected at SWMU 35-004(h) were not analyzed for inorganic chemicals or PCBs because they were not identified as potential contaminants at this Site.

- Aluminum is not known to have been associated with industrial materials historically managed at this Site.
- Mercury is not known to have been associated with industrial materials historically managed at this Site.
- PCBs are not known to have been associated with industrial materials historically managed at this Site.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. None of the samples collected at SWMU 35-004(h) were analyzed for gross-alpha radioactivity. However, a single shallow sample was analyzed for isotopic plutonium and uranium, which are alpha emitters. No plutonium or uranium isotopes were detected above BVs or FVs in this sample.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon -tributary to Ten-Site Canyon

Site ID: 35-008
Site Name: Inactive surface disposal area
SMA: M-SMA-10

Updated Site Description (2014):
SWMU 35-008 is the location of an inactive surface disposal area located north of building 35-85 on the edge of Mortandad Canyon. Debris at the Site consists of construction debris, including scrap metal and pipe, paint cans, a 55-gal. drum and miscellaneous building materials refuse such as a large concrete slab, conduits, asphalt, pipe, and reinforcing rods. During a site inspection in 1991, only a small amount of debris, including tubing, scrap metal, and soda cans, was observed at the Site. The surface disposal area has likely been in existence since 1977 when the nearby Chemical Laser Facility (building 35-85) was constructed. Debris associated with SWMU 35-008 extends from the canyon rim to the canyon floor. Some of the dielectric oil associated with SWMU 35-014(e) flowed northward to the mesa edge and partially down the mesa slope over portions of the SWMU 35-008 disposal area.

SWMU 35-008 along with SWMU 35-014(e) comprise Consolidated Unit 35-008-00; both Sites were investigated together during the 1994, 1995, and 1997 RFIs and 2004 Consent Order Phase I investigation. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. A request for a CoC without controls for Site 35-008 was submitted to NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring sample for M-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 1994, 1995, and 1997 RFIs and 2004 Consent Order investigation at SWMUs 35-008 and 35-014(e) were not analyzed for gross-alpha radioactivity but were analyzed for amercium-241, isotopic uranium, and isotopic plutonium which are alpha emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. The SMA receives runoff from developed and undeveloped areas. The gross-alpha radioactivity exceedance is below both the Bandelier Tuff BV and the developed site BV.

Based on the Site history and Consent Order sampling data, the Site is unlikely a source of the TAL exceedance. The SMA sampler receives runoff from undeveloped areas developed areas. Based on comparison with background UTLs, the gross-alpha radioactivity detected in the SMA sample is below both the developed and undeveloped BVs. These results, along with RFI and Consent Order sampling data, are consistent with the Sites not being sources of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-009(a)**
Site Name: **Former Septic System**
SMA: **T-SMA-4**

Updated Site Description (2014):
SWMU 35-009(a) is an inactive septic system that served building 35-2 from 1951 to 1975. The septic system is located near the southwest corner of building 35-4 and consists of a septic tank (structure 35-14), dosing chamber (structure 35-15), distribution box (structure 35-16), clean out, associated drainline, and a leach field located on the south-facing slope of Ten Site Canyon. The septic tank is approximately 4 ft bgs and measures 10 ft long × 4 ft wide × 5 ft deep with a capacity of 1500 gal. The location of the drainline is not known. The septic system received sanitary wastes from building 35-2. Historical operations at building 35-2 involved the use of lanthanum-140. In addition, two nuclear reactors were housed in building 35-2 as well as plutonium laboratories and lithium titride operations. A 1968 memorandum indicates that the leach field was plugged and the system was daylighted. In 1975, the remainder of the septic system was taken out of service but left in place. Portions of the leach field were excavated when the new sanitary sewer lines were routed to the sewage lagoons [Consolidated Unit 35-010(a)-99] located east of TA-35 in Ten Site Canyon.

During the 1996 VCA conducted at SWMU 35-009(a), the septic tank contents were removed and disposed of off-site, and the tank and dosing chamber were filled with concrete; the clean out and distribution box were removed. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. A request for a CoC with controls for Site 35-009(a) was submitted to NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for T-SMA-4 exceeded the TALs for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above the sediment BV in shallow Consent Order and RFI samples. Copper was detected above the sediment BV in 2 of 6 shallow soil and sediment samples with a maximum concentration 9 times sediment BV.
- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was detected above the sediment BV in shallow Consent Order and RFI samples. Mercury was detected above the sediment BV in 2 of 6 shallow soil and sediment samples with a maximum concentration 10.5 times sediment BV. The two samples where mercury was detected above BV, however, were collected at a location downstream of the SMA boundary.
- Alpha-emitting radionuclides are known to have been associated with historical operations at building 35-2, but it is not known whether alpha-containing wastes were discharged to the SWMU 35-009(a) septic system. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed and undeveloped areas. Concentrations of copper and gross-alpha radioactivity detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas. There are no UTLs for mercury.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **35-009(d)**
Site Name: **Former septic tank**
SMA: **Pratt-SMA-1.05**

Updated Site Description (2014):
SWMU 35-009(d) is an inactive septic system that consists of a 1600-gal. septic tank (structure 35-65), a cleanout manhole (structure 35-64), and an associated leach field. The septic system is located east of the northeast corner of building 35-27. An outfall from the east end of the septic system discharged to the south into a small extension of Ten Site Canyon, designated as Pratt Canyon. The leach field covers an area of approximately 1800 ft^2 and consists of fine- to coarse-grained sandstone and cobble filter bed material. Consolidated tuff is reached at depths of 8 to 10 ft bgs in the leach field.

This septic system served the Nuclear Safeguards Research Building (35-27) and other laboratory buildings at TA-35 from 1966 to 1990 when it was taken out of service. The tank was reportedly pumped on a weekly basis. The septic tank may have received laboratory wastes in addition to sanitary wastes. During the 1996 VCA conducted at SWMU 35-009(d), the contents of the septic tank were removed and disposed of off-site, and the tank and manhole were filled with concrete.

All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. A request was submitted to NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded the TAL for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at this Site. Aluminum was not detected or detected above BVs in shallow Consent Order and RFI samples collected at SWMU 35-009(d).
- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was not detected in shallow Consent Order and RFI samples collected at SWMU 35-009(d).
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Shallow RFI samples were not analyzed for PCBs.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. None of the samples collected at SWMU 35-009(d) were analyzed for gross-alpha radioactivity. However, shallow samples were analyzed for gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for isotopic plutonium and uranium, which are alpha emitters. No alpha-emitting radionuclides, including plutonium and uranium isotopes, were detected above BVs/FVs in shallow Consent Order and RFI samples collected at SWMU 35-009(d) In addition, these radionuclides are exempt from regulation under the CWA.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-010(e)**
Site Name: **Former outfall**
SMA: **T-SMA-6.8**

Updated Site Description (2014):
SWMU 35-010(e) is a former NPDES-permitted outfall that discharged from the SWMU 35-010(d) filter beds into Ten Site Canyon. A depth recording gauge station is located at the outfall and measured the effluent level above a small v-shaped weir discharge point. A rock dissipater apron is present at the discharge point. Compiled flow records of the outfall show that the average flow rate was approximately 45,000 gal./d, exceeding the planned capacity of 12,000 gal./d. SWMU 35-010(e) is a component of the former TA-35 WWTP, which was used for the biological treatment of liquid waste, received sanitary and industrial wastewater from TA-35, TA-48, TA-50, and TA-55 from 1975 to 1992 when all discharges from the filters beds ceased.

Consent Order investigations for SWMU 35-010(e) are complete. The Site meets recreational risk levels. A request for a CoC without controls for Site 35-010(e) was submitted to NMED in February 2011.

Significant Materials Exposed To Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **35-014(e)**
Site Name: **Area of oil-stained soil**
SMA: **M-SMA-10**

Updated Site Description (2014):
SWMU 35-014(e) is an area of oil-stained soil on the northern edge of Ten Site Mesa directly north of building 35-85. The 1990 SWMU report described SWMU 35-014(e) as three dielectric oil spill areas associated with building 35-85; however, the 1992 RFI work plan described each spill area as a separate SWMU. The stained soil associated with SWMU 35-014(e) may have been a result of a non-PCB (<50 mg/kg) dielectric oil spill that occurred east of building 35-188 when a forklift punctured an aboveground oil storage tank. The oil tank was removed before 1992. The non-PCB dielectric oil was used in laser experiment conducted in building 35-85. The volume of oil released is not known. However, it was reported that oil from the release flowed northward to the mesa edge and partially down the mesa slope over portions of the SWMU 35-008 disposal area. A 1984 photograph shows that the spill did flow down the side of the mesa. Reports also suggest that oil-stained soil may have been pushed over the mesa during the cleanup of the spill (the spill cleanup is not documented). After the oil spill, an extension to building 35-85 was constructed between building 35-188 and the edge of the mesa to house laser experiments. The building extension covers a portion of the area of the reported oil spill. The construction of this extension may have included site leveling, soil stabilization, and extension and stabilization of the mesa edge by backfilling with soil and riprap materials. During a Site visit in 1997, stained soil was visible on the slope near the edge of the mesa as a dark stain that covered an area measuring approximately 15 ft × 10 ft. No stained soils or odors were apparent on the mesa top north of building 35-85.

SWMU 35-008 along with SWMU 35-014(e) comprise Consolidated Unit 35-008-00; both sites were investigated together during the 1994, 1995, and 1997 RFIs and 2004 Consent Order investigation. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. A request for a CoC without controls for Site 35-014(e) was submitted to NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring sample for M-SMA-10 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials managed at this Site. Shallow samples collected during the 1994, 1995, and 1997 RFIs and 2004 Consent Order investigation at SWMUs 35-008 and 35-014(e) were not analyzed for gross-alpha radioactivity but were analyzed for amercium-241, isotopic uranium, and isotopic plutonium, which are alpha emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. The SMA receives runoff from developed and undeveloped areas. The gross-alpha radioactivity exceedance is below both the Bandelier Tuff BV and the developed site BV.

Based on the Site history and Consent Order sampling data, the Site is unlikely a source of the TAL exceedance. The SMA sampler receives runoff from undeveloped areas developed areas. Based on comparison with background UTLs, the gross-alpha radioactivity detected in the SMA sample is below both the developed and undeveloped BVs. These results along with RFI and Consent Order sampling data are consistent with the Sites not being sources of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last three years. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last three years. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-014(e2)**
Site Name: **Oil spill**
SMA: **M-SMA-10.3**

Updated Site Description (2014):
AOC 35-014(e2) is the Site of a former oil spill at TA-35 that originated from overflows of a gunite-lined, surface waste-oil impoundment used to store waste dielectric oil in the early 1980s. When the impoundment was operative, the oil was periodically pumped out of the impoundment and recycled. The impoundment was drained in 1988 and decommissioned in 1989. Documented releases from the impoundment consisted of oil spills. Soil samples from oil-stained areas showed detectable PCB concentrations. Consent Order Phase I investigation sampling is complete. AOC 35-014(e2) received a CoC with controls for storm water monitoring under the Consent Order from the NMED in September 2013.

Significant Materials Exposed to Storm Water:
In 2011, storm water monitoring samples for M-SMA-10.3 exceeded the TALs for aluminum, copper, zinc, and PCBs.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above BVs in any of the 15 shallow Consent Order soil, sediment, tuff samples (i.e., less than 3 ft bgs).
- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 15 shallow Consent Order soil, sediment, tuff samples (i.e., less than 3 ft bgs).
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was not detected above BVs in any of the 15 shallow Consent Order soil, sediment, tuff samples (i.e., less than 3 ft bgs)..
- PCBs are not known to be associated with industrial materials historically managed at the Site. The PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 1 to 9 samples with a maximum concentration of 20% of the residential SSL.

The SMA receives storm water runoff from developed and undeveloped environments. The zinc and PCB TAL exceedances are below both the Bandelier Tuff BV and the developed site BV. The copper TAL exceedance is above the Bandelier Tuff BV and below the developed site BV.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-014(g)**
Site Name: **Soil contamination**
SMA: **T-SMA-2.85**

Updated Site Description (2014):
SWMU 35-014(g) is stained concrete next to an asphalt-paved catchment basin located at the northeast corner of an experimental support laboratory (building 35-207). The concrete is stained as a result of a former oil spill. The origin and date of the spill are not known. The spill was reportedly cleaned up in the late 1980s during the D&D of the former tank farm and waste-oil treatment facility. A catchment basin directs storm water flow to a CMP outfall and daylight drainage channel [AOC 35-016(n)]. A small oil stain remains visible on the concrete. However, no obvious oil staining is apparent in the catchment basin or the outfall. There is currently no visible sign of the spill or any sign of continued releases at the CMP outfall.

SWMU 34-014(g) was investigated as part of Consolidated Unit 35-014(g)-00, along with AOC 35-016(n) and two other non-IP SWMUs. SWMU 35-014(g) was investigated under the Consent Order and recommended for corrective action complete without controls. Consent Order CoCs without controls were requested from NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for T-SMA-2.85 exceeded the TALs for copper and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil BV in 3 of 18 shallow (i.e., less than 3 ft bgs) soil and sediment Consent Order and RFI samples at a maximum concentration 6 times soil BV.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed areas and undeveloped areas. Concentrations of copper and gross alpha radioactivity detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon—Tributary to Mortandad Canyon

Site ID: **35-014(g3)**
Site Name: **Spill/nonintentional release**
SMA: **T-SMA-2.5**

Updated Site Description (2014):
SWMU 35-014(g3) is an oil-stained area resulting from an oil spill that occurred in 1984 near the former tank farm [SWMU 35-015(a)] on the west side of the CO2 laser building (35-86). The source of the spill was an oil tanker truck; however, the quantity of oil released is not documented. The spill flowed southward through a culvert under the road on the south side of building 35-86, across the parking lot west of building 35-207, and south through a natural drainage channel [AOC 35-016(n)] into Ten Site Canyon. Staining from the spill is clearly visible in a 1986 aerial photograph. The stained area was observed during an August 1991 site visit. At that time, vegetation in the path of the spill was dead, and a petroleum hydrocarbon odor was evident. During the 2004, Consent Order investigation, no petroleum hydrocarbon odor was evident, and no staining was visible in the drainage.

Consent Order investigations for SWMU 35-014(g3) are complete. The Site meets recreational risk levels. A request for a CoC without controls for Site 35-014(g3) was submitted to NMED in February 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(a)**
Site Name: **Former drainline and outfall**
SMA: **T-SMA-5**

Updated Site Description (2014):
SWMU 35-016(a) is a former NPDES-permitted outfall that originally consisted of an 8-in.-diameter metal pipe with a valve and a 6-in. VCP placed in a trench cut into the tuff that discharged into Ten Site Canyon. The outfall was established in 1958 to handle noncontact cooling water from the sodium testing building (35-34) and was eliminated from the NPDES permit in 1985 when discharges to the outfall ceased. The drainlines were decommissioned and removed in 1987, and the remaining section of the trench now serves as a storm water collection channel for a small area on the south side of Ten Site Mesa at TA-35. SWMU 35-016(a) discharges to the same location as the SWMU 35-016(q) storm water outfall in Ten Site Canyon.

Aerial photographs from 1965 show a diagonal trench extending from the north end of SWMU 35-016(a) in a southeasterly direction that appears to connect with the north end of SWMU 35-016(q). Aerial photographs from 1974 show that the diagonal trench and approximately two-thirds of the northern portion of the SWMU were no longer present and may have been backfilled. The mid-90s aerial photographs show this Site to be much the same as it appeared in 1974.

Consent Order investigations are complete for SWMU 35-016(a). The Site meets residential risk levels. A request for a CoC without controls for SSWMU 35-016(a) was submitted to NMED in February 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **35-016(b)**
Site Name: **Inactive outfall**
SMA: **T-SMA-3**

Updated Site Description (2014):
AOC 35-016(b) is an outfall in Ten Site Canyon that formerly served roof, floor, and sink drains in building 35-87. Previously, the effluent discharge volume, limited to 3000 gal./d, was released to Ten Site Canyon. Photographic solutions were historically processed through a silver and cyanide recovery process and released through this outfall. The six photographic laboratory waste drains (i.e., three floor and three sink) routed to this outfall were either plugged (floor) or rerouted (sink) to the sanitary sewer system by 1992.

Consent Order Phase I investigation sampling is complete. A request for a CoC without controls for AOC 35-016(b) was submitted to NMED in August 2011.

Significant Materials Exposed to Storm Water:
Following the installation of enhanced controls, in 2012 a storm water monitoring sample for T-SMA-3 exceeded the TALs for copper and gross alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the AOC. Copper was detected above the sediment BV in 1 of 7 shallow Consent Order and RFI samples (i.e., less than 3 ft bgs), with a maximum concentration of 1.2 times the sediment BV.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the AOC. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium 241 and uranium and plutonium isotopes, which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives storm water runoff from developed and undeveloped environments. The copper TAL exceedance is above the Bandelier Tuff BV and below the developed BV. The gross-alpha TAL exceedance is above the developed BV and below the Bandelier Tuff BV. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **35-016(c)**
Site Name: **Two former NPDES outfalls**
SMA: **T-SMA-4**

Updated Site Description (2014):
SWMU 35-016(c) consists of two former NPDES-permitted outfalls, established in 1964 to discharge noncontact cooling water from building 35-67. Building 35 67 housed offices and heating and cooling systems in support of other TA-35 buildings. The drainline to one outfall ran about 75 ft southward to its point of discharge into Ten Site Canyon. The other outfall, deactivated in 1987, ran about 125 ft from building 35-67 to its point of discharge into Ten Site Canyon. The two outfalls were combined by 1985. The noncontact cooling water was from building cooling systems and was not process specific.

SWMU 35-016(c) was investigated as part of Consolidated Unit 35-016(c)-00, along with SWMU 35-016(d). The Consent Order investigation for SWMU 35-016(c) is complete. CoCs with controls (i.e., maintain industrial or recreational land use) were requested from NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for T-SMA-4 exceeded the TALs for copper, mercury, and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above the BVs in 4 of 23 shallow, soil, sediment, and tuff samples with a maximum concentration 7.7 times tuff BV.
- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Mercury was detected above the BVs in 8 of 23 shallow soil, sediment, and tuff samples with a maximum concentration 27 times tuff BV. Mercury was not detected above BV, however, at sampling locations in the drainage immediately below the SWMU 35-016(c) outfall.
- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed and undeveloped areas. Concentrations of copper and gross-alpha radioactivity detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas. There are no UTLs for mercury.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten-Site Canyon

Site ID: **35-016(d)**
Site Name: **Former NDPES outfall**
SMA: **T-SMA-4**

Updated Site Description (2014):
SWMU 35-016(d) is a former NPDES-permitted outfall constructed in 1962 to handle noncontact cooling water from the reactor components development building (35-46). Building 35-46 housed offices and heating and cooling systems in support of other TA-35 buildings. By 1990, this outfall had been removed from the NPDES permit. The drainline runs about 50 ft southward to its point of discharge into Ten Site Canyon. The noncontact cooling water was from building cooling systems and was not process specific.

SWMU 35-016(d) was investigated as part of Consolidated Unit 35-016(c)-00, along with SWMU 35-016(c). The Consent Order investigation for SWMU 35-016(d) is complete. CoCs with controls (i.e., maintain industrial or recreational land use) were requested from NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for T-SMA-4 exceeded the TALs for copper, mercury, and gross alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above the BVs in 4 of 23 shallow, soil, sediment, and tuff samples with a maximum concentration 7.7 times tuff BV.
- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Mercury was detected above the BVs in 8 of 23 shallow soil, sediment, and tuff samples with a maximum concentration 27 times tuff BV. The highest concentrations of mercury were detected in samples collected below the SWMU 35-016(d) outfall, however, indicating that this Site may have been a source of mercury.
- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWAQ. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed areas and undeveloped areas. Concentrations of copper and gross alpha radioactivity detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas. There are no UTLs for mercury.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten-Site Canyon

Site ID: **35-016(e)**
Site Name: **Former outfall**
SMA: **M-SMA-10.1**

Updated Site Description (2014):
AOC 35-016(e) is a former NPDES-permitted outfall established in 1977 to discharge only noncontact cooling water from the chemical laser facility (building 35-85). The outfall consists of two adjacent 2-in.-diameter steel pipes, insulated with fiberglass and wrapped with protective aluminum coating, that originate from cooling towers on the roof of building 35-85. The outfall is located north of building 35-85 on the rim of Mortandad Canyon. The volume of water released is not documented, but significant erosion was evident below the outfall. The outfall was deleted from the NPDES permit in April 1987 and decommissioned in 1992.

The AOC 35-016(e) outfall is collocated with SWMU 35-008, a former canyon-side disposal area north of building 35-06 and SWMU 35-014(e1), a former dielectric oil spill north of building 35-85. Consent Order samples collected to characterize SWMUs 35-008 and 35-014(e1) were also used to characterize AOC 35-016(e).

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring samples for M-SMA-10.01 exceeded the TAL for gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for copper.

- Copper is not known to be associated with industrial materials historically managed at the AOC. Copper was detected above tuff and sediment BVs in shallow (i.e., less than 3 ft bgs) Consent Order and RFI soil, sediment, and tuff samples. Copper was detected above BV in 2 of 36 shallow samples with a maximum concentration 1.5 times the tuff BV.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the AOC. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and isotopic uranium and plutonium, which are alpha emitters. These isotopes are, however, excluded from regulation under the CWA and are regulated under the AEA.

The SMA receives storm water runoff from developed and undeveloped environments. The copper TAL exceedance is above the Bandelier Tuff BV and below the developed BV. The gross-alpha TAL exceedance is below both the developed BV and the Bandelier Tuff BV, and is only slightly above the TAL level.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(f)**
Site Name: **Storm drain and outfall**
SMA: **M-SMA-9.1**

Updated Site Description (2014):
AOC 35-016(f) is an active storm drain located north of the chemical laser facility (building 35-85) on the west half of the TA-35 mesa. The outfall consists of an 18-in.-diameter CMP that discharges into a small channel cut into backfill material on the south slope of Mortandad Canyon. Documented releases, consisting of oil spills, reportedly occurred near the source areas for the storm drain. The volume of the spills is not documented.

Decision-level data for AOC 35-016(f) consist of results from sampling campaigns conducted in 1995 and 2004. The approved investigation report concluded the nature and extent of all detected chemicals and radionuclides are defined at SWMU 35-016(f). Based on the human health risk-screening assessment results, no potential unacceptable risks or doses from COPCs exist for the residential scenario at SWMU 35-016(f), and no potential ecological risk was found for any receptor. A CoC without controls was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: SWMU 35-016(f) is an active storm water diversion system associated with building 35-85. Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(g)**
Site Name: **Outfall**
SMA: **M-SMA-7**

Updated Site Description (2014):
AOC 35-016(g) consists of a former NPDES-permitted discharge from a CMP culvert, which collected discharge from a reverse osmosis plant and cooling tower blowdown as well as roof and parking lot drainage. Non–storm water discharges from the outfall ceased in 1997 when it was removed from the NPDES permit. The CMP still collects the roof and parking lot storm water drainage. Discharge from the CMP flows in a steep channel incised into bedrock until it reaches an access road to the canyon bottom, where it combines with water from a portion of M-SMA-6 and continues along the access road ditch, ultimately combining with flow from the TA-55 retention basin.

Significant Materials Exposed to Storm Water:
In 2012, a baseline storm water monitoring sample for M-SMA-7 exceeded TALs for zinc and gross-alpha radioactivity.

- Zinc is not known to have been associated with industrial materials historically managed at this Site but may be present from corrosion of the galvanized CMP. Zinc was detected above sediment and tuff BVs in shallow (i.e., less than 3 ft bgs) Consent Order and RFI samples. Zinc was detected above BV in 5 of 20 shallow samples at a maximum concentration 5.4 times the sediment BV.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity because alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site.

Total chromium (1 of 21 samples), antimony (2 of 21 samples), and thallium (1 of 21 samples) were found in shallow soil samples above maximum BV but did not exceed TALs in storm water.

The SMA receives runoff from developed and vegetated areas. The concentration of zinc detected in the SMA sample is less than the UTLs for runoff from both undeveloped and developed areas. The gross-alpha radioactivity detected in the SMA sample is less than the UTL for undeveloped areas but greater than the UTL for developed areas. These results are consistent the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(h)**
Site Name: **Storm drains**
SMA: **M-SMA-6**

Updated Site Description (2014):
AOC 35-016(h) consists of three storm drains located north of building 35-213. The storm drains were installed in 1979 to handle storm water runoff from roof drains of building 35-213, the nearby parking lot, and discharge from a water deionizer in building 35-213. The drain from the water deionizer was rerouted to the RLW drain system in the mid-1990s and no longer discharges to the storm water system. The storm drain that handles the runoff from roof drains is located on the north side of building 35-213. The storm drain that handled discharges from the water deionizer is located on the northeast side of building 35-213. This storm drain currently only handles storm water runoff from the area around building 35-213. The third storm drain that handles storm water from the nearby parking lot is located northwest of building 35-213. All three storm drains discharge into Mortandad Canyon.

Re-evaluation of nature and extent of contamination for AOC 35-016(h) will be completed in the supplemental investigation report for Middle Mortandad/Ten Site Canyons Aggregate Area scheduled to be submitted to the NMED in 2015. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring sample for M-SMA-6 exceeded TALs for copper, PCBs, and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil, sediment, and tuff BVs in shallow (i.e., less than 3 ft bgs) Consent Order and RFI samples. Copper was detected above BV in 6 of 21 shallow samples at a maximum concentration 2.3 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for PCBs because PCBs were not known to have been associated with industrial materials historically managed at this Site.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Shallow Consent Order samples were not analyzed for gross alpha radioactivity but but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, which are also alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed areas, with some contribution from undeveloped areas. Concentrations of copper, PCBs, and gross-alpha detected in the SMA sample are between the UTLs for urban runoff and undeveloped areas. These results are consistent with land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Effluent Canyon—Tributary to Mortandad Canyon

Site ID: **35-016(i)**
Site Name: **Drains and outfalls**
SMA: **M-SMA-10.3**

Updated Site Description (2014):
SWMU 35-016(i) is a storm water outfall that originates from storm water drains south of building 35-85 along Pecos Drive. This outfall consists of an 18-in. diameter CMP that discharges to Mortandad Canyon and was installed around 1977 when building 35-85 was constructed. The area below the outfall also receives surface runoff from AOC 35-014(e2) and may have provided a pathway for oil spills associated with the former waste-oil impoundment. SWMU 35-016(i) received a CoC with controls for storm water monitoring under the Consent Order from NMED in September 2013.

Significant Materials Exposed to Storm Water:
In 2011, storm water monitoring samples for M-SMA-10.3 exceeded the TALs for aluminum, copper, zinc, and PCBs.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above BVs in any of the 15 shallow Consent Order soil, sediment, tuff samples (i.e., less than 3 ft bgs).
- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in any of the 15 shallow Consent Order soil, sediment, or tuff samples (i.e., less than 3 ft bgs).
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was not detected above BVs in any of the 15 shallow Consent Order soil, sediment, tuff samples (i.e., less than 3 ft bgs).
- PCBs are not known to be associated with industrial materials historically managed at the Site. PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 1 to 9 samples with a maximum concentration of 20% of the residential SSL.

The SMA receives storm water runoff from developed and undeveloped environments. The zinc and PCB TAL exceedances are below both the Bandelier Tuff BV and the developed site BV. The copper TAL exceedance is above the Bandelier Tuff BV and below the developed site BV.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(k)**
Site Name: **Inactive drainline and outfall**
SMA: **Pratt-SMA-1.05**

Updated Site Description (2014):
SWMU 35-016(k) is a former NPDES-permitted outfall (04A116) that handled cooling water from the gas laser building (35-29) at TA-35. The outfall was installed in 1961 and deactivated in 1987. It handled once-through cooling water from a closed heat-exchange system that served a gas laser in building 35-29. The drainline runs eastward and discharges into a riprap-lined channel, which drains into a small tributary of Ten Site Canyon, informally known as Pratt Canyon.

SWMU 35-016(k) and AOC 35-016(l), along with numerous other SWMUs and AOCs, are part of Consolidated Unit 35-016(k)-00 and were investigated as a single Site. The same surface sampling data set applies to both Sites.

A request was submitted to NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded the TAL for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at these Sites. Aluminum was not detected above soil BV in the 10 shallow Consent Order and RFI samples collected at Consolidated Unit 35-016(k)-00.
- Mercury is not known to have been associated with industrial materials historically managed at these Sites. Mercury was detected above the sediment BV in 1 of 10 shallow samples at a maximum concentration 10.4 times the sediment BV.
- PCBs are not known to have been associated with industrial materials historically managed at these Sites. PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow soil, sediment, and/or tuff samples collected at Consolidated Unit 35-016(k)-00, at maximum concentrations 9% and 41% of the residential SSLs in soil and sediment samples, respectively. PCBs were likely associated with industrial material historically managed at several SWMUs and AOCs upgradient of SWMU 35-016(k) and AOC 35-016(l): SWMUs 35-003(j), 35-003(k), 35-014(b), and 35-015(b) and AOCs 35-014(c), 35-014(d), and 35-018(a). These SWMUs and AOCs include the former locations of dielectric oil spills from leaking equipment and/or containers and resulting areas of stained soil and tuff. The dielectric oil likely contained low concentrations (<50 mg/kg) PCBs. The equipment and containers have been removed and many of the Sites were remediated; however, impacted soil and tuff likely remain within the source areas for SWMU 35-016(k) and AOC 35-016(l).
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at these Sites. Shallow samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for isotopic plutonium and uranium which are alpha emitters. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: : No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-016(l)**
Site Name: **Storm drains**
SMA: **Pratt-SMA-1.05**

Updated Site Description (2014):
AOC 35-016(l) consists of active storm water drainage channels established in 1961 to handle runoff from building 35-29 and sterilized water leaks from an ultraviolet water sterilizer in room 001A of building 35-29 in TA-35. The drainages flow eastward to a 24-in. CMP outfall located on the north side of the security fence for building 35-27, discharging to the same channel as SWMU 35-016(k) into Pratt Canyon. A concrete catch basin located at the head of the drainage channels collects and detains storm water runoff before discharging to the drainage channels. Stained areas from past dielectric oil spills are present in the source areas for these channels. One of the areas at the head of the channel is the site of a transformer near the southwest corner of building 35-29 that leaked transformer oil. A VCA conducted at the Site removed soil contaminated with PCBs and PAHs.

AOC 35-016(l) and SWMU 35-016(k), along with numerous other SWMUs and AOCs, are part of Consolidated Unit 35-016(k)-00 and were investigated as a single Site. The same surface sampling data set applies to both Sites.

Consent Order Phase I investigation sampling is complete. A request for a CoC without controls was submitted to NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded the TALs for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at the Sites in Consolidated Unit 35-016(k)-00. Aluminum was not detected above soil BV in the 10 shallow Consent Order and RFI samples collected at Consolidated Unit 35-016(k)-00.
- Mercury is not known to have been associated with industrial materials historically managed at the Sites in Consolidated Unit 35-016(k)-00. Mercury was detected above the sediment BV in 1 of 10 shallow samples at a maximum concentration 10.4 times the sediment BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Sites in Consolidated Unit 35-016(k)-00. PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow soil, sediment, and/or tuff samples collected at Consolidated Unit 35-016(k)-00, at maximum concentrations 9% and 41% of the residential SSLs in soil and sediment samples, respectively. PCBs were likely associated with industrial material historically managed at several SWMUs and AOCs upgradient of SWMU 35-016(k) and AOC 35-016(l): SWMUs 35-003(j), 35-003(k), 35-014(b), and 35-015(b) and AOCs 35-014(c), 35-014(d), and 35-018(a). These SWMUs and AOCs include the former locations of dielectric oil spills from leaking equipment and/or containers and resulting areas of stained soil and tuff. The dielectric oil likely contained low concentrations (<50 mg/kg) PCBs. The equipment and containers have been removed and many of the Sites were remediated; however, impacted soil and tuff likely remain within the source areas for SWMU 35-016(k) and AOC 35-016(l).
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at the Sites in Consolidated Unit 35-016(k)-00. Shallow samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma spectroscopy, which is capable of detecting americium-241 and uranium-235, and for isotopic plutonium and uranium, which are alpha-emitters. These radionuclides are exempt from regulation under the CWA.

Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage. Based on Site histories, the Sites are unlikely the source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-016(m)**
Site Name: **Drains and outfalls**
SMA: **Pratt-SMA-1.05**

Updated Site Description (2014):
SWMU 35-016(m) consists of a 1.5-in.-diameter metal blowdown line and a 4-in.-diameter metal drainline intended to serve an inactive noncontact cooling tower outfall established in 1966 and deactivated in 1982. This outfall is located on the east end of the TA-35 mesa top south of a cooling tower (structure 35-33) and east of the Nuclear Safeguards Research Building (35-27). The formerly permitted outfall associated with the cooling tower was intended for discharging treated cooling tower blowdown from two planned reactors in building 35-27. However, the reactors were never installed, the cooling tower was never operated, and the outfall never served its intended purpose. The SWMU 35-016(m) outfall has discharged only storm water runoff from paved parking areas at the east end of the TA-35 mesa top.

A request was submitted to the NMED in August 2011 under the Consent Order for a CoC without controls for this Site.

None of the samples collected at SWMU 35-016(m) were analyzed for gross-alpha radioactivity. However, three shallow samples were analyzed for isotopic plutonium and uranium, which are alpha emitters. Uranium-234 and uranium-238 were each detected above soil BVs in 1 of 3 shallow samples with maximum activities 1.1 and 1.6 times BVs, respectively.

Significant Materials Exposed to Storm Water:
In 2013, the baseline storm water monitoring samples for Pratt-SMA-1.05 exceeded TAL for aluminum, mercury, PCBs, and gross-alpha radioactivity.

- Aluminum is not known to have been associated with industrial materials historically managed at this Site. Aluminum was not detected above BV in shallow Consent Order and RFI samples collected at SWMU 35-016(m).
- Mercury is not known to have been associated with industrial materials historically managed at this Site. Mercury was not detected in shallow Consent Order and RFI samples collected at SWMU 35-016(m).
- PCBs are not known to have been associated with industrial materials historically managed at this Site. PCBs were not detected in shallow Consent Order and RFI samples collected at SWMU 35-016(m).
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. None of the samples collected at SWMU 35-016(m) were analyzed for gross-alpha radioactivity. However, three shallow samples were analyzed for isotopic plutonium and uranium, which are alpha emitters. These radionuclides are exempt from regulation under the CWA and are excluded from the definition of adjusted gross-alpha radioactivity.

The SMA receives storm water runoff from developed and undeveloped environments. The aluminum and gross-alpha radioactivity TAL exceedances are below the Bandelier Tuff BV and above the developed BV. These results are consistent with land use in the SMA drainage area. The PCB TAL exceedance is above both UTLs, indicating a source or sources of PCBs within the SMA drainage.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pratt Canyon—Tributary to Ten Site Canyon

Site ID: **35-016(n)**
Site Name: **Storm drain**
SMA: **T-SMA-2.85**

Updated Site Description (2014):
AOC 35-016(n) consists of a 10-in.-diameter CMP outfall and natural daylight drainage channel that received storm water runoff from the roof of the CO2 laser building (35-86), a paved area south of the laser building, and a grassy slope adjacent to an experimental support laboratory (building 35-207). The source of the outfall is a daylight drainage channel that leads to an asphalt-paved catchment basin. The outfall receives flow from the catchment basin through an intake grate. Because the decommissioned tank farm and waste-oil treatment facility [SWMU 35-015(a)] was formerly located west of building 35-86, recycled, separated water was also discharged into Ten Site Canyon through a storm sewer that leads to AOC 35-016(n). The tank farm and treatment facility were decommissioned and removed in late 1988 or 1989.

AOC 34-016(n) was investigated as part of Consolidated Unit 35-014(g)-00, along with SWMU 35-014(g) and 2 other non-IP SWMUs. AOC 34-016(n) was investigated under the Consent Order and recommended for corrective action complete without controls. Consent Order CoCs without controls were requested from NMED in August 2011.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for T-SMA-2.85 exceeded the TALs for copper and gross-alpha radioactivity.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil BV in 3 of 18 shallow (i.e., less than 3 ft bgs) soil and sediment Consent Order and RFI samples at a maximum concentration 6 times soil BV.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from developed areas and undeveloped areas. Concentrations of copper and gross-alpha radioactivity detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **35-016(o)**
Site Name: **Storm drains and outfalls**
SMA: **M-SMA-11.1**

Updated Site Description (2014):
SWMU 35-016(o) is an active storm water system established in 1951 to collect and manage storm water runoff from the first laboratory and office building (35-02) constructed at TA-35. The three cast-iron storm drainlines channel storm water to three outfalls located on the east side of the mesa and discharge to the south slope of Mortandad Canyon, approximately 20 ft below the mesa edge. Effluent from floor drains in building 35-2 may have been discharged to this storm drain system. In addition, overflow from the septic system designated as SWMU 35-009(c) was discharged into Mortandad Canyon from two outfalls, located at the east and west ends of septic system leach fields; the outfall at the east end of the leach field coincides with one of the SWMU 35-016(o) drainage channels. The associated septic system [SWMU 35-009(c)] was decommissioned in 1992 and underwent a VCA in 1996.

Phase I Consent Order investigations are complete for SWMU 36-016(o); the Site meets recreational risk levels. A CoC with controls was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: SWMU 35-016(o) is an active storm water diversion system associated with building 35-02. Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(p)**
Site Name: **Outfall from building 35-27**
SMA: **M-SMA-12**

Updated Site Description (2014):
SWMU 35-016(p) is an active storm water system that has handled storm water runoff from the roof of the Nuclear Safeguards Research Building (35-27) since it was constructed in 1964. The north and east sides of building 35-27 are equipped with 6-in. diameter roof leaders along which direct roof runoff into CMP storm drains. The storm drains connect to a storm drain manhole located approximately 25 ft northeast of the northeast corner of building 35-27. An 18-in.-diameter CMP storm drain originates at this manhole and extends northward toward the edge of Ten Site Mesa. The outfall is located 40 ft below the mesa edge on the south slope of Mortandad Canyon, approximately 60 ft north of the security fence around building 35-27.

Phase I Consent Order investigations are complete for SWMU 35-016(p); the Site meets residential risk levels. A CoC without controls was requested from NMED in August 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: SWMU 35-016(p) is an active storm water diversion system associated with building 35-27. Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **35-016(q)**
Site Name: **Stormwater trench and outfall**
SMA: **T-SMA-5**

Updated Site Description (2014):
SWMU 35-016(q) consists of a storm water trench cut into the tuff, parallel to and about 60 ft east of SWMU 35-016(a). Constructed in 1958, the trench includes several active storm water collection basins located between building 35-34 and the edge of Ten Site Canyon. The trench discharges storm water to the same area in Ten Site Canyon as SWMU 35-016(a).

Consent Order investigations are complete for SWMU 35-016(q). The Site meets residential risk levels. A request for a CoC without controls for SWMU 35-016(q) was submitted to NMED in February 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **36-003(b)**
Site Name: **Decommissioned septic system**
SMA: **PT-SMA-2**

Updated Site Description (2014):
SWMU 36-003(b) is a decommissioned septic system located at the west end of TA-36. The septic system consists of a septic tank (structure 36-0061) and its associated drainlines and outfall. The septic tank sits near the edge of Mesita del Potrillo, approximately 100 ft southwest of building 36-0055, the control bunker for the I-J Firing Site. The control bunker housed the electronics and instrumentation used in the operation of the I-J Firing Site [SWMU 36-004(e)] and also contained a toilet, sink, and water fountain, all of which were connected to the septic tank via a 4-in.-diameter clay-tile pipe. The septic tank is constructed of reinforced concrete with a capacity of 420 gal. The tank has a buried overflow pipe that formerly discharged near the north rim of Potrillo Canyon. The overflow pipe was capped in 1989 to stop its discharge into the canyon. After the overflow pipe was capped, the septic tank continued to be used until the early 1990s when the tank was taken out of service. During that time, the tank contents were periodically removed and taken to a sanitary WWTP for treatment and disposal. The contents of the SWMU 36-003(b) septic tank were sampled in 1981, and the analytical data confirmed HE was not present. The 1996 VCA implemented at SWMU 36-003(b) included removing the septic tank contents, pressure-washing the tank, and filling the tank with expanding cement. The tank contents were disposed of as LLW at Area G at TA-54 and at the TA-50 RLWTF; no confirmation samples were collected.

Phase I Consent Order sampling is complete for SWMU 36-003(a). All detected constituent concentrations were below residential SSLs and SALs. Nature and extent will be reevaluated under the supplemental investigation report for Potrillo-Fence Canyons Aggregate Area, scheduled to be submitted to NMED in 2015. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC under the Consent Order upon approval of the report.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **36-004(a)**
Site Name: **Firing site**
SMA: **PT-SMA-3**

Updated Site Description (2014):
AOC 36-004(a) is the active Eenie Firing Site located at TA-36 on Mesita del Potrillo on the rim of Potrillo Canyon. AOC 36-004(a) consists of the impact area, a control bunker (building 36-0003), and a make-up building (36-0004) that contains a storage area. Construction of the Eenie Firing Site began in 1949 and was completed in 1951. Materials used in experimental shots include lead oxide, mercury, copper, nickel, brass, DU, and nitroglycerine. Other activities conducted at the Site include shoulder-mounted projectiles fired into targets in the southern portion of the firing site.

Investigation of AOC 36-004(a) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. However, Consent Order samples were collected in sediment catchment areas in the drainage downgradient of the Site to determine if contaminants are migrating from the Site. The migration of potential contaminants from AOC 36-004(a) is limited to the drainage below AOC 36-004(a) for most constituents and does not extend beyond Potrillo Canyon Reach PO-4. All detected constituents in samples collected in the drainage downgradient of AOC 36-004(a) were below residential SSLs and SALs.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: The Site is an active firing site. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The Site is an active firing site. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **36-004(c)**
Site Name: **Active firing site**
SMA: **F-SMA-2**

Updated Site Description (2014):
AOC 36-004(c) consists of an active firing site, known as Minie Firing Site, located at TA-36 near the head of Fence Canyon, approximately 800 ft south of the Meenie Firing Site [AOC 36-004(b)]. Facilities associated with the Minie Firing Site include a control bunker (building 36-8), a make-up building (building 36-7), a firing platform, and an x-ray house. Construction of the Minie Firing Site was completed in 1950. The site has been used extensively to conduct armor-piercing experiments, in which penetrator jets are directed at targets at the canyon wall to the west of the site. Metal plates are placed behind the targets to stop the penetrators. The Minie Firing Site has also been used for open detonation of scrap HE. In addition, emergency detonation of leaking gas cylinders has also been performed, but on a very infrequent basis.

Consent Order sampling was not conducted at AOC 36-004(c) because the Site is an active RCRA-regulated OD unit. However, Consent Order samples were collected in sediment catchment areas in the drainage channel downgradient of the Site to determine if contaminants are migrating from the site. The migration of potential contaminants from AOC 36-004(c) is limited to the drainage downgradient of the site for all constituents and does not extend beyond Fence Canyon Reach F-3.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for F-SMA-2 exceeded TALs for aluminum, copper, and gross-alpha radioactivity.

- Aluminum was likely associated with industrial materials historically managed at this Site. Aluminum was not detected above BVs in any of the 14 samples collected in the drainage downgradient of AOC 36-004(c).
- Copper was likely associated with industrial materials historically managed at this Site. Copper was detected in 5 of 14 samples at maximum concentration 2.9 times the sediment BV.
- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at AOC 36-004(c). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed using gamma-emitting spectroscopy, which is capable of detecting americium-241 and uranium-235, and for uranium isotopes all of which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed (active firing site) areas and undeveloped areas. The concentration of copper detected in the SMA sample is above the BVs for runoff from undeveloped and developed areas. The concentrations of aluminum and gross-alpha radioactivity detected in the SMA sample are above the BVs for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: The Site an active RCRA-regulated OD unit. Historical disposal activities are described above.

Past and Present Materials Management Practices: The Site an active RCRA-regulated OD unit. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Fence Canyon

Site ID: **36-004(d)**
Site Name: **Firing site**
SMA: **PT-SMA-4.2**

Updated Site Description (2014):
SWMU 36-004(d) consists of the active Lower Slobbovia Firing Site and the inactive Skunk Works Firing Site, located in Potrillo Canyon, and three former burn pits located on the mesa top above Potrillo Canyon at TA-36. The Lower Slobbovia Firing Site consists of two active firing points and a control building (36-0012). One of the firing points (structure 36-0013) was constructed in 1950 and is located on top of an approximately 200-ft-diameter sand and dirt pad. The control building (36-0012) was constructed into the side of the pad. The second firing point consisted of a wooden tower (structure 36-0120) constructed in 1986 at the northwest end of a 1000-ft-long sled track for conducting drop tests. Shots fired at the Lower Slobbovia Firing Site primarily involved HE. Less than 2% of the shots involved significant amounts of metal (e.g., DU, lead, copper, aluminum, and steel). The largest shot fired at Lower Slobbovia used 5000 to 6000 lb of HE. In addition, underground tests, buried to approximately 100 ft, were conducted at this Site.

The Skunk Works Firing Site, located approximately 0.5 mi northwest of the Lower Slobbovia Firing Site, was used to conduct small-explosives experiments during the 1950s. These experiments involved gas (acetylene and oxygen), liquid (tetranitromethane), and solid explosives. Beryllium and radioactive materials were not used at the Site. Structures at the Skunk Works Firing Site included a 5-ft × 5.5-ft × 5-ft belowgrade structure that previously served as a battery storage room and two buildings (36-0044 and 36-0045) that were moved to the Site from TA-15. All the structures have been removed. The Skunk Works firing pad was located next to building 36-0045. A shallow depression, located approximately 100 ft farther up the canyon, was also used as a firing pad. The burn pits were used for burning and disposal of test debris before MDA AA (SWMU 36-001) was established in the mid-1960s. These pits are located on Mesita del Potrillo approximately 4000 ft west of the Lower Slobbovia control building (36-0012). The largest pit is a bermed enclosure located north of Potrillo Road and is approximately 40 ft in diameter. Two smaller areas are located south of Potrillo Road. Debris was transported by truck from TA-36 firing sites to the pits, placed in the pits, and burned. The debris consisted of wood, nails, other metal fragments, plastics, and sand contaminated with barium, uranium, and HE.

Investigation of SWMU 36-004(d) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. However, Consent Order samples were collected in sediment catchment areas in the drainages downgradient of all portions of the Site to determine if contaminants are migrating from the Site. The migration of potential contaminants from SWMU 36-004(d) is limited to the drainages below SWMU 36-004(d) for most constituents and does not extend beyond Potrillo Canyon Reach PO-4 or Fence Canyon Reach F-3. All detected constituents in samples collected in the drainages downgradient of SWMU 36-004(d) were below residential SSLs and SALs.

Significant Materials Exposed To Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: One portion of the Site is an active firing site; the other portions of the Site are impacted by firing site activities. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: One portion of the Site is an active firing site; the other portions of the Site are impacted by firing site activities. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **36-004(e)**
Site Name: **Firing site**
SMA: **PT-SMA-2**

Updated Site Description (2014):
AOC 36-004(e) is I-J Firing Site located at the west end of TA-36 on Mesita del Potrillo along the north rim of Potrillo Canyon. I-J Firing Site consists of two firing points (I and J) and the control building (36-0055). The Site was constructed in 1948 and was located in TA-15 until 1981 when the boundary of TA-36 was expanded to encompass the portion of TA-15 that contained the I-J Firing Site. Shots at I-J Firing Site used up to 500 lb of HE and involved a variety of solid and liquid explosives and inorganic chemicals. According to former employees, significant amounts of DU were used at I-J Firing Site in addition to small quantities of mercury and cadmium. Some shots were fired into iron, copper, or lead targets. Other metals used in shots included aluminum, antimony, various steels, lithium-magnesium alloys, and lithium hydride. In addition, hydrocarbons, argon, benzene, small amounts of mercury, cadmium, and beryllium were used in shots. All shots involving radioactive materials at I-J Firing Site were conducted in fully enclosed containment vessels. These vessels were removed from the I-J Firing Site for use at TA-15, although one was later returned to the I-J Firing Site. The returned vessel was identified in the 1990 SWMU report as AOC C-36-001 and was subsequently removed from the Site in 1994. Other firing-site activities conducted at I-J Firing Site included tests in which DU projectiles were fired into an embankment. This projectile test area was designated as AOC C-36-006(e)

Investigation of AOC 36-004(e) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. However, Consent Order samples were collected in sediment catchment areas in the drainages downgradient of the Site to determine if contaminants are migrating from the site. The migration of potential contaminants from AOC 36-004(e) is limited to the drainage downgradient of the Site for most constituents and does not extend beyond Potrillo Canyon Reach PO-4. Detected constituent concentrations in Consent Order drainage samples were below residential SSLs and SALs, except uranium-238, which was detected above the residential SAL but below the industrial SAL in two samples from one location in the drainage downgradient of the Site.

Significant Materials Exposed To Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **36-006**
Site Name: **Former surface disposal area**
SMA: **PT-SMA-3**

Updated Site Description (2014):
SWMU 36-006 consists of a former surface disposal area that was located on the southern slope of Potrillo Canyon, approximately 600 ft north of the Eenie Firing Site [AOC 36-004(a)] at TA-36. SWMU 36-006 was used from 1955 to 1970 to dispose of cables, metal, concrete, and other similar debris from the TA-36 firing sites. The debris covered an area approximately 75 ft wide that extended approximately 100 ft down the south canyon slope. The remainder of the debris was scattered laterally 300 ft along the south canyon slope. This debris was dumped into the canyon from trucks on the canyon rim. Although the TA-36 firing sites were still active, SWMU 36-006 was not used as a surface disposal area after 1996. Firing site personnel removed most of the debris between 1999 and 2006. All remaining debris was removed from the SWMU 36-006 surface disposal area during the 2010 Consent Order investigation.

Phase I Consent Order sampling is complete for SWMU 36-006. All detected constituents in Consent Order confirmation samples were below residential SSLs and SALs. SWMU 36-006 will be recommended for corrective action complete in the supplemental investigation report for Potrillo and Fence Canyons Aggregate Area, to be submitted to NMED in 2015. SWMU 36-006 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr; however, the Site may be impacted by firing site activities. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr; however, the Site may be impacted by firing site activities. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **36-008**
Site Name: **Surface disposal area**
SMA: **3M-SMA-2.6**

Updated Site Description (2014):
SWMU 36-008 is a surface disposal area located at TA-36 on the south rim of Threemile Canyon behind building 36-1. The disposal area covers an estimated 1 to 2 acres and extends below the building over the steeply sloping edge of the mesa. The dates the Site was used for disposal are not known, but the Site appears to be associated with building 36-1 (an office and laboratory), which was constructed in 1949. Materials disposed of at the Site included laboratory glassware, metal cans, metal pipe, miscellaneous metal pieces, and other debris. This disposal area was revealed in June 2000 after the Cerro Grande fire burned the vegetation surrounding the site. As part of the emergency response actions associated with the fire, approximately 5 yd^3 of debris was collected from the Site, segregated, and staged for disposal; and storm water BMPs were installed to prevent erosion.

Phase I sampling was conducted in 2009–2010. Two inorganic chemicals, copper and mercury, were detected above residential SSLs, and several PAHs were detected above residential and industrial SSLs. All other detected chemicals and radionuclides were below residential SSLs and SALs, respectively.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **39-001(b)**
Site Name: **Former landfill**
SMA: **A-SMA-2.8**

Updated Site Description (2014):
SWMU 39-001(b), also known as MDY, consists of three former disposal trenches used to dispose of debris from firing site SWMU 39-008, as well as empty chemical containers and office waste. During the 2009 Consent Order investigation, all wastes at SWMU 39-001(b) were excavated, removed, and disposed of off-site. The final excavation of SWMU 39-001(b) at its maximum dimensions measured 349 ft × 98 ft × 16 ft deep, with an average depth of 8.1 ft. SWMU 39-001(b) was backfilled with overburden material and clean fill after confirmatory sampling results determined that concentrations of COPCs at the base and walls of the excavation were below industrial SSLs and SALs.

Consent Order investigation and remediation are complete for SWMU 39-001(b); the Site meets residential risk level. NMED issued a CoC without controls for the Site in April 2010.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-002(b)**
Site Name: **Storage area**
SMA: **A-SMA-3**

Updated Site Description (2014):
AOC 39-002(b) is an active SAA located on a 5-ft × 5-ft concrete pad next to a firing site support building (structure 39-06) and an active firing site [SWMU 39-004(c)]. AOC 39-002(b) was also used for storage before it became an SAA. AOC 39-002(b) was used to store small quantities of paper contaminated with waste solvents (ethanol, acetone, trichloroethane, copper sulfate); transformer oil; vacuum grease; and Polaroid photographic wastes. There is no evidence, visible or documentary, of spills or leaks at this Site. However, this AOC is within the blast radius of a firing site.

No Consent Order or other investigations have been conducted at SWMU 39-002(b).

Significant Materials Exposed to Storm Water:
In 2013, a corrective action storm water monitoring sample for A-SMA-3 exceeded TALs for aluminum, copper, mercury, selenium, gross-alpha radioactivity, and PCBs.

- Aluminum is not known to be associated with industrial materials historically managed at this Site.
- Copper is known to be associated with industrial materials historically managed at this Site.
- Mercury is not known to be associated with industrial materials historically managed at this Site.
- Selenium is not known to be associated with industrial materials historically managed at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site.
- PCBs are known to be associated with industrial materials historically managed at this Site.

The SMA primarily receives runoff from undeveloped areas. The SWMU 39-004(c) firing site is the only developed area within the SMA. Concentrations of aluminum and gross-alpha radioactivity were less than the UTLs for runoff from undeveloped areas, and there are no UTLs for mercury or selenium. Concentrations of copper and PCBs were much higher than UTLs for both developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: The Site is a current SAA. Historical storage activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: North Ancho Canyon

Site ID: **39-002(c)**
Site Name: **Former SAA**
SMA: **A-SMA-2.7**

Updated Site Description (2014):
AOC 39-002(c) is the location of a former outdoor SAA on an asphalt-paved area next to the southwest corner of the gas-gun support structure (39-0056). Waste paper, solvent-contaminated rags (ethanol, acetone, and trichloroethane), and vacuum grease were stored at this SAA. It is not known if this area was used for storage before being placed in service as an SAA. This SAA was removed from service in February 1994.

The Consent Order investigation of AOC 39-002(c) is complete. The approved Investigation Report for North Ancho Canyon Aggregate Area, Revision 1, concluded that the nature and extent for all detected inorganic and organic contaminants are defined at AOC 39-002(c); there were no radiological COPCs at the Site. The Site meets residential risk levels; therefore, no further investigation or corrective action is required. NMED issued a CoC without controls for AOC 39-002(c) in April 2010.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for A-SMA-2.7 exceeded TAL for adjusted gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for copper and adjusted gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at AOC 39-002(c). Consent Order samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and the developed BV. These results are consistent with the land use within the SMA drainage area, which consists of primarily undeveloped landscape.

Method of Treatment, Storage, or Disposal: The SAA is inactive. NO AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical treatment and disposal activities are described above.

Past and Present Materials Management Practices: The SAA is inactive. NO AOC-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-004(a)**
Site Name: **Firing site**
SMA: **A-SMA-1.1**

Updated Site Description (2014):
SWMU 39-004(a) is a firing site (structure 39-7) at TA-39. This Site was constructed in 1953 as a remote test firing facility to test materials. The experiments conducted at this firing site are designed to expend all the HE contained in the device. If a shot fails so not all the HE is spent, an effort is made to pick up and destroy the unexploded HE. A typical shot carries 10 lb to 100 lb of explosives, but on occasion, up to 1000 lb may be used. Signs of impact are generally noticeable only within a 200-ft radius around the firing pad. This firing site is within the fall zone of a high cliff that erodes when explosives experiments are conducted at the Site. The Site is currently on standby status. SWMU 39-004(d), another remote test firing facility, is located near SWMU 39-004(a) and is currently active. Both 39-004(a) and 39-004(d) are located along the northern tributary of the upper reach of Ancho Canyon. The firing pads are located in the canyon bottom between a diverted ephemeral stream and the canyon wall. For the purposes of evaluating the area, SWMUs 39-004(a) and 39-004(d) were sampled as one site during the 1995 RFI and 2009 Consent Order investigation.

SWMU 39-004(a) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. RFI and Consent Order samples were collected around and downgradient of the Site to determine the potential contaminants being released at the Site and whether these contaminants are migrating off-site. The approved Investigation Report for North Ancho Canyon Aggregate Area, Revision 1, concluded the extent of detected inorganic, organic, and radionuclide contaminants is defined in drainages downgradient of the Site and the drainages meet recreational and residential risk levels; therefore, no immediate corrective action is required until firing site activities cease.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: The Site is within the area affected by operations at the adjacent active firing site. Historical disposal activities are described above.

Past and Present Materials Management Practices: The Site is within the area affected by operations at the adjacent active firing site. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-004(b)**
Site Name: **Firing site**
SMA: **A-SMA-2**

Updated Site Description (2014):
SWMU 39-004(b) is a firing site (structure 39-8) located at TA-39. The SWMU 39-004(b) firing site is located in the western tributary of the upper reach of Ancho Canyon. The firing pad is located in the canyon bottom between an ephemeral stream and the northern canyon wall. This Site had been used to test materials from the time TA-39 was established as a remote test firing facility in 1953. The experiments conducted at this firing site were designed to expend all HE in the device. Signs of impact are generally noticeable only within a 200-ft radius around the firing pad. Activities at this Site were discontinued in 1980 because of the constant hazard of falling debris from the nearby cliff.

The completion of Consent Order investigations at SWMU 39-004(b) is deferred because the Site is within the area affected by operations at other active firing sites; however, 2009 Consent Order samples were collected from the extended drainages downgradient of the firing site to assess the potential for off-site migration. The approved Investigation Report for North Canyon Aggregate Area, Revision 1, concluded that all inorganic and radionuclide COPCs from this Site are at or below BVs in the drainage downstream of the Sites and meet residential risk levels; therefore, no immediate corrective action is required until firing site activities cease.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for A-SMA-2 exceeded the TALs for aluminum, copper, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected or detected above soil or sediment BVs in any of the 55 shallow (i.e., less than 3 ft bgs) 2009 Consent Order and 1995 RFI samples collected at the Site.
- Copper is known to be associated with industrial materials historically managed at SWMU 39-004(b). Copper was detected above BVs in 13 of 31 shallow soil and sediment samples collected during the 1995 RFI conducted at the firing site at a maximum concentration 87.8 times the soil BV.
- Alpha-emitting radionuclides (uranium) are known to be associated with industrial materials historically managed at SWMU 39-004(b). Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium, which contains alpha-emitting isotopes, and were analyzed for isotopic plutonium, thorium and uranium, which are also alpha emitters. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff runoff BV. These results are consistent with the land use within the SMA drainage area, which consists of primarily undeveloped landscape and two active firing sites.

Method of Treatment, Storage, or Disposal: The firing site is inactive. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above

Past and Present Materials Management Practices: The firing site is inactive. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-004(c)**
Site Name: **Active open detonation firing site**
SMA: **A-SMA-3**

Updated Site Description (2014):
SWMU 39-004(c) is an active firing site and active operating RCRA OD Site (structure 39-06) subject to RCRA closure requirements. The Site is located in the southernmost western tributary of Ancho Canyon in the canyon bottom between an ephemeral stream and steep hill slopes to both the north and south. The Site is used for explosives experiments and for treating reactive hazardous waste by OD. The experiments conducted at this firing site are designed to expend all HE in the device. Use of this site as a test firing site began when TA-39 was established in 1953. Materials used in significant quantities at the TA-39 firing sites over the years include beryllium, mercury, natural and DU, lead, aluminum, copper, brass, iron, stainless steel, and various types of HE. Other materials used at TA-39 firing sites include thallium, cadmium, chromium, and thorium (the latter was naturally occurring thorium-232). In addition, firing assemblies were covered with dielectric oil (about 100 gal. per shot), much of which ended up in the soil of the firing pad. This oil may have contained PCBs.

Significant Materials Exposed to Storm Water:
In 2013, a corrective action storm water monitoring sample for A-SMA-3 exceeded TALs for aluminum, copper, mercury, selenium, gross-alpha radioactivity, and PCBs.

- Aluminum is known to be associated with industrial materials historically managed at the Site. Aluminum, however, was not detected above BV in 45 shallow (i.e., less than 3 ft bgs) soil samples collected during the 2009 Consent Order investigation and 1995 RFI.
- Copper is known to be associated with industrial materials historically managed at the Site. Copper was detected above BV in shallow Consent Order and RFI soil samples. Copper was detected above the soil BV in 15 of 45 shallow samples with a maximum concentration 180 times the soil BV.
- Mercury is known to be associated with industrial materials historically managed at the Site. Mercury was only detected above the soil BV in 2 of 45 shallow samples with a maximum concentration 85 times the soil BV.
- Selenium is not known to be associated with industrial materials historically managed at the Site. Selenium was not detected above BV in 45 shallow Consent Order and RFI soil samples.
- PCBs are known to have been associated with industrial materials historically managed at this Site. Three PCB mixtures (Aroclor-1248, Aroclor-1254, and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1248 was detected in 3 of 4 shallow samples with a maximum concentration 30 times the residential SSL. Aroclor-1254 was detected in 1 of 4 shallow samples with a maximum concentration 52% of the residential SSL. Aroclor-1260 was detected in 2 of 4 shallow samples with a maximum concentration 3.1 times the residential SSL.
- Thorium and uranium are known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium, thorium, and uranium isotopes, which are alpha-emitting, and total uranium, which has alpha emitting isotopes. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff BV. These results are consistent with the land use within the SMA drainage area, which consists of primarily undeveloped landscape.

Method of Treatment, Storage, or Disposal: This firing site is active and regulated under the facility's RCRA permit. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: This firing site is active and regulated under the facility's RCRA permit. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-004(d)**
Site Name: **Firing site**
SMA: **A-SMA-1.1**

Updated Site Description (2014):
SWMU 39-004(d) is a firing site (structure 39-57) located along the northern tributary of the upper reach of Ancho Canyon and situated in the bottom of the canyon between a diverted ephemeral stream and the canyon wall. The firing site was constructed in 1953 and is used for explosives experiments.
SWMU 39-004(a), another remote test firing facility, is located near SWMU 39-004(d) and is currently inactive. Both 39-004(a) and 39-004(d) are located along the northern tributary of the upper reach of Ancho Canyon. For the purposes of evaluating the area, SWMUs 39-004(a) and 39-004(d) were sampled as one site during the 1995 RFI and 2009 Consent Order investigation.

SWMU 39-004(d) is deferred per Table IV-2 of the Consent Order; therefore, Consent Order sampling has not been conducted at the Site. RFI and Consent Order samples were collected around and downgradient of the Site to determine the potential contaminants being released at the Site and whether these contaminants are migrating off-site. The approved Investigation Report for North Ancho Canyon Aggregate Area, Revision 1, concluded the extent of detected inorganic, organic, and radionuclide contaminants is defined in drainages downgradient of the Site and the drainages meet recreational and residential risk levels; therefore, no immediate corrective action is required until firing-site activities cease.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: The Site is affected by active firing site operations. Historical disposal activities are described above.

Past and Present Materials Management Practices: The Site is affected by active firing site operations. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-004(e)**
Site Name: **Active firing site**
SMA: **A-SMA-2**

Updated Site Description (2014):
SWMU 39-004(e) is a firing site located (structure 39-88) at TA-39. This Site has been in use since it was constructed in 1978 as a remote test firing facility to test materials. The experiments conducted at this firing site are designed to expend all HE in the device. Signs of impact are generally noticeable only within a 200-ft radius around the firing pad. The SWMU 39-004(e) firing site is located in the western tributary of the upper reach of Ancho Canyon on the same tributary as SWMU 39-004(b). This SWMU is within the deposition area of SWMUs 39-004(a,b,d).

The completion of Consent Order investigations at SWMU 39-004(e) is deferred because the Site is within the area affected by operations at other active firing sites; however, 2009 Consent Order samples were collected from the extended drainages downgradient of the firing site to assess the potential for off-site migration. The approved investigation report for North Canyon Aggregate Area, Revision 1, concluded that all inorganic and radionuclide COPCs from this Site are at or below BVs in the drainage downstream of the Sites and meet residential risk levels; therefore, no immediate corrective action is required until firing site activities cease.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for A-SMA-2 exceeded the TALs for aluminum, copper, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected or detected above soil or sediment BVs in any of the 63 shallow 2009 Consent Order and 1995 RFI samples collected at the Site.
- Copper is known to be associated with industrial materials historically managed at SWMU 39-004(e). Copper was detected above BVs in 14 of 39 shallow soil and sediment samples collected during the 1995 RFI conducted at the firing site at a maximum concentration 563 times the soil BV. Copper was detected above BVs in 2 of 6 shallow soil and sediment Consent Order samples collected at three locations in the drainage adjacent to the firing site at a maximum concentration 4 times the soil BV.
- Alpha-emitting radionuclides (uranium) are known to be associated with industrial materials historically managed at SWMU 39-004(b). Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for total uranium, which contains alpha-emitting isotopes, and were analyzed for isotopic plutonium, thorium, and uranium, which are also alpha emitters. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff runoff BV. These results are consistent with the land use within the SMA drainage area, which consists of primarily undeveloped landscape and two active firing sites.

Method of Treatment, Storage, or Disposal: The firing site is inactive. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The firing site is inactive. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-006(a)**
Site Name: **Septic system, active and inactive components**
SMA: **A-SMA-3.5**

Updated Site Description (2014):
SWMU 39-006(a) consists of a septic system with inactive and active components located east and south of building 39-2 at TA-39. The inactive portion of the septic system was constructed in 1953 and received discharges from building 39-2. The inactive portion of the septic system included an 1800-gal. septic tank (former structure 39-12), sections of drainlines, a subsurface sand filter, a chemical seepage pit, and an outfall. The septic tank was located 100 ft east of building 39-2 and was connected to a sand filter north of NM 4. The sand filter discharged to an outfall south of NM 4 in North Ancho Canyon. In 1973, the septic tank was enlarged, a new subsurface sand filter was installed on the south side of NM 4, and use of the old sand filter was discontinued. Septic tank 39-104, the new sand filter south of NM 4, and the still-active drainlines are part of the SWMU 39-006(a) active components. In 1989, the outlet from the new sand filter was plugged, eliminating the discharge to the outfall. Photographic-processing chemicals from building 39-2 were routinely discharged to former septic tank 39-12, eventually causing the septic tank to malfunction. To correct the problem, a seepage pit was installed directly north of former septic tank 39-12 in 1973 to manage the photographic-processing chemicals. The seepage pit handled approximately 75 gal./yr until 1992. The chemical seepage pit consisted of an open pit approximately 12 ft deep and filled with cobble. A CMP approximately 1 ft in diameter runs vertically through the center of the seepage pit. The inactive septic tank (former structure 39-12), inactive chemical seepage pit, and the original sand filter were removed during 2009 field activities.

Consent Order sampling data for the inactive components of SWMU 39-006(a) indicate the Site meets residential risk levels. During the 2009 Consent Order investigation, only the outfall drainage of the active components of SWMU 39-006(a) was sampled in 2009 to provide initial characterization data. Samples were not collected from the active septic tank and the active sand filter because sampling would disrupt the lines of an active septic system currently in use. All detected inorganic and organic chemical concentrations were below residential SSLs; no radionuclides were detected. Because preliminary investigation results demonstrate that current activities are not contributing to off-site migration, further investigation of the active components of SWMU 39-006(a) is delayed until operations at the Site cease.

Significant Materials Exposed to Storm Water: A baseline storm water sample was collected in July 2013 and yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-008**
Site Name: **Area of potential soil contamination from active gas-gun firing site**
SMA: **A-SMA-2.7**

Updated Site Description (2014):
SWMU 39-008 is an area of potential soil contamination from an active gas-gun firing site. Building 39-0137 houses a single-stage gas-gun that is used to fire DU projectiles at targets on a cliff face. Testing at this site was conducted from 1960 to 1975, suspended for 13 yr, and then resumed in 1988. Most of the debris from the site activities is scattered over the area just west of building 39-0137, but occasionally projectiles and target fragments hit the cliff face, which is located approximately 200 ft west of another building associated with this experimental gun (building 39-0056). SWMU 39-008 is impacted by continuing site operations; therefore, further investigation of the Site under the Consent Order is delayed until operations at the site cease.

RFI and Consent Order samples were collected at the Site to determine the potential contaminants being released at the Site and whether these contaminants are migrating off the Site. The approved Investigation Report for North Ancho Canyon Aggregate Area, Revision 1, concluded that all detected inorganic and radionuclide contaminants from this Site are at or below BVs and/or FVs, and organic COPCs were detected at or below the EQLs in the drainage downstream of the Site and that contaminants are not migrating off-site; therefore, no immediate corrective action is required.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for A-SMA-2.7 exceeded the target TAL for gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for copper and adjusted gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to be associated with industrial materials historically managed at SWMU 39-008. RFI and Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides, and total uranium, which has alpha-emitting isotopes. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs. These results are consistent with the land use within the SMA drainage area, which consists of primarily undeveloped landscape.

Method of Treatment, Storage, or Disposal: The Site is within the area affected by operations at the adjacent active gas-gun firing site.

Past and Present Materials Management Practices: The Site is within the area affected by operations at the adjacent active gas-gun firing site.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **39-010**
Site Name: **Excavated soil dump**
SMA: **A-SMA-2.5**

Updated Site Description (2014):
SWMU 39-010 is an area that was used for staging soil excavated during the 1978 construction of a firing site [SWMU 39-004(e)]. During construction of the firing site, large quantities of soil were removed and deposited in the canyon east of the firing site, forming SWMU 39-010. This soil dump, covering approximately 76,200 ft^2, was not identified in the 1990 SWMU report. However, it was noted in both the RFI work plan and described in a letter notification to NMED designating a new SWMU.

Phase I Consent Order sampling is complete for SWMU 39-010. All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs, except for two detections of uranium-238. SWMU 39-010 will be recommended for corrective action complete in the supplemental investigation report for North Ancho Canyon Aggregate Area to be submitted to NMED in 2015. SWMU 39-010 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ancho Canyon

Site ID: **40-001(c)**
Site Name: **Septic tank**
SMA: **2M-SMA-2.5**

Updated Site Description (2014):
SWMU 40-001(c) is a septic tank (structure 40-0025) located at TA-40 approximately 25 ft east of building 40-0011. Constructed of reinforced concrete, the septic tank measures 4 ft wide × 7 ft long × 6 ft deep and has a capacity of 540 gal. The septic tank was installed in 1950 and serves building 40-0011, which houses changing rooms and restrooms. Originally, the septic tank discharged northeast into Twomile Canyon. In 1951, the drainline was rerouted to discharge south to Pajarito Canyon. In 1988, the septic tank outlet was again rerouted, this time to discharge to a leach field constructed south of the septic tank.

This SWMU was investigated during a 1994 RFI; however, no sampling has been conducted under the Consent Order, and no decision-level data are available.

Significant Materials Exposed to Storm Water: A baseline storm water sample collected in 2012 yielded no TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **40-003(a)**
Site Name: **Scrap burn site/open detonation area**
SMA: **PJ-SMA-11**

Updated Site Description (2014):
SWMU 40-003(a) consists of two former detonation areas located at TA-40. The first area was located 450 ft east of structure 40-15. The detonation area is roughly circular and approximately 30 ft in diameter. Use of the area began in the early 1950s, and detonations were remotely controlled from structure 40-15. In 1958, several instances occurred where intact detonators and pieces of HE were discharged during detonations. Efforts to recover all the scattered detonators and HE were unsuccessful. Detonation activities at this first location ceased in the early 1960s when a second open detonation area was developed at a location farther to the east. This second area is approximately 1300 ft east of structure 40-15, within a natural amphitheater at the end of an unnamed dirt road. At the second area, scrap explosive materials were detonated and controlled remotely from structure 40-15. The detonation area is approximately 90 ft (east-west) by 110 ft (north-south). After each detonation, scattered debris was picked up and transported to an appropriate waste disposal site. Rock rubble and crushed tuff that sloughed from the amphitheater wall was pushed to the south, creating an area of fill that extended nearly to the edge of Pajarito Canyon. The second detonation area was later operated under RCRA interim status. All detonation operations ceased in 1985. The interim status open detonation area underwent RCRA closure from 1992 to 1994. The closure report was approved by NMED in August 1995.

A Consent Order investigation has not been performed at SWMU 40-003(a) and no decision-level soil sampling data are available for this Site. Confirmation samples were collected during the RCRA closure but were not analyzed for copper or gross-alpha radioactivity.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for PJ-SMA-11 exceeded the TALs for copper and gross-alpha radioactivity. Copper and alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site.

The SMA receives runoff from undeveloped areas. The copper detected in the SMA sampler exceeds the UTLs for runoff from both undeveloped and developed areas, indicating the Site may contribute to the TAL exceedance. The gross-alpha radioactivity detected in the SMA sample is less than UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: The burn site was closed under RCRA in 1995. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **40-003(b)**
Site Name: **Burning area**
SMA: **PJ-SMA-11.1**

Updated Site Description (2014):
AOC 40-003(b) is a former burn site located at TA-40 approximately 1400 ft east of building 40-15, next to the open detonation area [SWMU 40-003(a)]. The burn site consists of three small burning areas (burn cage locations) and a burn pit. Materials burned consisted of explosives-contaminated combustibles, including rags, paper, wood, and glassware. From 1960 to 1985, a wire burn cage (4 ft wide × 4 ft long × 5 ft high) with a steel-plate floor was used at three different locations. The burn cage was used to contain burning materials and to prevent wastes from being windblown before and during burning activities. Kerosene was poured over the stacked waste, and burning was initiated using explosive detonators fired remotely. The burn cage locations operated as a hazardous waste thermal treatment unit RCRA interim status until operations ceased in 1985.

The burn pit was located between the two northern locations of the burn cage and measured approximately 12 ft wide × 50 ft long × 12 ft deep. Burn pit operations began in 1961 and ceased sometime before 1977.

The burn cage locations underwent RCRA closure from 1992 to 1994. The closure report was approved by NMED in August 1995. Aerial photographs showed that the entire area, including the burn pit, was backfilled and covered by 1976. The burn pit was omitted from the RCRA closure because its period of use occurred before 1980 and therefore before RCRA regulation.

A Consent Order investigation has not been performed at AOC 40-003(b), and no decision-level soil sampling data are available for this Site.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for PJ-SMA-11.1 exceeded the TALs for aluminum, copper, and gross-alpha radioactivity. Confirmation samples were collected during the RCRA closure but were not analyzed for aluminum, copper, or gross-alpha radioactivity. Based on site history, however, the Site is an unlikely source of the TAL exceedances.

The SMA receives runoff from undeveloped areas. The copper detected in the SMA sampler exceeded the UTLs for runoff from undeveloped areas. The aluminum and gross-alpha radioactivity detected in the SMA sample are less than UTLs for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: The burn cages and burn pit are closed. No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **40-005**
Site Name: **Sump, drainline, and outfall**
SMA: **2M-SMA-1.65**

Updated Site Description (2014):
SWMU 40-005 is an inactive sump (structure 22-0075), located at the northwest corner of building 40-41 (formerly building 22-41), and the associated drainline and outfall. Building 40-41 was constructed in 1952 and was used to perform explosive grinding operations. Before it was incorporated into TA-40, building 40-41 and the sump were part of TA-22. Currently, the building is used to prepare for explosive tests conducted at TA-40. The sump, built in 1961, is 4 ft 6 in. × 6 ft 4 in. × 5 ft deep and constructed of concrete with an inset aluminum baffle tank. Wastewater from a single sink drain discharged to the sump. Originally, the sump discharged via a drainline to a former NPDES-permitted outfall (EPA 05A 154) that flowed into Tributary B of Twomile Canyon. In 1994, the sump outlet port was capped, and in December 1995 the outfall was removed from the NPDES permit. The sump has been removed from service and filled with concrete. Possible contaminants in the system were explosives and solvents.

Consent Order investigations have not been performed at SWMU 40-005, but RFIs were performed in 1994 and 1996. Data from the 1994 RFI are screening-level data, and data from the 1996 RFI are decision-level data.

Significant Materials Exposed to Storm Water:
In 2013, a corrective action storm water monitoring sample for 2M-SMA-1.65 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Shallow soil samples collected during the 1994 and 1996 RFIs were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides since these constituents are not associated with historical site activities.

Explosives are known to have been associated with industrial materials historically managed at this Site. Samples collected during the 1996 RFI were analyzed for explosives. Explosives were not detected in 14 shallow soil samples collected during the 1996 RFI.

Monitoring location 2M-SMA-1.65 receives storm water run-on from developed environments, including paved parking lots, roads, and buildings, as well as landscape containing sediment derived from Bandelier Tuff. The gross-alpha radioactivity in the 2013 SMA sample is less than the UTLs for runoff from developed and undeveloped areas containing sediment derived from Bandelier Tuff. The TAL for gross-alpha radioactivity was also exceeded in a 2011 baseline storm water monitoring sample. The gross-alpha radioactivity in the 2011 sample was between the UTLs for runoff from developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: No Site-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No Site-related materials management practices have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Twomile Canyon

Site ID: **40-006(a)**
Site Name: **Firing site**
SMA: **PJ-SMA-10**

Updated Site Description (2014):
SWMU 40-006(a) is an active firing site (structure 40-15) located at TA-40 on the northern rim of Pajarito Canyon, at the east end of TD Site road. The SWMU 40-006(a) firing site consists of a reinforced concrete and steel building that allows observation of the test shots, a partially protected area on the south side of the building where shots are prepared, and an open firing pad connected to the south of the building where larger shots are fired. Since 1950, this firing site has been used to test and develop detonators. Tests conducted at this Site have included detonator booster tests, which use 2 lb of explosives, and large open-air shots, which can use up to 50 lb of explosives. After each shot, large pieces of debris are removed and disposed of off-site; the open area is graded, and the sand and debris are pushed to the edge of the canyon, creating a sand berm near the canyon edge.

SWMU 40-006(a) is listed in Table IV-2 of the Consent Order (Deferred Sites in Testing Hazard Zones); investigation of this Site is deferred per section IV.A.5.b and Table IV-2 of the Consent Order. Decision-level data are not available for SWMU 40-006(a).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: The Site is an active firing site. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The Site is an active firing site. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **40-006(b)**
Site Name: **Firing site**
SMA: **PJ-SMA-8**

Updated Site Description (2014):
SWMU 40-006(b) is an active firing site (structure 40-8) located at TA-40 on the northern rim of Pajarito Canyon, at the west end of TD Site Rd. The SWMU 40-006(b) firing site consists of a reinforced concrete and steel building that allows observation of the test shots and a partially protected area on the south side of the building where shots are prepared. Since 1950, this firing site has been used to test detonators. Historically, the firing site included an open firing pad connected to the south of the building where the larger shots (up to 85 lb) were fired. In the past, after each shot, large pieces of debris were removed and disposed of off-site, and sand and debris were pushed to the edge of the canyon. This practice created a soil berm near the canyon edge. In 1992, the firing site was modified. The firing pad and the top 6 in. of soil were removed, and a containment system consisting of a large vessel with a high-efficiency particulate filtration system was installed. The firing site is now used only to test and develop small explosive devices.

SWMU 40-006(b) is listed in Table IV-2 of the Consent Order (Deferred Sites in Testing Hazard Zones); investigation of this Site is deferred per section IV.A.5.b and Table IV-2 of the Consent Order. Decision-level data are not available for SWMU 40-006(b).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: The Site is an active firing site No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The Site is an active firing site. . No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **40-006(c)**
Site Name: **Firing site**
SMA: **PJ-SMA-7**

Updated Site Description (2014):
SWMU 40-006(c) is an active firing site (structure 40-5) located at TA-40 on the north edge of Pajarito Canyon at the west end of TD Site Rd. The SWMU 40-006(c) firing site consists of a reinforced concrete and steel building that allows observation of test shots and a partially protected area on the south side of the building where shots are prepared. Since 1950, this firing site has been used to test detonators. Historically, the firing site included an open firing pad connected to the south of the building where the larger shots (up to 50 lb) were fired. In the past, after each shot, large pieces of debris were removed and disposed of, and sand and debris were pushed to the edge of the canyon. This practice has created a soil berm near the canyon edge. The firing site is now used only to test and develop small explosive devices.

SWMU 40-006(c) is listed in Table IV-2 of the Consent Order (Deferred Sites in Testing Hazard Zones); investigation of this Site is deferred per section IV.A.5.b and Table IV-2 of the Consent Order. Decision-level data are not available for SWMU 40-006(c).

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: The Site is an active firing site. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **40-009**
Site Name: **Inactive landfill**
SMA: **PJ-SMA-9**

Updated Site Description (2014):
SWMU 40-009 is a landfill located at TA-40 south of building 40-9. The 1990 SWMU report states that the landfill resulted from a decommissioning effort undertaken at TA-15 in 1967. The SWMU report provides only a vague location and no estimation of size or depth for the landfill, stating that debris from TA-15 was taken to TA-40 and disposed of in the canyon between buildings 40-5 and 40-15. The 1995 RFI field team walked the canyon area between the two buildings and found two prominent earthen berms on the steep hillside directly south of building 40-9. The field team suspected the berms to be the landfill. BMPs were installed at SWMU 40-009 in 2000 as part of the post–Cerro Grande fire recovery. Straw wattles were installed along the mesa edge to divert run-on from the slope. Rock check dams constructed using on-site materials were installed to dissipate flow within the drainage channels on both the east and west ends of the Site.

SWMU 40-009 is included in the Consent Order as part of the Starmer/Upper Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Starmer/Upper Pajarito Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by December 31, 2014. Decision-level data are available for SWMU 40-009 from the 1995 RFI.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer’s Gulch—Tributary to Pajarito Canyon

Site ID: **40-010**
Site Name: **Surface disposal area**
SMA: **PJ-SMA-6**

Updated Site Description (2014):
SWMU 40-010 is a surface disposal area located at TA-40 on the edge of Pajarito Canyon, approximately 200 ft south of former building 40-72. The surface disposal area extends about 150 ft along the canyon edge and 140 ft down the canyon side. The area contained various types of debris, including twenty 30-gal. drums. This area also contains debris from farm and home implements that predate Manhattan Project activities. Post–Cerro Grande fire activities removed all the drums and exposed debris, with the exception of the pre–Manhattan Project debris, which is considered to be of archaeological importance and therefore cannot be removed. BMPs were installed at SWMU 40-010 in 2000 as part of the post–Cerro Grande fire recovery. The fire damage exposed the surface disposal area. Straw wattles were installed upgradient of the surface disposal area to provide run-on diversion. The area was raked, reseeded, and mulched. Surface debris near the edge was removed and disposed of as solid wastes.

SWMU 40-010 is included in the Consent Order as part of the Starmer/Upper Pajarito Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet begun. The investigation work plan for Starmer/Upper Pajarito Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by December 31, 2014. Decision-level data are not available for SWMU 40-010.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Starmer’s Gulch—Tributary to Pajarito Canyon

Site ID: **41-002(c)**
Site Name: **Sludge drying bed**
SMA: **LA-SMA-5.31**

Updated Site Description (2014):
SWMU 41-002(c) is a sludge drying bed and is one component of an inactive small sanitary sewage treatment plant at TA-41. The plant received sewage from TA-02 from the mid-1970s until 1987. After 1987, wastes were pumped to TA-03 for treatment until 1992, after which they were pumped to TA-46. The TA-41 treatment plant was retained as a standby unit in case the lift pump failed.

Consent Order investigations for SWMU 41-002(c) are delayed because building 41-4 is an active facility. Therefore, no sampling is expected to be done at SWMU 41-002(c) until building 41-4 undergoes D&D. However, RFI screening-level data are available for the Site.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring samples for LA-SMA-5.31 exceeded the TALs for copper and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Shallow RFI samples collected at the SWMU 41-002(c) were not analyzed for copper because it is not known to be associated with industrial materials historically managed at the Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides, and for total uranium, which contains alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped areas and the sludge drying bed. The concentration of copper detected in the SMA sample is slightly greater than the UTL for runoff from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is less than the UTL for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related materials management practices have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **42-001(a)**
Site Name: **Soil contamination from former incinerator building 42-1**
SMA: **M-SMA-5**

Updated Site Description (2014):
SWMU 42-001(a) along with SWMUs 42-001(b and c), 42-002(b), and 42-003 and AOC 42-002(a) comprises Consolidated Unit 42-001(a)-99. SWMU 42-001(a) is the historical location of former building 42-0001 that housed the former TA-42 radioactive waste incinerator. Former building 42-0001 was a 2000-ft2 steel-frame structure covered with corrugated metal. The building contained the incinerator, a cyclone dust collector, a spray cooler, a Venturi scrubber, a filter bank, and an ash separator. Combustion products passed through an off-gas cleanup system before they were released through an exhaust stack. The off-gas system consisted of a Venturi scrubber, a filter bank, and an ash separator. Ash trapped in the off-gas system and incinerator was transported by underground drainlines to two holding tanks [SWMUs 42-001(b) and 42-001(c)] located immediately north of the incinerator. Building 42-0001 and its concrete foundation were removed in 1978.

Decision-level data for Consolidated Unit 42-001(a)-99 consist of results from samples collected in 1992 and 2009. The approved 2010 investigation report concluded the lateral and vertical extent of all detected chemicals and radionuclides are defined at Consolidated Unit 42-001(a)-99, except the vertical extent of tritium on the mesa-top portion of the Site is not defined at one location. An investigation report is in progress to address any remaining concerns in this area.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **42-001(b)**
Site Name: **Soil contamination from former ash storage tank**
SMA: **M-SMA-5**

Updated Site Description (2014):
SWMU 42-001(b) comprises Consolidated Unit 42-001(a)-99 along with SWMUs 42-001(a and c), 42-002(b), and 42-003 and AOC 42-002(a). SWMUs 42-001(b) and 42-001(c) are the historical locations of two former aboveground ash-holding tanks (former structures 42-0002 and 42-0003, respectively) associated with the incinerator complex. Each tank was 22 ft in diameter and approximately 13 ft high, with a volume of 37,000 gal. The tanks were built in 1951 and removed in 1978. When the tanks were decommissioned in 1978, the contents were assayed and measured for plutonium. Contaminated sludge was removed, mixed with cement, and taken to Area G for storage. The tanks were excavated and disposed of at Material Disposal Area (MDA) G. The tank drainlines were filled with asphalt to contain radioactive contamination. It is not known if the drainlines were removed.

Decision-level data for Consolidated Unit 42-001(a)-99 consist of results from samples collected in 1992 and 2009. The approved 2010 investigation report concluded the lateral and vertical extent of all detected chemicals and radionuclides are defined at Consolidated Unit 42-001(a)-99, except the vertical extent of tritium on the mesa-top portion of the Site is not defined at one location. An investigation report is in progress to address any remaining concerns in this area.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **42-001(c)**
Site Name: **Soil contamination from former ash storage tank**
SMA: **M-SMA-5**

Updated Site Description (2014):
SWMU 42-001(c) along with SWMUs 42-001(a and b), 42-002(b), and 42-003 and AOC 42-002(a) comprises Consolidated Unit 42-001(a)-99. SWMUs 42-001(b) and 42-001(c) are the historical locations of two former aboveground ash-holding tanks (former structures 42-0002 and 42-0003, respectively) associated with the incinerator complex. Each tank was 22 ft in diameter and approximately 13 ft high, with a volume of 37,000 gal. The tanks were built in 1951 and removed in 1978. When the tanks were decommissioned in 1978, the contents were assayed and measured for plutonium. Contaminated sludge was removed, mixed with cement, and taken to Area G for storage. The tanks were excavated and disposed of at MDA G. The tank drainlines were filled with asphalt to contain radioactive contamination and removed.

Decision-level data for Consolidated Unit 42-001(a)-99 consist of results from samples collected in 1992 and 2009. The approved 2010 investigation report concluded the lateral and vertical extent of all detected chemicals and radionuclides are defined at Consolidated Unit 42-001(a)-99, except the vertical extent of tritium on the mesa-top portion of the Site is not defined at one location. An investigation report is in progress to address any remaining concerns in this area.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **42-002(a)**
Site Name: **Soil contamination from former Vacublaster and storage area**
SMA: **M-SMA-5**

Updated Site Description (2014):
AOC 42-002(a) along with SWMUs 42-001(a, b, and c), 42-002(b), and 42-003 comprises Consolidated Unit 42-001(a)-99. AOC 42-002(a) is the historical location of an indoor storage (former building 42-0001) and decontamination area. Between 1956 and 1969, the main floor of former building 42-0001 was used to store and decontaminate equipment. Building 42-0001 and its concrete foundation were removed in 1978.

Decision-level data for Consolidated Unit 42-001(a)-99 consist of results from samples collected in 1992 and 2009. The approved 2010 investigation report concluded the lateral and vertical extent of all detected chemicals and radionuclides are defined at Consolidated Unit 42-001(a)-99, except the vertical extent of tritium on the mesa-top portion of the Site is not defined at one location. An investigation report is in progress to address any remaining concerns in this area.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **42-002(b)**
Site Name: **Soil contamination from former decontamination area**
SMA: **M-SMA-5**

Updated Site Description (2014):
SWMU 42-002(b) is part of Consolidated Unit 42-001(a)-99, which also includes SWMUs 42-001(a,b,c) and 42-003 and AOC 42-002(a). SWMU 42-002(b) is the location of a historical outdoor decontamination area associated with the former TA-42 radioactive waste incinerator, which was constructed in 1951 and shut down in 1952. Objects too large to decontaminate inside building 42-1 (such as vehicles) were decontaminated at the end of the asphalt driveway located west and north of building 42-1. Wash water from decontamination activities flowed down the embankment on the northwest side of the parking lot. Potentially contaminated soil in that area was not addressed during the 1978 D&D activities.

Decision-level data for Consolidated Unit 42-001(a)-99 consist of results from samples collected in 1992 and 2009. The approved 2010 investigation report concluded the lateral and vertical extent of all detected chemicals and radionuclides are defined at Consolidated Unit 42-001(a)-99, except the vertical extent of tritium on the mesa-top portion of the Site is not defined at one location. An investigation report is in progress to address any remaining concerns in this area.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **AOC 43-001(b2)**
Site Name: **Outfall**
SMA: **LA-SMA-1.1**

Updated Site Description (2014):
AOC 43-001(b2) is a storm drain outfall that was permitted in the mid-to-late 1970s under the LANL's NPDES permit as Outfall 03A040. The outfall was removed from the NPDES Permit on January 11, 1999. The outfall received effluent from six floor drains in the subbasement at HRL (building 43-1), blowdown from the evaporative cooler, and storm water from 13 roof drains on the west side of HRL. These wastewaters were discharged west of HRL through a 130-ft-long, 12-in.-diameter CMP to Los Alamos Canyon. The outfall may have historically discharged radioactively contaminated water and/or once-through and treated cooling water. No historical quantitative information is available about possible residual contamination as a result of the discharges from this outfall. Currently, the outfall is located on the undeveloped slope west of HRL

Consent Order investigations are complete for AOC 43-001(b2); the Site meets recreational risk levels. NMED issued a CoC with controls for AOC 43-001(b2) in September 2010.

Significant Materials Exposed to Storm Water:
In 2012, the enhanced storm water monitoring sample for LA-SMA-1.1 exceeded the TALs for copper and zinc. Baseline storm water monitoring samples collected in 2011 exceeded TALs for copper, zinc, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above BVs in 4 of 21 shallow Consent Order samples at a maximum concentration 1.4 times the tuff BV.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above BVs in 10 of 21 shallow Consent Order samples at a maximum concentration 2.4 times the sediment BV.

Based on the Site history and Consent Order and RFI sampling results, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed areas. The concentrations of copper and zinc detected in the SMA sample are less than the UTLs for runoff from developed areas and above the UTLs for runoff from undeveloped areas, which is consistent with land use in the SMA.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **45-001**
Site Name: **Former WWTP**
SMA: **ACID-SMA-2**

Updated Site Description (2014):
SWMU 45-001 consists of the former TA 45 liquid waste treatment plant and its two associated outfalls. The TA 45 liquid waste treatment plant (building 45 2) was the first such facility at LANL and was located near the current intersection of Canyon Road and Central Avenue in the Los Alamos townsite. The treatment plant began operation in 1951 and operated until 1961. The capacity of the plant was originally 90 gal/min but was expanded to 145 gal/min in 1957. The treatment plant included neutralization and storage tanks, flocculation tanks, sedimentation basins, vacuum filters, and granular media filters. Effluent from the plant discharged to Acid Canyon through outfalls located near the canyon rim. One outfall was used to discharge treated wastewater and the other was connected to floor drains in building 45-2. Operation of the treatment plant ceased after the new RLW treatment facility was constructed at TA-50. D&D of SWMU 45-001 began in October 1966 and included demolition and removal of the treatment plant equipment, facilities, and waste lines and excavation of contaminated soil. In September 1967, the TA-45 property was transferred to Los Alamos County.

The 2007 and 2010 Consent Order investigations of inorganic and organic chemical contamination at SWMU 45-001 was conducted jointly with SWMUs 45-002, 45-003, 45-004 and AOC C-45-001 as Consolidated Unit 45-001-00. NMED issued a CoC without controls for SWMU 45-001 in February 2013.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for ACID-SMA-2 exceeded TALs for aluminum, PCBs, and gross-alpha radioactivity. The following discussion of results applies to the consolidated unit rather than to SWMU 45-001 individually.

- Aluminum is not known to have been associated with industrial materials managed at the Site. Aluminum was not detected above the soil, sediment, or tuff BVs in 33 shallow Consent Order and RFI samples.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1242, Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1242 was detected in 2 of 31 shallow samples with a maximum concentration 0.9% of the residential SSL. Aroclor-1254 was detected in 13 of 31 shallow samples with a maximum concentration 5.3% of the residential SSL. Aroclor-1260 was detected in 16 of 31 shallow samples with a maximum concentration 7.2% of the residential SSL.
- Americium-241 and plutonium and uranium isotopes are known to have been associated with industrial materials historically managed at this Site. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from both developed and undeveloped areas. The concentrations of dissolved aluminum and PCBs and the gross-alpha radioactivity detected in the 2011 SMA sample are between the UTLs for undeveloped areas and the UTLs for urban runoff from developed areas. These results indicate the concentrations of TAL exceedance constituents in the SMA samples are within the expected range given land use in the SMA drainage area. The results of run on sampling, however, indicate PCB concentrations and gross-alpha radioactivity increase as storm water runoff flows over the SMA drainage area.

Method of Treatment, Storage, or Disposal: The wastewater treatment facility has been demolished. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The wastewater treatment facility has been demolished. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Acid Canyon—Tributary to Pueblo Canyon

Site ID: **45-002**
Site Name: **Soil contamination from former decontamination facility**
SMA: **ACID-SMA-2**

Updated Site Description (2014):
SWMU 45-002 was a vehicle decontamination facility located adjacent to the TA-45 WWTP, which received radioactive liquid waste from TA-01 and TA-3. TA-45 began operations in 1951 and underwent D&D in 1966 and 1967.

SWMU 45-002 consists of a former vehicle decontamination facility (former building 45-1) used to remove radioactive contamination from vehicles and large equipment, including filters from the Sigma Building, trash dumpsters, and wing tanks from airplanes. SWMU 45-002 was located approximately 40 ft south of the TA-45 RLW treatment plant (SWMU 45-001). Vehicles and other equipment were decontaminated by steam cleaning. Decontamination wastewater was initially discharged to Acid Canyon and later routed to the RLW treatment plant. The decontamination facility began operation in 1952 and was operated approximately once per month. The facility was decommissioned in 1966. Potential contaminants associated with industrial materials historically managed at this Site are metals and radionuclides. The outfall areas from Sites 01-002(b)-00, 45-001, 45-002, and 45-004 overlap and COPCs are commingled.

SWMU 45-002 received a CoCs without controls under the Consent Order in February 2013.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for ACID-SMA-2 exceeded TALs for aluminum, PCBs, and gross-alpha radioactivity. The following discussion of results applies to the consolidated unit rather than to SWMU 45-002 individually.

- Aluminum is not known to have been associated with industrial materials managed at the Site. Aluminum was not detected above the soil, sediment, or tuff BVs in 33 shallow Consent Order and RFI samples.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1242, and Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1242 was detected in 2 of 31 shallow samples with a maximum concentration 0.9% of the residential SSL. Aroclor-1254 was detected in 13 of 31 shallow samples with a maximum concentration 5.3% of the residential SSL. Aroclor-1260 was detected in 16 of 31 shallow samples with a maximum concentration 7.2% of the residential SSL.
- Americium-241 and plutonium and uranium isotopes are known to have been associated with industrial materials historically managed at this Site. These radionuclides are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from both developed and undeveloped areas. The concentrations of dissolved aluminum and PCBs and the gross-alpha radioactivity detected in the 2011 SMA sample are between the UTLs for undeveloped areas and the UTLs for urban runoff from developed areas. These results indicate the concentrations of TAL exceedance constituents in the SMA samples are within the expected range given land use in the SMA drainage area. The results of run-on sampling, however, indicate PCB concentrations and gross-alpha radioactivity increase as storm water runoff flows over the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Acid Canyon—Tributary to Pueblo Canyon

Site ID: **45-004**
Site Name: **Former sanitary sewer outfall**
SMA: **ACID-SMA-2**

Updated Site Description (2014):
SWMU 45-004 consists of a former sanitary sewer outfall. This outfall was associated with the sanitary sewer system that was constructed at TA 45 in 1947 to serve the Los Alamos townsite. This sewer system included a sanitary sewer lift station (structure 45-3) and sanitary sewer manholes (structures 45-5 and 45-6). The outfall was located to the north of the lift station, approximately 100 ft north of the TA-45 treatment plant (SWMU 45-001) and was used for emergency discharge of overflow. The outfall discharged into a drainage channel leading into Acid Canyon. The sanitary sewer system was transferred to Los Alamos County in 1967.

Consent Order investigations are complete for SWMU 45-004; the Site meets residential risk levels. NMED issued a CoC without controls for SWMU 45-004 in February 2013.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for ACID-SMA-2 exceeded TALs for aluminum, PCBs, and gross-alpha radioactivity. The following discussion of results applies to the consolidated unit rather than to individual SWMU 45-004.

- Aluminum is not known to have been associated with industrial materials managed at the Site. Aluminum was not detected above the soil, sediment, or tuff BVs in 33 shallow Consent Order and RFI samples.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1242 and Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1242 was detected in 2 of 31 shallow samples with a maximum concentration 0.9% of the residential SSL. Aroclor-1254 was detected in 13 of 31 shallow samples with a maximum concentration 5.3% of the residential SSL. Aroclor-1260 was detected in 16 of 31 shallow samples with a maximum concentration 7.2% of the residential SSL.
- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. Consent Order samples were not analyzed for gross alpha radioactivity or alpha-emitting radionuclides, but RFI samples were analyzed for several alpha-emitting radionuclides including isotopes of plutonium and uranium. These radionuclides are exempt from regulation under the CWA. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the Clean Water Act. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA sampler receives runoff from both developed and undeveloped areas. The concentrations of dissolved aluminum and PCBs and the gross-alpha radioactivity detected in the 2011 SMA sample are between the UTLs for undeveloped areas and the UTLs for urban runoff from developed areas. These results indicate the concentrations of TAL exceedance constituents in the SMA samples are within the expected range, given the land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Acid Canyon—Tributary to Pueblo Canyon

Site ID: **46-003(b)**
Site Name: **Former septic system**
SMA: **CDB-SMA-1.65**

Updated Site Description (2014):
SWMU 46-003(b) is a former septic system that was located approximately 60 ft southwest of building 46-77 at TA-46. The septic system consisted of a septic tank (structure 46-22), a distribution box (structure 46-29), associated drainlines, and drain field located approximately 50 ft south of building 46-77 at TA-46. This septic system was installed in 1956 and served the restroom facilities in building 46-17, which housed a generator that charged batteries for the Rover Program. The septic system was removed from service in 1973, and drainlines that discharged to SWMU 46-003(b) were rerouted to the SWMU 46-002 surface impoundment system. Septic tank 46-22 was reportedly emptied, backfilled, and left in place. The drainlines that previously served this septic system were rerouted to the SWSC plant in the early 1990s and are currently active. No evidence of the septic tank was found during the geophysical survey conducted during the 2010 investigation, indicating the tank has been removed.

Phase I Consent Order sampling is complete for SWMU 46-003(b). All detected constituents in Consent Order samples were below residential SSLs. SWMU 46-003(b) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-003(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: 46-003(c)
Site Name: Former septic system
SMA: CDB-SMA-1

Updated Site Description (2014):
SWMU 46-003(c) is a former septic system approximately 80 ft southeast of building 46-76 at TA-46. The septic system consisted of a septic tank (structure 46-49), a distribution box (structure 46-50), associated drainline, a drain field, and an outfall located southeast of building 46-76 beneath an asphalt road outside the security fence at TA-46. This septic system was installed in 1956 and served the restroom facilities, floor drains, roof drains, sinks, and acid sinks in building 46-24, which housed offices, a machine shop, electrical laboratories, and chemical laboratories where fuel rods were handled. In 1958, an acid dry well located in room B22 of building 46-24 was connected into the SWMU 46-003(c) system but drained to the septic tank for less than 1 yr. The drain field associated with this septic system was removed from service sometime before 1968, and septic tank 46-49 was rerouted to the drain field associated with SWMU 46-003(f). In the 1970s, sanitary waste drainlines that previously discharged to septic tank 46-49 were rerouted to the SWMU 46-002 surface impoundment system, and septic tank 46-49 was reportedly removed from service, emptied, filled with gravel, and left in place. No evidence of the septic tank was found during the geophysical survey conducted during the 2010 investigation, confirming the tank had been removed.

SWMU 46-003(c) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. PCBs were not detected in shallow Consent Order samples collected at SWMU 46-003(c).
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-003(c). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, and uranium isotopes, which are alpha-emitting radionuclides. No radionuclides were detected in shallow Consent Order samples collected at SWMU 46-003(c). Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

Based on the site history, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-003(e)**
Site Name: **Former septic system**
SMA: **CDB-SMA-1.55**

Updated Site Description (2014):
SWMU 46-003(e) is a former septic system consisting of a septic tank (structure 46-66), a siphon tank (structure 46-67), a distribution box (structure 46-68), and a drain field located approximately 20 ft east of building 46-58 outside the TA-46 perimeter fence. Septic tank 46-66 was installed in 1960 and served the restroom facility, shower, water cooler, janitorial sink, and mechanical room floor drain in building 46-58, which contained office space, a laboratory, a machine shop, and an equipment room. The septic system was removed from service from approximately 1972 to 1973, and its drainline was rerouted to the SWMU 46-002 surface impoundment system. Septic tank 46-66 was reportedly emptied, filled, and left in place. During the 2010 investigation, the SWMU 46-003(e) septic tank was discovered to contain sludge and a water layer. This waste was likely placed in the septic tank after the system was removed from service because the inlet and outlet lines were plugged. The water layer, sludge, and septic tank were removed and managed as LLW during the 2010 Consent Order investigation, and the tank was cleaned and filled with gravel. During the preparation of the 1993 RFI work plan, a concrete distribution box was found on the ground surface in Cañada del Buey near the location of SWMU 46-003(e). The box was determined to be the SWMU 46-003(e) septic system distribution box, presumably moved to that location during the early 1970s construction of the SWMU 46-002 surface impoundment system. Swipe samples collected and analyzed for radioactivity at the time of discovery detected no radioactivity above instrument background. No indications of staining or sediment deposits were observed on the box; the distribution box was subsequently removed.

Phase I Consent Order sampling is complete for SWMU 46-003(e). All detected constituents in Consent Order samples were below residential SSLs. SWMU 46-003(e) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-003(e) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(a2)**
Site Name: **Former outfall**
SMA: **CDB-SMA-1.35**

Updated Site Description (2014):
SWMU 46-004(a2) is a former outfall on the east side of building 46-31 at TA-46. The outfall discharged to a shallow ditch on the east side of building 46-31, which traversed approximately 50 ft north to a storm drain culvert discharging into Cañada del Buey. The outfall received effluent from a 6-in.-diameter industrial drainline that was historically plumbed to the sinks and drains in rooms 101, 103, and 105 of building 46-31. Building 46-31 housed test cells with electrical furnaces for thermal testing of graphite and uranium-235/uranium-238 fuel rods in support of the Rover Program. Welding experiments involving thorium were also conducted in building 46-31. By 1994, the outfall pipe was plugged, and all drains leading to the outfall were either removed from service or rerouted to the SWSC plant.

Phase I Consent Order sampling is complete for SWMU 46-004(a2). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(a2) will be recommended for corrective action complete in the Supplemental Investigation Report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(a2) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed To Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(b)**
Site Name: **Former tank**
SMA: **CDB-SMA-1.15**

Updated Site Description (2014):
SWMU 46-004(b) is a former alkali-metal cleaning tank (structure 46-81) at TA-46. The tank measured approximately 4 ft × 8 ft × 6 ft tall and was located on asphalt pavement within 20 ft of the northwest corner of building 46-31, within the boundary of the SWMU 46-006(d). The tank was of steel construction with an outlet plumbed to the SWMU 46-004(c) dry well. The tank was used in the late 1950s and early 1960s to douse laboratory equipment from cesium-plasma diode experiments before the equipment was reused or disposed of. Butanol or kerosene was used on the equipment to dissolve naturally occurring alkali isotopes of cesium and lithium. The tank was removed in 1973. The 1990 SWMU report incorrectly described the tank as being constructed of concrete.

Phase I Consent Order sampling is complete for SWMU 46-004(b). All detected constituents in Consent Order samples were below residential SSLs. SWMU 46-004(b) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed To Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(c2)**
Site Name: **Former outfall**
SMA: **CDB-SMA-0.25**

Updated Site Description (2014):
SWMU 46-004(c2) is a former NPDES-permitted outfall from an industrial drainline in building 46-1 at TA-46. Building 46-1 housed offices, two assembly bays, a machine shop, several laboratories for the assembly and checkout of electrical components, general laboratories, and a uranium-polishing area in support of the Rover Program. The outfall consists of a 4-in.-diameter cast-iron pipe that discharged effluent from floor drains in the north equipment room of building 46-1 to a ditch approximately 50 ft northwest of building 46-1. From the ditch, the effluent flowed to a storm drain culvert that discharged into Cañada del Buey. In 1997, the floor drains that discharged to the SWMU 46-004(c2) outfall either were removed from service or were rerouted to the TA-46 sanitary WWTP. The outfall was removed from the NPDES permit effective March 10, 1998.

Reevaluation of nature and extent will be completed under the supplemental investigation report for Upper Cañada del Buey Aggregate Area, scheduled to be submitted to NMED in 2014. It is anticipated this Site will be recommended for corrective action complete and will be eligible for a CoC under the Consent Order upon approval of the report.

Significant Materials Exposed to Storm Water:
In 2013, two corrective action storm water monitoring samples for CDB-SMA-0.25 exceeded TALs for copper and PCBs. TALs for aluminum, copper, and PCBs were also exceeded in a baseline storm water monitoring sample collected in 2011.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above the soil BV in shallow (i.e., less than 3 ft bgs) soil and tuff samples collected during the 2010 Consent Order investigation at the Site. Copper was detected above BV in 5 of 22 shallow samples with a maximum concentration 3.1 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 12 of 22 shallow samples with a maximum concentration 12% of the residential SSL. Aroclor-1260 was detected in 13 of 22 shallow samples with a maximum concentration 4% of the residential SSL.

Lead (8 of 22 samples), mercury (2 of 22 samples), and zinc (7 of 22 samples) were detected in shallow soil samples above maximum BV but did not exceed TALs in storm water.

The SMA sampler receives runoff from both developed areas (parking lots, buildings, and roads) and undeveloped areas (canyon slope). The pattern of detection of TAL constituents in storm water compared with background is consistent with this land use.

Method of Treatment, Storage, or Disposal: The outfall is no longer operational. No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: The outfall is no longer operational. No SWMU-related materials management activities have occurred in the last 3 yr. Historical activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(d2)**
Site Name: **Area of potential soil contamination**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
SWMU 46-004(d2) consists of an area of potential soil contamination associated with exhaust emissions from stacks on building 46-24 at TA-46. Building 46-24 housed laboratories and offices. In 1960 and 1961, experiments conducted in building 46-24 used, and may have released, beryllium and beryllium oxide. Stack emissions associated with SWMU 46-004(d2) were characterized as part of Consolidated Unit 46-004(d2)-99, which consists of SWMUs 46-004(g) and 46-004(h) and AOCs C-46-002 and C-46-003 as well as SWMU 46-004(d2).

SWMU 46-004(d2) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCB) and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. Three PCB mixtures (Aroclor-1242, Aroclor-1254, and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1242 and aroclor-1254 were each detected in 1 of 8 shallow samples at concentrations 8.6% and 18% of the residential SSLs. Aroclor-1260 was detected in 3 of 8 shallow samples at a maximum concentration 3.4% of the residential SSL.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-004(d2). Consent Order samples were not analyzed for gross-alpha radioactivity, but were analyzed for americium-241, plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides. No radionuclides were detected in the shallow samples. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

Based on the site history and Consent Order sampling data, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BVs for runoff from undeveloped areas and below the BVs for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(e2)**
Site Name: **Outfall from building 46-42**
SMA: **CDB-SMA-0.25**

Updated Site Description (2014):
AOC 46-004(e2) is the outfall from roof, floor, and sink drains in building 46-42 at TA 46. The outfall consists of a 4-in.-diameter pipe located approximately 50 ft northeast of building 46-42 at the head of a drainage ditch associated with SWMU 46-006(a). The outfall is located approximately 3 ft below the level of the asphalt pavement. Building 46-42 was constructed as an equipment checkout facility and contains electronics and robotics laboratories. Much of the effluent historically discharged from the outfall was blowdown and condensate. Hazardous materials might have been handled in historical machining operations, and solvents may be used in conjunction with the laboratories. In the mid-1990s, the floor and sink drains that discharged to this outfall either were removed from service or were rerouted to the sanitary sewer system. The outfall currently receives storm water only from building 46-42 roof drains.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-0.55 exceeded TALs for copper and PCBs. TALs for aluminum, copper, and PCBs were also exceeded in a baseline storm water monitoring sample collected in 2011.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above soil and tuff BVs in shallow samples collected during the 2010 Consent Order investigation at the Site. Copper was detected above BV in 4 of 6 shallow samples with a maximum concentration 21 times the tuff BV.
- PCBs are not known to have been associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 5 of 6 shallow samples with a maximum concentration 10% of the residential SSL. Aroclor-1260 was detected in 5 of 6 shallow samples with a maximum concentration 4% of the residential SSL.

Lead (3 of 6 samples) and zinc (1 of 6 samples) were found in shallow soil samples above maximum BV but did not exceed TALs in storm water.

The SMA sampler receives runoff from both developed areas (parking lots, buildings, and roads) and undeveloped areas (canyon slope). The pattern of detection of TAL constituents in storm water compared to background is consistent with this land use.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **46-004(f)**
Site Name: **Former outfall**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
SWMU 46-004(f) is a former outfall from an industrial drainline that served rooms 101 through 134 in building 46-24 at TA-46. The outfall consists of a 6-in.-diameter VCP that received discharges from a sump, acid sink, several floor and sink drains, and noncontact cooling water. The outfall pipe discharged to a drain approximately 50 ft east of building 46-24. This drain is part of a network of drains that discharged to SWSC Canyon at former NPDES-permitted Outfall 04A018. Building 46-24 housed offices, a machine shop, electrical laboratories, and chemical laboratories where fuel rods were handled. All discharges to the outfall from building 46-24 ceased before the outfall was removed from the NPDES permit in December 1995.

SWMU 46-004(f) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 3 of 8 shallow samples, and Aroclor-1260 was detected in 4 of 8 shallow samples with maximum concentrations 5% and 2% of the residential SSLs, respectively.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-004(f). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241, plutonium, and uranium isotopes, which are alpha-emitting radionuclides. No radionuclides were detected or detected above BVs/ FVs in Consent Order samples collected at SWMU 46-004(f). Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

Based on the site history, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(g)**
Site Name: **Potential surface soil contamination and inactive outfall**
SMA: **CDB-SMA-0.55**

Updated Site Description (2014):
SWMU 46-004(g) consists of an area of potential surface soil contamination associated with radionuclide exhaust emissions from stacks on building 46-1 and an inactive outfall from an industrial drainline in building 46-1 at TA 46. Work in building 46-1 that generated exhaust emissions involved the baking and high-temperature testing of fuel rods. The outfall component of SWMU 46-004(g) consists of an inactive 12-in.-diameter VCP industrial drain that received effluent from floor drains and roof drains within the central portion of building 46-1 and discharged into Cañada del Buey north of building 46-154. Building 46-1 housed offices, two assembly bays, a machine shop, several laboratories for the assembly and checkout of electrical components, general laboratories, and a uranium polishing area. In 1996 and 1997, the floor drains that discharged to this outfall were either removed from service or were rerouted to the TA-46 wastewater treatment plant. Roof drains from building 46-1 that discharged to this outfall were rerouted to the storm water drain system in 1996.

SWMU 46-004(g) is expected to be eligible for a certificate of completion under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-0.55 exceeded TALs for copper and PCBs.

- Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was detected above BVs in 7 of 16 shallow (i.e., less than 3 ft bgs) 2010 Consent Order soil and tuff samples at a maximum concentration 13 times the soil BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 6 of 16 shallow samples and Aroclor-1260 was detected in 3 of 16 shallow samples with maximum concentrations 10.7% and 0.96% of the residential SSLs, respectively.

Cadmium (1 of 16 samples), lead (3 of 16 samples), mercury (8 of 16 samples), nickel (1 of 16 samples), and zinc (1 of 16 samples) were found in shallow soil samples above maximum BV but did not exceed TALs in storm water.

Based on Site histories, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff developed and undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. PCBs detected in the SMA sample are below both BVs for urban runoff from developed areas and runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(h)**
Site Name: **Area of potential soil contamination and former outfall**
SMA: **CDB-SMA-1.54**

Updated Site Description (2014):
SWMU 46-004(h) consists of an area of potential soil contamination associated with exhaust emissions from stacks on building 46-16 and inactive outfall from an industrial drainline in building 46-16 at TA-46. Work in building 46-16 that generated exhaust emissions involved experiments conducted with uranium-loaded graphite and tests of uranium fuel rods as part of the Rover Program between the late 1950s and early 1970s. The outfall component of SWMU 46-004(h) consists of an inactive 6-in.-diameter cast-iron pipe that received effluent from building floor drains and discharged to an outfall north of building 46-16 into Cañada del Buey. In 1995, floor drains that discharged to this outfall either were removed from service or were rerouted to the SWSC plant.

Phase I Consent Order sampling is complete for SWMU 46-004(h). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(h) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(h) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(m)**
Site Name: **Former NDPDES permitted outfall**
SMA: **CDB-SMA-0.55**

Updated Site Description (2014):
SWMU 46-004(m) consists of a former NPDES-permitted outfall (04A013), located approximately 60 ft north of building 46-30. The outfall protrudes from a 10-ft-deep bank on the hillside north of building 46-30. The outfall discharged effluent from an industrial drainline in building 46-30 to a ditch at the foot of the bank. The ditch channeled wastewater to a storm drain culvert that discharges into Cañada del Buey. Engineering drawings show this industrial drainline received effluent from the roof drains, laboratory sinks, and floor drains in building 46-30. Building 46-30 was constructed as a hydraulics laboratory and contained a high-bay area with a crane, an actuator test area, and a small machine shop. In December 1995, the outfall was removed from the NPDES permit. Before the outfall was removed from the NPDES permit, all discharges to the outfall from building 46-30 ceased.

The Cerro Grande fire of 2000 burned moderately to severely in the vicinity of this SWMU. As a result of the fire, the vegetative ground cover and canopy were mostly destroyed. Wattles were installed on slopes within the drainages, and rock check dams were placed in the main drainages to dissipate storm water run-on from upslope locations. The lower portion of the sloped area was hand raked, re-seeded with native grasses, and mulched with straw. The upper portion of the sloped area was hydromulched from above. An earthen base-course berm was installed along the fire road at the toe of the slope to provide additional protection from sediment migration.

NMED issued a CoC without controls under the Consent Order for this Site in July 2013.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-0.55 exceeded TALs for copper and PCBs.

- Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was detected above BVs in 3 of 20 shallow 2010 Consent Order soil and tuff samples at a maximum concentration 1.7 times the tuff BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 7 of 20 shallow samples, and Aroclor-1260 was detected in 2 of 20 shallow samples with maximum concentrations 1.7% and 0.3% of the residential SSLs, respectively.

Mercury (1of 19 samples) and zinc (2 of 19 samples) were found in shallow soil samples above maximum BV but did not exceed TALs in storm water.

Based on Site histories, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff developed and undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. PCBs detected in the SMA sample are below both BVs for urban runoff from developed areas and runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(q)**
Site Name: **Inactive outfall**
SMA: **CDB-SMA-1.54**

Updated Site Description (2014):
SWMU 46-004(q) is an inactive outfall located approximately 40 ft north of building 46-58 at TA-46. The outfall consists of a 6-in.-diameter cast-iron pipe that discharged into Cañada del Buey. The source of the discharge to the outfall is not known.

Phase I Consent Order sampling is complete for SWMU 46-004(q). All detected constituents in Consent Order samples were below residential SSLs and SALs, except mercury, which was detected above the residential and industrial SSLs in two samples from one sampling location. Mercury-contaminated soil above industrial SSLs will be removed during the Phase II Upper Cañada del Buey Aggregate investigation. SWMU 46-004(q) will then be recommended for corrective action complete in the future Phase II investigation report. SWMU 46-004(q) will be eligible for a CoC upon approval of the Phase II report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(s)**
Site Name: **Former outfall**
SMA: **CDB-SMA-0.55**

Updated Site Description (2014):
SWMU 46-004(s) consists of an outfall located approximately 20 ft south of building 46-1 at TA-46. The outfall consists of a 4-in.-diameter cast-iron pipe that discharged to a drainage ditch (SWMU 46-007) on the south side of building 46-1. The drainage ditch leads to a storm drain culvert that discharges into Cañada del Buey. The outfall received effluent from floor and roof drains of the south high bay in building 46-1. Building 46-1 housed offices, two assembly bays, a machine shop, several laboratories for the assembly and checkout of electrical components, general laboratories, and a uranium polishing area. In 1995, all floor drains in the south high bay of building 46-1 either were plugged or were rerouted to the SWSC plant. Currently, roof drains from the south high bay discharge to the storm drainage system and/or daylight near building 46-1, and the building has been deactivated.

The Cerro Grande fire of 2000 burned moderately to severely in the vicinity of this SWMU. As a result of the fire, the vegetative ground cover and canopy were mostly destroyed. Wattles were installed on slopes within the drainages, and rock check dams were placed in the main drainages to dissipate storm water run-on from upslope locations. The lower portion of the sloped area was hand raked, re-seeded with native grasses, and mulched with straw. The upper portion of the sloped area was hydromulched from above. An earthen base-course berm was installed along the fire road at the toe of the slope to provide additional protection from sediment migration.

SWMU 46-004(s) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-0.55 exceeded TALs for copper and PCBs.

- Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was detected above BVs in 2 of 4 shallow 2010 Consent Order soil and tuff samples at a maximum concentration 40 times the tuff BV.
- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 2 of 4 shallow samples and Aroclor-1260 was detected in 1 of 4 shallow samples with maximum concentrations 3% and 0.6% of the residential SSLs, respectively.

Based on Site histories, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff developed and undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. PCBs detected in the SMA sample are below both BVs for urban runoff from developed areas and runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(t)**
Site Name: **Potential soil contamination associated with former stack emissions**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
SWMU 46-004(t) consists of potential soil contamination associated with former laboratory stack emissions from building 46-24 in the early 1960s. In 1960 and 1961, experiments conducted in building 46-24 used beryllium and beryllium oxide.

SWMU 46-004(t) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 was detected in 12 of 14 shallow samples and Aroclor-1260 was detected in 11 of 14 shallow samples with maximum concentrations 4.4% and 4.8% of the residential SSLs, respectively.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-004(t). Consent Order samples were not analyzed for gross alpha radioactivity but were analyzed for americium-241, plutonium, and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed background values.

Based on the site history and Consent Order sampling data, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(u)**
Site Name: **Former outfall**
SMA: **CDB-SMA-1.35**

Updated Site Description (2014):
SWMU 46-004(u) is a former outfall located approximately 10 ft north of former building 46-87 at TA-46. The outfall consisted of an 8-in.-diameter cast-iron pipe that discharged into Cañada del Buey. This pipe was the overflow pipe for a concrete wet well located in former building 46-87. The wet well was designed as a holding pit for deionized water and historically received effluent from a closed-loop cooling water system serving buildings 46-16, 46-25, and 46-31. The wet well also received effluent from sink drains in building 46-25, which was a battery storage facility also used for small-scale painting activities in support of the Rover Program. Building 46-87 was the pump house for an adjacent cooling tower (former building 46-86) that housed two wet well systems and mechanical equipment associated with the cooling tower. Building 46-87 also stored water-treatment chemicals. Building 46-87 underwent D&D in December 2001. By the early 1990s, the outfall had been plugged, and effluent discharged to the wet well was periodically pumped out and disposed of at the SWSC plant. By 1998, the building 46-25 drains that discharged to the wet well were removed from service.

Phase I Consent Order sampling is complete for SWMU 46-004(u). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(u) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(u) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(v)**
Site Name: **Former outfall**
SMA: **CDB-SMA-1.35**

Updated Site Description (2014):
SWMU 46-004(v) is a former outfall that was located approximately 20 ft north of former building 46-87 at TA-46. The outfall consists of a 6-in.-diameter cast-iron pipe that discharged effluent from the roof and floor drains of former building 46-87 into Cañada del Buey. Building 46-87 was the pump house for an adjacent cooling tower (former building 46-86) that housed two wet well systems and mechanical equipment associated with the cooling tower. This building was also used to store water-treatment chemicals. By the early 1990s, the floor drains in former building 46-87 had been plugged, and the outfall was receiving only discharges from the roof drains. Building 46-87 underwent D&D in December 2001.

Phase I Consent Order sampling is complete for SWMU 46-004(v). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(v) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(v) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(w)**
Site Name: **Former outfall**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
SWMU 46-004(w) is a former NPDES-permitted outfall located approximately 70 ft south of building 46-24 at TA-46. The outfall is a 2-in.-diameter cast-iron pipe that discharged to a drain south of building 46-24, near the northeast corner of a laser laboratory (building 46-76). The outfall served a sink drain in building 46-59. SWMU 46-004(w) also received effluent from the SWMU 46-004(r) outfall and was part of a network of drains that discharged to SWSC Canyon at former NPDES-permitted outfall 04A018. Building 46-59 was used for hydraulic and structural testing of components in support of the Rover Program. All discharges to the outfall from building 46-59 ceased before the outfall was removed from the NPDES permit in December 1995.

SWMU 46-004(w) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. PCBs were not detected in the Consent Order samples collected at SWMU 46-004(w).
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-004(w). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. No radionuclides were detected in the Consent Order samples collected at SWMU 46-004(w). Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

Based on the site history, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(x)**
Site Name: **Outfall**
SMA: **CDB-SMA-1.35**

Updated Site Description (2014):
SWMU 46-004(x) is an outfall located approximately 30 ft north of building 46-31 at TA-46. The outfall consists of a 6-in.-diameter pipe that receives effluent from roof drains in building 46-31. The outfall pipe extends approximately 1 ft beyond the steep canyon slope and discharges to a 1- to 2-ft-wide drainage that stretches to the toe of the slope of Cañada del Buey. Building 46-31 housed test cells with electrical furnaces for thermal testing of graphite and uranium-235/uranium-238 fuel rods in support of the Rover Program. Welding experiments involving thorium were also conducted in building 46-31.

Phase I Consent Order sampling is complete for SWMU 46-004(x). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(x) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(x) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(y)**
Site Name: **Former outfall**
SMA: **CDB-SMA-1.15**

Updated Site Description (2014):
SWMU 46-004(y) is a former NPDES-permitted outfall (03A043) located approximately 40 ft north of building 46-31 at TA-46. This outfall consisted of a 6-in.-diameter cast-iron pipe that received blowdown from a cooling tower in building 46-31 and effluent from the building's floor drains, roof drains, and laboratory sinks. The outfall pipe discharged into Cañada del Buey. The outfall pipe to the canyon was removed before 1996, the roof drains were rerouted to new storm drains that discharge to the north side of building 46-31, and all floor and sink drains discharging to this outfall were rerouted to the SWSC plant. In July 1996, the outfall was removed from the NPDES permit.

Phase I Consent Order sampling is complete for SWMU 46-004(y). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(y) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(y) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-004(z)**
Site Name: **Outfall**
SMA: **CDB-SMA-1.15**

Updated Site Description (2014):
SWMU 46-004(z) is an outfall located approximately 60 ft northwest of building 46-31 at TA-46. This outfall consists of a 6-in.-diameter cast-iron pipe that receives storm water discharge from two roof drains at building 46-31 and discharges into Cañada del Buey. Previously, the outfall also served the floor drains for rooms 160 through 172 of building 46-31. The floor drains leading to this outfall were rerouted to the SWSC plant sometime before 1993.

Phase I Consent Order sampling is complete for SWMU 46-004(z). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-004(z) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-004(z) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-006(d)**
Site Name: **Area of potential soil contamination**
SMA: **CDB-SMA-1.15, CDB-SMA-1.35, CDB-SMA-1.54**

Updated Site Description (2014):
SWMU 46-006(d) is an area of potential soil contamination located on the north side of building 46-31 at TA-46. The area is approximately 50 ft × 300 ft and is level near building 46-31 but drops steeply towards the northern perimeter fence of TA-46 and into Cañada del Buey. With the exception of two asphalt-paved delivery and parking areas located at the eastern and western boundaries of the SWMU, most of the area is unpaved. Oils and possibly other materials spilled in the area. Engineering drawings show that a drain from room 111A in building 45-31 also discharged to this SWMU. During a 1986 site visit, 55-gal. drums, cans, rusty chemical storage containers, and a thick layer of oil were observed on the northern slope of the Site. SWMUs 46-004(a,b,c) are located within the SWMU 46-006(d) boundary. Drainages that flow into Cañada del Buey, north of TA-46 perimeter fence, receive runoff from SWMU 46-006(d).

Phase I Consent Order sampling is complete for SWMU 46-006(d). All detected constituents in Consent Order samples were below residential SSLs and SALs, except mercury and Aroclor-1254, which were each detected above residential SSLs but below industrial SSLs at one sampling location. SWMU 46-006(d) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-006(d) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-006(f)**
Site Name: **Former storage shed**
SMA: **CDB-SMA-0.55**

Updated Site Description (2014):
SWMU 46-006(f) consists of a former storage shed (former building 46-36) that was located approximately 50 ft east of building 46-1. The 20-ft × 30-ft metal storage shed was constructed in 1955; the floor of the storage shed was paved and situated approximately 6 to 8 in. belowgrade. The area around the former storage shed was also used as a storage area as well as a staging area for equipment and materials awaiting disposal, and an unloading area for new equipment. Stored materials may have included oils (possibly containing PCBs), alkali metals, asbestos-containing products, beryllium alloys, potassium dichromate, lead bricks, lead shot, and mercury. Because the floor of building 46-36 was belowgrade, flooding of the storage shed occurred during significant precipitation events. The surrounding area slopes north to a storm drain culvert that discharges into Cañada del Buey.

The RFI report recommended NFA for SWMU 46-006(f) because no contaminants are present in concentrations that pose a potential unacceptable risk under current and projected land use. The shed and foundation were removed in 2013; waste characterization sampling data from the building foundation showed no detected PCBs. SWMU 46-004(f) is expected to be eligible for a certificate of completion under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-0.55 exceeded TALs for copper and PCBs.

- Copper is not known to have been associated with industrial materials historically managed at the Site. Copper was not detected above soil or tuff BVs in any of the 8 shallow 2010 Consent Order soil and tuff samples.
- PCBs are not known to be associated with industrial materials historically managed at this Site. One PCB mixture (Aroclor-1254) was detected in 1 of 8 shallow samples at a maximum concentration 6.5% of the residential SSL.

Based on Site histories, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff developed and undeveloped areas. The concentration of copper detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. PCBs detected in the SMA sample are below both BVs for urban runoff from developed areas and runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical storage activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: SWSC Canyon—Tributary to Cañada del Buey

Site ID: **46-008(f)**
Site Name: **Inactive storage area**
SMA: **CDB-SMA-1.35**

Updated Site Description (2014):
SWMU 46-008(f) is a paved storage area located next to the southeast corner of building 46-31 at TA-46. During a 1986 site visit, four drums of oil, which could have been product or waste oil, were observed at this location. The storage area has not been used since 1992.

Phase I Consent Order sampling is complete for SWMU 46-008(f). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 46-008(f) will be recommended for corrective action complete in the supplemental investigation report for Upper Cañada del Buey Aggregate Area, to be submitted to NMED in 2015. SWMU 46-008(f) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-008(g)**
Site Name: **Former storage area**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
SWMU 46-008(g) is a former unpaved storage area located south of a laser laboratory building (structure 46-76) at TA-46. In 1990, 20 drums containing dielectric oil were reported to be stored directly on the ground at this location. The Site is a level area bisected by a drainage channel that flows east into a tributary of Cañada del Buey through a storm drain culvert. Dielectric oil was used in laser experiments; the dielectric oil had not been analyzed for PCBs.

Phase I Consent Order investigations are complete for SWMU 46-008(g); the Site meets residential risk levels. SWMU 46-008(g) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs may have been associated with industrial materials historically managed at this Site. Three PCB mixtures (Aroclor-1242, Aroclor-1254, and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1242 was detected in 1 of 14 shallow samples at concentration 5% of the SSL. Aroclor-1254 and Aroclor-1260 were each detected in 6 of 14 shallow samples at maximum concentrations 95% and 30% of the residential SSLs, respectively
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-008(g). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. No alpha-emitting radionuclides were detected in shallow Consent Order samples collected at SWMU 46-008(g). Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **46-009(a)**
Site Name: **Surface disposal area**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
SWMU 46-009(a) is an inactive surface disposal area located at the head of a tributary of Cañada del Buey near the southeastern corner of TA-46. The surface disposal area covers approximately 5000 yd^2, extending from the canyon rim to the floor of SWSC Canyon. The disposal area contains a variety of construction materials, including asphalt, concrete, plywood, and pipe. The dates material was disposed of at the Site are not known. Aerial photographs of TA-46 taken in 1958 show the presence of the surface disposal area.

SWMU 46-009(a) is expected to be eligible for a CoC under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order samples. Aroclor-1254 and Aroclor-1260 were each detected in 6 and 10 of 20 shallow samples at maximum concentrations 3% and 1% of the residential SSLs, respectively
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 46-009(a). Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. No alpha-emitting radionuclides were detected in shallow Consent Order samples collected at SWMU 46-009(a). Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

Based on the site history and Consent Order sampling data, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Site ID: **48-001**
Site Name: **Air exhaust system**
SMA: **M-SMA-3**

Updated Site Description (2014):
AOC 48-001 consists of the air exhaust system at the main radiochemistry laboratory in building 48-1 and surface soil potentially impacted by deposition from the stack emissions. The radiochemistry laboratory in building 48-1 was constructed in 1957 to analyze samples collected from nuclear weapons tests. Currently, radiochemical analyses are conducted at the laboratory to support a variety of programs. The building 48-1 exhaust system consists of nine stacks. Three stacks exhaust unfiltered discharges from chemical hoods, three stacks are associated with combustion boilers, one stack exhausts individually filtered gloveboxes, one stack exhausts filtered air from hot cell laboratories, and one stack exhausts air from a welding and degreasing booth. Discharges from the chemical hoods are not filtered because the chemicals used in the hoods (e.g., perchloric acid) degrade filters. However, these hoods are equipped with wet scrubbers. The glovebox stack (stack FE54) is permitted and monitored under the National Emissions Standards for Hazardous Air Pollutants Program of the Clean Air Act. Monitoring data for stack FE54 were collected beginning in 1967 for plutonium and beginning in 1974 for uranium and fission products. These data indicate releases of plutonium isotopes, uranium isotopes, and fission products, principally cesium-137, cerium-144, and strontium-90.

Consent Order and RFI sampling has been performed at AOC 48-001. No shallow (i.e., less than 3 ft bgs) samples have been collected for AOC 48-001 within the boundary of the M-SMA-3 drainage area, however. Therefore, no soil data are available to evaluate for AOC 48-001 with respect to potential sources of TAL exceedances for M-SMA-3.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for M-SMA-3 exceeded TALs for PCBs and gross-alpha radioactivity.

- PCBs are not known to have been associated with industrial materials historically managed at the Site but may be associated with other Sites within the footprint of AOC 48-001.
- Alpha-emitting radionuclides are known to have been released from stacks at building 48-1. The isotopes managed at this site are exempt from the CWA under the AEA.

Total chromium (11 of 133 samples), lead (4 of 143 samples), mercury (10 of 137 samples), and zinc (9 of 143 samples) were found in shallow soil samples above maximum BV but did not exceed TALs in storm water. Benzo(a)pyrene was found in 27 of 148 shallow soil samples but did not exceed TALs in storm water. Benzo(a)anthracene (6 of 148 samples), benzo(b)fluoranthene (10 of 148 samples), and indeno(1,2,3-cd)pyrene (3 of 148 samples) were found in shallow soil samples above the residential SSL.

The SMA primarily receives runoff from a developed industrial area. Concentrations of PCBs detected in the sample from this SMA are between the UTLs for background for runoff from developed and undeveloped areas. The gross-alpha radioactivity detected in the sample is less than UTLs for both undeveloped areas and urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-003**
Site Name: **Former septic system**
SMA: **M-SMA-3.5**

Updated Site Description (2014):
SWMU 48-003 consists of a former sanitary septic system that served TA-48 from 1957 to 1986. This septic system consisted of a septic tank (structure 48-5), a dosing chamber, a filter bed (structure 48-6), and a former NPDES-permitted outfall that discharged into Mortandad Canyon. The septic tank and dosing chamber were 21 ft 7 in. long and the filter bed measured 81 ft 2 in. long × 40 ft 7 in. wide. The septic system operated until 1986, at which time the septic tank and filter bed were decommissioned and removed. A laboratory and diagnostics facility (building 48-45) was constructed over the Site of the septic tank and filter bed. After the septic system was decommissioned, sanitary wastewater from TA-48 was sent to the sanitary lagoons at TA-35 and later to the consolidated treatment plant at TA-46.

Phase I Consent Order investigations are complete for SWMU 48-003. All detected constituents were below residential SSLs and SALs, except for one detection of benzo(a)pyrene, which was detected slightly above the residential SSL in one surface sample. The Site will be recommended for corrective action complete without controls in the Upper Mortandad Canyon Aggregate Area supplemental investigation report, to be submitted to NMED in March 2014. SWMU 48-003 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, this SMA has not been sampled and is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-005**
Site Name: **Waste lines**
SMA: **M-SMA-3**

Updated Site Description (2014):
SWMU 48-005 consists of inactive RLW lines and an associated outfall at TA-48. From 1957 to 1965, these waste lines were part of the system used to convey RLW from TA-48 to the treatment plant at TA-45 (Consolidated Unit 45-001-00). Beginning in 1963, new waste lines were installed to carry wastes to the new treatment facilities at TA-50. By 1967, the waste lines leading to TA-45 were considered to have been decommissioned. Some of the waste lines were removed in two campaigns conducted in 1981 and 1984. SWMU 48-005 contains the remaining portions of waste lines, which are all inside the TA-48 security fence. The remaining waste lines are all 3-in.-diameter cast-iron pipe and consist of a 200-ft section of line 34 running westward from building 48-1, a 300-ft section of line 36 that runs southward from the north wing of building 48-1 to line 36, and a 50-ft section of line 38 that runs southward from building 48-1. These lines are located at depths of 10 to 11 ft and were not removed because they are beneath structures, roadways, or utilities. The remaining sections of lines 34 and 36 were surveyed during the line removal activities. Line 34 was found to have low levels of alpha activity, and line 36 had no detectable activity. The remaining portion of line 38 was not surveyed. SWMU 48-005 also includes an outfall on the edge of Mortandad Canyon north of building 48-1 that was the discharge point of line 37. Line 37 was connected to sumps in the north basement of building 48-1 and was completely removed in 1981.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for M-SMA-3 exceeded TALs for PCBs and gross-alpha radioactivity.

- PCBs are not known to have been associated with industrial materials historically managed at the Site. Three PCB mixtures (Aroclor-1248, Aroclor-1254, and Aroclor-1260) were detected in shallow Consent Order soil, sediment, and tuff samples. Aroclor 1248 was detected in 1 of 5 shallow samples at a concentration 0.13% of the residential SSL. Aroclor-1254 was detected in 4 of 5 shallow samples with a maximum concentration 0.78% of the residential SSL. Aroclor-1260 was detected in 2 of 5 shallow samples with a maximum concentration 0.31% of the residential SSL.
- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for analyzed for americium-241 and plutonium, thorium, and uranium isotopes, which are alpha-emitting radionuclides. The isotopes managed at this Site are exempt from the CWA under the AEA.

Zinc was found in 1 of 12 shallow soil samples above maximum BV but did not result in a TAL exceedance. Benzo(a)pyrene was found in 1 of 17 shallow soil samples above the residential SSL but did not result in a TAL exceedance.

Based on site history and Consent Order and RFI sampling, this Site is an unlikely source of the TAL exceedances. The SMA primarily receives runoff from a developed industrial area. Concentrations of PCBs detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas. The gross-alpha radioactivity detected in the SMA sample is less than UTLs for both undeveloped areas and urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The remaining waste lines associated with this site are no longer active and the outfall has been removed. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-007(a)**
Site Name: **Outfall associated with building 48-1**
SMA: **M-SMA-4**

Updated Site Description (2014):
SWMU 48-007(a) is an outfall formerly used to discharge treated cooling tower blowdown from two cooling towers located on the roof of building 48-1. This outfall is located in TA-48 east of building 48-1. Up to 750 gal./h of cooling tower blowdown were discharged from the outfall. The discharge from this outfall flowed to an unlined surface impoundment, SWMU 48-010. The water used in these cooling towers was treated to control scale, corrosion, and biological growth. Additives used include Garratt Callahan (G. C.) Formula 227 L, a corrosion and scaling inhibitor, and G. C. Formula 314-T, a biocide. The date that this outfall began operation is not known, but building 48-1 was constructed in 1957, so discharges would not have preceded this date. This outfall formerly operated as an NPDES-permitted outfall (045/046 EPA 03A) but was removed from the permit on December 6, 1999, because industrial wastewater discharges to the outfall had been discontinued earlier in the year. Currently, the outfall discharges only storm water.

SWMU 48-007(a) was investigated jointly under the Consent Order with SWMUs 48-007(d) and 48-010 as Consolidated Unit 48-007(a)-00. The investigation concluded nature and extent of contamination were defined, there was no unacceptable human health risk or dose under the residential scenario and no unacceptable risk to ecological receptors. SWMU 48-007(a) received a CoC with controls from NMED on September 7, 2011. The control for this Site is the continuation of storm water monitoring under the IP for potential transportation of residual contamination.

Significant Materials Exposed to Storm Water:
In 2011, a baseline storm water monitoring sample for M-SMA-4 exceeded TALs for copper, PCBs, and radium-226 and radium-228.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above BVs in 18 of 30 shallow samples with a maximum concentration 12 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order sediment and tuff samples. Aroclor-1254 was detected in 4 of 5 shallow samples with a maximum concentration 1.8% of the residential SSL. Aroclor-1260 was detected in 3 of 5 shallow samples with a maximum concentration 0.58% of the residential SSL.
- Consent Order and RFI samples were not analyzed for radium isotopes and radium is not known to have been associated with industrial materials historically managed at this Site. Radium-226 and radium-228 are daughter products in the decay chains of thorium and uranium and occur naturally in soil, sediment, and tuff as a result of the decay of naturally occurring thorium and uranium.

The SMA receives runoff from developed areas. Concentrations of copper and PCBs detected in the SMA sample are less than UTLs for urban runoff from developed areas. The radium-226 and radium-228 activity detected in the SMA sample exceeds UTLs for both undeveloped areas and urban runoff from developed areas. Based on site history and Consent Order and RFI sampling, this Site is an unlikely source of the TAL exceedance for PCBs or radium-226 and radium-228 but is a potential source of the TAL exceedance for copper.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-007(b)**
Site Name: **Outfall**
SMA: **M-SMA-3.1**

Updated Site Description (2014):
SWMU 48-007(b) is a former NPDES-permitted outfall (01604A) that discharged noncontact cooling water used to cool a magnet and laser housed in the main radiochemistry laboratory (building 48-01). The outfall is located north of building 48-01 and formerly discharged up to 4300 gal./d of cooling water that flowed into Mortandad Canyon. The outfall was removed from the NPDES permit on September 19, 1997, because industrial wastewater discharges were discontinued. Presently, the outfall receives only storm water.

Phase I Consent Order investigations are complete for SWMU 48-007(b). All detected constituents were below residential SSLs and SALs, except for one detect of benzo(a)pyrene, which was detected slightly above the residential SSL in one surface sample. The Site will be recommended for corrective action complete without controls in the Upper Mortandad Canyon Aggregate Area supplemental investigation report, to be submitted to NMED in March 2014. SWMU 48-007(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, this SMA has not been sampled and is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-007(c)**
Site Name: **Drains and outfalls**
SMA: **M-SMA-3**

Updated Site Description (2014):
SWMU 48-007(c) is an outfall that formerly received discharges from nine floor drains, a trench drain, and six roof drains at building 48-1. This outfall is located north of building 48-1 and discharges into Mortandad Canyon. Former sources of discharge to the floor drains included floor washings, backflow preventers, drainage and condensate from a vacuum pump, steam condensate, a boiler drain, a fire drain, and a water heater pressure relief valve. This outfall formerly operated as an NPDES-permitted outfall (131 EPA 04A) but was removed from the permit on January 14, 1998, because industrial wastewater discharges were discontinued. Currently, this outfall receives only storm water.

Significant Materials Exposed to Storm Water:
In 2013, a baseline storm water monitoring sample for M-SMA-3 exceeded TALs for PCBs and gross-alpha radioactivity.

- PCBs are not known to have been associated with industrial materials historically managed at the Site. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in shallow Consent Order sediment and tuff samples. Aroclor-1254 was detected in 5 of 6 shallow samples with a maximum concentration 1.6% of the residential SSL. Aroclor-1260 was detected in 4 of 6 shallow samples with a maximum concentration 0.3% of the residential SSL.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at this Site. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity or for alpha-emitting radionuclides.

Lead (1 of 17 samples) and zinc (2 of 17 samples) were found in shallow soil samples above maximum BV but did not result in a TAL exceedance. Benzo(a)pyrene was found in 3 of 17 shallow soil samples above the residential SSL but did not result in a TAL exceedance.

Based on site history and Consent Order and RFI sampling, this Site is an unlikely source of the TAL exceedances. The SMA primarily receives runoff from a developed industrial area. Concentrations of PCBs detected in the SMA sample are between the UTLs for background for runoff from developed and undeveloped areas. The gross-alpha radioactivity detected in the SMA sample is less than UTLs for both undeveloped areas and urban runoff from developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The outfall currently receives only storm water. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-007(d)**
Site Name: **Drains and outfalls**
SMA: **M-SMA-4**

Updated Site Description (2014):
SWMU 48 007(d) is an outfall formerly used to discharge noncontact cooling water that cooled a vacuum pump housed in the south end of building 48-1. This outfall is located east of building 48-1. The date the outfall began operation is not known, but building 48-1 was constructed in 1957, so discharges would not have preceded this date. Up to 4000 gal./d of cooling water was discharged from the outfall. Discharge from this outfall flowed to SWMU 48 010. This outfall formerly operated as an NPDES-permitted outfall (153 EPA 04A) but was removed from the permit on July 20, 1998, because industrial wastewater discharges to the outfall had been discontinued earlier in the year. Storm water continues to flow through the outfall.

SWMU 48-007(d) was investigated jointly with SWMUs 48-007(a) and 48-010 as Consolidated Unit 48-007(a)-00. SWMU 48-007(d) was investigated jointly under the Consent Order with SWMUs 48-007(a) and 48-010 as Consolidated Unit 48-007(a)-00 The investigation concluded the nature and extent of contamination were defined, there was no unacceptable human health risk or dose under the residential scenario and no unacceptable risk to ecological receptors. SWMU 48-007(d) received a CoC with Controls from NMED on September 7, 2011. The control for this Site is the continuation of storm water monitoring under the IP for potential transportation of residual contamination.

Significant Materials Exposed to Storm Water:
In 2011, a baseline storm water monitoring sample for M-SMA-4 exceeded TALs for copper, PCBs, and radium-226 and radium-228.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above BVs in 18 of 30 shallow samples with a maximum concentration 12 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order sediment and tuff samples. Aroclor-1254 was detected in 4 of 5 shallow samples with a maximum concentration 1.8% of the residential SSL. Aroclor-1260 was detected in 3 of 5 shallow samples with a maximum concentration 0.58% of the residential SSL.
- Consent Order and RFI samples were not analyzed for radium isotopes and radium is not known to have been associated with industrial materials historically managed at this Site. Radium-226 and radium-228 are daughter products in the decay chains of thorium and uranium and occur naturally in soil, sediment, and tuff as a result of the decay of naturally-occurring thorium and uranium.

The SMA receives runoff from developed areas. Concentrations of copper and PCBs detected in the SMA sample are less than UTLs for urban runoff from developed areas. The radium-226 and radium-228 activity detected in the SMA sample exceeds UTLs for both undeveloped areas and urban runoff from developed areas. Based on site history and CO and RFI sampling, this Site is an unlikely source of the TAL exceedances for copper, PCBs or radium-226 and radium-228.

Method of Treatment, Storage, or Disposal: Historical disposal activities are described above.

Past and Present Materials Management Practices: Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **48-010**
Site Name: **Surface impoundment**
SMA: **M-SMA-4**

Updated Site Description (2014):
SWMU 48-010 is an unlined surface impoundment constructed in 1978 by excavating directly into the tuff. The surface impoundment is located approximately 300 ft east of building 48 1 and 150 ft south of building 48-45. The surface impoundment formerly received cooling tower blowdown discharged from SWMU 48-007(a), noncontact cooling water discharged from SWMU 48-007(d), and storm water runoff from the parking lot for building 48-45. Currently, the impoundment receives only storm water from the parking lot. A wetland has developed around the impoundment. The impoundment and surrounding wetland cover approximately 100 ft × 150 ft. SWMU 48-010 discharges to the east into a side canyon that is a tributary to Mortandad Canyon.

SWMU 48-010 was investigated jointly with SWMUs 48-007(a) and 48-007(d) as Consolidated Unit 48-007(a)-00. SWMU 48-010 was investigated jointly under the Consent Order with SWMUs 48-007(a) and 48-007(d) as Consolidated Unit 48-007(a)-00. The investigation concluded the nature and extent of contamination were defined, and there was no unacceptable human health risk or dose under the residential scenario and no unacceptable risk to ecological receptors. SWMU 48-010 received a CoC with controls from NMED on September 7, 2011. The control for this Site is the continuation of storm water monitoring under the IP for potential transportation of residual contamination.

Significant Materials Exposed to Storm Water:
In 2011, a baseline storm water monitoring sample for M-SMA-4 exceeded TALs for copper, PCBs, and radium-226 and radium-228.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above soil, sediment, and tuff BVs in shallow Consent Order and RFI samples. Copper was detected above BVs in 18 of 30 shallow samples with a maximum concentration 12 times the soil BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order sediment and tuff samples. Aroclor-1254 was detected in 4 of 5 shallow samples with a maximum concentration 1.8% of the residential SSL. Aroclor-1260 was detected in 3 of 5 shallow samples with a maximum concentration 0.58% of the residential SSL.
- Consent Order and RFI samples were not analyzed for radium isotopes and radium is not known to have been associated with industrial materials historically managed at this Site. Radium-226 and radium-228 are daughter products in the decay chains of thorium and uranium and occur naturally in soil, sediment, and tuff as a result of the decay of naturally occurring thorium and uranium.

The SMA receives runoff from developed areas. Concentrations of copper and PCBs detected in the SMA sample are less than UTLs for urban runoff from developed areas. The radium-226 and radium-228 activity detected in the SMA sample exceeds UTLs for both undeveloped areas and urban runoff from developed areas. Based on site history and Consent Order and RFI sampling, this Site is an unlikely source of the TAL exceedances for PCBs or radium-226 and radium-228 but is a potential source of the TAL exceedance for copper.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **49-001(g)**
Site Name: **Area of potential soil contamination**
SMA: **W-SMA-12.5**

Updated Site Description (2014):
SWMU 49-001(g) is an area of contaminated surface soil at TA-49, north and east of MDA AB, resulting from the transport of surface and near-surface radionuclide contamination associated with an historical release from shaft 2-M at Area 2 (MDA AB). SWMU 49-001(g) is the area of highest runoff and erosion potential, located on a slope that runs from the mesa-top portion of the MDA AB NES north to the bottom of Water Canyon. Erosion-control BMPs were installed at the Site in 1999 and are routinely inspected and maintained.

Phase I Consent Order sampling is complete for SWMU 49-001(g). All detected constituents in Consent Order samples were below residential SSLs and SALs. SWMU 49-001(g) will be recommended for corrective action complete in the supplemental investigation report for TA-49 Sites inside the NES boundary, to be submitted to NMED in 2015. SWMU 49-001(g) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **49-005(a)**
Site Name: **Inactive landfill**
SMA: **W-SMA-15.1**

Updated Site Description (2014):
SWMU 49-005(a) is an inactive landfill located east of Area 10. The landfill, described as a small pit, was constructed north of the road that runs east from Area 10 and is approximately 50 ft to 100 ft northeast of the Area 10 experimental chamber and shafts (AOC 49-002). SWMU 49-005(a) was constructed in 1984 as a disposal area for nonradiologically contaminated debris generated during the 1984 general surface cleanup of TA-49.

Phase I Consent Order sampling is complete for SWMU 49-005(a). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order and RFI samples were below residential SSLs. SWMU 49-005(a) will be recommended for corrective action complete in the supplemental investigation report for the TA-49 Sites outside the NES boundary to be submitted to NMED in 2015. SWMU 49-005(a) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for W-SMA-15.1 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at SWMU 49-005(a). Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, the Site is unlikely a source of the TAL exceedance. The SMA receives runoff from portions of the inactive landfill and from undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is slightly above the BV for runoff from developed areas and well below the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **49-008(c)**
Site Name: **Area of potentially contaminated soil**
SMA: **W-SMA-11.7**

Updated Site Description (2014):
SWMU 49-008(c) consists of an area of potentially contaminated soil from historical radiochemistry operations and small-scale containment experiments at Area 11 within the northern portion of the MDA AB NES boundary at TA-49. Area 11 is approximately 220-ft × 300-ft. Activities conducted at Area 11 from 1959 to 1961 supported hydronuclear experiments conducted elsewhere at TA-49. Radiochemistry operations were conducted in a former laboratory and change house (former building 49-15) that was the main structure at Area 11. Other structures included a small storage building, latrines, and butane and propane tanks. The former building 49-15 laboratory was used to analyze samples collected during experiments in the experimental shafts at Areas 2, 2A, 2B, and 4. Laboratory processes included sample dissolution in acids (nitric, hydrochloric, hydrofluoric, sulfuric, and perchloric) and solvent extraction using methyl isobutyl ketone, ammonium hydroxide, and sodium hydroxide. Wastes generated during radiochemical operations were typically collected in containers and taken to radioactive waste disposal facilities elsewhere at LANL. Interim waste storage boxes were stored south of former building 49-15. Small-scale containment experiments were conducted in 13 underground shafts located on the west side of Area 11. These shafts were drilled to a depth of 12 ft and lined with 10-in.-diameter steel casing. HE was placed in the shafts, which were backfilled to contain the explosions. Small amounts of irradiated uranium-238 tracer were used in some experiments. The structures in Area 11 were decontaminated and removed in 1970 and 1971. Radiological contamination was detected in sinks, ducts, and hoods in former building 49-15. Contaminated debris was removed and disposed of at TA-54 and uncontaminated debris (approximately 2160 ft^3) was taken to the open-burning/landfill area at Area 6 (SWMU 49-004).

During the 1987 soil and vegetation radiological-screening survey of TA-49, 22 surface samples were collected from within Area 11, and 20 vegetation samples were collected within and around Area 11. Samples were analyzed for radionuclides, and the results showed radionuclides at background levels for most sampling locations; however, elevated levels of americium-241 and plutonium and uranium isotopes were present in a sample from a location next to the east corner of former building 49-15, possibly where the sink drain was located. Vegetation samples showed no elevated radioactivity

Phase I Consent Order sampling is complete for SWMU 49-008(c). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order and RFI samples were below residential SSLs and SALs. SWMU 49-008(c) will be recommended for corrective action complete in the supplemental investigation report for TA-49 Sites inside the NES boundary to be submitted to NMED in 2015. SWMU 49-008(c) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2013, the enhanced storm water monitoring sample for W-SMA-11.7 exceeded the TAL for gross-alpha radioactivity. The baseline storm water monitoring sample collected in 2011 exceeded TALs for aluminum and gross-alpha radioactivity.

- Alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at SWMU 49-008(c). Shallow Consent Order and RFI samples were not analyzed for gross-alpha radioactivity but were analyzed for americium-241 and plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample,

they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Site history and Consent Order sampling results indicate the Site is unlikely a source of the TAL exceedance. The SMA receives runoff from former industrially developed and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is slightly above the BV for runoff from developed areas and well below the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Water Canyon

Site ID: **50-006(a)**
Site Name: **Former outfall**
SMA: **T-SMA-1**

Updated Site Description (2014):
SWMU 50-006(a) is the former outfall area at the head of Ten Site Canyon impacted by two accidental operational releases of radioactive liquid waste in 1974 when a sump in a pumping station (building 50-2) overflowed, causing untreated radioactive wastewater to be discharged to waste lines 55 and 67 and the outfall area at the head of Ten Site Canyon. A soil sample collected from the outfall area for waste line 67 after the line was plugged in 1975 showed elevated levels of gross-alpha radioactivity. Analysis of additional soil samples collected in September 1976 showed elevated levels of gross-alpha radioactivity extending 984 ft downgradient of the outfall into Ten Site Canyon. Waste lines 67 and 55 were subsequently removed in 1981. Data from samples collected during waste line removal showed elevated levels of radionuclides, including plutonium-239, ruthenium-106, cesium-137, strontium-89, and yttrium-90. As a result, approximately of 2,472 ft^3 of contaminated soil was removed from the SWMU 50-006(a) outfall area at the head of Ten Site Canyon.

SWMU 50-006(a) will be included in the supplemental investigation report for Upper Mortandad Canyon Aggregate Area, to be submitted to NMED under the Consent Order in March 2014. The Site meets residential risk levels and will be recommended for a certificate of completion (CoC) without controls. SWMU 50-006(a) will be eligible for a CoC upon approval of the report by NMED. A Part I.E.4 (c) force majeure request was submitted to EPA in September 2013 to stay the deadline for completion of corrective action until NMED acts on the CoC request.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for T-SMA-1 exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above BVs in 31 shallow Consent Order or RFI samples collected at the Site.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above the sediment BV in 1 of 8 shallow Consent Order samples at a concentration 1.4 times the BV.
- PCBs are not known to be associated with industrial materials historically managed at the Site. PCB mixtures Aroclor-1254 and Aroclor-1260 were each detected in 2 to 17 shallow samples at maximum concentrations 6% and 62% of the residential SSL, respectively.

The SMA receives storm water runoff from industrially developed areas and the cover material over MDA C. The TAL exceedances for PCBs are below both the developed and undeveloped background UTLs. The concentrations of copper and zinc detected in the SMA samples were above the undeveloped background UTLs and below the developed background UTLs. These results, along with the low magnitude and frequency of copper, zinc, and PCB detections in Consent Order, and RFI samples are consistent with the Site not being the source of the TAL exceedances.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **50-006(d)**
Site Name: **Effluent discharge**
SMA: **M-SMA-7.9**

Updated Site Description (2014):
SWMU 50-006(d) consists of a drainline (structure 50-64) and associated NPDES-permitted Outfall 051 in Mortandad Canyon for treated wastewater from the TA-50 RLWTF. Structure 50-64 is a 6-in.-diameter iron discharge pipe rerouted in 1983 to accommodate construction of the TA 35 target fabrication facility (building 35-213). The subsurface drainline runs from the southern end of TA-50 RLWTF to the north under Pecos Drive to the outfall in upper Mortandad Canyon. In 1985, EPA Region 6 issued an administrative order to DOE requiring modification of the outfall to mitigate ongoing stream bank erosion caused by the discharge pipe ending 25 ft short of the stream channel. DOE extended the pipe into the stream channel, and subsequently EPA Region 6 closed the order in 1986. No discharges to Outfall 051 have occurred since November 2010; the effluent is currently evaporated using a mechanical evaporator. SWMU 50-006(d) is permitted under the LANL's NPDES industrial and sanitary Permit, NM0028355.

Significant Materials Exposed To Storm Water:
In 2013, a baseline storm water monitoring sample for M-SMA-7.9 exceeded TALs for PCBs and gross-alpha radioactivity.

- PCBs were associated with industrial materials historically managed at this Site, but at very low levels. Two PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 3 to 9 shallow (i.e., less than 3 ft below ground surface bgs) Consent Order and RFI samples at maximum concentrations 0.11% and 2.39% of the residential SSLs in tuff and soil samples, respectively. PCBs have been detected in RLW effluent discharged at the outfall, and the NPDES permit specifies a PCB limit for effluent discharged from the outfall.
- Americium and plutonium isotopes and possibly other alpha-emitting isotopes are known to have been associated with industrial materials historically managed at this Site. These isotopes are, however, excluded from regulation under the CWA and are regulated under the AEA. Consent Order and RFI samples were not analyzed for gross-alpha radioactivity.

Mercury was found in 1 of 15 shallow soil samples above the maximum BV but did not result in a TAL exeedance.

The SMA receives runoff from undeveloped areas and discharges from the SWMU 50-006(d) NPDES-permitted outfall. Concentrations of PCBs and gross alpha detected in the SMA sample are either below or between the UTLs for urban runoff and undeveloped areas. These results are consistent with land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The outfall is currently not discharging. No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Effluent Canyon, a tributary to Mortandad Canyon

Site ID: **50-009**
Site Name: **Inactive landfill (MDA C)**
SMA: **T-SMA-1**

Updated Site Description (2014):
SWMU 50-009 is an inactive 11.8-acre landfill consisting of 7 disposal pits and 108 shafts known as MDA C. Solid waste containing hazardous constituents as well as radioactive waste was disposed of in the landfill between 1948 and 1974. The depths of the 7 pits at MDA C range from 12 to 25 ft below the original ground surface, and the depths of the 108 shafts range from 10 to 25 ft below the original ground surface. The original ground surface is defined as the surface beneath the cover that was placed over the site in 1984. The pits and shafts are constructed in the Tshirege Member of the Bandelier Tuff. The topography of MDA C is relatively flat, although the slope descends to the north where the northeast corner of MDA C abuts the south wall of Ten Site Canyon. The pits were subsequently covered with varying amounts of crushed tuff and fill material. The shafts were sealed by filling them with crushed tuff, followed by concrete. The surface of the site is covered with native grasses. The dimensions and operation dates of the pits and shafts are listed in the historical investigation report for MDA C.

Wastes routinely disposed of in the pits consisted of boxes and bags of trash from chemistry laboratories and containerized sludge from WWTPs. The general operating procedure at MDA C was to deposit a single layer of waste over the course of several days and then cover the waste with crushed tuff. Another layer of waste would be emplaced, covered, and the process repeated until the capacity of the pit was reached. The crushed tuff acted as a temporary cover to prevent exposure of the waste to workers. Placement of all waste in the pit below the original land surface ensured the waste was contained within the disposal pit and prevented exposure to storm water runoff during the operational life of each pit. When MDA C was decommissioned in 1974, most of the surface was covered with crushed tuff and fill. The new surface was recontoured and seeded. In 1984, approximately 1.5 ft of crushed tuff, followed by 0.5 to 3 ft of topsoil, was placed over the surface of the pits. The above-mentioned original ground surface consists of the base of this 1984 fill layer. The surface of the Site is currently covered with native grasses. The thickness of the fill was verified by reviewing borehole logs from Consent Order investigations conducted at MDA C in 2004–2007 and 2008–2009.

Consent Order Phase I investigation sampling for SWMU 50-009 is complete. A CME was conducted at MDA C in 2012 to evaluate alternatives for preventing future exposure to buried waste. The results of the CME were submitted to NMED in September 2012.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for T-SMA-1 exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was not detected above soil or tuff BVs in 59 shallow Consent Order and RFI samples.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above the soil BV in 2 of 59 shallow Consent Order and RFI samples at a maximum concentration 1.7 times the soil BV.
- PCBs are not known to be associated with industrial materials historically managed at the Site. PCB mixtures (Aroclor-1254 and Aroclor-1260) were detected in 3 to 4 of 59 shallow RFI samples at maximum concentrations 1% and 3% of the residential SSL, respectively.

Potential contaminants associated with industrial materials historically managed at Site 50-009 are various chemicals, including metals, VOCs, SVOCs, and radionuclides. These materials could potentially

have included copper, zinc, and PCBs. These materials, however, were placed in subsurface disposal pits and shafts and subsequently covered with crushed tuff. Therefore, these materials are not, nor have they ever been, exposed to storm water. In November 2013, a request was submitted to EPA Region 6 certifying the no exposure condition of Site 50-009 and for the completion of corrective action pursuant to Part 1.E.2(c) of the IP.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Ten Site Canyon

Site ID: **53-001(a)**
Site Name: **Outdoor storage area**
SMA: **S-SMA-3.71**

Updated Site Description (2014):
SWMU 53-001(a) is an outdoor storage area located on the north side of the TA-53 equipment test laboratory (building 53-2). This storage area consists of a covered concrete pad that currently serves as a drum storage area for building 53-2. This area was also formerly used as an SAA. Non-PCB dielectric oil is currently stored on the concrete pad. The pad is surrounded by a concrete curb to provide secondary containment. A drain valve located in the northwest corner of the curbed area was previously used to release accumulated rainwater but is now plugged. The storage area is believed to have been first used in 1968 when operations at building 53-2 began. A 1989 photograph of the area shows the Site to look much as it does today. In 1992, the Site was no longer used as an SAA. A LANL listing of waste-accumulation areas dated April 1993 notes the SAA on the north side of building 53-2 was removed. The Site was inspected in 1993; no evidence of staining or releases was noted.

Phase I Consent Order sampling is complete for SWMU 53-001(a). All detected inorganic and organic chemical concentrations from Consent Order samples were below residential SSLs, except two detections of Aroclor-1254 and one detection of Aroclor-1260; detected concentrations of these PCB mixtures are below construction worker and industrial SSLs. SWMU 53-001(a) will be recommended for corrective action complete in the supplemental investigation Report for Lower Sandia Canyon Aggregate Area, to be submitted to NMED in 2015. SWMU 53-001(a) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **53-001(b)**
Site Name: **Outdoor storage area**
SMA: **S-SMA-3.72**

Updated Site Description (2014):
SWMU 53-001(b) is an outdoor storage area located on a concrete pad that rests on the asphalt parking lot on the south side of the TA-53 equipment test laboratory (building 53-2). Before 1990, this area consisted of drum racks used to store drums of products and wastes associated with maintenance activities conducted in building 53-2. Wastes included spent trichloroethene, Freon, other solvents, and acidic waste. Engineering drawings show the storage area was constructed in 1971. A photograph taken in 1989 shows the storage area contained drums, some of which were product and some of which were marked with hazardous waste labels. There is no visible evidence of staining, spills, or leakages in the photograph. In 1990, the drum racks were removed and replaced with four lockable flammable-material storage cabinets. The Site was inspected during preparation of the RFI work plan in 1993, and again no evidence of staining or releases was noted. LANL's current waste-site database indicates this storage location also contained a less-than-90-d storage area that was removed in 1998. The Site currently contains flammable-material storage cabinets, which are used for product storage but not for waste storage.

Phase I Consent Order sampling is complete for SWMU 53-001(b). All detected inorganic and organic chemical concentrations from Consent Order samples were below residential SSLs. SWMU 53-001(b) will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area, to be submitted to NMED in 2015. SWMU 53-001(b) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **53-002(a)**
Site Name: **Former surface impoundments**
SMA: **LA-SMA-10.11**

Updated Site Description (2014):
SWMU 53-002(a) consists of two inactive surface impoundments known as the NE and NW impoundments. These impoundments were constructed in 1969, and each measured 210 ft × 210 ft × 6 ft deep with a capacity of 1.6 million gal. The dikes comprising the sidewalls of the impoundments were constructed of compacted tuff lined with 4 to 6 in. of gunite. The bottom of each impoundment was lined with 4 in. of bentonite clay. These impoundments were originally constructed to contain all sanitary, industrial, and radioactive wastewater generated at TA-53 with no discharge. However, wastewater flows exceeded the evaporative capacity of the NE and NW impoundments, and it became necessary to discharge wastewater from the impoundments to an unlined drainage channel leading to Los Alamos Canyon. Discharges occurred on a batch basis through an NPDES-permitted outfall. The impoundments also had an emergency overflow that discharged to the south of the impoundments, near a tributary to Sandia Canyon. Beginning in 1989, all radioactive wastewaters from TA-53 were discharged to a third impoundment [SWMU 53-002(b)]. The NE and NW impoundments continued to receive all sanitary and industrial wastewaters until 1993, when the impoundments were taken out of service. The remaining wastewater in the impoundments was then allowed to evaporate.

The SWMU 53-002(a) surface impoundments were originally included as treatment, storage, and disposal units in LANL's 1991 RCRA Part A permit application for mixed waste. LANL had intended to close these units under RCRA interim status and submitted a closure plan to NMED in 1994. Subsequent to 1994, LANL conducted investigations to determine the source of hazardous materials detected in the impoundments. Based on these investigations and sample results, a determination was made that the contents of the impoundments were not hazardous waste. As a result, in 1997, NMED changed the status of the impoundments from treatment, storage, and disposal units to corrective action units. The sludge and liners were removed from the two SWMU 53-002(a) impoundments during an IA conducted in 2002.

Decision-level data for SWMU 53-002(a) indicate that nature and extent are defined, and all detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs and SALs. NMED issued a CoC with controls in September 2006.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **AOC 53-008**
Site Name: **Storage area**
SMA: **LA-SMA-10.12**

Updated Site Description (2014):
AOC 53-008 is an approximate 3-acre unpaved open area (referred to as a "boneyard") previously used to store used materials and equipment associated with historical experiments conducted at TA-53. Most of the storage area is vegetated with grasses, shrubs, and juniper trees, and several dirt trails also run through it. Materials shown to be present at the Site in 1989 photographs included vacuum pumps, metal ducting, concrete shielding blocks, empty overpack drums, and drums containing steel bearings. This Site was inspected in September 1993 and was found to contain shielding blocks (magnetite concrete and steel), concrete, steel, other metallic debris, and other miscellaneous items. No hazardous materials or chemicals were observed, with the exception of lead stored in a shed (structure 53-621) at the south end of the Site. The area was used for storage from approximately 1972 to 2009. By 2010, much of the material previously stored at the site had been removed. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Phase I Consent Order sampling is complete for AOC 53-008. All detected inorganic and organic chemical concentrations and radionuclide activities were below residential SSLs, except for one detection of arsenic. AOC 53-008 will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area, to be submitted to NMED in 2015. AOC 53-008 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for LA-SMA-10.12 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for plutonium and uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

Based on the Site history and Consent Order sampling results, this Site is an unlikely source of the TAL exceedance. The SMA receives runoff from developed and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample is less than the UTLs for runoff from developed areas and undeveloped areas, which confirms the Site is not a source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **53-012(e)**
Site Name: **Inactive drainline and outfall**
SMA: **S-SMA-3.7**

Updated Site Description (2014):
AOC 53-012(e) consists of an inactive drainline and former NPDES-permitted outfall (03A114) associated with the TA-53 equipment test laboratory (building 53-2). The drainline runs southwest under an asphalt parking lot approximately 110 ft from the southwest corner of building 53-2 and then changes direction, running northwest approximately 100 ft to the associated outfall near the edge of Sandia Canyon. The drainline received discharges from 12 trench drains, 2 sink drains, and a floor drain in building 53-2. The primary source of wastewater was blowdown from the building 53-2 cooling tower, which was discharged to one of the trench drains. Historically, chemicals added to the cooling water included sodium molybdate and hydroxyethylidene diphosphonic acid as corrosion inhibitors; 1-bromo-3-chloro-5,5-dimethylhydantoin as a microbicide; and sodium bisulfite as an oxygen scavenger. The trench drains also received equipment-flushing and floor-washing wastewater. Discharges to this outfall began in approximately 1968, when building 53-2 went into service. Discharges ceased in 1992, and the outfall was removed from the NPDES permit on July 11, 1995. The drainline remains in place, but the outfall has been plugged.

Phase I Consent Order sampling is complete for AOC 53-012(e). All detected inorganic and organic chemical concentrations and radionuclide activities from Consent Order samples were below residential SSLs. AOC 53-012(e) will be recommended for corrective action complete in the supplemental investigation report for Lower Sandia Canyon Aggregate Area, to be submitted to NMED in 2015. AOC 53-012(e) will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **53-014**
Site Name: **Soil contamination and lead-spill Site**
SMA: **S-SMA-4.1**

Updated Site Description (2014):

AOC 53-014, a lead spill site, is located at a paved storage area in TA 53 west of building 53-18. Lead shot was spilled on the paved surface, and storm water washed the lead into an asphalt-lined channel that joins a drainage below an NPDES-permitted outfall (03A113). The lead shot was observed at a number of locations in the channel but not below a large catchment approximately 50 ft below the canyon rim. This Site was not originally identified in the 1990 SWMU report, but was discovered only after the 1994 RFI work plan for Operable Unit 1100 had been prepared.

A VCA was conducted at this Site in 1997 to remove the lead shot that had spilled. Shallow (0 to 0.5 ft bgs) VCA confirmation samples were collected in the drainage but were not analyzed for PCBs because PCBs are not known to have been used at the Site. No additional sampling was required under the Consent Order. The Site received a CoC without controls in July 2013. Certification of completion of corrective action under the IP was submitted to EPA on August 21, 2013.

Significant Materials Exposed to Storm Water:
In 2013, a corrective action storm water monitoring sample for S-SMA-4.1 exceeded the TAL for PCBs. Two baseline monitoring samples collected in 2011 also exceeded the TAL for PCBs. PCBs are not known to have been associated with industrial materials historically managed at the Site. Lead, which is the only industrial material historically managed at this Site, was not detected in storm water above the TAL.

The SMA receives run-on from developed areas in TA-53. The SMA results for PCBs were less than the anthropogenic “backgrounds” for both developed and undeveloped areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **54-004**
Site Name: **Inactive landfill (MDA H)**
SMA: **PJ-SMA-14**

Updated Site Description (2014):
SWMU 54-004, (MDA H) is an inactive 0.3-acre landfill on Mesita del Buey in TA-54 consisting of nine inactive shafts used to dispose of LANL-generated classified waste such as weapon-component mockup shapes, detonators, papers, and tritium-contaminated items. Material disposed of at MDA H contained residues of DU, fuel elements, residual plutonium, HE, liquids, or gases, and the density of waste materials varied from 5 to over 400 lb/ft^3 in the shafts. Each shaft is 6 ft in diameter and 60 ft deep. Placement of all waste in the pit below the original land surface ensured the waste was contained within the disposal pit and prevented exposure to storm water runoff during the operational life of each pit. The shafts were capped when waste came to within 6 ft of the surface. Shafts 1 through 8 are capped with 3 ft of crushed tuff followed by 3-ft-thick concrete caps; shaft 9 is capped solely by a 6-ft-thick layer of concrete. The nine shafts at MDA H were used from 1960 to 1986. One shaft, shaft 9, received hazardous waste after July 26, 1982, and therefore is considered a RCRA-regulated landfill. The surface area of MDA H was covered with clean fill and reseeded.

Investigation sampling is complete for SWMU 54-004. A CME was conducted at MDA H in 2009 and 2010 to evaluate alternatives for preventing future exposure to buried waste. CME results were submitted to NMED in September 2011.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring. A request will be submitted to EPA Region 6 certifying the no exposure condition of Site 54-004 and for the completion of corrective action pursuant to Part 1.E.2(c) of the IP.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **54-013(b)**
Site Name: **MDA G disposal pit 19**
SMA: **PJ-SMA-19**

Updated Site Description (2014):
SWMU 54-013(b), which is part of Consolidated Unit 54 013(b)-99 at MDA G, consists of a former truck monitoring/decontamination area. This Site was excavated in April 1971 specifically to be used as a decontamination (truck washing) pit. The truck washing and decontamination pit was converted to Pit 19 in November 1975 when truck-washing activities ceased and the pit began receiving LLW for disposal as part of SWMU 54-017.

The portions of the three Sites within PJ-SMA-18 are part of Consolidated Unit 54-013(b)-99 at MDA G and were investigated as a single Site. The same surface sampling data set applies to both Sites. Before the Consent Order went into effect in 2005, numerous RFIs were conducted at MDA G from 1993 to 2003. Most of the investigations at MDA G have been directed toward characterizing potential subsurface releases of contaminants from the waste inventory in the subsurface pits and shafts. These wastes and releases are not exposed to storm water and, therefore, could not result in contaminant discharges to receiving waters. Potential surface contamination at the Site(s) that could be exposed to storm water was also characterized. Based on the sampling results presented in the investigation reports for MDA G, the lateral and vertical extent of detected chemicals and radionuclides are defined, and the Site(s) poses no potential unacceptable risk/dose to human health based on current (i.e., industrial) land use. A CME report was submitted to NMED under the Consent Order on September 9, 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for PJ-SMA-19 exceeded TALs for aluminum, mercury, PCBs, gross-alpha radioactivity, radium-226, and radium-228. Aluminum, mercury, PCBs, and gross-alpha-emitting radionuclides, including radium-226 and radium-228, are known to have been associated with industrial materials historically managed at these Sites. However, industrial materials managed at these Sites consist of wastes that were disposed of in subsurface pits and shafts. Therefore, these industrial materials are not exposed to any storm water runoff.

- Aluminum was not detected above soil or sediment BVs in 140 shallow (i.e., less than 3 ft bgs) RFI samples collected at MDA G.
- Mercury was detected slightly above the soil and sediment BVs in 2 of 36 shallow samples collected at MDA G with a maximum concentration 2.2 times the BVs.
- The PCB mixture Aroclor-1260 was detected in 5 shallow RFI samples at a maximum concentration 18% of the residential SSL in soil samples.
- Shallow RFI samples were not analyzed for gross-alpha radioactivity, radium-226, or radium-228. Americium-241 and plutonium isotopes are not included in the definition of adjusted gross-alpha radioactivity because they are excluded from regulation under the CWA.

The SMA receives storm water runoff from developed and undeveloped environments. Concentrations of aluminum, gross-alpha radioactivity, and radium-226 and radium-228 detected in the SMA sample are between the UTLs for urban runoff and undeveloped areas. The concentrations of mercury and PCBs in the SMA sample are below the UTLs for urban runoff and undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **54-014(d)**
Site Name: **Storage trenches A, B, C, and D (MDA G)**
SMA: **PJ-SMA-18**

Updated Site Description (2014):
SWMU 54-014(d), which is part of Consolidated Unit 54 013(b) 99 at MDA G, consists of retrievable TRU waste storage trenches A, B, C, and D, located in the south-central portion of TA-54 Area G. These trenches began receiving TRU waste and MLLW in 1974. Trenches A, B, and C vary in size from 219 ft to 262.5 ft long × 13 ft wide × 6 ft to 8 ft deep. Trench D is 60 ft long × 13 ft wide × 6 ft deep. The TRU waste placed in these trenches was packaged in 30-gal. containers inside concrete casks. When filled, the trenches were backfilled with 3.3 ft of crushed tuff, followed by 4 in. of topsoil. The surface was reseeded with native grasses. The TRU wastes in these trenches will be retrieved and processed for disposal.

The two Sites within PJ-SMA-18 are part of Consolidated Unit 54-013(b)-99 at MDA G and were investigated as a single Site. The same surface sampling data set applies to both Sites. Before the Consent Order went into effect in March 2005, numerous RFIs were conducted from 1993 to 2003 at MDA G. Most of the investigations at MDA G have been directed toward characterizing potential subsurface releases of contaminants from the waste inventory in the subsurface pits and shafts. These wastes and releases are not exposed to storm water and, therefore, could not result in contaminant discharges to receiving waters. Potential surface contamination at the Site(s) that could be exposed to storm water was also characterized. Based on the sampling results presented in the investigation reports for MDA G, the lateral and vertical extent of detected chemicals and radionuclides are defined and the Site(s) poses no potential unacceptable risk/dose to human health based on current (i.e., industrial) land use. A revised CME report was submitted to NMED under the Consent Order on September 9, 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for PJ-SMA-18 exceeded TALs for gross-alpha radioactivity. Gross alpha-emitting radionuclides are known to have been associated with industrial materials historically managed at these Sites. Shallow RFI samples were not analyzed for gross-alpha radioactivity. Industrial materials managed at these Sites, however, consist of wastes disposed of in subsurface pits and trenches. Therefore, these industrial materials are not exposed to storm water runoff.

The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedance for gross-alpha radioactivity is above the Bandelier Tuff BV and below the developed BV.

Method of Treatment, Storage, or Disposal: These waste storage trenches are covered. Historical storage practices are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **54-017**
Site Name: **MDA G disposal pits 16 and 22 (active before September 19, 1980)**
SMA: **PJ-SMA-19**

Updated Site Description (2014):
SWMU 54-017, which is part of Consolidated Unit 54 013(b) 99 at MDA G, consists of inactive subsurface disposal pits 1 through 8, 10, 12, 13, 16 through 22, and 24. Pits 1 through 8, 10, 12, 13, 16 through 22, and 24 were operational between 1959 and 1980 and received radioactive, mixed, and TRU-contaminated wastes in the form of wing tanks, dry boxes, building debris, sludge drums, laboratory waste, contaminated soil, D&D waste, filter plenums, and uranium. Before 1971, waste was not segregated by disposal pit; the pits received both nonroutine and routine radioactive contaminated waste. Nonroutine contaminated waste included D&D debris from the demolition of TA-01 and Bayo site, classified materials, TRU chips from the shops, and pieces of heavy equipment. Nonroutine contaminated waste was placed directly into the disposal pits; valves or other openings on large pieces of equipment were sealed before they were transported to TA-54 for disposal. Routine contaminated waste consisted of chemical laboratory waste packaged in cardboard boxes and 5-mil plastic bags, and 55-gal. drums of sludge from the waste treatment plants at TA-35, TA-45, and TA-50. Pits 1 through 8, 10, 12, 13, 16 through 22, and 24 are located in the eastern portion of Area G with volumes ranging from 1371 to 56,759 yd^3. When filled, the pits were covered with consolidated crushed tuff and topsoil, and reseeded with native grasses. All the SWMU 54-017 pits within PJ-SMA-19 currently have a minimum of 3 ft of soil cover over the buried wastes and have been covered with asphalt.

The portions of the three Sites within PJ-SMA-19 are part of Consolidated Unit 54-013(b)-99 at MDA G and were investigated as a single Site. The same surface sampling data set applies to both Sites. Before the Consent Order went into effect in 2005, numerous RFIs were conducted from 1993 to 2003 at MDA G. Most of the investigations at MDA G have been directed toward characterizing potential subsurface releases of contaminants from the waste inventory in the subsurface pits and shafts. These wastes and releases are not exposed to storm water and, therefore, could not result in contaminant discharges to receiving waters. Potential surface contamination at the Site(s) that could be exposed to storm water was also characterized. Based on the sampling results presented in the investigation reports for MDA G, the lateral and vertical extent of detected chemicals and radionuclides are defined and the Site(s) poses no potential unacceptable risk/dose to human health based on current (i.e., industrial) land use. A revised CME report was submitted to NMED under the Consent Order on September 9, 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for PJ-SMA-19 exceeded TALs for aluminum, mercury, PCBs, gross alpha radioactivity, radium-226, and radium-228. Aluminum, mercury, PCBs, and gross-alpha-emitting radionuclides, including radium-226 and radium-228, are known to have been associated with industrial materials historically managed at these Sites. However industrial materials managed at these Sites consist of wastes that were disposed of in subsurface pits and shafts. Therefore, these industrial materials are not exposed to any storm water runoff.

- Aluminum was not detected above soil or sediment BVs in 140 shallow (i.e., less than 3 ft bgs) RFI samples collected at MDA G.
- Mercury was detected slightly above the soil and sediment BVs in 2 of 36 shallow samples collected at MDA G with a maximum concentration 2.2 times the BVs.
- The PCB mixture Aroclor-1260 was detected in 5 shallow RFI samples at a maximum concentration 18% of the residential SSL in soil samples.

- Shallow RFI samples were not analyzed for gross-alpha radioactivity, radium-226, or radium-228. Americium-241 and plutonium isotopes are not included in the definition of adjusted gross-alpha radioactivity because they are excluded from regulation under the CWA.

The SMA receives storm water runoff from developed and undeveloped environments. Concentrations of aluminum, gross-alpha radioactivity, and radium-226 and radium-228 detected in the SMA sample are between the UTLs for urban runoff and undeveloped areas. The concentrations of mercury and PCBs in the SMA sample are below the UTLs for urban runoff and undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: 54-018
Site Name: MDA G disposal pits 27–33 and 35–37 (active after September 19, 1980)
SMA: CDB-SMA-4

Updated Site Description (2014):
SWMU 54-018, which is part of Consolidated Unit 54-013(b) 99 at MDA G, consists of disposal pits 25 through 33 and 35 through 37. Pits 29 and 37, although no longer in use, are considered a regulated unit until RCRA closure is certified and approved by NMED. Pits 25 through 28 and 30 through 36 were operational between 1979 and 1980 and received radioactive, mixed, and TRU waste in the form of reactor control rods, D&D waste, contaminated soil, transformers, glove boxes, asbestos, and laboratory waste. The volumes ranged from 20,957 to 59,930 yd^3. Pit 29 operated until 1986. Pit 37 operated from 1990 to 1997 and primarily received circuit boards and contaminated soil. When filled, the pits were covered with 3.3 ft of consolidated crushed tuff and 4 in. of topsoil and reseeded with native grasses; several of the pits were subsequently covered with asphalt.

The portions of the three Sites within CDB-SMA-4 are part of Consolidated Unit 54-013(b)-99 at MDA G and were investigated as a single Site. The same surface sampling data set applies to both Sites. Before the Consent Order went into effect in March 2005, numerous RFIs were conducted from 1993 to 2003 at MDA G. Most of the investigations at MDA G have been directed toward characterizing potential subsurface releases of contaminants from the waste inventory in the subsurface pits and shafts. These wastes and releases are not exposed to storm water and, therefore, could not result in contaminant discharges to receiving waters. Potential surface contamination at the Site(s) that could be exposed to storm water was also characterized. Based on the sampling results presented in the investigation reports for MDA G, the lateral and vertical extent of detected chemicals and radionuclides are defined and the Site(s) poses no potential unacceptable risk/dose to human health based on current (i.e., industrial) land use. A revised CME report was submitted to NMED under the Consent Order on September 9, 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-4 exceeded TALs for copper, PCBs, and gross-alpha radioactivity. However, industrial materials managed at these Sites consist of wastes that were disposed of in subsurface pits. Therefore, these industrial materials are not exposed to any storm water runoff.

- Copper is known to be associated with industrial materials managed at this Site. Copper was not detected above soil or sediment BVs in 140 shallow (i.e., less than 3 ft bgs) RFI samples collected at MDA G.
- The PCB mixture Aroclor-1260 was detected in 5 shallow RFI samples at a maximum concentration 18% of the residential SSL in soil samples.
- Shallow RFI samples were not analyzed for gross-alpha radioactivity, radium-226, or radium-228. Americium-241 and plutonium isotopes are not included in the definition of adjusted gross-alpha radioactivity because they are excluded from regulation under the CWA.

Concentrations of copper and gross-alpha radioactivity detected in the SMA sample are between the UTLs for urban runoff and undeveloped areas. The concentrations of PCBs in the SMA sample are below the UTLs for urban runoff and undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **54-020**
Site Name: **Disposal shafts at MDA G**
SMA: **CDB-SMA-4**

Updated Site Description (2014):
SWMU 54-020, which is part of Consolidated Unit 54 013(b) 99 at MDA G, consists of disposal shafts C1 through C10, C12, C13, 22, 35 through 37, 93 through 95, 99 through 108, 114, 115, 118 through 136, 138 through 140, 151 through 160, 189 through 192, and 196. These shafts operated between 1970 and the early 1990s. Only shaft 124, although no longer in use, is considered active until RCRA closure is certified and approved by NMED. The shafts contain one or a combination of the following waste types: PCB residues, LLW, and hazardous and mixed waste. The shafts range in size from 1 ft to 8 ft in diameter and 25 ft to 65 ft in depth and are located throughout the eastern portion of Area G. Disposal shafts were typically filled with waste to within 3 ft of the ground surface, backfilled with crushed tuff, and covered with a concrete dome.

The portions of the three Sites within CDB-SMA-4 are part of Consolidated Unit 54-013(b)-99 at MDA G and were investigated as a single Site. The same surface sampling data set applies to both Sites. Before the Consent Order went into effect in March 2005, numerous RFIs were conducted from 1993 to 2003 at MDA G. Most of the investigations at MDA G have been directed toward characterizing potential subsurface releases of contaminants from the waste inventory in the subsurface pits and shafts. These wastes and releases are not exposed to storm water and, therefore, could not result in contaminant discharges to receiving waters. Potential surface contamination at the Site(s) that could be exposed to storm water was also characterized. Based on the sampling results presented in the investigation reports for MDA G, the lateral and vertical extent of detected chemicals and radionuclides are defined and the Site(s) poses no potential unacceptable risk/dose to human health based on current (i.e., industrial) land use. A revised CME report was submitted to NMED under the Consent Order on September 9, 2011.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-4 exceeded TALs for copper, PCBs, and gross-alpha radioactivity. However, industrial materials managed at these Sites consist of wastes that were disposed of in subsurface shafts. Therefore, these industrial materials are not exposed to any storm water runoff.

- Copper is known to be associated with industrial materials managed at this Site. Copper was not detected above soil or sediment BVs in 140 shallow (i.e., less than 3 ft bgs) RFI samples collected at MDA G.
- The PCB mixture Aroclor-1260 was detected in 5 shallow RFI samples at a maximum concentration 18% of the residential SSL in soil samples.
- Shallow RFI samples were not analyzed for gross-alpha radioactivity, radium-226, or radium-228. Americium-241 and plutonium isotopes are not included in the definition of adjusted gross-alpha radioactivity because they are excluded from regulation under the CWA.

Concentrations of copper and gross-alpha radioactivity detected in the SMA sample are between the UTLs for urban runoff and undeveloped areas. The concentrations of PCBs in the SMA sample are below the UTLs for urban runoff and undeveloped areas.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: Not applicable

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pajarito Canyon

Site ID: **60-007(b)**
Site Name: **Systematic or intentional product release**
SMA: **S-SMA-3.6**

Updated Site Description (2014):
SWMU 60-007(b) consists of a storm drainage ditch at TA-60 that starts approximately 600 ft from a paved area directly north of the motor pool building (building 60-0001) and extends to the bottom of Sandia Canyon. Two parking lots located east of building 60-0001 drain to a ditch that eventually joins the SWMU 60-007(b) drainage ditch. Other former sources of potential contamination to the ditch are a steam-cleaning pad, a used-oil storage tank, and an oil/water separator. In addition, equipment that used PCB-containing oil was stored on an asphalt area east of building 60-0001. In 1986, the user group removed stained soil from the ditch down to bedrock.

SWMU 60-007(b) is included in the supplemental investigation report for the Upper Sandia Canyon Aggregate Area submitted to NMED under the Consent Order on August 27, 2013, and the report recommends corrective action complete without controls for the Site. SWMU 60-007(b) will be eligible for a CoC upon NMED's approval of the report.

Significant Materials Exposed to Storm Water:
In 2013, enhanced control confirmation storm water monitoring samples for S-SMA-3.6 exceeded TALs for copper, zinc, and PCBs. Baseline storm water monitoring samples collected in 2011 also exceeded TALs for copper, zinc, and PCBs.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above BVs in 2 of 20 shallow samples (i.e., less than 3 ft bgs) with a maximum concentration 2.6 times the soil BV, but the copper results were not statistically different than background.
- Zinc is not known to be associated with industrial materials historically managed at the Site. Zinc was detected above soil and tuff BVs in 7 of 20 shallow samples with a maximum concentration 2.7 times the soil BV.
- PCBs are known to have been associated with industrial materials historically managed at the Site. The PCB mixtures Aroclor-1254 and Aroclor-1260 were detected in shallow Consent Order samples. Aroclor-1254 was detected in 1 of 20 samples at a concentration 0.3% of the residential SSL. Aroclor-1260 was detected in 2 of 20 samples at a maximum concentration 0.2% of the residential SSL.

The SMA sampler primarily receives runoff from developed areas (buildings, parking lots, roads) although some of the SMA drainage area is vegetated. The concentrations of copper, zinc, and PCBs detected in the SMA samples are less than the developed site UTLs, which is consistent with what is expected for runoff from a developed area, such as the S SMA-3.6 drainage area. These results, along with the low magnitude and frequency of copper, zinc, and PCB detections in Consent Order samples, are consistent with the Site not being the source of TAL exceedances. In addition, the concentrations of copper and zinc in baseline monitoring samples are similar to those in enhanced control confirmation samples. The average PCB concentration is slightly less for the confirmation samples, but one of the baseline results was less than both confirmation results.

Petroleum products are industrial materials historically managed at this Site. Benzo(a)pyrene was found above the residential SSL in 3 of 20 shallow soil samples. This constituent may be associated with TPH-DRO from the motor pool building (building 60-1).

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical material management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Mortandad Canyon

Site ID: **72-001**
Site Name: **Firing range**
SMA: **S-SMA-6**

Updated Site Description (2014):
AOC 72-001 is an active small-arms firing and training range used by LANL's security force and has operated as a firing range since 1966. The firing range is located in Sandia Canyon at the east end of TA-72. The site includes a 175-ft × 250-ft pistol firing range surrounded by earthen berms and an adjacent 50-m firing range (Range 3) to the north. The drainage channel and flood plain of Sandia Canyon run between the pistol range and the 50-m range.

Investigations under the Consent Order were not performed at AOC 72-001 in 2010 as part of the Upper Sandia Canyon Aggregate Area investigation; delayed investigation was proposed for AOC 72-001 because this Site is still an active small-arms firing range.

A PMR was submitted to EPA Region 6 in November 2013. The PMR proposes to modify the Individual Permit pursuant to 40 CFR §122.62 (a)(2), by deleting monitoring requirements for aluminum, cyanide, PCBs, gross-alpha radioactivity, and radium-226 and radium-228 activity at AOC 72-001. The basis of this request is that no materials containing these constituents have ever been used at this Site.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for S-SMA-6 exceeded TALs for aluminum, copper, cyanide, PCBs, gross-alpha radioactivity, and radium-226 and radium-228 activity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above the sediment BV in 7 shallow (i.e., less than 3 ft bgs) RFI samples.
- Copper is associated with industrial materials historically managed at the Site. Some of the ammunition used at the firing range consists of copper-jacketed bullets, and a copper-wash solution is periodically used to lubricate ammunition before firing. Copper was not detected above the sediment BV in 7 shallow RFI samples.
- PCBs are not known to be associated with industrial materials historically managed at the Site. RFI soil samples were not analyzed for PCBs.
- Cyanide is not known to be associated with industrial materials historically managed at the Site. RFI soil samples were not analyzed for total cyanide.
- Alpha-emitting radionuclides including radium-226 and radium-228 are not associated with industrial materials historically managed at the Site. RFI soil samples were not analyzed for alpha-emitting radionuclides.

Based on the Site history and RFI and Sandia Canyon Consent Order sampling results, the Site is an unlikely source of the TAL exceedances. The SMA receives storm water runoff from developed and undeveloped environments. The TAL exceedances for PCBs are above both the developed BV and the Bandelier Tuff BV. The concentration of aluminum and activities of radium-226 and radium-228 were below the Bandelier Tuff BVs but above the developed BVs. Concentrations of copper are below the developed BV and above the Bandelier Tuff BV. Gross-alpha radioactivity is above the developed BV but below the Bandelier Tuff BV for one sample and above both values for the other sample. Cyanide was detected above the urban background concentration. There is no undeveloped site background concentration for cyanide.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: The Site is an active firing range. No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Sandia Canyon

Site ID: **73-001(a)**
Site Name: **Former municipal landfill**
SMA: **P-SMA-1**

Updated Site Description (2014):
SWMU 73-001(a) is a former municipal landfill located at TA-73, north of the runway at the Los Alamos County Airport. Use of the landfill began in 1943, and wastes were disposed of in a natural hanging valley on the south rim of Pueblo Canyon. As more capacity was required, trenches were excavated into the tuff. A hot-mix asphalt batch plant operated in the vicinity of the landfill from the mid-1940s until 1954. Ash and burn residues from an incinerator (SWMU 73-002) were also deposited in the landfill. Los Alamos County operated the landfill from 1965 until it closed in 1973. Between 1984 and 1986, the western portion of the landfill was excavated and moved to the debris disposal pit [SWMU 73-001(d)] to allow for the construction of the hangars and tie-down areas at the airport. Clean fill was used to backfill the excavated area. During the 2003 IM conducted at SWMU 73-001(a), approximately 430 yd^3 of debris was removed from four drainages that extended into Pueblo Canyon north of the landfill. The final remedy was implemented at SWMU 73-001(a) in 2006 and 2007. Activities included regrading and compacting the main landfill surface and the north and east slopes, construction of five concrete hangar pads, construction of a MatCon asphalt cap, construction of a gas collection system beneath the MatCon surface, construction of a storm water collection system, installation of a retaining wall and a mechanically stabilized earth wall at the toe of the east slope, and installation of a low-permeability soil/geocomposite/vegetated soil cover on the upper east slope and the north slope.

RFI and Consent Order investigation and remediation activities are complete for SWMU 73-001(a). The Site meets recreational risk levels. The long-term monitoring plan is being implemented; the landfill cover, MatCon surface, gas vents, and the vegetated slope are all inspected annually.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **73-002**
Site Name: **Former incinerator/surface disposal area**
SMA: **P-SMA-2**

Updated Site Description (2014):
SWMU 73-002 consists of a former inactive incinerator that was located in building 73-2 and a former associated ash pile located at TA-73, west of the Los Alamos Airport terminal and on the south rim of Pueblo Canyon. The incinerator was housed in the two-story concrete building, 73-2, and a 6-ft-diameter stack was located on the north side of the building. The incinerator was originally used to destroy classified documents from LANL; however, this practice was discontinued after a short period because combustion was incomplete. The incinerator was then used to burn municipal trash. Ash and debris were deposited over the edge of the mesa, which resulted in an ash pile that was approximately 150 ft wide by 160 ft long and up to 8 ft deep. Incinerator operations ceased in 1973, and the incinerator equipment and stack were removed. The ash pile and the associated incinerator debris were removed between 2005 and 2007. Building 73-2 remains in place.

RFI and Consent Order investigation and remediation activities are complete for SWMU 73-002. Decision-level data indicate the nature and extent of contamination are defined, and risk-screening assessment results confirm SWMU 73-002 meets residential levels. NMED issued a CoC with controls in August 2007.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **73-004(d)**
Site Name: **Former septic system**
SMA: **P-SMA-1**

Updated Site Description (2014):
SWMU 73-004(d) is a former septic system, including a leach field, that was located east of the present Los Alamos County Airport terminal building at TA-73. Installed in the early 1970s, the septic system served the former landfill office and was located approximately 20 ft northeast of the building. A 4-in.-diameter VCP connected the building's toilet to the septic tank. The building and septic tank were removed as part of the decommissioning operation conducted in the early 1970s. The final remedy implemented at SWMU 73-001(a) (former landfill) in 2006 and 2007 included the former location of SWMU 73-004(d).

RFI and Consent Order investigation and remediation activities are complete for SWMU 73-004(d). The Site meets recreations risk levels. The long-term monitoring plan being implemented for the SWMU 73-001(a) landfill includes the former location of the SWMU 73-004(d) septic system; the landfill cover, MatCon surface, gas vents, and the vegetated slope are all inspected annually.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **73-006**
Site Name: **Former drainlines**
SMA: **P-SMA-2**

Updated Site Description (2014):
SWMU 73-006 consists of two former cast-iron drainlines that discharged to Pueblo Canyon from the former incinerator building (structure 73-2), located west of the airport terminal building at TA-73. The west drainline originated from two floor drains within the west side of the building. The east drainline originated from drains located on the east side of the building. The drainlines discharged directly onto the ash pile (SWMU 73-002). The floor drains were plugged in 1973 when incinerator operations ceased. The west drainline was removed during the 1997 RFI; the east drainline could not be located.

RFI and Consent Order investigation and remediation activities are complete for SWMU 73-006. Decision-level data indicate the nature and extent of contamination are defined, and risk-screening assessment results confirm SWMU 73-006 meets residential levels. NMED issued a CoC with controls in August 2007.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Pueblo Canyon

Site ID: **C-00-020**
Site Name: **Suspected mortar impact area**
SMA: **R-SMA-0.5**

Updated Site Description (2014):
AOC C-00-020 is a suspected mortar impact area located along the north valley wall of Rendija Canyon on General Services Administration and USFS land. The 30-acre site also includes a tributary of Rendija Canyon. Most of the Site lies within the Santa Fe National Forest, except for a small area on the southeastern edge that is private property. AOC C-00-020 was suspected to be a former mortar-impact area because of a "U.S. Property—No Trespassing" sign and a nearly illegible bilingual sign posted in the area. The signs no longer remain. Extensive archival searches have revealed no documentation regarding the use of this site as a munitions-impact area. In addition, no field evidence of operations (e.g., MD, MEC, UXO, or impact scars) has ever been found at AOC C-00-020. RFI activities conducted in 1993 included an ordnance sweep followed by a geophysical sweep. No ordnance, MD, MEC, or UXO was located. In addition, no ordnance was found during the 2007 investigation or during the 2009 ordnance survey. The Site is located within an area burned by the 2000 Cerro Grande fire. The stream channel that runs through the center of the Site has been widened by flooding. Currently, there are burned and live trees on the steep slopes next to the stream.

Consent Order investigations are complete for AOC C-00-020; the Site meets residential risk levels. NMED issued a CoC without controls for AOC C-00-020 in May 2013.

Significant Materials Exposed to Storm Water:
The 2012 baseline storm water monitoring sample for LA-SMA-10.12 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Since no records or field evidence of operations (e.g., MD, MEC, UXO, or impact scars) were ever found at AOC C-00-020, no investigation samples were ever collected at the Site. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, and Fertilizers: Not applicable

Receiving Water: Rendija Canyon

Site ID: **C-00-041**
Site Name: **Asphalt and tar remnant site**
SMA: **R-SMA-1**

Updated Site Description (2014):
AOC C-00-041 is the site of a former asphalt batch plant located in a 50-ft by 600-ft portion of a side slope and ephemeral stream drainage channel that flows into Rendija Canyon on USFS land. Aerial photographs indicate the asphalt plant operated from the late 1940s to 1958, and site history indicates that the plant was removed sometime between 1958 and 1965. In 1969, after the plant had been removed, the land was transferred from the Atomic Energy Commission to USFS to manage as public land. A VCA, which was conducted in 1995, removed the asphalt in the stream channel and the building's foundation. Currently, the Site is undeveloped and is located in a grassy open meadow bisected south to north by an ephemeral stream. A hiking trail, Rendija Trail, is located to the east of AOC C-00-041, and the Guaje Pines Cemetery is located to the west.

AOC C-00-041 was investigated under the Consent Order. The investigation demonstrated that the nature and extent of contamination were defined, and the Site posed no unacceptable human health risk under the residential scenario and no unacceptable ecological risk. The 2007 investigation report recommended corrective action complete without controls. NMED's 2007 approval with direction of the investigation report required biennial inspections of the Site and downstream drainage for the presence of asphalt/tar. This approval also required collecting and removing any asphalt or tar identified on the ground surface. As a result, a request for CoC without controls has not yet been submitted to NMED.

Significant Materials Exposed to Storm Water:
In 2011, baseline storm water monitoring samples for R-SMA-1 exceeded TALs for aluminum, zinc, and gross-alpha radioactivity.

- Aluminum was not known to have been associated with industrial materials historically managed at the Site. Aluminum was detected above BV in 1 of 33 shallow (i.e., less than 3 ft bgs) Consent Order samples at a concentration 1.2 times the soil BV but below the maximum soil background concentration.
- Zinc was not known to have been associated with industrial materials historically managed at the Site. Zinc was detected above BV in 3 of 33 shallow Consent Order samples with a maximum concentration 1.5 times the soil BV but below the maximum soil background concentration.
- Alpha-emitting radionuclides were not known to have been associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross alpha radioactivity or alpha-emitting radionuclides.

The SMA receives runoff from undeveloped areas. Based on comparison of SMA sample results with background data, the SMA sample results are representative of runoff from undeveloped areas and consistent with land use in the SMA drainage area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Rendija Canyon

Site ID: **C-00-044**
Site Name: **Surface lead contamination**
SMA: **LA-SMA-1**

Updated Site Description (2014):
AOC C-00-044 consists of surface contamination resulting from the historical use of lead-based paint on the Los Alamos Canyon Bridge (also known as Omega Bridge). The bridge was constructed in 1951 and is located in both TA-00 and TA-03. This AOC was identified in 1999 during RFI activities. Surface samples collected from locations on the north and south end of the bridge during investigation of SWMU 00-017 contained elevated lead concentrations. The lead could not reasonably be attributed to SWMU 00-017, an inactive underground industrial waste line. During further research and interviews of Los Alamos County and LANL maintenance staff, it was discovered that lead paint chips were deposited beneath the bridge on the north and south slopes of Los Alamos Canyon as a result of periodic bridge maintenance activities, including scraping and chipping old paint before new paint was applied.

SWMU C-00-044 is expected to be eligible for a CoC under the Consent Order after submittal and approval of the Phase II investigation report for Upper Los Alamos Canyon Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, enhanced storm water monitoring samples for LA-SMA-1 exceeded the TALs for aluminum, PCBs, and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, lead, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at the Site. Aluminum was not detected above BVs in any of the 22 shallow Consent Order samples collected at the Site.
- PCBs are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for PCBs because they were not identified as potential contaminants at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. Consent Order samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because they were not identified as potential contaminants at this Site. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BV.

Based on the Site history and Consent Order and RFI sampling results, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentrations of aluminum and gross-alpha radioactivity detected in SMA samples are less than the UTLs for runoff from undeveloped areas and above the UTLs for urban runoff from developed areas. The concentration PCBs detected in the SMA sample is less than the UTLs for urban runoff from developed areas and above the UTLs for runoff from undeveloped areas.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **C-15-004**
Site Name: **Former transformer station**
SMA: **PT-SMA-0.5**

Updated Site Description (2014):
AOC C-15-004 is a former transformer station (former structure 15-56) that was located approximately 30 ft southwest of the former E-F Firing Site control room (building 15-27) at TA-15. Two transformers (18-gal. and 30-gal. capacity) were located on a 5-ft-long wooden platform 10 ft above the ground. Each transformer contained mineral oil with PCBs of unknown concentration. The date of installation is not known, but the transformers were removed from the site in 1989. No evidence was found of a release on the wooden platform or on the soil beneath the platform.

Phase I Consent Order sampling is complete for AOC C-15-004. All detected inorganic and organic chemical and radionuclide concentrations from Consent Order samples were below residential SSLs. AOC C-15-004 will be recommended for corrective action complete in the supplemental investigation report for Water Canyon Aggregate Area, to be submitted to NMED in 2015. AOC C-15-004 will be eligible for a CoC upon approval of the report by NMED.

Significant Materials Exposed to Storm Water:
The baseline storm water monitoring sample collected in 2011 exceeded TALs for aluminum, copper, and gross-alpha radioactivity.

- Aluminum is not known to be associated with industrial materials historically managed at this Site. Aluminum was not detected above BVs in any of the 4 shallow Consent Order samples collected at AOC C-15-004.
- Copper is not known to be associated with industrial materials historically managed at this Site. Copper was detected above the BV in 3 of 4 shallow Consent Order samples collected at AOC C-15-004 at a maximum concentration 3.3 times the soil BV.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at AOC C-15-004; however, they are associated with industrial materials managed at adjacent E-F Firing Site. Shallow Consent Order samples were not analyzed for gross-alpha radioactivity but were analyzed for uranium isotopes, which are alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

Based on the Site history and Consent Order sampling data, the Site in unlikely a source of the TAL exceedances. The SMA receives runoff from industrially developed (E-F Firing Site) areas and undeveloped areas. The concentrations of aluminum and gross-alpha radioactivity detected in the SMA samples are above the BVs for runoff from developed areas and below the BVs for runoff from undeveloped areas. The concentration of copper detected in the SMA sample is slightly above BV for runoff from undeveloped areas and below the BV for runoff from developed areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No SWMU-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No SWMU-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **C-33-001**
Site Name: **Former transformer**
SMA: **CHQ-SMA-01.03**

Updated Site Description (2014):
AOC C-33-001 consists of a former power transformer (structure 33-124) at TA-33 Main Site. The transformer was mounted on a concrete pad next to the east wall of building 33-114 and was bounded by asphalt to the north, east, and south. The pad was enclosed by a fence and accessible only through a locked gate. Because this transformer was placed into service in the 1950s, the oil in the transformer may have contained PCBs. The pad reportedly had oil stains, but active leaks from the transformer were not observed during inspections conducted in September 1985 and March 1992. In 1992, the transformer was replaced as part of activities conducted under TSCA. A BMP implemented in 1999 consisted of vacuuming PCB-contaminated soil and sediment present on the asphalt between buildings 33-113 and -114. In addition, the field team vacuumed a low-grade slope from building 33-114 east between buildings 33-0113 and 33-39. A total volume of 55-gal. of material was collected.

AOC C-33-001 is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. Decision-level data are available for AOC C-33-001 from the 1996 RFI.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring samples for CHQ-SMA-1.03 exceeded the TALs for copper, PCBs, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. RFI samples were not analyzed for inorganic chemicals because they are not associated with industrial materials historically managed at the Site.
- PCBs are known to have been associated with industrial materials historically managed at the Site. The PCB mixture Aroclor-1260 was detected in 4 of 4 shallow RFI soil samples at a maximum concentration 495% of the residential SSL.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at AOC C-33-001. RFI samples were not analyzed for gross-alpha radioactivity or alpha-emitting radionuclides because they are not associated with industrial materials historically managed at the Site. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA receives storm water runoff from industrially developed areas as well as from landscape consisting of Bandelier Tuff sediments. The TAL exceedance for PCBs is below both the developed and undeveloped background UTLs. The concentration of copper detected in the SMA sample was above the undeveloped background UTL and below the developed background UTL. The concentration of gross-alpha radioactivity detected in the SMA sample was slightly above the developed background UTL and well below the undeveloped background UTL. Copper and alpha-emitting radionuclides are not associated with industrial materials historically managed at this site. PCBs were historically managed at this site and were detected in RFI samples.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **C-33-003**
Site Name: **Soil contamination area**
SMA: **CHQ-SMA-1.03**

Updated Site Description (2014):
AOC C-33-003 consists of two former fill areas located at Main Site in TA-33. Fill was placed in these areas to provide level sites for portable trailers. One of the trailers (structure 33-169) was installed next to the Main Site water tower. The filled area to accommodate trailer 33-169 is approximately 100 ft × 100 ft × 4 ft deep. The other trailer (structure 33-170) was installed north of building 33-114. The filled area to accommodate trailer 33-170 is approximately 70 ft × 90 ft × 7 ft deep. Both trailers were installed in January 1984 and removed in June 1988. After the trailers were removed, no further improvements were made to these sites. Three projectiles, one of which contained uranium, were discovered at the fill area near the water tower during brush-clearing activities conducted during the spring of 1996. The source of these projectiles appears to have been the fill material, which was obtained from the cinder cone located in Area 6, just west of Main Site. Projectiles historically were fired into catcher boxes at the base of the cinder cone during experiments conducted at the Area 6 firing area [SWMU 33-007(c)].

During a 1999 VCA, fill material was excavated until native soil or tuff was encountered. A total of 408.5 yd^3 of fill material was excavated. Radiation surveys of the excavated areas showed no readings greater than 2 times local background. Confirmation samples verified cleanup levels were achieved. The excavated material was transported to a Segmented Gate System treatment plant, where radioactive materials were separated from the fill and disposed of. A total of 1.45 yd^3 of contaminated fill was separated and disposed of as low-level radioactive waste. Treated fill samples verified cleanup levels were achieved. The decontaminated fill was returned to the Site and the Site was restored and revegetated.

AOC C-33-003 is included in the Consent Order as part of the Chaquehui Canyon Aggregate Area. Consent Order investigations for this aggregate area have not yet been started. The investigation work plan for Chaquehui Canyon Aggregate Area was approved in March 2011; the investigation report for the aggregate area is due to NMED by March 31, 2015. Decision-level data are available for AOC C-33-003 from the 1999 VCA confirmation samples.

Significant Materials Exposed to Storm Water:
In 2012, the baseline storm water monitoring samples for CHQ-SMA-1.03 exceeded the TALs for copper, PCBs, and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. Copper was detected above BVs in 14 of 17 shallow VCA samples at a maximum concentration 4.1 times the tuff BV.
- PCBs are not known to have been associated with industrial materials historically managed at the Site. Confirmation samples collected during the 1999 VCA were not analyzed for PCBs because they are not known to have been associated with industrial materials historically managed at the Site.
- Alpha-emitting radionuclides are not known to have been associated with industrial materials historically managed at the Site. VCA samples were not analyzed for gross-alpha radioactivity but were analyzed for isotopic uranium, which contains alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would

not be the source of the TAL exceedance. In addition, the gross-alpha TAL exceedance is below the Bandelier Tuff and developed BVs.

The SMA receives storm water runoff from industrially developed areas as well as from landscape consisting of Bandelier Tuff sediments. The TAL exceedance for PCBs is below both the developed and undeveloped background UTLs. The concentration of copper detected in the SMA sample was above the undeveloped background UTL and below the developed background UTL. The concentration of gross-alpha radioactivity detected in the SMA sample was slightly above the developed background UTL and well below the undeveloped background UTL. These results, along with the low magnitude of copper detections in the VCA samples, are consistent with the Site not being the source of the TAL exceedances for copper and gross-alpha radioactivity. PCBs are not known to have been associated with industrial materials historically managed at the Site.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal management practices are described above.

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Chaquehui Canyon

Site ID: **C-36-001**
Site Name: **Former containment vessel**
SMA: **PT-SMA-2.01**

Updated Site Description (2014):
AOC C-36-001 is a former containment vessel that provided secondary containment for explosives tests at TA-36. The containment vessel was manufactured in 1970 and located at the PHERMEX test facility at TA-15. The containment vessel was later relocated to the I-J Firing Site and placed south of building 36-55 where it remained until 1983 when it was removed. The containment vessel consisted of a 19.5-ton steel sphere that was 12 ft in diameter. An explosive device was placed and detonated in a primary containment vessel which, in turn, was placed inside the AOC C-36-001 containment vessel. The explosion gases were vented through a filtration system that captured particulates and did not allow release of the test material. No specific location(s) exists for this site; the location is identified only as the general area south of building 36-55 . In 1994, a VCA was implemented at AOC C-36-001 that involved decontamination and disposal of the vessel. The vessel was taken from TA-36 to building 15-233 for initial decontamination and was subsequently taken to the decontamination facility at TA-50 for further decontamination. It was then returned to TA-15 pending acceptance for disposal at TA-54, Area G. In October 1994, the containment vessel was disposed of at MDA G at TA-54. No confirmation samples were collected during the VCA.

The previous location(s) of the former containment vessel used at PHERMEX and the I-J Firing Site are not known and would have been impacted by historical and current firing site operations. Therefore, characterization of any releases from AOC C-36-001 will be accomplished by future investigations at the PHERMEX and I-J Firing Site. Investigation of both of these firing sites is deferred per Table IV-2 of the Consent Order.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for PT-SMA-2.01 exceeded the TAL for gross alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Consent Order sampling has not been conducted; the location of the former containment vessel is not known. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed (PHERMEX and I-J Firing Sites) areas and undeveloped areas. The concentration of gross-alpha radioactivity detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **C-36-003**
Site Name: **Outfall from building 36-1**
SMA: **3M-SMA-2.6**

Updated Site Description (2014):
SWMU C-36-003 is a former NPDES-permitted outfall (EPA06A106) located at TA-36 on the south rim of Threemile Canyon, north of office and laboratory building 36-1. The outfall became operational in the 1950s and served the sink and floor drains on the first floor of the building and the floor, sink, and equipment drains in the photoprocessing laboratories on the second floor of the building. In 1993, the floor and sink drains were rerouted to the SWSC plant. The outfall was removed from the NPDES permit in 2001.

An RFI was conducted in 1994. Decision-level data were collected during a Phase I investigation in 2010: one PAH was detected above residential and industrial SSLs, and all other detected chemicals and radionuclides were below residential SSLs and SALs, respectively.

Significant Materials Exposed to Storm Water: To date, no sample has been collected at this SMA because of the lack of a measurable storm event. As a result, this SMA is in extended baseline monitoring.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No SWMU-related materials management activities have occurred in the last 3 yr. Historical materials management activities are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Threemile Canyon

Site ID: **C-36-006(e)**
Site Name: **I-J firing site, former projectile test area**
SMA: **PT-SMA-2.01**

Updated Site Description (2014):
AOC C-36-006(e) is a former projectile test area located within the southern portion of the I-J Firing Site [AOC 36-004(e)] along the north rim of Potrillo Canyon. AOC C-36-006(e) was formerly used for testing DU projectiles as part of I-J Firing Site activities. Projectiles were fired from a 120-mm gun into a nearby embankment. Although some projectiles were recovered after an experiment was completed, much of the projectile material remains on-site. Originally, the I-J Firing Site was located within the boundary of TA-15. In 1981, the boundary of TA-36 was expanded to include portions of TA-15. As part of this expansion, the area where I-J Firing Site was located was transferred to TA-36. Although the 1990 SWMU Report addresses the I-J Firing Site as AOC 36-004(e), it addresses the nearby projectile test area (which was also part of the 1981 transfer to TA-36) as AOC 15-006(e). AOC 15-006(e) was renamed AOC C-36-006(e) in the Operable Unit 1086 work plan because the projectile test area was within the boundaries of TA-36 when the work plan was written.

Previous investigations conducted at I-J Firing Site, which encompasses AOC C-36-006(e), consisted of a surface radiological survey conducted in 1991 that identified areas of elevated radioactivity at the time of the survey. Numerous pieces of DU and oxidized DU were present around the site. Based on the presence of visible pieces of DU, an interim action plan was prepared in 1997 that called for removing visible pieces of DU from the firing site and surrounding area and installing storm water controls. However, the plan was never implemented.

AOC C-36-006(e) is encompassed by the I-J Firing Site, which is deferred for investigation per Table IV-2 of the Consent Order. However, Consent Order samples were collected in sediment catchment areas in the drainages downgradient of the Site to determine if contaminants are migrating from the Site, which includes the I-J Firing Site. Concentrations of detected inorganic chemicals and organic chemicals and radionuclide activities decreased in the drainages downgradient of the Site and were not detected or not detected above BVs in samples collected from the bottom of the drainage below the Site. All detected concentrations and activities are below residential SSLs.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring sample for PT-SMA-2.01 exceeded the TAL for gross-alpha radioactivity.

- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at this Site. Consent Order sampling has not been conducted; the location of the former containment vessel is not known. Any alpha-emitting radionuclides associated with the Site are exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from industrially developed (PHERMEX and I-J Firing Sites) areas and undeveloped areas. The concentration gross-alpha radioactivity detected in the SMA sample was above the BV for runoff from developed areas and below the BV for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Potrillo Canyon

Site ID: **C-41-004**
Site Name: **Storm drain system**
SMA: **LA-SMA-5.35**

Updated Site Description (2014):
AOC C-41-004 is the active storm drain system surrounding laboratory building 41-4. The drain system has seven storm drainage catch basins/manholes (structures 41-22 through 41-28). Although there are no indications of historical or current contaminant releases to the system, operational tritium releases from the emission stacks located between buildings 41-4 and 41-30 (office building) may have introduced surface (beta) contamination into the storm drain system.

Consent Order investigations for AOC C-41-004 are delayed because building 41-4 is an active facility. Therefore, no sampling is expected to be done at AOC C-44-004 until building 41-4 undergoes D&D. However, RFI screening-level data are available for the Site.

Significant Materials Exposed to Storm Water:
In 2011, the baseline storm water monitoring samples for LA-SMA-5.35 exceeded the TALs for copper and gross-alpha radioactivity.

- Copper is not known to be associated with industrial materials historically managed at the Site. The single shallow RFI samples collected at the AOC C-44-004 was not analyzed for copper because it is not known to be associated with industrial materials historically managed at the Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at the Site. The single RFI sample was not analyzed for gross-alpha radioactivity but was analyzed for plutonium isotopes, which are alpha-emitting radionuclides, and for total uranium, which contains alpha-emitting radionuclides. Any alpha-emitting radionuclides associated with the Site would be exempt from regulation under the CWA. Although these radionuclides may be associated with the gross-alpha radioactivity detected in the IP sample, they are excluded from the definition of adjusted gross-alpha radioactivity and would not be the source of the TAL exceedance.

The SMA receives runoff from undeveloped areas and from developed areas including the Los Alamos townsite and TA-41. The concentration of copper detected in the SMA sample is slightly greater than the UTL for runoff from undeveloped areas and well below the UTL for runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is less than the UTL for runoff from undeveloped areas and above the UTL for runoff from developed areas.

Method of Treatment, Storage, or Disposal: No Site-related wastes have been treated, stored or disposed in the last 3 yr. Historical disposal activities are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Past and Present Materials Management Practices: No Site-related materials have been managed in the last 3 yr. Historical materials management practices are described above. The IP does not regulate storm water discharges associated with current conventional industrial activities at LANL.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **C-43-001**
Site Name: **Outfall**
SMA: **LA-SMA-1.25**

Updated Site Description (2014):
AOC C-43-001 is a storm drain outfall that flows into Los Alamos Canyon. It collects runoff from the HRL (building 43-1) loading dock and also functions as the overflow from the lift station (structure 43-10). The overflow line is an 8-in.-diameter VCP that extends from structure 43-10, 130 ft south to a manhole. A 12-in.-diameter CMP, which receives discharge from two storm drains and any effluent from the overflow, flows southwest for 160 ft and drains into the canyon south of the HRL. The sanitary waste lines for the HRL [SWMU 43-001(a1) and AOC 43 001(a2)] may have become clogged at some time, causing an overflow. Any sanitary waste carried through the sewer lines could have discharged into the storm drains. Although no documentation was found to confirm any routine non–storm water releases into the storm drains, the outfall may have received non–sanitary cooling water. Currently, the outfall is located on the undeveloped north slope of Los Alamos Canyon on DOE property.

Significant Materials Exposed to Storm Water:
In 2012, confirmation storm water samples for LA-SMA-1.25 exceeded the TALs for copper and zinc. Baseline monitoring samples collected in 2011 also exceeded TALs for copper and zinc.

- Copper is not known to have been associated with industrial materials historically managed at this Site. Copper was detected above sediment and tuff BVs in shallow (i.e., less than 3 ft bgs) soil, sediment, and tuff samples collected during 2009 and 2012 Consent Order investigations. Copper was detected above BVs in 8 of 20 shallow samples with a maximum concentration 4.6 times the sediment BV.
- Zinc is not known to have been associated with industrial materials historically managed at this Site. Zinc was detected above soil and sediment BVs in 8 of 20 shallow soil, sediment, and tuff samples with a maximum concentration 2.4 times the sediment BV.

The SMA receives runoff from a developed area. The concentrations of copper and zinc detected in the SMA samples were less than UTLs for developed areas.

Method of Treatment, Storage, or Disposal: Not applicable

Past and Present Materials Management Practices: No AOC-related materials management activities have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Los Alamos Canyon

Site ID: **C-46-001**
Site Name: **One-time mercury spill**
SMA: **CDB-SMA-1**

Updated Site Description (2014):
AOC C-46-001 is the location of a one-time spill of mercury in the vicinity of building 46-75 at TA-46. On July 22, 1975, 250–500 g (0.55–1.1 lb) of mercury spilled on the ground near building 46-75. The spill was cleaned up shortly after it occurred. The memorandum documenting the spill does not provide the precise location of where the spill occurred at building 46-75; however, aerial photos show the entire area surrounding building 46-75 was paved at the time of the spill.

AOC C-46-001 is expected to be eligible for a certificate of completion under the Consent Order after submittal and approval of the supplemental investigation report for Upper Cañada del Buey Aggregate Area.

Significant Materials Exposed to Storm Water:
In 2013, baseline storm water monitoring samples for CDB-SMA-1 exceeded TALs for PCBs and gross-alpha radioactivity. Baseline storm water monitoring samples collected in 2011 exceeded TALs for aluminum, copper, PCBs, and gross-alpha radioactivity.

- PCBs are not known to be associated with industrial materials historically managed at this Site. Consent Order samples collected at AOC C-46-001 were not analyzed for PCBs because they are not known to be associated with industrial materials historically managed at this Site.
- Alpha-emitting radionuclides are not known to be associated with industrial materials historically managed at AOC C-46-001. Consent Order samples were not analyzed for gross alpha radioactivity or for alpha-emitting radionuclides because they are not known to be associated with industrial materials historically managed at this Site.

Based on the site history, this Site is an unlikely source of the TAL exceedances. The SMA receives runoff from developed and undeveloped areas. The concentration of PCBs detected in the SMA sample is above the BV for runoff from undeveloped areas and below the BV for urban runoff from developed areas. The concentration of gross-alpha radioactivity detected in the SMA sample is above the BV for urban runoff from developed areas and below the BVs for runoff from undeveloped areas. These results are consistent with the land use within the SMA drainage area.

Method of Treatment, Storage, or Disposal: No AOC-related treatment, storage, or disposal activities have occurred in the last 3 yr. Historical disposal activities are described above.

Past and Present Materials Management Practices: No AOC-related materials management practices have occurred in the last 3 yr. Historical materials management practices are described above.

Materials Loading and Access Areas: Not applicable

Use of Pesticides, Herbicide, Soil Conditioners, Fertilizers: Not applicable

Receiving Water: Cañada del Buey

Part C

Table IV-2
Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
R-SMA-0.5	Established Vegetation	1	X[a]	—[b]	—	X	X	X	X	X
	Berms	11	—	X	X	X				
R-SMA-1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Gabions	2	X	X	X	—				
	Channel/Swale	2	X	—	X	—				
	Check Dam	1	—	X	—	X				
R-SMA-1.95	Berms	13	—	X	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
R-SMA-2.05	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	2	—	X	—	X				
R-SMA-2.3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	3	—	X	—	X				
R-SMA-2.5	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Check Dam	3	—	X	X	X				
B-SMA-0.5	Channel/Swale	3	X	—	X	—	X	X	X	X
	Berms	3	—	X	X	X				
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
B-SMA-1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	5	—	X	X	X				
ACID-SMA-1.05	Channel/Swale	1	X	—	X	—	X	X	X	X
	Berms	2	—	X	X	X				
ACID-SMA-2	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	X	—				
ACID-SMA-2.01	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
ACID-SMA-2.1	Berms	5	—	X	X	—	X	X	X	X
	Established Vegetation	2	X	X	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	2	—	X	X	—				
P-SMA-0.3	Channel/Swale	1	X	—	X	—	X	X	X	X
	Berms	2	—	X	X	X				
	Established Vegetation	1	X	—	—	X				
P-SMA-1	Channel/Swale	6	X	—	X	X	X	X	X	X
	Berms	16	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				
	Established Vegetation	1	X	—	—	X				
P-SMA-2	Berms	3	—	X	X	X	X	X	X	X
	Channel/Swale	4	X	—	X	—				
	Established Vegetation	1	X	—	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
P-SMA-2.15	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	2	X	—	X	X				
	Check Dam	2	—	X	X	X				
P-SMA-2.2	Berms	2	—	X	X	—	X	X	X	X
	Channel/Swale	4	X	—	X	X				
	Established Vegetation	1	X	—	—	X				
	Check Dam	5	—	X	X	—				
P-SMA-3.05	Berms	4	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
	Channel/Swale	2	X	—	X	—				
LA-SMA-0.85	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	—	X				
LA-SMA-0.9	Channel/Swale	1	X	—	X	—	X	X	X	X
	Berms	8	—	X	X	X				
	Established Vegetation	1	X	—	—	X				
LA-SMA-1	Channel/Swale	7	X	—	X	—	X	X	X	X
	Berms	5	—	X	X	X				
	Established Vegetation	1	X	—	—	X				
LA-SMA-1.1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	2	X	—	X	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
LA-SMA-1.25	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-2.1	Channel/Swale	2	X	—	X	—	X	X	X	X
	Seed and Mulch	1	X	—	—	—				
	Established Vegetation	1	X	—	—	X				
	Berms	2	—	X	X	X				
LA-SMA-2.3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	3	—	X	X	X				
LA-SMA-3.1	Channel/Swale	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	—	X				
LA-SMA-3.9	Channel/Swale	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	—	X				
LA-SMA-4.1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	2	X	—	X	—				
	Check Dam	1	—	X	—	X				
LA-SMA-4.2	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	2	—	X	—	X				
	Channel/Swale	4	X	—	X	—				
LA-SMA-5.01	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Channel/Swale	2	X	—	X	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
LA-SMA-5.02	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-5.2	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	2	—	X	—	X				
LA-SMA-5.31	Channel/Swale	2	X	—	X	—	X	X	X	X
	Berms	3	—	X	X	X				
	Seed and Mulch	1	X	—	—	—				
LA-SMA-5.33	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-5.35	Cap	5	X	—	X	X	X	X	X	X
LA-SMA-5.361	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
LA-SMA-5.362	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	X	X				
LA-SMA-5.51	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	X	—	—	X				
LA-SMA-5.52	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	1	—	X	X	—				
	Seed and Mulch	1	X	—	—	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
LA-SMA-5.53	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
LA-SMA-5.54	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-5.91	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	2	—	X	—	X				
	Sediment Traps and Basins	1	—	X	X	—				
LA-SMA-5.92	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Sediment Traps and Basins	1	—	X	—	X				
LA-SMA-6.25	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-6.27	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-6.3	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
LA-SMA-6.31	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
LA-SMA-6.32	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
LA-SMA-6.34	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
LA-SMA-6.36	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-6.38	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Berms	3	—	X	X	X				
LA-SMA-6.395	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
LA-SMA-6.5	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
LA-SMA-9	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	3	X	—	X	—				
LA-SMA-10.11	Channel/Swale	2	X	—	—	X	X	X	X	X
	Check Dam	1	—	X	—	X				
LA-SMA-10.12	Berms	16	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Check Dam	5	—	X	X	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
DP-SMA-0.3	Berms	6	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	2	X	X	X	—				
	Check Dam	7	—	X	X	X				
DP-SMA-0.4	Channel/Swale	2	X	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	X	—				
	Berms	2	—	X	X	X				
DP-SMA-0.6	Berms	3	—	X	X	X	X	X	X	X
	Channel/Swale	2	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Cap	1	X	—	—	—				
	Sediment Traps and Basins	1	—	X	—	X				
DP-SMA-1	Berms	6	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	—	X				
	Channel/Swale	1	X	—	X	—				
DP-SMA-2	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
DP-SMA-2.35	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
DP-SMA-3	Berms	8	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	5	—	X	—	X				
DP-SMA-4	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	X	—				
	Seed and Mulch	1	X	—	—	—				
S-SMA-0.25	Established Vegetation	1	X	—	—	X	X	X	X	X
	Gabions	2	X	X	—	X				
	Channel/Swale	2	X	—	X	X				
S-SMA-1.1	Channel/Swale	5	X	—	X	—	X	X	X	X
	Berms	2	—	X	X	X				
	Gabions	2	X	X	X	X				
	Check Dam	1	—	X	X	—				
	Sediment Traps and Basins	1	—	X	—	X				
S-SMA-2	Established Vegetation	1	X	—	—	X	X	X	X	X
	Sediment Traps and Basins	1	—	X	X	—				
	Channel/Swale	7	X	—	X	—				
	Check Dam	4	—	X	X	—				
	Seed and Mulch	1	X	—	—	—				
S-SMA-2.01	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Sediment Traps and Basins	3	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
S-SMA-2.8	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Cap	1	X	—	X	—				
S-SMA-3.51	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	5	—	X	X	—				
S-SMA-3.52	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
S-SMA-3.53	Cap	1	X	—	—	X	X	X	X	X
	Channel/Swale	2	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	—	X				
	Check Dam	2	—	X	X	—				
	Seed and Mulch	1	X	—	—	—				
S-SMA-3.6	Berms	3	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	5	X	X	X	—				
	Channel/Swale	5	X	—	X	X				
	Check Dam	10	—	X	X	X				
S-SMA-3.7	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	2	—	X	X	X				
	Channel/Swale	2	X	—	X	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
S-SMA-3.71	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	X	—				
	Check Dam	4	—	X	—	X				
S-SMA-3.72	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	—	X				
S-SMA-3.95	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	2	—	X	X	X				
S-SMA-4.1	Cap	1	X	—	X	—	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Berms	4	—	X	X	X				
	Seed and Mulch	1	X	—	—	—				
S-SMA-4.5	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
S-SMA-5	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
S-SMA-5.2	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Check Dam	6	—	X	X	X				
	Berms	3	—	X	—	X				
S-SMA-5.5	Established Vegetation	1	X	—	—	X	X	X	X	X

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
S-SMA-6	Berms	5	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	2	—	X	X	—				
CDB-SMA-0.15	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	5	—	X	X	X				
CDB-SMA-0.25	Berms	3	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
CDB-SMA-0.55	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	8	—	X	X	—				
CDB-SMA-1	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	3	X	X	X	X				
	Check Dam	5	—	X	X	X				
CDB-SMA-1.15	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
CDB-SMA-1.35	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
CDB-SMA-1.54	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
	Channel/Swale	2	X	—	—	X				
CDB-SMA-1.55	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CDB-SMA-1.65	Berms	1	—	X	—	X	X	X	X	X
	Channel/Swale	2	X	—	X	X				
CDB-SMA-4	Channel/Swale	2	X	—	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	5	—	X	X	X				
	Sediment Traps and Basins	1	—	X	—	X				
M-SMA-1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Gabions	3	—	X	X	X				
M-SMA-1.2	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Check Dam	2	—	X	—	X				
M-SMA-1.21	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
M-SMA-1.22	Berms	3	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
	Sediment Traps and Basins	1	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				
	Channel/Swale	1	X	—	X	—				
M-SMA-3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	3	X	—	X	X				
	Berms	3	—	X	X	—				
	Check Dam	1	—	X	—	X				
	Sediment Traps and Basins	1	—	X	X	—				
M-SMA-3.1	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
M-SMA-3.5	Berms	5	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	3	X	—	—	X				
	Check Dam	2	—	X	X	—				
M-SMA-4	Established Vegetation	1	X	—	—	X	X	X	X	X
	Gabions	1	X	—	X	—				
	Channel/Swale	3	X	—	X	X				
	Check Dam	2	—	X	X	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
M-SMA-5	Channel/Swale	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	2	X	—	X	X				
	Check Dam	2	—	X	X	X				
	Berms	1	—	X	X	—				
M-SMA-6	Cap	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	X	—	X	—				
	Berms	1	—	—	—	—				
	Channel/Swale	3	X	—	X	—				
	Check Dam	7	—	X	X	X				
	Sediment Traps and Basins	1	—	X	X	—				
M-SMA-7	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	1	—	X	—	X				
	Berms	2	—	X	X	—				
M-SMA-7.9	Berms	6	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
M-SMA-9.1	Channel/Swale	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
	Seed and Mulch	1	X	—	X	—				
M-SMA-10	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	3	X	—	X	X				
	Check Dam	5	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
M-SMA-10.01	Berms	2	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
M-SMA-10.3	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
M-SMA-11.1	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
	Channel/Swale	1	X	—	X	—				
M-SMA-12	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	—	X				
M-SMA-12.5	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
M-SMA-12.6	Berms	5	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				
M-SMA-12.7	Berms	3	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
M-SMA-12.8	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
M-SMA-12.9	Berms	4	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	X	X	—	X				
M-SMA-12.92	Established Vegetation	1	X	—	—	X	X	X	X	X
	Sediment Traps and Basins	3	—	X	X	X				
M-SMA-13	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	6	—	X	X	X				
	Seed and Mulch	1	X	—	—	—				
PRATT-SMA-1.05	Berms	9	—	X	X	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	—	X				
	Cap	1	X	—	X	—				
	Check Dam	2	—	X	—	X				
T-SMA-1	Channel/Swale	3	X	—	X	—	X	X	X	X
	Berms	3	—	X	X	X				
T-SMA-2.5	Channel/Swale	1	X	—	X	—	X	X	X	X
	Cap	1	X	—	—	X				
	Check Dam	3	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
T-SMA-2.85	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	X	X	X	X				
T-SMA-3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	3	—	X	—	X				
	Channel/Swale	1	X	—	X	—				
T-SMA-4	Berms	3	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	—	X				
	Channel/Swale	1	X	—	—	X				
	Check Dam	3	—	X	X	—				
T-SMA-5	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	X	X				
T-SMA-6.8	Seed and Mulch	1	X	—	—	—	X	X	X	X
	Berms	2	—	X	X	X				
T-SMA-7	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	—	X				
T-SMA-7.1	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
2M-SMA-1	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	2	—	X	—	X				
	Channel/Swale	2	X	—	X	—				
	Check Dams	13	—	X	X	—				
	Sediment Traps and Basins	1	—	X	X	—				
2M-SMA-1.42	Berms	4	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	X	—				
	Seed and Mulch	1	X	—	—	—				
2M-SMA-1.43	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
2M-SMA-1.44	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
2M-SMA-1.45	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
2M-SMA-1.5	Channel/Swale	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	X	—				
2M-SMA-1.65	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	X	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
2M-SMA-1.67	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
2M-SMA-1.7	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
2M-SMA-1.8	Berms	1	—	X	X	—	X	X	X	X
	Cap	2	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	—	X				
2M-SMA-1.9	Berms	3	—	X	X	X	X	X	X	X
2M-SMA-2	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Sediment Traps and Basins	1	—	X	—	X				
2M-SMA-2.2	Cap	1	X	—	X	—	X	X	X	X
	Channel/Swale	1	X	—	—	X				
	Berms	1	—	—	X	—				
	Check Dam	2	—	X	—	X				
2M-SMA-2.5	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
2M-SMA-3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	6	—	X	X	X				
3M-SMA-0.2	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
3M-SMA-0.4	Berms	2	—	X	—	X	X	X	X	X
	Cap	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
3M-SMA-0.5	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	2	X	—	—	X				
	Check Dam	11	—	X	X	X				
3M-SMA-0.6	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	14	—	X	X	X				
3M-SMA-2.6	Channel/Swale	1	—	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	X	—				
	Check Dam	1	—	X	—	X				
3M-SMA-4	Channel/Swale	3	X	—	X	X	X	X	X	X
	Berms	2	—	X	—	X				
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	X	—				
PJ-SMA-1.05	Berms	2	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	6	X	—	X	X				
	Check Dam	1	—	X	—	X				
PJ-SMA-2	Berms	5	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	X	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
PJ-SMA-3.05	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
PJ-SMA-4.05	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
PJ-SMA-5	Channel/Swale	1	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	7	—	X	X	X				
	Berms	2	—	X	X	—				
PJ-SMA-5.1	Berms	2	—	X	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Cap	1	X	—	X	—				
	Check Dam	1	—	X	—	X				
PJ-SMA-6	Berms	8	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	X	—				
	Seed and Mulch	1	X	—	—	—				
PJ-SMA-7	Channel/Swale	2	X	—	X	—	X	X	X	X
	Berms	1	—	X	—	X				
	Established Vegetation	1	X	—	—	X				
PJ-SMA-8	Channel/Swale	1	X	—	X	—	X	X	X	X
	Berms	2	—	X	—	X				
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	X	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
PJ-SMA-9	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	4	—	X	—	X				
PJ-SMA-10	Berms	1	—	X	X	—	X	X	X	X
	Channel/Swale	1	X	—	—	X				
	Check Dam	3	—	X	—	X				
PJ-SMA-11	Berms	9	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				
PJ-SMA-11.1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	9	—	X	—	X				
	Berms	2	—	X	—	X				
PJ-SMA-13	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
PJ-SMA-13.7	Cap	1	—	—	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	X	—	—	X				
	Check Dam	1	—	X	X	—				
	Sediment Traps and Basins	2	—	X	—	X				
PJ-SMA-14	Berms	4	—	X	X	X	X	X	X	X
	Cap	1	X	—	—	—				
	Seed and Mulch	1	X	—	—	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
PJ-SMA-14.2	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	2	—	X	X	X				
PJ-SMA-14.3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	1	—	X	—	X				
PJ-SMA-14.4	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
PJ-SMA-14.6	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
PJ-SMA-14.8	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
PJ-SMA-16	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	1	—	X	—	X				
PJ-SMA-17	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	2	X	—	—	X				
	Check Dam	1	—	X	X	—				
	Sediment Traps and Basins	1	—	X	—	X				
PJ-SMA-18	Channel/Swale	2	X	—	X	X	X	X	X	X
	Seed and Mulch	1	X	—	—	X				
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
	Sediment Traps and Basins	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
PJ-SMA-19	Channel/Swale	3	X	—	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	—	X				
	Check Dam	3	—	X	—	X				
	Sediment Traps and Basins	1	—	X	—	X				
PJ-SMA-20	Cap	1	X	—	X	—	X	X	X	X
	Berms	1	—	X	—	X				
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
STRM-SMA-1.05	Cap	1	—	—	—	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Check Dam	3	—	X	X	—				
STRM-SMA-1.5	Cap	1	X	—	—	X	X	X	X	X
	Berms	6	—	X	X	X				
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
STRM-SMA-4.2	Berms	2	—	X	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
STRM-SMA-5.05	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
CDV-SMA-1.2	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
CDV-SMA-1.3	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CDV-SMA-1.4	Berms	10	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	13	—	X	X	X				
	Sediment Traps and Basins	5	—	X	X	—				
CDV-SMA-1.45	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CDV-SMA-1.7	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	—	—				
	Check Dam	10	—	X	X	X				
	Seed and Mulch	1	X	—	—	X				
CDV-SMA-2	Berms	6	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	—	X				
	Cap	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
CDV-SMA-2.3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Gabions	1	—	X	—	X				
	Check Dam	3	—	X	X	X				
	Berms	4	—	X	X	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
CDV-SMA-2.41	Channel/Swale	3	X	—	X	—	X	X	X	X
	Berms	1	—	X	—	X				
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
CDV-SMA-2.42	Berms	2	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Gabions	1	—	X	—	X				
	Channel/Swale	4	X	—	X	X				
	Check Dam	2	—	X	X	X				
CDV-SMA-2.5	Berms	3	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	4	X	—	X	X				
	Check Dam	10	—	X	X	X				
CDV-SMA-2.51	Berms	4	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	8	—	X	X	X				
CDV-SMA-3	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	1	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				
CDV-SMA-4	Berms	1	—	X	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
CDV-SMA-6.01	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CDV-SMA-6.02	Berms	3	—	X	—	X	X	X	X	X
	Seed and Mulch	1	X	—	—	—				
CDV-SMA-7	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CDV-SMA-8	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	4	—	X	X	—				
CDV-SMA-8.5	Berms	1	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CDV-SMA-9.05	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
F-SMA-2	Berms	7	—	X	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
PT-SMA-0.5	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
PT-SMA-1	Berms	15	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Seed and Mulch	1	X	—	—	—				
PT-SMA-1.7	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Sediment Traps and Basins	1	—	X	—	X				
	Check Dam	6	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
PT-SMA-2	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
PT-SMA-2.01	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
PT-SMA-3	Berms	3	—	X	X	—	X	X	X	X
	Channel/Swale	3	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
PT-SMA-4.2	Channel/Swale	2	X	—	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	—	X				
W-SMA-1	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	2	X	—	X	X				
	Cap	1	X	—	—	—				
	Check Dam	3	—	X	X	X				
	Sediment Traps and Basins	1	—	X	—	X				
W-SMA-1.5	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	3	X	—	—	X				
	Check Dam	5	—	X	X	X				
	Sediment Traps and Basins	2	—	X	—	X				
W-SMA-2.05	Berms	2	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
W-SMA-3.5	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	—	X				
	Check Dam	1	—	X	—	X				
	Berms	3	—	X	X	—				
W-SMA-4.1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	2	—	X	X	X				
W-SMA-5	Channel/Swale	2	X	—	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	1	—	X	X	—				
	Check Dam	14	—	X	X	X				
W-SMA-6	Established Vegetation	1	X	—	—	X	X	X	X	X
	Seed and Mulch	1	X	—	—	—				
	Berms	2	—	X	—	X				
W-SMA-7	Established Vegetation	1	X	—	—	X	X	X	X	X
	Cap	1	—	—	X	—				
	Check Dam	5	—	X	—	X				
	Seed and Mulch	1	X	—	—	—				
	Berms	6	—	X	X	X				
W-SMA-7.8	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Check Dam	4	—	X	X	X				
W-SMA-7.9	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
W-SMA-8	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	X	X				
W-SMA-8.7	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	3	—	X	X	X				
	Berms	1	—	X	—	X				
W-SMA-8.71	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
W-SMA-9.05	Berms	3	—	X	X	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
W-SMA-9.5	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
W-SMA-9.7	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	2	—	X	X	—				
	Berms	5	—	X	X	X				
W-SMA-9.8	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
W-SMA-9.9	Berms	5	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
W-SMA-10	Berms	6	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	2	X	—	X	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
W-SMA-11.7	Berms	11	—	X	X	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
W-SMA-12.05	Berms	3	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	1	—	X	—	X				
W-SMA-14.1	Berms	5	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
	Check Dam	5	—	X	X	X				
W-SMA-15.1	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
A-SMA-1.1	Berms	1	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
A-SMA-2	Berms	16	—	X	X	—	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	1	X	—	X	—				
A-SMA-2.5	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
A-SMA-2.7	Berms	4	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
A-SMA-2.8	Berms	1	—	X	—	X	X	X	X	X
	Seed and Mulch	1	X	—	—	—				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
A-SMA-3	Established Vegetation	1	X	—	—	X	X	X	X	X
	Channel/Swale	1	X	—	X	—				
	Berms	1	—	X	X	—				
	Check Dam	6	—	X	—	X				
A-SMA-3.5	Established Vegetation	1	X	—	—	X	X	X	X	X
	Berms	2	—	X	—	X				
A-SMA-4	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	X	X				
A-SMA-6	Channel/Swale	2	X	—	—	X	X	X	X	X
	Berms	1	—	X	—	X				
	Established Vegetation	1	X	—	—	X				
	Check Dam	13	—	X	X	X				
CHQ-SMA-0.5	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	X	—				
	Channel/Swale	2	—	X	X	—				
CHQ-SMA-1.01	Berms	5	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CHQ-SMA-1.02	Cap	1	X	—	—	—	X	X	X	X
	Berms	4	—	X	X	X				
	Check Dam	4	—	X	X	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
CHQ-SMA-1.03	Cap	1	X	—	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	4	X	—	X	X				
	Check Dam	4	—	X	—	X				
CHQ-SMA-2	Berms	6	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	2	X	—	X	—				
	Check Dam	8	—	X	X	X				
CHQ-SMA-3.05	Berms	3	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
CHQ-SMA-4	Berms	2	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	3	—	X	—	X				
CHQ-SMA-4.1	Established Vegetation	1	X	—	—	X	X	X	X	X
	Check Dam	2	—	X	—	X				
	Berms	2	—	X	X	—				
CHQ-SMA-4.5	Berms	5	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	2	—	X	—	X				
CHQ-SMA-5.05	Berms	1	—	X	—	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Channel/Swale	3	X	—	X	X				
	Check Dam	1	—	X	—	X				

Table IV-2 (continued) Structural and Nonstructural Controls by SMA

SMA	Structural Controls		Purpose of Structural Control				Nonstructural Controls			
	Type of Control Measure	Quantity of Control Measures	Erosion Control	Sediment Control	Run-on Control	Runoff Control	SDPPP	Employee Training	Visual Inspections	Preventive Maintenance
CHQ-SMA-6	Berms	4	—	X	X	X	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Berms	3	—	X	X	—				
	Check Dam	13	—	X	X	X				
CHQ-SMA-7.1	Berms	2	—	X	X	—	X	X	X	X
	Established Vegetation	1	X	—	—	X				
	Check Dam	1	—	X	—	X				

[a] X = Applicable.

[b] — = Not applicable.

NPDES FORM 2F SECTION V – NON–STORM WATER DISCHARGES

Introduction

NPDES Form 2F Section V, included following this introduction, requests an assessment of non–storm water discharges, including a description of the method used, the date of any testing, the on-site drainage points that were directly observed during a test, and a certification of non–storm water discharges. Unlike a typical facility subject to an Individual Permit, the source of the significant industrial materials exposed to storm water is the historical activity that caused the Site to be identified as a SWMU or AOC in the 1990 SWMU report. That is, the potential historical releases at a Site are the "industrial activity" that creates a "point source." Therefore, the co-Permittees have not used smoke tests, fluorometric dyes tests, or other tests that would be used at a more typical facility.

Additional data provided for this section cannot be fully incorporated into the standard Form 2F Section V format. To best present the requested information and to provide additional pertinent detail, Table V-1 was developed and is included in this section following Form 2F.

The reported information includes non–storm water discharges released by the Laboratory that are not otherwise permitted by EPA. These discharges include potable water, fire suppression water, and steam condensate. Because of the nature of discharges, testing was not completed but the events were reported to NMED, and the current status of each event is included in the information provided. Table V-1 identifies both the nearest downstream SMA and Site and the approximate distance from the non–storm water discharge.

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

V. Non Stormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name of Official Title *(type or print)*	Signature	Date Signed
Jeff Mousseau/Director ADEP Kim Davis Lebak/DOE Site Manager	Jeff Mousseau Kim Davis Lebak	3/25/2014 3/26/14

B. provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

See SECTION V, TABLE V-1, VOLUME 2

Table V-1
Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
7/21/2011	Potable Water – Fire Suppression	~1000	TA-3-1400	S-SMA-0.25	03-013(a) 03-052(f)	Fire suppression water discharged following a breach in the fire suppression system during a facility elevator test. The water entered Sandia Canyon via a storm drain east of the Pajarito and Mercury intersection via sheet flow across pavement. No erosion or sediment transport was evident. The discharged water flowed into S-SMA-0.25. S-SMA-6 is located >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by NMED SWQB on August 5, 2011.
				S-SMA-6	72-001	
9/1/2011	Potable Water	~4000	TA-46 South of Bldg. 76	CDB-SMA-1	46-003(c) 46-004(d2) 46-004(f) 46-004(t) 46-004(w) 46-008(g) 46-009(a) C-46-001	Potable water discharged to an unnamed tributary to Cañada del Buey from a failed pressure relief valve. No erosion or sediment transport was evident. The release occurred in CDB-SMA-1. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on January 20, 2012.
10/24/2011	Steam Condensate	~50,000	TA-3 Manhole #1034	S-SMA-6	72-001	A steam condensate leak occurred at TA-3 manhole 1034. The condensate was pumped from the manhole to an adjacent storm water detention pond to prevent an uncontrolled release of condensate. The leak repair was postponed to October 29, 2011 after traffic and safety concerns had been adequately addressed. No erosion or sediment transport was evident. S-SMA-6 is located >4 miles downstream from the area. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by NMED GWQB on February 10, 2012.

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
11/25/2011	Potable Water	~10,500	TA-48-1	M-SMA-3	48-001 48-005 48-007(c)	A potable water line broke near the TA-48 Building 1 main entrance. Water discharged to the north and south along the west TA-48 access road into Mortandad Canyon via two locations (one on the north and one on the east side of TA-48). On the north side of TA-48, most of the discharge flowed along a utility service road and down the slope into Mortandad Canyon through a diversion berm and rock run-down. The north flowpath was through M-SMA-3. The east discharge was across M-SMA-4. M-SMA-12.92 is located >10,000 feet downstream from this area. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on December 14, 2011.
				M-SMA-4	48-001 48-005 48-007(a) 48-007(d) 48-010	
				M-SMA-12.92	00-001	
12/14/2011	Potable Water	~11,000	TA-60-1	S-SMA-3.6	60-007(b)	Potable water was discharged during Preventive Maintenance excavation activities damaged an 8-in. potable water line. The water discharged from the excavation as sheet flow over pavement and entered a storm water conveyance to Sandia Canyon. No erosion or sedimentation transport was evident. The discharge flowed through S-SMA-3.6. S-SMA-6 is located >3 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on 12/22/2011.
				S-SMA-6	72-001	
12/23/2011	Steam Condensate	~20,000	TA-3-66	M-SMA-1.21	03-049(e)	A steam condensate leak occurred at TA-03 building 66 between two steam pits. On December 28, 2011, the condensate release was identified in Mortandad Canyon. On December 30, 2011, a temporary diversion to the TA-46 Sanitary Waste Water System was completed which intercepted the discharge. Erosion or sediment transport was not evident. The discharge flowed through M-SMA-1.21. M-SMA-12.92 is located >2.5 miles downstream from this area. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on January 10, 2012.
				M-SMA-12.92	00-001	

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
2/22/2012	Potable Water	5000–10,000	TA-3-1498	S-SMA-0.25	03-013(a) 03-052(f)	Potable water discharged from a damaged water valve in the heat exchange unit. At the time, the heat exchange unit was identified as Outfall 03A199, not associated with TA-3-1498. The released water followed a flow path parallel to the cooling tower outfall line into Sandia Canyon via BMPs. No erosion or sediment transport was evident. This water flowed through S-SMA-0.25. S-SMA-6 is located >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on March 1, 2012.
				S-SMA-6	72-001	
8/9/2012	Potable Water	~18,000	TA-3-29	M-SMA-1	03-050(a) 03-054(e)	Potable water discharged from a waterline break at TA-03 building 29. The water flowed into Mortandad and Sandia Canyons via nearby storm drains. Minimal eroded areas were observed where the break occurred, but sediment was transported downslope by the flow. Sediment along Diamond Drive was removed on August 10–11, 2012 and sediment along Grable Road and TA-03 building 223 was removed on August 22, 2012. The water flowed through M-SMA-1 to Mortandad Canyon. M-SMA-12.92 is located >2.5 miles downstream. Some of the flow was conveyed through S-SMA-2 to Sandia Canyon. S-SMA-6 is located >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on August 23, 2012.
				M-SMA-12.92	00-001	
				S-SMA-2	03-012(b) 03-045(b) 03-045(c) 03-056(c)	
				S-SMA-6	72-001	

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
9/18/2012	Potable Water	~2000	TA-3-29	S-SMA-2	03-012(b) 03-045(b) 03-045(c) 03-056(c)	Potable water discharged from a 2-in. supply line break within an aboveground valve box. The water flowed via sheet flow to the north along the asphalt paved area to an unnamed storm drain that empties to the existing drainage channel within S-SMA-2, northeast of the Diamond Eniwetok intersection near Grable Road. Some water also flowed into a steam condensate manhole that was part of an active line replacement project. Limited erosion and sedimentation was apparent during the discharge. Less than 1 yd^3 of sediment was evident on the asphalt paving and within the storm drain pipe. Crews discharged the accumulated water from the manhole; some of the water flowed down Grable Road terminating in Sandia Canyon. A silt sock was employed to prevent discharge of sediment. Erosion was not observed along Grable Road or within Sandia Canyon. The release flowed through S-SMA-2. S-SMA-6 is located a >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on October 10, 2012.
				S-SMA-6	72-001	
9/27/2012	Potable Water	~7200	TA-3-66	M-SMA-1.21	03-049(e)	Potable water discharged from a break in a 6-in. cast iron main line. No adverse impacts occurred to storm drains. Minimal erosion and sediment transport was observed near the fence on the south side of the facility. The line was repaired on September 28, 2012. This water flowed through M-SMA-1.21, M-SMA-1.22 and M-SMA-1.2. M-SMA-12.92 is located >2.5 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on October 9, 2012.
				M-SMA-1.22	03-045(h)	
				M-SMA-1.2	03-049(a)	
				M-SMA-12.92	00-001	

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
1/8/2013	Potable Water	~26,000	TA-3-132	S-SMA-0.25	03-013(a) 03-052(f)	Potable water discharged from a waterline. Repairs were completed on January 10, 2013. The release included approximately 16,000 gal. Water that reached Sandia Canyon was confined to the channel. Erosion or sediment transport was not observed. On January 13, 2013, another leak was discovered in the potable waterline down gradient of the initial leak. The release was approximately 10,000 gal. Erosion or sediment transport was not observed. The line was repaired on January 14, 2013. During both events, the discharge waters flowed through S-SMA-0.25. S-SMA-6 is located >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on January 28, 2013.
				S-SMA-6	72-001	
1/12/2013	Nonpotable Water- Fire Suppression	~6500	TA-35-455	M-SMA-6	35-016(h)	Approximately 5,500 gallon of nonpotable water discharged from a 1-in. fire suppression line rupture. The TA-35 fire suppression tank and distribution system is served by the Los Alamos County potable water system which is considered a nonpotable water system. Erosion or sediment transport was not evident; however, water appeared to freeze as it flowed from the building. Some of the water reached a storm drain that enters Mortandad Canyon. The release flowed from the building to the northwest and stayed on the east side of the dirt access road and flowed over a portion of M-SMA-6. The release was stopped within 45 min and repairs to the TA 35-455 fire suppression system were completed on January 14, 2013. A subsequent release (approximately 1000 gal.) was discovered at the TA-35-88 Fire Pump House. No erosion or sedimentation transport was evident and it did not reach the nearest watercourse (Ten Site Canyon). M-SMA-12.92 is located >8,000 feet downstream from both locations. This release was reported to NMED and a request for closure was submitted on December 16, 2013.
				M-SMA-12.92	00-001	

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
3/7/2013	Potable Water	~200	TA-3-1698	M-SMA-1	03-050(a) 03-054(e)	Potable water discharged from a temporary closed loop cooling tower resulting from a faulty float valve. The water flowed from the cooling tower into a secondary containment structure. Approximately 200 gal. of water breached the secondary containment, entered a storm drain, and discharged to Mortandad Canyon. Erosion or sediment transport was not evident. A pump truck removed the residual water from the site and delivered it to the TA-46 Sanitary Waste Water System (SWWS). The release flowed through M-SMA-1. M-SMA-12.92 is located >2.5 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on March 18, 2013.
				M-SMA-12.92	00-001	
7/7/2013	Potable Water	~600,000	TA-53-3	S-SMA-5.2	20-003(c)	Potable water discharged from a water line break following an electrical outage to the facility caused by a lightning strike. The tank levels indicated the release may have been as much as 600,000 gal. The line was repaired. Moderate erosion and sediment transport was observed on the south side of La Mesita Road. The subject area was repaired using base course by July 19, 2013 and the sediment returned to where it originated. The water flowed into Sandia Canyon and to S-SMA-5.2. S-SMA-6 is located ~2,000 feet downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on August 7, 2013.
				S-SMA-6	72-001	
7/7/2013	Potable Water	~4350	TA-3-32	S-SMA-2	03-012(b) 03-045(b) 03-045(c) 03-056(c)	Potable water discharged via a water line break connected to a fire riser located underneath building 32. The line was isolated and repairs were completed by August 8, 2013. Water flowed into a nearby storm drain and to Sandia Canyon. No erosion or sediment transport was evident. This water flowed through S-SMA-2. S-SMA-6 is located >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on October 29, 2013.
				S-SMA-6	72-001	

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
8/18/2013	Potable Water	~10,000	TA-3-66	M-SMA-1.2 M-SMA-12.92	03-049(a) 00-001	Potable water discharged via an emergency cooling water system valve. TA-03 structure 66 experienced an unplanned facility power outage resulting from a lightning strike in the area. The power outage caused the cooling water circulation pumps to fail causing the emergency cooling water system valve to open, resulting in a discharge from outfall 03A022 (022). The water flowed through a vegetated drainage to Mortandad Canyon. Minimal erosion and sediment transport was observed near the pipe. Rock was installed near the pipe to reduce the potential for future erosion. The release flowed through M-SMA-1.2 with M-SMA-12.92 located >2.5 miles downstream. This release was reported to NMED and a request for closure was submitted to NMED on November 26, 2013.
11/25/2013	Potable Water	~6600	TA-63-111	M-SMA-12.92	00-001	Potable water discharged from a waterline break located in the parking lot north of TA-63 building 111. The water line was shut down on the morning of November 26, 2013. Water flowed across the parking lot and down gradient into Ten Site Canyon. Repairs to the waterline were completed on November 27, 2013. There did not appear to be any erosion or sediment transport as a result of the release. M-SMA-12.92 is located >6,000 feet downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on December 16, 2013.
11/30/2013	Potable Water	~3500	TA-3-66	S-SMA-2.01 S-SMA-6	03-052(b) 72-001	A potable water leak was discovered from a waterline near TA-03 building 66. The water was discharging at an estimated rate of 20–30 gallons per minute. It entered a storm water drainage system and detention pond that drains to upper Sandia Canyon. There did not appear to be any erosion or sediment transport as a result of the release. This water flowed through S-SMA-2.01 and S-SMA-6 is located >4 miles downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on December 17, 2013.

Table V-1 (continued) Non–Storm Water Discharges

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
12/13/2013	Potable Water	~7500	TA-16-202	W-SMA-1.5	16-026(b2) 16-028(d)	Potable water discharged from a failed post indicator valve near TA-16 building 202. The water flowed south from building 202 into a storm water conveyance and detention pond. Erosion and sediment transport was not observed from the release and it did not reach Water Canyon. The released waters flowed into W-SMA-1.5 and appear to have been retained and infiltrated at Permitted Feature W00206010016 (berm). The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by SWQB on December 18, 2013.
2/6/2014	Suspected Steam Condensate	Unknown	TA-3-1612	2M-SMA-2	03-054(b)	A suspected steam condensate leak was discovered at TA-03 southwest of building 1612 on February 6, 2014. The source of the leak is currently being determined. Upon completing this determination repairs will be completed. The observed flow rate varies between ½ - 2 gallons per minute. The discharge flowed through 2M-SMA-2. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC.

NPDES FORM 2F SECTION VI – SIGNIFICANT LEAKS OR SPILLS

Introduction

NPDES Form 2F Section VI, included following this introduction, requests information regarding the history of significant leaks or spills of toxic or hazardous pollutants in the past 3 years.

Additional data provided for this section cannot be fully incorporated into the standard Form 2F Section VI format. To best present the requested information and provide additional pertinent detail, Table VI-1 was developed and is included in this section following Form 2F.

Table VI-1 contains information on liquid release information from March 1, 2011, to March 1, 2014, including the date of occurrence, type of release, location, and comments.

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

See SECTION VI, TABLE VI-1, VOLUME 2

Table VI-1
Significant Leaks or Spills

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
10/26/2010	Diesel Fuel	~10	TA-53-939	LA-SMA-10.11	53-002(a)	Diesel fuel was released from a tank on a trailer mounted generator. LANL Emergency Response and HAZMAT removed diesel fuel and impacted plants and soil from the impacted area. The asphalt was sprayed with Microblaze. During a site visit on April 26, 2011, diesel fumes were noted in the area of the release. Investigation indicated that the underlying soils had been impacted by the release. Following completion of site safety and security protocols, excavation of the impacted area began on June 8, 2011. Excavation and cleanup of impacted material was completed on September 15, 2011. The discharge appeared to be within the boundary of Site 53-008. The release was on asphalt and did not reach a storm drain or watercourse. The spill occurred within the Site 53-008 boundary, located southeast of building 939. SMA boundaries for LA-SMA-10.12 and LA-SMA-10.11 are farther south of the area. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by GWQB on November 9, 2011.
				LA-SMA-10.12	53-008	
8/18/2011	Gear Lubricant	~10	TA-3	M-SMA-12.92	00-001	A drum tipped over in a LANL subcontractor truck bed discharging approximately 10 gal. of gear lubricant (Product Numbers CPS224503, CPS224504). The lubricant was released into the truck bed, the Diamond Drive and Pajarito Road road surface, and the NMSSUP laydown yard. LANL's HAZMAT crew sprayed the impacted road surface with Microblaze. Standing liquids were removed with absorbent at two stop lights. An emergency liquid spill control kit was used at the construction site to remove released lubricant from the laydown yard. Remaining oil was removed from the truck. Impacted areas within the laydown yard were also sprayed with Microblaze. No Sites or SMAs are associated with the NMSSUP laydown yard. M-SMA-12.92 is located >8000 ft downstream of this area. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by GWQB on November 9, 2011.

Table VI-1 (continued) Significant Leaks or Spills

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
1/3/2012	Diesel Fuel	~60	TA-60 Asphalt Batch Plant	M-SMA-12.92	00-001	A defective valve on a LANL-owned dump truck resulted in a release of approximately 60 gal. of diesel fuel to the asphalt surface next to the asphalt batch plant. After it was discovered, LANL Emergency Operations and HAZMAT crews responded to remediate the impacted area. Absorbent material was applied to the asphalt to remove standing liquid. Snowmelt run-on and runoff was managed through the installation of BMPs, including a base-course berm and spill pillows. The release did not appear to result in a discharge of diesel fuel with snowmelt. On January 5, 2012, facility staff removed impacted asphalt to be managed as waste. Confirmation samples taken from beneath the impacted asphalt showed detections below the appropriate NMED soil screening guidelines. M-SMA-12.92 is located >4500 ft downstream of this area. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by GWQB on May 18, 2012.
1/22/2013	Diesel Fuel	~419	TA-55 Structure 560	M-SMA-12.92	00-001	A diesel release was discovered at a monthly/semiannual inspection of the AST. Inspectors noticed staining on the ground on the west end of the AST. The stained soil emitted a diesel fuel odor. The panel box housing the AST monitoring system was in alarm for the skid sump sensor and building transition sump sensor. Review of system alarm tape indicated the leak started on or around January 9, 2013. Inspection by Emergency Operations of the local storm drains found no evidence of diesel fuel within the drain system. The sump contained diesel fuel that appeared to be dripping from a line coupling within the sump. The transition sump also contained diesel fuel. Residual diesel in the sumps was removed. The leak originated from a seam within the skid sump. Tank records indicate a volume of 419 gal. of diesel was released. Cleanup was initiated on January 22, 2013, and approximately 5 yd^3 of impacted soil was removed and disposed. BMPs, including backfilling of the area and placement of Microblaze were implemented to prevent potential storm water contact with the impacted soil. M-SMA-12.92 is located >8500 ft downstream. This release was reported to NMED and the NMED – Petroleum Storage Tank Bureau has approved a drilling plan for identifying the nature and extent of the release.

Table VI-1 (continued) Significant Leaks or Spills

Occurrence Date	Type of Release	Amount (gal.)	Location	Nearest Downstream SMA(s)	Nearest Downstream Site(s)	Additional Information
8/28/2013	Hydraulic Fluid	~20	TA-60 Eniwetok Road	M-SMA-12.92	00-001	A hydraulic fluid leak occurred within the boundary of TA-60 along Eniwetok Road. The leak originated from a recalled part on a piece of heavy equipment. An estimated 20 gal. of hydraulic fluid was released. The impacted asphalt was remediated with Microblaze. The impacted base course was removed and disposed. The release was confined to the driving surface and did not reach a watercourse. M-SMA-12.92 is located >6000 ft downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by DOE-OB on September 5, 2013.
8/29/2013	Anti-freeze	<50	TA-50-188	M-SMA-12.92	00-001	On August 29, 2013, during a preventive maintenance procedure on a diesel generator, an antifreeze release occurred when a hose failed. Approximately 125 gal. of 50/50 prediluted blend of ES Compleat Organic Technology was released. Less than 50 gal. of the antifreeze was released outside the building. Mechanics immediately shut down the generator and closed the valves to isolate the broken hose and minimize the release volume. The mechanics also deployed a spill kit in a nearby drainage channel to prevent the material from discharging off-site. Emergency Operations responded and remediated the impacted area with Sorb-All, a tertiary application of Microblaze was applied to the residual material that could not be removed with Sorb-All. M-SMA-12.92 is located >8000 ft downstream. The incident was reported to NMED pursuant to 20.6.2.1203 NMAC and was administratively closed by GWQB on February 14, 2014.

NPDES FORM 2F SECTION VII – DISCHARGE INFORMATION

INTRODUCTION

NPDES Form 2F Section VII requires the co-Permittees to collect and report data on the pollutants discharged in each outfall. Unlike a typical facility subject to an individual permit, the source of the significant industrial materials exposed to storm water is the historical activity that caused the Site to be identified as a SWMU or AOC. That is, the potential historical releases at a Site are the "industrial activity" that creates a "point source discharge." The Individual Permit specifies sampling and analytical requirements that are tailored to this unique permit. As a result, several of the requirements in Section VII of Form 2F do not apply to sampling performed under the Individual Permit.

Additional data provided for this section cannot be fully incorporated into the Form 2F Section VII format. To best present the requested information and provide additional pertinent detail, Tables VII-1 through VII-141 were prepared to provide the discharge information required in Section VII.

Part A

Flow-weighted composite samples are not collected under the Individual Permit. Analysis of the parameters in Part A is not required for grab samples collected under the Individual Permit. The completed information is reported in Tables VII-2 through VII-141.

Part B

Part B requests a list of each pollutant the facility is subject to monitoring under the NPDES permit. Since the Sites are monitored by SMA, the storm water data are presented by SMA with the relevant Sites named in the table title. The SMAs and corresponding Sites for which no sample has been collected to date are listed in Table VII-1.

Concentrations of constituents present in the grab samples taken during the first 30 minutes of the storm event are reported in Tables VII-2 through VII-141 and the sources of pollutants are described in Section IV, Part B, Site Narratives. Flow-weighted composite samples and average values are not applicable.

Grab samples are collected using automated ISCO samplers that continuously collect storm water runoff at each SMA sampling location. A liquid level actuator and intake tubing are set in the most optimal location to collect a representative sample: approximately 0.1 ft above the flow path. Per Section D.3 of the IP, the sampler is programmed to trigger as soon as discharge occurs to collect a sample during the first portion of a storm event. Per Section D.3 of the IP, partial samples are not retrieved for processing and analysis if the collected volume is not sufficient to satisfy the Site monitoring requirements for each Site listed in Appendix B.

Only rainfall runoff is collected and retrieved; samplers are not activated during the winter to avoid collecting snowmelt runoff. Storm water samples are processed in a clean facility to avoid field contamination and are analyzed by the contract laboratories listed in Section IX of this application, consistent with 40 CFR Part 136 test methods.

Part C

Part C is not applicable.

Part D

Part D is not applicable. No flow-weighted composite samples are collected under the Individual Permit.

Part E

Part VII-E is not applicable because pollutants from Sites monitored under the Individual Permit are a result of historical activities and are not related to current manufacture or management of the toxic pollutants listed in Tables 2F-2, 2F-3, or 2F-4. No potential discharges are outside of the coverage of analysis performed by the contract laboratories listed in Section IX of this application. Part E is not included in Tables VII-2 through VII-141.

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

VII. Discharge Information

A,B,C, & D: See instruction before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables Vii-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

See SECTION VII, TABLES VII-1 through VII-141, VOLUME 2

Table VII-1
Sites without Discharge Information by SMA

SMA Number	Site Number
R-SMA-2.05	00-011(c)
R-SMA-2.5	00-011(a)
ACID-SMA-2.01	00-030(f)
P-SMA-1	73-001(a), 73-004(d)
P-SMA-2	73-002, 73-006
P-SMA-2.15	31-001
P-SMA-2.2	00-019
LA-SMA-0.9	00-017, C-00-044
LA-SMA-3.1	01-001(e), 01-003(a)
LA-SMA-3.9	01-001(g), 01-006(a)
LA-SMA-4.2	01-001(c), 01-006(c), 01-006(d)
LA-SMA-5.01	01-001(d), 01-006(h)
LA-SMA-5.2	01-003(d)
LA-SMA-5.361	32-002(b1), 32-002(b2)
LA-SMA-5.362	32-003
LA-SMA-5.52	02-003(b), 02-007, 02-008(c)
LA-SMA-5.53	02-009(a)
LA-SMA-6.25	21-021, 21-024(d), 21-027(c)
LA-SMA-6.27	21-021, 21-027(c)
LA-SMA-6.3	21-006(b)
LA-SMA-6.31	21-027(a)
LA-SMA-6.32	21-021
LA-SMA-6.34	21-021, 21-022(h)
LA-SMA-6.36	21-021, 21-024(a)
LA-SMA-6.38	21-021, 21-024(c)
LA-SMA-6.5	21-021, 21-024(i)
LA-SMA-9	26-001, 26-002(a), 26-002(b), 26-003
LA-SMA-10.11	53-002(a)
DP-SMA-0.6	21-021, 21-024(l)
DP-SMA-1	21-011(k), 21-021
DP-SMA-2	21-021, 21-024(h)
DP-SMA-4	21-021
S-SMA-2.8	03-014(c2)
S-SMA-3.51	03-009(i)
S-SMA-3.52	03-021
S-SMA-3.7	53-012(e)
S-SMA-3.71	53-001(a)
S-SMA-3.72	53-001(b)

Table VII-1 (continued) Sites without Discharge Information by SMA

SMA Number	Site Number
S-SMA-4.5	20-002(d)
S-SMA-5	20-002(c)
S-SMA-5.2	20-003(c)
S-SMA-5.5	20-005
CDB-SMA-0.15	04-003(a), 04-004
CDB-SMA-1.15	46-004(b), 46-004(y), 46-004(z), 46-006(d)
CDB-SMA-1.35	46-004(a2), 46-004(u), 46-004(v), 46-004(x), 46-006(d), 46-008(f)
CDB-SMA-1.54	46-004(h), 46-004(q), 46-006(d)
CDB-SMA-1.55	46-003(e)
CDB-SMA-1.65	46-003(b)
M-SMA-1.21	03-049(e)
M-SMA-3.1	48-001, 48-007(b)
M-SMA-3.5	48-001, 48-003
M-SMA-5	42-001(a), 42-001(b), 42-001(c), 42-002(a), 42-002(b)
M-SMA-9.1	35-016(f)
M-SMA-11.1	35-016(o)
M-SMA-12	35-016(p)
M-SMA-12.5	05-005(b), 05-006(c)
M-SMA-12.7	05-002, 05-005(a), 05-006(b), 05-006(e)
M-SMA-12.8	05-001(a), 05-002
M-SMA-12.9	05-001(b), 05-002
M-SMA-12.92	00-001
T-SMA-2.5	35-014(g3)
T-SMA-5	35-004(a), 35-009(a), 35-016(a), 35-016(q)
T-SMA-6.8	35-010(e)
T-SMA-7	04-003(b)
T-SMA-7.1	04-001, 04-002
2M-SMA-1.5	22-014(b)
3M-SMA-0.2	15-010(b)
3M-SMA-0.5	15-006(c), 15-009(c)
3M-SMA-0.6	15-008(b)
3M-SMA-2.6	36-008, C-36-003
3M-SMA-4	18-002(b), 18-003(c), 18-010(f)
PJ-SMA-2	09-009
PJ-SMA-6	40-010
PJ-SMA-7	40-006(c)
PJ-SMA-8	40-006(b)

Table VII-1 (continued) Sites without Discharge Information by SMA

SMA Number	Site Number
PJ-SMA-9	40-009
PJ-SMA-10	40-006(a)
PJ-SMA-13	18-002(a)
PJ-SMA-14	54-004
PJ-SMA-14.2	18-012(b)
PJ-SMA-14.3	18-003(e)
PJ-SMA-14.4	18-010(d)
PJ-SMA-14.6	18-010(e)
CDV-SMA-2.3	13-001, 13-002, 16-003(n), 16-003(o), 16-029(h), 16-031(h)
CDV-SMA-4	14-010
CDV-SMA-6.01	14-001(g), 14-006
CDV-SMA-8	15-011(c)
CDV-SMA-8.5	15-014(a)
CDV-SMA-9.05	15-007(b)
PT-SMA-2	15-008(f), 36-003(b), 36-004(e)
PT-SMA-3	36-004(a), 36-006
PT-SMA-4.2	36-004(d)
W-SMA-3.5	16-026(y)
W-SMA-4.1	16-003(a)
W-SMA-6	11-001(c)
W-SMA-7	16-029(e)
W-SMA-7.8	16-031(a)
W-SMA-7.9	16-006(c)
W-SMA-9.5	11-012(c)
W-SMA-9.8	11-005(c)
W-SMA-12.05	49-001(g)
A-SMA-1.1	39-004(a), 39-004(d)
A-SMA-2.5	39-010
A-SMA-2.8	39-001(b)
A-SMA-4	33-010(d)
CHQ-SMA-0.5	33-004(g), 33-007(c), 33-009
CHQ-SMA-1.01	33-002(d)
CHQ-SMA-4	33-011(e)
CHQ-SMA-5.05	33-007(b)
CHQ-SMA-7.1	33-010(g)

Table VII-2
R-SMA-0.5 (Site C-00-020) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00276 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**287 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**17.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-2 (continued) R-SMA-0.5 (Site C-00-020) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.66 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**12.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.15 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	0	n/a	2	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	0	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**36.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**4.83 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**10.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**5.93 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-2 (continued) R-SMA-0.5 (Site C-00-020) Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-3
R-SMA-1 (Site C-00-041) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00221 mg/L**	n/a	**0.00129 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**2010 µg/L**	n/a	**674 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Arsenic / As	**2.3 µg/L**	n/a	**1.4 µg/L**	n/a	2	See Section IV Part B
Boron / B	**24.2 µg/L**	n/a	**21.5 µg/L**	n/a	2	See Section IV Part B

Table VII-3 (continued) R-SMA-1 (Site C-00-041) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Chromium / Cr	**2.8 µg/L**	n/a	**1.67 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**3.6 µg/L**	n/a	**3.23 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**3.4 µg/L**	n/a	**3.14 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**44.4 mg/L**	n/a	**30.8 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**1.3 µg/L**	n/a	**0.974 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Nickel / Ni	**3.8 µg/L**	n/a	**2.82 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**9.1 µg/L**	n/a	**6.68 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**45.3 µg/L**	n/a	**22.9 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**51.1 pCi/L**	n/a	**32.8 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.69 pCi/L**	n/a	**0.305 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**6.42 pCi/L**	n/a	**3.92 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**5.73 pCi/L**	n/a	**3.44 pCi/L**	n/a	2	See Section IV Part B

Table VII-3 (continued) R-SMA-1 (Site C-00-041) Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-4
R-SMA-1.95 (Site 00-015) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide (Total) / CN(TOTAL)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**444 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-4 (continued) R-SMA-1.95 (Site 00-015) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**0.86 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**22.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.84 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**27.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.82 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.53 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.71 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-4 (continued) R-SMA-1.95 (Site 00-015) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-5
R-SMA-2.3 [Site 00-011(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.01 SU	Maximum: 6.01 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**14.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**14.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**3.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-5 (continued) R-SMA-2.3 [Site 00-011(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**232 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**5.98 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**303 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**25.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.35 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**9.69 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**34.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.29 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**9.42 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3.21 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-5 (continued) R-SMA-2.3 [Site 00-011(e)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**26.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**8.37 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.64 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.46 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**0.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-6

B-SMA-0.5 [Sites 10-001(a), 10-001(b), 10-001(c), 10-001(d), 10-004(a), 10-004(b), 10-008, and 10-009] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.19 SU	Maximum: 7.19 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**76.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**76.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.23 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-6 (continued) B-SMA-0.5 [Sites 10-001(a), 10-001(b), 10-001(c), 10-001(d), 10-004(a), 10-004(b), 10-008, and 10-009] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**8.21 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.87 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**485 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**17.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.71 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**54.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.49 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.46 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.88 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**2.82 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**4.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.98 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-6 (continued) B-SMA-0.5 [Sites 10-001(a), 10-001(b), 10-001(c), 10-001(d), 10-004(a), 10-004(b), 10-008, and 10-009] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Vanadium / V	**3.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**486 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**9.89 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**20.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**11.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-7
B-SMA-1 [Site 00-011(d)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.6 SU	Maximum: 6.6 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**9.42 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**9.42 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**6.33 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-7 (continued) B-SMA-1 [Site 00-011(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**13.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**502 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.36 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.26 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.63 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.11 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**2.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**4.26 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.65 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-7 (continued) B-SMA-1 [Site 00-011(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**4.41 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**126 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.05 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.27 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.22 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-8
ACID-SMA-1.05 [Site 00-030(g)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**101 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**20.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-8 (continued) ACID-SMA-1.05 [Site 00-030(g)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**12.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**13.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aldrin / 309-00-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
BHC[gamma-] / 58-89-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chlordane[alpha-] / 5103-71-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chlordane[gamma-] / 5103-74-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
DDD[4,4'-] / 72-54-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
DDE[4,4'-] / 72-55-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
DDT[4,4'-] / 50-29-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dieldrin / 60-57-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Endosulfan I / 959-98-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Endosulfan II / 33213-65-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Endrin / 72-20-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-8 (continued) ACID-SMA-1.05 [Site 00-030(g)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Heptachlor / 76-44-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Heptachlor Epoxide / 1024-57-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Toxaphene (Technical Grade) / 8001-35-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**5.89 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.15 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.06 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-9
ACID-SMA-2 [Sites 01-002(b)-00, 45-001, 45-002, and 45-004] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide (Total) / CN(TOTAL)	**0.00258 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**789 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-9 (continued) ACID-SMA-2 [Sites 01-002(b)-00, 45-001, 45-002, and 45-004] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**2.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**14.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**16.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**40.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.19 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-9 (continued) ACID-SMA-2 [Sites 01-002(b)-00, 45-001, 45-002, and 45-004] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-10
ACID-SMA-2.1 [Site 01-002(b)-00] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**428 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**21.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-10 (continued) ACID-SMA-2.1 [Site 01-002(b)-00] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**9.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.11 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**29.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.63 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.43 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.77 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**15.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**24.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.47 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.93 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-10 (continued) ACID-SMA-2.1 [Site 01-002(b)-00] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-11
P-SMA-0.3 [Site 00-018(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.32 SU	Maximum: 7.32 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**197 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**197 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**20.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.0042 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-11 (continued) P-SMA-0.3 [Site 00-018(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**51.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**9.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**299 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**7.76 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**41.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**38.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**5.35 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**9.01 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**122 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**6.23 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**39.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**4.67 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**14.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**10.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**13.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**11.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-11 (continued) P-SMA-0.3 [Site 00-018(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**8.36 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**28.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**42 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**55.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**13.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-12
P-SMA-3.05 [Site 00-018(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.13 SU	Maximum: 7.13 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**26.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**26.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-12 (continued) P-SMA-3.05 [Site 00-018(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**8.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**75.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**18.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**5.93 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.87 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**5.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**20.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.21 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.91 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**9.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.03 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.87 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-12 (continued) P-SMA-3.05 [Site 00-018(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**4.73 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**6.64 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-13
LA-SMA-0.85 [Site 03-055(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.43 SU	Maximum: 7.43 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**104 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**104 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**210 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00286 mg/L**	n/a	**0.00108 mg/L**	n/a	4	See Section IV Part B

Table VII-13 (continued) LA-SMA-0.85 [Site 03-055(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**51 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**16.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**4170 µg/L**	n/a	**934 µg/L**	n/a	4	See Section IV Part B
Antimony / Sb	**1.28 µg/L**	n/a	**0.632 µg/L**	n/a	4	See Section IV Part B
Arsenic / As	**2.4 µg/L**	n/a	**1.31 µg/L**	n/a	4	See Section IV Part B
Boron / B	**49.6 µg/L**	n/a	**30.2 µg/L**	n/a	4	See Section IV Part B
Cadmium / Cd	**0.35 µg/L**	n/a	**0.0874 µg/L**	n/a	4	See Section IV Part B
Calcium / Ca	**15.3 mg/L**	n/a	**13.9 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**8 µg/L**	n/a	**3.67 µg/L**	n/a	4	See Section IV Part B
Cobalt / Co	**3.8 µg/L**	n/a	**2.36 µg/L**	n/a	4	See Section IV Part B
Copper / Cu	**47.1 µg/L**	n/a	**27.1 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**47 mg/L**	n/a	**32.3 mg/L**	n/a	4	See Section IV Part B
Lead / Pb	**17.7 µg/L**	n/a	**3.12 µg/L**	n/a	4	See Section IV Part B
Magnesium / Mg	**2.17 mg/L**	n/a	**2.14 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	4	See Section IV Part B
Nickel / Ni	**10 µg/L**	n/a	**4.19 µg/L**	n/a	4	See Section IV Part B
Potassium / K	**29.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	4	See Section IV Part B
Silver / Ag	**0.43 µg/L**	n/a	**0.144 µg/L**	n/a	4	See Section IV Part B
Sodium / Na	**113 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	4	See Section IV Part B
Vanadium / V	**10.1 µg/L**	n/a	**7.14 µg/L**	n/a	4	See Section IV Part B

Table VII-13 (continued) LA-SMA-0.85 [Site 03-055(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**186 µg/L**	n/a	**82.1 µg/L**	n/a	4	See Section IV Part B
Gross alpha / GROSSA	**22.9 pCi/L**	n/a	**7.02 pCi/L**	n/a	4	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	4	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.65 pCi/L**	n/a	**0.867 pCi/L**	n/a	4	See Section IV Part B
Radium-228 / Ra-228	**2.01 pCi/L**	n/a	**0.767 pCi/L**	n/a	4	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-14
LA-SMA-1 (Sites 00-017 and C-00-044) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 8.08 SU	Maximum: 8.08 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**141 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**141 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**119 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide (Total) / CN(TOTAL)	**0.00773 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-14 (continued) LA-SMA-1 (Sites 00-017 and C-00-044) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**5.19 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**7.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**6510 µg/L**	n/a	**2280 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	**2.9 µg/L**	n/a	**1.57 µg/L**	n/a	2	See Section IV Part B
Boron / B	**51.8 µg/L**	n/a	**31.6 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	**0.23 µg/L**	n/a	**0.112 µg/L**	n/a	2	See Section IV Part B
Calcium / Ca	**13.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**3.8 µg/L**	n/a	**3.24 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**10.1 µg/L**	n/a	**4.69 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**7.8 µg/L**	n/a	**4.86 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**76.9 mg/L**	n/a	**56.2 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**42.1 µg/L**	n/a	**13.3 µg/L**	n/a	2	See Section IV Part B
Magnesium / Mg	**1.65 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.37 µg/L**	n/a	**0.105 µg/L**	n/a	2	See Section IV Part B
Nickel / Ni	**5.9 µg/L**	n/a	**2.83 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**22.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**4.94 µg/L**	n/a	**1.92 µg/L**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Sodium / Na	**80.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**6.6 µg/L**	n/a	**5.66 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**36.2 µg/L**	n/a	**15.3 µg/L**	n/a	2	See Section IV Part B

Table VII-14 (continued) LA-SMA-1 (Sites 00-017 and C-00-044) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Total PCB / 1336-36-3	**0.11 µg/L**	n/a	**0.0332 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**1800 pCi/L**	n/a	**884 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**4.86 pCi/L**	n/a	**3.99 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**14 pCi/L**	n/a	**11 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**9.16 pCi/L**	n/a	**7.02 pCi/L**	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-15
LA-SMA-1.1 [Site 43-001(b2)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide (Total) / CN(TOTAL)	**0.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**64.5 µg/L**	n/a	**44.2 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-15 (continued) LA-SMA-1.1 [Site 43-001(b2)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Boron / B	**64.1 µg/L**	n/a	**32 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	**4.1 µg/L**	n/a	**3.51 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**1.8 µg/L**	n/a	**1.47 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**26.6 µg/L**	n/a	**14.4 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**42.3 mg/L**	n/a	**33.4 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.57 µg/L**	n/a	**0.377 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**2.2 µg/L**	n/a	**1.88 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**3.3 µg/L**	n/a	**2.69 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**162 µg/L**	n/a	**73.1 µg/L**	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**32.6 pCi/L**	n/a	**9.89 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**1.6 pCi/L**	n/a	**1.09 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.56 pCi/L**	n/a	**2.26 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**1.25 pCi/L**	n/a	**0.762 pCi/L**	n/a	2	See Section IV Part B

Table VII-15 (continued) LA-SMA-1.1 [Site 43-001(b2)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-16
LA-SMA-1.25 (Site C-43-001) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**81.3 µg/L**	n/a	**55.5 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**2.7 µg/L**	n/a	**1.16 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**3 µg/L**	n/a	**1.6 µg/L**	n/a	2	See Section IV Part B
Boron / B	**86 µg/L**	n/a	**36.6 µg/L**	n/a	2	See Section IV Part B

Table VII-16 (continued) LA-SMA-1.25 (Site C-43-001) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.16 µg/L**	n/a	**0.0938 µg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**20.3 µg/L**	n/a	**4.51 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**3.8 µg/L**	n/a	**1.38 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**33.3 µg/L**	n/a	**17 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**101 mg/L**	n/a	**50.9 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.62 µg/L**	n/a	**0.394 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**9.8 µg/L**	n/a	**4.54 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**16 µg/L**	n/a	**4.2 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**112 µg/L**	n/a	**92.1 µg/L**	n/a	4	See Section IV Part B
Gross alpha / GROSSA	**7.25 pCi/L**	n/a	**6.43 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.76 pCi/L**	n/a	**0.418 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.72 pCi/L**	n/a	**1.09 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**0.95 pCi/L**	n/a	**0.665 pCi/L**	n/a	2	See Section IV Part B

Table VII-16 (continued) LA-SMA-1.25 (Site C-43-001) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-17
LA-SMA-2.1 [Site 01-001(f)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.29 SU	Maximum: 6.29 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**7.85 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**7.85 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**6.25 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00206 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**35.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-17 (continued) LA-SMA-2.1 [Site 01-001(f)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**4.57 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**359 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**4.31 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**45.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**5.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**11.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**18.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.43 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**14 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**7.73 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.81 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**26.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**21.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-17 (continued) LA-SMA-2.1 [Site 01-001(f)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Gross alpha / GROSSA	**125 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.54 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.59 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.05 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-18
LA-SMA-2.3 [Site 01-001(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00183 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**112 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-18 (continued) LA-SMA-2.3 [Site 01-001(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**11.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**9.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**74.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**8.05 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**7.75 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-18 (continued) LA-SMA-2.3 [Site 01-001(b)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-19
LA-SMA-4.1 [Sites 01-003(b) and 01-006(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**23.8 µg/L**	n/a	**21.5 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**43.7 µg/L**	n/a	**31.1 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**16.2 µg/L**	n/a	**11 µg/L**	n/a	2	See Section IV Part B

Table VII-19 (continued) LA-SMA-4.1 [Sites 01-003(b) and 01-006(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.6 µg/L**	n/a	**2.34 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**6.7 µg/L**	n/a	**5.96 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**39 mg/L**	n/a	**31.5 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.2 µg/L**	n/a	**0.856 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**2.6 µg/L**	n/a	**2.55 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**32.7 µg/L**	n/a	**32.1 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.06 µg/L**	n/a	**0.022 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**111 pCi/L**	n/a	**32.7 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.81 pCi/L**	n/a	**0.961 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4 pCi/L**	n/a	**1.62 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**2.19 pCi/L**	n/a	**1.02 pCi/L**	n/a	2	See Section IV Part B

Table VII-19 (continued) LA-SMA-4.1 [Sites 01-003(b) and 01-006(b)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-20
LA-SMA-5.02 [Site 01-003(e)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**131 µg/L**	n/a	**81.6 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**29.6 µg/L**	n/a	**21.3 µg/L**	n/a	2	See Section IV Part B

Table VII-20 (continued) LA-SMA-5.02 [Site 01-003(e)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.13 µg/L**	n/a	**0.0846 µg/L**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.6 µg/L**	n/a	**1.84 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**4.9 µg/L**	n/a	**4.26 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**29.6 mg/L**	n/a	**22.8 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	**1.14 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**2.6 µg/L**	n/a	**2.39 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**10.1 µg/L**	n/a	**8.65 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.1 µg/L**	n/a	**0.0548 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**19.7 pCi/L**	n/a	**5.44 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.71 pCi/L**	n/a	**1.09 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**1.54 pCi/L**	n/a	**0.818 pCi/L**	n/a	2	See Section IV Part B

Table VII-20 (continued) LA-SMA-5.02 [Site 01-003(e)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-21
LA-SMA-5.31 [Site 41-002(c)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**361 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**32 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-21 (continued) LA-SMA-5.31 [Site 41-002(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**5.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**49.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**12.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**86 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.29 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**6.33 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**5.04 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-21 (continued) LA-SMA-5.31 [Site 41-002(c)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-22
LA-SMA-5.33 (Site 32-004) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**115 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**21.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-22 (continued) LA-SMA-5.33 (Site 32-004) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**50.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**5.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**100 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.45 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.95 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-22 (continued) LA-SMA-5.33 (Site 32-004) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-23
LA-SMA-5.35 (Site C-41-004) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.01 mg/L**	n/a	**0.00274 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**504 µg/L**	n/a	**93.6 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Arsenic / As	**3.7 µg/L**	n/a	**2.65 µg/L**	n/a	2	See Section IV Part B
Boron / B	**22.9 µg/L**	n/a	**13.1 µg/L**	n/a	2	See Section IV Part B

Table VII-23 (continued) LA-SMA-5.35 (Site C-41-004) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Cobalt / Co	**3.5 µg/L**	n/a	**1.32 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**5.9 µg/L**	n/a	**4.67 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**40.2 mg/L**	n/a	**38.8 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.63 µg/L**	n/a	**0.397 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Nickel / Ni	**1.7 µg/L**	n/a	**1.04 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**4.7 µg/L**	n/a	**1.53 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**21.8 µg/L**	n/a	**6 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**874 pCi/L**	n/a	**100 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**23.9 pCi/L**	n/a	**2.44 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**43.9 pCi/L**	n/a	**9.76 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**20 pCi/L**	n/a	**5.92 pCi/L**	n/a	2	See Section IV Part B

Table VII-23 (continued) LA-SMA-5.35 (Site C-41-004) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-24
LA-SMA-5.51 [Sites 02-003(a), 02-003(e), 02-004(a), 02-005, 02-006(b), 02-006(c), 02-006(d), 02-006(e), 02-008(a), 02-009(b), 02-011(a), 02-011(b), 02-011(c), and 02-011(d)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.8 SU	Maximum: 7.8 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**104 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**104 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-24 (continued) LA-SMA-5.51 [Sites 02-003(a), 02-003(e), 02-004(a), 02-005, 02-006(b), 02-006(c), 02-006(d), 02-006(e), 02-008(a), 02-009(b), 02-011(a), 02-011(b), 02-011(c), and 02-011(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**15.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**8.39 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total Suspended Solids / TSS	**17700 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**306 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**27.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**29.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**4.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**87.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.73 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**2.39 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.43 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**8.73 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**3.55 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3.97 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.92 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-24 (continued) LA-SMA-5.51 [Sites 02-003(a), 02-003(e), 02-004(a), 02-005, 02-006(b), 02-006(c), 02-006(d), 02-006(e), 02-008(a), 02-009(b), 02-011(a), 02-011(b), 02-011(c), and 02-011(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.05 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**92.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**5.75 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**14.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**8.53 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-25
LA-SMA-5.54 [Site 02-009(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.81 SU	Maximum: 7.81 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**44 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**44 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.0019 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**6.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-25 (continued) LA-SMA-5.54 [Site 02-009(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**57.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**115 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**16.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**31.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.56 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**92.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.27 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**5.92 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.05 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-25 (continued) LA-SMA-5.54 [Site 02-009(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Gross alpha / GROSSA	**356 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.81 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.91 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-26
LA-SMA-5.91 [Sites 21-009, 21-021, 21-023(c), and 21-027(d)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**41.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**27.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-26 (continued) LA-SMA-5.91 [Sites 21-009, 21-021, 21-023(c), and 21-027(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**199 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**92.6 pCi/L**	n/a	**38.1 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.77 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**6.83 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**5.06 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-26 (continued) LA-SMA-5.91 [Sites 21-009, 21-021, 21-023(c), and 21-027(d)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-27
LA-SMA-5.92 [Sites 21-013(b), 21-013(g), 21-018(a), and 21-021] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.27 SU	Maximum: 7.27 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**56.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**56.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**39 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-27 (continued) LA-SMA-5.92 [Sites 21-013(b), 21-013(g), 21-018(a), and 21-021] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**34.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**19.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total Suspended Solids / TSS	**18300 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**244 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.87 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**32.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**33.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**7.42 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**8.32 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**105 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**4.98 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**2.89 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**5.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**10.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**7.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-27 (continued) LA-SMA-5.92 [Sites 21-013(b), 21-013(g), 21-018(a), and 21-021] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Vanadium / V	**4.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**3.45 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**264 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**14.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**24.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**9.87 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-28
LA-SMA-6.395 [Sites 21-021 and 21-024(j)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.53 SU	Maximum: 6.53 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**24.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**24.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.88 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.0033 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-28 (continued) LA-SMA-6.395 [Sites 21-021 and 21-024(j)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**15.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**637 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**22.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**8.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**26.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.33 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.63 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.52 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.18 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**3.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.63 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-28 (continued) LA-SMA-6.395 [Sites 21-021 and 21-024(j)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**6.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**300 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**12 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**20.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**8.23 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-29
LA-SMA-10.12 (Site 53-008) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**211 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**32 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-29 (continued) LA-SMA-10.12 (Site 53-008) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**22.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**23 pCi/L**	n/a	**9.68 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.62 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.05 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.42 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-29 (continued) LA-SMA-10.12 (Site 53-008) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-30
DP-SMA-0.3 (Site 21-029) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide (Total) / CN(TOTAL)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total Suspended Solids / TSS	**15500 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**151 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**30.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-30 (continued) DP-SMA-0.3 (Site 21-029) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**87.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**87.8 pCi/L**	n/a	**73.4 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**12.7 pCi/L**	n/a	**2.53 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**68.3 pCi/L**	n/a	**20.4 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**67.7 pCi/L**	n/a	**9.74 pCi/L**	n/a	3	See Section IV Part B

Table VII-30 (continued) DP-SMA-0.3 (Site 21-029) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-31
DP-SMA-0.4 (Site 21-021) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.69 SU	Maximum: 6.69 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**27.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**27.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**83.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00203 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-31 (continued) DP-SMA-0.4 (Site 21-021) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**49.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**39.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**3540 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**2.53 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**5.04 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**135 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**26.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**2.98 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.55 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**10.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**94.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**3.13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**6.71 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**7.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**14.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**55.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**10.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-31 (continued) DP-SMA-0.4 (Site 21-021) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**20.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**8.71 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.69 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-32
DP-SMA-2.35 [Sites 21-021 and 21-024(n)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.35 SU	Maximum: 7.35 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**21.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**21.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**8.73 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**3.25 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-32 (continued) DP-SMA-2.35 [Sites 21-021 and 21-024(n)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**3.69 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**120 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**15.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**4.28 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.76 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**14.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.03 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.79 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**5.03 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**5.12 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**4.81 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**25 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-32 (continued) DP-SMA-2.35 [Sites 21-021 and 21-024(n)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Radium-226 / Ra-226	**0.64 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.06 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-33
DP-SMA-3 [Sites 21-013(c) and 21-021] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00216 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1870 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**24.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-33 (continued) DP-SMA-3 [Sites 21-013(c) and 21-021] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**5.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**37.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**8.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**174 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**13.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**27.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**13.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-33 (continued) DP-SMA-3 [Sites 21-013(c) and 21-021] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-34
S-SMA-0.25 [Sites 03-013(a) and 03-052(f)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**163 µg/L**	n/a	**90.5 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**34.5 µg/L**	n/a	**30.1 µg/L**	n/a	2	See Section IV Part B

Table VII-34 (continued) S-SMA-0.25 [Sites 03-013(a) and 03-052(f)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	**2.1 µg/L**	n/a	**1.45 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**1.2 µg/L**	n/a	**0.775 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**10.9 µg/L**	n/a	**10.3 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**48.7 mg/L**	n/a	**37 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.55 µg/L**	n/a	**0.371 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**2.7 µg/L**	n/a	**2.2 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**3 µg/L**	n/a	**2.45 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**74.4 µg/L**	n/a	**62.7 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.05 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	0	n/a	2	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	0	n/a	2	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	0	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**28.1 pCi/L**	n/a	**15.2 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.1 pCi/L**	n/a	**0.908 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.84 pCi/L**	n/a	**1.07 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-34 (continued) S-SMA-0.25 [Sites 03-013(a) and 03-052(f)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-35
S-SMA-1.1 (Site 03-029) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**239 µg/L**	n/a	**228 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**1.1 µg/L**	n/a	**0.742 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**18.8 µg/L**	n/a	**11.9 µg/L**	n/a	2	See Section IV Part B

Table VII-35 (continued) S-SMA-1.1 (Site 03-029) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.4 µg/L**	n/a	**2.14 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**5.8 µg/L**	n/a	**5.49 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**53.5 mg/L**	n/a	**43.3 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.1 µg/L**	n/a	**0.961 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**4.8 µg/L**	n/a	**4.38 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**7.8 µg/L**	n/a	**5.15 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.11 µg/L**	n/a	**0.0995 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**17.1 pCi/L**	n/a	**4.97 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.03 pCi/L**	n/a	**0.4 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.27 pCi/L**	n/a	**1.42 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**2.24 pCi/L**	n/a	**1.02 pCi/L**	n/a	2	See Section IV Part B

Table VII-35 (continued) S-SMA-1.1 (Site 03-029) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-36
S-SMA-2 [Sites 03-012(b), 03-045(b), 03-045(c), and 03-056(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.62 SU	Maximum: 7.84 SU	Average: 7.73 SU	n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	0	n/a	2	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**81.3 mg/L**	n/a	**79.1 mg/L**	n/a	2	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**81.3 mg/L**	n/a	**79.1 mg/L**	n/a	2	See Section IV Part B
Chloride / Cl(-1)	**41.4 mg/L**	n/a	**41 mg/L**	n/a	2	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-36 (continued) S-SMA-2 [Sites 03-012(b), 03-045(b), 03-045(c), and 03-056(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**12.6 mg/L**	n/a	**11.2 mg/L**	n/a	2	See Section IV Part B
Sulfate / SO4(-2)	**21.9 mg/L**	n/a	**20.7 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**392 µg/L**	n/a	**230 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**1.8 µg/L**	n/a	**1.59 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**3.1 µg/L**	n/a	**2.36 µg/L**	n/a	2	See Section IV Part B
Boron / B	**54.6 µg/L**	n/a	**41.8 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Calcium / Ca	**13.5 mg/L**	n/a	**11.8 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**2.7 µg/L**	n/a	**1.64 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**1.8 µg/L**	n/a	**1.8 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**8.3 µg/L**	n/a	**5.74 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**84.2 mg/L**	n/a	**54.1 mg/L**	n/a	4	See Section IV Part B
Lead / Pb	**0.72 µg/L**	n/a	**0.424 µg/L**	n/a	2	See Section IV Part B
Magnesium / Mg	**3.75 mg/L**	n/a	**3.02 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**2.5 µg/L**	n/a	**2.29 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**12.5 mg/L**	n/a	**10.9 mg/L**	n/a	2	See Section IV Part B
Selenium / Se	**1.7 µg/L**	n/a	**1.13 µg/L**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Sodium / Na	**52.2 mg/L**	n/a	**44.4 mg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**13.9 µg/L**	n/a	**8.66 µg/L**	n/a	2	See Section IV Part B

Table VII-36 (continued) S-SMA-2 [Sites 03-012(b), 03-045(b), 03-045(c), and 03-056(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**62.6 µg/L**	n/a	**43.4 µg/L**	n/a	4	See Section IV Part B
Total PCB / 1336-36-3	**0.22 µg/L**	n/a	**0.124 µg/L**	n/a	4	See Section IV Part B
Gross alpha / GROSSA	**29 pCi/L**	n/a	**10.6 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.37 pCi/L**	n/a	**0.51 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.96 pCi/L**	n/a	**1.12 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-37
S-SMA-2.01 [Site 03-052(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.32 SU	Maximum: 7.32 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**13.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**13.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**6.83 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide (Total) / CN(TOTAL)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-37 (continued) S-SMA-2.01 [Site 03-052(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Dissolved Organic Carbon / DOC	**5.25 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.67 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1060 µg/L**	n/a	**459 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	**3.7 µg/L**	n/a	**1.23 µg/L**	n/a	3	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	3	See Section IV Part B
Boron / B	**16.6 µg/L**	n/a	**9.77 µg/L**	n/a	3	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	3	See Section IV Part B
Calcium / Ca	**4.56 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	3	See Section IV Part B
Cobalt / Co	**2.8 µg/L**	n/a	**1.48 µg/L**	n/a	3	See Section IV Part B
Copper / Cu	**10.9 µg/L**	n/a	**7.5 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**14.1 mg/L**	n/a	**11.4 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	**0.95 µg/L**	n/a	**0.565 µg/L**	n/a	3	See Section IV Part B
Magnesium / Mg	**0.65 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	3	See Section IV Part B
Nickel / Ni	**2 µg/L**	n/a	**1.83 µg/L**	n/a	3	See Section IV Part B
Potassium / K	**3.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	3	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	3	See Section IV Part B
Sodium / Na	**6.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	3	See Section IV Part B

Table VII-37 (continued) S-SMA-2.01 [Site 03-052(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Vanadium / V	**2.7 µg/L**	n/a	**2.28 µg/L**	n/a	3	See Section IV Part B
Zinc / Zn	**29.3 µg/L**	n/a	**24.7 µg/L**	n/a	3	See Section IV Part B
Total PCB / 1336-36-3	**1.9 µg/L**	n/a	**0.445 µg/L**	n/a	4	See Section IV Part B
Gross alpha / GROSSA	**12 pCi/L**	n/a	**6.06 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**0.88 pCi/L**	n/a	**0.319 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.13 pCi/L**	n/a	**0.841 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**0.71 pCi/L**	n/a	**0.568 pCi/L**	n/a	3	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-38
S-SMA-3.53 [Site 03-014(b2)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1490 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**23.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-38 (continued) S-SMA-3.53 [Site 03-014(b2)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**5.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**9.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**42 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	**0.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**6.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**26.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**62.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.81 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.28 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.48 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-38 (continued) S-SMA-3.53 [Site 03-014(b2)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-39
S-SMA-3.6 [Site 60-007(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.86 SU	Maximum: 6.99 SU	Average: 6.92 SU	n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	0	n/a	2	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**57.6 mg/L**	n/a	**48.7 mg/L**	n/a	2	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**57.6 mg/L**	n/a	**48.7 mg/L**	n/a	2	See Section IV Part B
Chloride / Cl(-1)	**255 mg/L**	n/a	**240 mg/L**	n/a	2	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00388 mg/L**	n/a	**0.00171 mg/L**	n/a	2	See Section IV Part B

Table VII-39 (continued) S-SMA-3.6 [Site 60-007(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**59.4 mg/L**	n/a	**41.6 mg/L**	n/a	2	See Section IV Part B
Sulfate / SO4(-2)	**22.4 mg/L**	n/a	**20.6 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**260 µg/L**	n/a	**112 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**1.2 µg/L**	n/a	**0.775 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**2.3 µg/L**	n/a	**1.4 µg/L**	n/a	2	See Section IV Part B
Boron / B	**59.7 µg/L**	n/a	**41.2 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	**0.15 µg/L**	n/a	**0.0908 µg/L**	n/a	2	See Section IV Part B
Calcium / Ca	**17.3 mg/L**	n/a	**15.2 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**3.4 µg/L**	n/a	**2.73 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**1.6 µg/L**	n/a	**1.33 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**40.5 µg/L**	n/a	**19.4 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**103 mg/L**	n/a	**55.6 mg/L**	n/a	5	See Section IV Part B
Lead / Pb	**1.5 µg/L**	n/a	**0.957 µg/L**	n/a	2	See Section IV Part B
Magnesium / Mg	**2.91 mg/L**	n/a	**2.56 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**5.7 µg/L**	n/a	**3.38 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**46.9 mg/L**	n/a	**46.3 mg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Sodium / Na	**151 mg/L**	n/a	**136 mg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**3.8 µg/L**	n/a	**3.75 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**147 µg/L**	n/a	**111 µg/L**	n/a	4	See Section IV Part B

Table VII-39 (continued) S-SMA-3.6 [Site 60-007(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
RDX / 121-82-4	Undetected	n/a	0	n/a	2	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	0	n/a	2	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	0	n/a	2	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	0	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.02 µg/L**	n/a	**0.00487 µg/L**	n/a	4	See Section IV Part B
Gross alpha / GROSSA	**9.16 pCi/L**	n/a	**5.56 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.78 pCi/L**	n/a	**2.44 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**3.63 pCi/L**	n/a	**2.01 pCi/L**	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

Table VII-39 (continued) S-SMA-3.6 [Site 60-007(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
7. Provide a description of the method of flow measurement or estimate.						
n/a						

Table VII-40
S-SMA-3.95 [Site 20-002(a)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.66 SU	Maximum: 6.66 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**6.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**6.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**4.06 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**2.73 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-40 (continued) S-SMA-3.95 [Site 20-002(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**0.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**119 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**0.93 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.37 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**2.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.14 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.26 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.24 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**8.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-40 (continued) S-SMA-3.95 [Site 20-002(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**15.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.11 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-41
S-SMA-4.1 (Site 53-014) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**470 µg/L**	n/a	**354 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	**1.8 µg/L**	n/a	**1.24 µg/L**	n/a	2	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-41 (continued) S-SMA-4.1 (Site 53-014) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.1 µg/L**	n/a	**2 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**2.7 µg/L**	n/a	**2.44 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**28.9 mg/L**	n/a	**25.3 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.53 µg/L**	n/a	**0.364 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	**0.57 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**1.8 µg/L**	n/a	**0.949 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**6.1 µg/L**	n/a	**5.69 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.00367 µg/L**	n/a	**0.00177 µg/L**	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**4.56 pCi/L**	n/a	**4.26 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.18 pCi/L**	n/a	**1.19 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**1.98 pCi/L**	n/a	**1.52 pCi/L**	n/a	2	See Section IV Part B

Table VII-41 (continued) S-SMA-4.1 (Site 53-014) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-42
S-SMA-6 (Site 72-001) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.01 mg/L**	n/a	**0.0076 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**1470 µg/L**	n/a	**722 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**2.5 µg/L**	n/a	**2.18 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**3.5 µg/L**	n/a	**1.72 µg/L**	n/a	2	See Section IV Part B
Boron / B	**54.5 µg/L**	n/a	**35.2 µg/L**	n/a	2	See Section IV Part B

Table VII-42 (continued) S-SMA-6 (Site 72-001) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.15 µg/L**	n/a	**0.0908 µg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**5 µg/L**	n/a	**4.64 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**3.9 µg/L**	n/a	**3.75 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**8.6 µg/L**	n/a	**7.24 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**241 mg/L**	n/a	**74.4 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	**5.9 µg/L**	n/a	**2.32 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	**0.17 µg/L**	n/a	**0.149 µg/L**	n/a	2	See Section IV Part B
Nickel / Ni	**4.3 µg/L**	n/a	**3.88 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	**1.8 µg/L**	n/a	**1.16 µg/L**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**5.6 µg/L**	n/a	**4.55 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**33.5 µg/L**	n/a	**15.1 µg/L**	n/a	2	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**4.59 µg/L**	n/a	**2.2 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**6140 pCi/L**	n/a	**2310 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**12.3 pCi/L**	n/a	**9.56 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**44.3 pCi/L**	n/a	**31.5 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**36.8 pCi/L**	n/a	**19.3 pCi/L**	n/a	2	See Section IV Part B

Table VII-42 (continued) S-SMA-6 (Site 72-001) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-43
CDB-SMA-0.25 [Sites 46-004(c2) and 46-004(e2)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 8.01 SU	Maximum: 8.01 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**86.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**86.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**20.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	31.4 mg/L	n/a	n/a	n/a	1	See Section IV Part B

Table VII-43 (continued) CDB-SMA-0.25 [Sites 46-004(c2) and 46-004(e2)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**72.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**2310 µg/L**	n/a	**549 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	**3.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**16.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**27 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**15.2 µg/L**	n/a	**13.7 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**83.4 mg/L**	n/a	**30.7 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**3.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.89 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**5.75 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**41.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**27.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.00635 µg/L**	n/a	**0.00439 µg/L**	n/a	3	See Section IV Part B

Table VII-43 (continued) CDB-SMA-0.25 [Sites 46-004(c2) and 46-004(e2)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzo(a)pyrene / 50-32-8	Undetected	n/a	0	n/a	3	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	0	n/a	3	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	0	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**13.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-44
CDB-SMA-0.55 [Sites 46-004(g), 46-004(m), 46-004(s), and 46-006(f)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.73 SU	Maximum: 7.73 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**44 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**44 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**9.03 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**31.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-44 (continued) CDB-SMA-0.55 [Sites 46-004(g), 46-004(m), 46-004(s), and 46-006(f)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**9.79 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**406 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.34 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.97 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**64.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**23.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**16.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**75.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.96 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.14 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**4.81 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**9.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**10.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.21 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**8.31 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.000711 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-44 (continued) CDB-SMA-0.55 [Sites 46-004(g), 46-004(m), 46-004(s), and 46-006(f)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**7.57 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**0.86 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-45

CDB-SMA-1 [Sites 46-003(c), 46-004(d2), 46-004(f), 46-004(t), 46-004(w), 46-008(g), 46-009(a), and C-46-001] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.11 SU	Maximum: 7.11 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**13.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**13.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**10.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**7.36 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-45 (continued) CDB-SMA-1 [Sites 46-003(c), 46-004(d2), 46-004(f), 46-004(t), 46-004(w), 46-008(g), 46-009(a), and C-46-001] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1120 µg/L**	n/a	**641 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**28.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**5.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**8 µg/L**	n/a	**4.74 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**19.9 mg/L**	n/a	**18.3 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.96 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.85 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**7.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**21.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-45 (continued) CDB-SMA-1 [Sites 46-003(c), 46-004(d2), 46-004(f), 46-004(t), 46-004(w), 46-008(g), 46-009(a), and C-46-001] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Total PCB / 1336-36-3	**0.07 µg/L**	n/a	**0.0374 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**71.5 pCi/L**	n/a	**33 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.88 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.84 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-46
CDB-SMA-4 (Sites 54-017, 54-018, and 54-020) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.32 SU	Maximum: 7.32 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**67.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**67.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**12 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**47.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-46 (continued) CDB-SMA-4 (Sites 54-017, 54-018, and 54-020) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**2.33 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**384 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**5.64 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**38 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**19.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**8.14 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**64.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.65 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.97 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**8.97 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**6.88 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.76 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**23 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-46 (continued) CDB-SMA-4 (Sites 54-017, 54-018, and 54-020) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Heptachlorodibenzodioxin[1,2,3,4,6,7,8-] / 35822-46-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Heptachlorodibenzodioxins (Total) / 37871-00-4	**0.0000567 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Heptachlorodibenzofuran[1,2,3,4,6,7,8-] / 67562-39-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Heptachlorodibenzofuran[1,2,3,4,7,8,9-] / 55673-89-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Heptachlorodibenzofurans (Total) / 38998-75-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzodioxin[1,2,3,4,7,8-] / 39227-28-6	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzodioxin[1,2,3,6,7,8-] / 57653-85-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzodioxin[1,2,3,7,8,9-] / 19408-74-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzodioxins (Total) / 34465-46-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzofuran[1,2,3,4,7,8-] / 70648-26-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzofuran[1,2,3,6,7,8-] / 57117-44-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzofuran[1,2,3,7,8,9-] / 72918-21-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorodibenzofuran[2,3,4,6,7,8-] / 60851-34-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-46 (continued) CDB-SMA-4 (Sites 54-017, 54-018, and 54-020) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Hexachlorodibenzofurans (Total) / 55684-94-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-] / 3268-87-9	**0.000263 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Octachlorodibenzofuran[1,2,3,4,6,7,8,9-] / 39001-02-0	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorodibenzodioxin[1,2,3,7,8-] / 40321-76-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorodibenzodioxins (Total) / 36088-22-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorodibenzofuran[1,2,3,7,8-] / 57117-41-6	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorodibenzofuran[2,3,4,7,8-] / 57117-31-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorodibenzofurans (Totals) / 30402-15-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Tetrachlorodibenzodioxin[2,3,7,8-] / 1746-01-6	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Tetrachlorodibenzodioxins (Total) / 41903-57-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Tetrachlorodibenzofuran[2,3,7,8-] / 51207-31-9	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Tetrachlorodibenzofurans (Totals) / 55722-27-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.00437 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-46 (continued) CDB-SMA-4 (Sites 54-017, 54-018, and 54-020) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**54.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.65 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.19 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.53 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-47
M-SMA-1 [Sites 03-050(a) and 03-054(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.21 SU	Maximum: 7.32 SU	Average: 7.26 SU	n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	0	n/a	2	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**47.7 mg/L**	n/a	**33.4 mg/L**	n/a	2	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**47.7 mg/L**	n/a	**33.4 mg/L**	n/a	2	See Section IV Part B
Chloride / Cl(-1)	**34.3 mg/L**	n/a	**26.1 mg/L**	n/a	2	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	4	See Section IV Part B

Table VII-47 (continued) M-SMA-1 [Sites 03-050(a) and 03-054(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**21.3 mg/L**	n/a	**16.3 mg/L**	n/a	2	See Section IV Part B
Sulfate / SO4(-2)	**10.9 mg/L**	n/a	**5.7 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**408 µg/L**	n/a	**226 µg/L**	n/a	4	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	4	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	4	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	4	See Section IV Part B
Cadmium / Cd	**0.94 µg/L**	n/a	**0.112 µg/L**	n/a	4	See Section IV Part B
Calcium / Ca	**13.4 mg/L**	n/a	**9.55 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**2.8 µg/L**	n/a	**1.29 µg/L**	n/a	4	See Section IV Part B
Cobalt / Co	**3.23 µg/L**	n/a	**1.79 µg/L**	n/a	4	See Section IV Part B
Copper / Cu	**31.2 µg/L**	n/a	**7.45 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**38.4 mg/L**	n/a	**17.7 mg/L**	n/a	4	See Section IV Part B
Lead / Pb	**0.71 µg/L**	n/a	**0.325 µg/L**	n/a	4	See Section IV Part B
Magnesium / Mg	**1.19 mg/L**	n/a	**0.809 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	4	See Section IV Part B
Nickel / Ni	**2.54 µg/L**	n/a	**1.08 µg/L**	n/a	4	See Section IV Part B
Potassium / K	**6.79 mg/L**	n/a	**6.18 mg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	4	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	4	See Section IV Part B
Sodium / Na	**14.1 mg/L**	n/a	**13.9 mg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	4	See Section IV Part B
Vanadium / V	**2.1 µg/L**	n/a	**1.02 µg/L**	n/a	4	See Section IV Part B

Table VII-47 (continued) M-SMA-1 [Sites 03-050(a) and 03-054(e)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**264 µg/L**	n/a	**43.5 µg/L**	n/a	4	See Section IV Part B
Total PCB / 1336-36-3	**0.07 µg/L**	n/a	**0.0193 µg/L**	n/a	4	See Section IV Part B
Gross alpha / GROSSA	**35 pCi/L**	n/a	**22 pCi/L**	n/a	4	See Section IV Part B
Radium-226 / Ra-226	**1.86 pCi/L**	n/a	**1 pCi/L**	n/a	4	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**7.84 pCi/L**	n/a	**1.49 pCi/L**	n/a	4	See Section IV Part B
Radium-228 / Ra-228	**5.97 pCi/L**	n/a	**0.774 pCi/L**	n/a	4	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-48
M-SMA-1.2 [Site 03-049(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.54 SU	Maximum: 7.54 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**48.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**48.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**5.56 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-48 (continued) M-SMA-1.2 [Site 03-049(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**25.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**5.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**628 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**10.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**49.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**7.82 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**33.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**38.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**29.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.98 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**4.43 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**16.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**42.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-48 (continued) M-SMA-1.2 [Site 03-049(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**28.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**4.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-49
M-SMA-1.22 [Site 03-045(h)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chloride / Cl(-1)	**28.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**22.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**29.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**904 µg/L**	n/a	**615 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-49 (continued) M-SMA-1.22 [Site 03-045(h)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**15.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**3.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6 µg/L**	n/a	**5.98 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**49.4 mg/L**	n/a	**24.7 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.56 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**13.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**34 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**28.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-49 (continued) M-SMA-1.22 [Site 03-045(h)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-50
M-SMA-3 [Sites 48-001, 48-005, and 48-007(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.01 SU	Maximum: 7.01 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**24.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**24.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**18.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**Undetected**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-50 (continued) M-SMA-3 [Sites 48-001, 48-005, and 48-007(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**4.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.96 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**592 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.31 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.76 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**10.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.53 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.51 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.69 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**6.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.64 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-50 (continued) M-SMA-3 [Sites 48-001, 48-005, and 48-007(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**23.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.01 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**25.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.79 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.59 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.79 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-51
M-SMA-4 [Sites 48-001, 48-005, 48-007(a), 48-007(d), and 48-010] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**236 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**18.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-51 (continued) M-SMA-4 [Sites 48-001, 48-005, 48-007(a), 48-007(d), and 48-010] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**11.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.96 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**12.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.05 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.44 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**70.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**68.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-51 (continued) M-SMA-4 [Sites 48-001, 48-005, 48-007(a), 48-007(d), and 48-010] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-52
M-SMA-6 [Site 35-016(h)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00221 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**628 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-52 (continued) M-SMA-6 [Site 35-016(h)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Calcium / Ca	**7.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.91 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**21.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.71 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.99 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.92 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**24.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**168 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.46 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.04 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.58 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-52 (continued) M-SMA-6 [Site 35-016(h)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-53
M-SMA-7 [Site 35-016(g)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**530 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**4.84 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-53 (continued) M-SMA-7 [Site 35-016(g)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.93 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.15 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.51 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**13.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.52 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.92 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.53 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**60.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**46.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.74 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.14 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**4.39 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-53 (continued) M-SMA-7 [Site 35-016(g)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-54
M-SMA-7.9 [Site 50-006(d)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 8.13 SU	Maximum: 8.13 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**44.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**44.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-54 (continued) M-SMA-7.9 [Site 50-006(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**14.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**224 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**17 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.52 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.47 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**48.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.59 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.31 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-54 (continued) M-SMA-7.9 [Site 50-006(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.00215 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**51.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.17 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.04 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.87 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-55
M-SMA-10 [Sites 35-008 and 35-014(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.46 SU	Maximum: 6.46 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**12.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**12.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.47 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-55 (continued) M-SMA-10 [Sites 35-008 and 35-014(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**24.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**325 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.11 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**6.02 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.56 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.29 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**19.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.65 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**2.09 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.49 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-55 (continued) M-SMA-10 [Sites 35-008 and 35-014(e)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**7.13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**32.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.94 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.61 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**0.66 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-56
M-SMA-10.01 [Site 35-016(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	3	See Section IV Part B
Aluminum / Al	**121 µg/L**	n/a	**89.2 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	3	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	3	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	3	See Section IV Part B

Table VII-56 (continued) M-SMA-10.01 [Site 35-016(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	3	See Section IV Part B
Calcium / Ca	**28.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	3	See Section IV Part B
Cobalt / Co	**2.48 µg/L**	n/a	**1.88 µg/L**	n/a	3	See Section IV Part B
Copper / Cu	**16 µg/L**	n/a	**6.25 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**83.8 mg/L**	n/a	**14.4 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	3	See Section IV Part B
Magnesium / Mg	**2.95 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	3	See Section IV Part B
Nickel / Ni	**1.69 µg/L**	n/a	**0.676 µg/L**	n/a	3	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	3	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	3	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	3	See Section IV Part B
Vanadium / V	**2.49 µg/L**	n/a	**1.2 µg/L**	n/a	3	See Section IV Part B
Zinc / Zn	**9.7 µg/L**	n/a	**4.53 µg/L**	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**19.6 pCi/L**	n/a	**12.7 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**2.15 pCi/L**	n/a	**0.602 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.99 pCi/L**	n/a	**2.21 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**3.14 pCi/L**	n/a	**1.47 pCi/L**	n/a	3	See Section IV Part B

Table VII-56 (continued) M-SMA-10.01 [Site 35-016(e)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-57
M-SMA-10.3 [Sites 35-014(e2) and 35-016(i)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00783 mg/L**	n/a	**0.00242 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**2500 µg/L**	n/a	**1480 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Boron / B	**20.9 µg/L**	n/a	**12.5 µg/L**	n/a	2	See Section IV Part B

Table VII-57 (continued) M-SMA-10.3 [Sites 35-014(e2) and 35-016(i)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Chromium / Cr	**2.8 µg/L**	n/a	**2.59 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**1.3 µg/L**	n/a	**1.3 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**4.7 µg/L**	n/a	**3.88 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**19.1 mg/L**	n/a	**8.96 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**1.9 µg/L**	n/a	**1.45 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Nickel / Ni	**3.6 µg/L**	n/a	**1.99 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**3.5 µg/L**	n/a	**3.19 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**55 µg/L**	n/a	**30.6 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.00988 µg/L**	n/a	**0.00431 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**27.4 pCi/L**	n/a	**14.2 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	**0**	n/a	2	See Section IV Part B

Table VII-57 (continued) M-SMA-10.3 [Sites 35-014(e2) and 35-016(i)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-58
M-SMA-12.6 (Site 05-004) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**164 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.01 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**57.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**Undetected**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-58 (continued) M-SMA-12.6 (Site 05-004) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Calcium / Ca	**23.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.99 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**73.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.61 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**20.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.09 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**4.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**19.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.76 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-58 (continued) M-SMA-12.6 (Site 05-004) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-59
M-SMA-13 [Site 05-001(c)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.4 SU	Maximum: 6.4 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**8.37 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**8.37 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.51 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-59 (continued) M-SMA-13 [Site 05-001(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**38.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.77 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**371 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**15.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**6.03 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.48 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.29 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**19.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**5.76 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.28 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.38 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**3.96 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-59 (continued) M-SMA-13 [Site 05-001(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.59 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.49 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-60

Pratt-SMA-1.05 [Sites 35-003(h), 35-003(p), 35-003(r), 35-004(h), 35-009(d), 35-016(k), 35-016(l), and 35-016(m)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.32 SU	Maximum: 7.32 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**22.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**22.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**3.05 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00175 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-60 (continued) Pratt-SMA-1.05 [Sites 35-003(h), 35-003(p), 35-003(r), 35-004(h), 35-009(d), 35-016(k), 35-016(l), and 35-016(m)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**6.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**943 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**17.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**8.17 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.98 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.67 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**25.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.94 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.24 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.91 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.23 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.68 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-60 (continued) Pratt-SMA-1.05 [Sites 35-003(h), 35-003(p), 35-003(r), 35-004(h), 35-009(d), 35-016(k), 35-016(l), and 35-016(m)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**5.98 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.44 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**96.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.52 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.67 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.16 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-61
T-SMA-1 [Sites 50-006(a) and 50-009] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**197 µg/L**	n/a	**88.2 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**1.1 µg/L**	n/a	**0.742 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**5.5 µg/L**	n/a	**4.86 µg/L**	n/a	2	See Section IV Part B
Boron / B	**83.7 µg/L**	n/a	**47.5 µg/L**	n/a	2	See Section IV Part B

Table VII-61 (continued) T-SMA-1 [Sites 50-006(a) and 50-009] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.25 µg/L**	n/a	**0.117 µg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**4.5 µg/L**	n/a	**4.02 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**2.5 µg/L**	n/a	**1.12 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**21.2 µg/L**	n/a	**16.3 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**45 mg/L**	n/a	**29.5 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**2.1 µg/L**	n/a	**1.1 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**2.8 µg/L**	n/a	**1.98 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	**0.46 µg/L**	n/a	**0.322 µg/L**	n/a	2	See Section IV Part B
Vanadium / V	**2.2 µg/L**	n/a	**2.1 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**324 µg/L**	n/a	**183 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.06 µg/L**	n/a	**0.0245 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**6.42 pCi/L**	n/a	**4.55 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.59 pCi/L**	n/a	**0.605 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.94 pCi/L**	n/a	**1.74 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**3.35 pCi/L**	n/a	**1.12 pCi/L**	n/a	2	See Section IV Part B

Table VII-61 (continued) T-SMA-1 [Sites 50-006(a) and 50-009] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-62
T-SMA-2.85 [Sites 35-014(g) and 35-016(n)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.37 SU	Maximum: 6.37 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**4.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-62 (continued) T-SMA-2.85 [Sites 35-014(g) and 35-016(n)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**40.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**3.29 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**297 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**49.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**6.27 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**5.64 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**22.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**6.56 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**4.13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-62 (continued) T-SMA-2.85 [Sites 35-014(g) and 35-016(n)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**6.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**36.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.35 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.34 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**0.99 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-63
T-SMA-3 [Site 35-016(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**273 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**3.09 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**20.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-63 (continued) T-SMA-3 [Site 35-016(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**6.62 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**13.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**21.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.15 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.78 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**11.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**34.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.11 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.01 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-63 (continued) T-SMA-3 [Site 35-016(b)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-64
T-SMA-4 [Sites 35-004(a), 35-009(a), 35-016(c), and 35-016(d)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.01 SU	Maximum: 7.01 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**26.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**26.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**9.06 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-64 (continued) T-SMA-4 [Sites 35-004(a), 35-009(a), 35-016(c), and 35-016(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**10.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**3.09 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**514 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.98 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**20.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**7.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.94 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6.61 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**23.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.72 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.12 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**2.14 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.95 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**5.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.82 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-64 (continued) T-SMA-4 [Sites 35-004(a), 35-009(a), 35-016(c), and 35-016(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**10.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**94.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.29 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.38 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.09 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-65
2M-SMA-1 [Site 03-010(a)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**1430 µg/L**	n/a	**609 µg/L**	n/a	4	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**16.7 µg/L**	n/a	**11.2 µg/L**	n/a	2	See Section IV Part B

Table VII-65 (continued) 2M-SMA-1 [Site 03-010(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**3.4 µg/L**	n/a	**1.3 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**2.8 µg/L**	n/a	**2.7 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**10.7 mg/L**	n/a	**9.25 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.83 µg/L**	n/a	**0.456 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	3	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	**0.846 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**1.3 µg/L**	n/a	**0.806 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**11.8 µg/L**	n/a	**11.5 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**18.3 pCi/L**	n/a	**11.2 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.02 pCi/L**	n/a	**0.319 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**6.82 pCi/L**	n/a	**3.61 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**5.8 pCi/L**	n/a	**3.12 pCi/L**	n/a	2	See Section IV Part B

Table VII-65 (continued) 2M-SMA-1 [Site 03-010(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-66
2M-SMA-1.42 [Site 06-001(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00178 mg/L**	n/a	**0.00116 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**794 µg/L**	n/a	**715 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Boron / B	Undetected	n/a	**0**	n/a	2	See Section IV Part B

Table VII-66 (continued) 2M-SMA-1.42 [Site 06-001(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Cobalt / Co	**3.5 µg/L**	n/a	**1.32 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**2.4 µg/L**	n/a	**1.96 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**42.5 mg/L**	n/a	**15.6 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.92 µg/L**	n/a	**0.48 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Nickel / Ni	**1.6 µg/L**	n/a	**1.05 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**3.6 µg/L**	n/a	**3.06 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**5.3 µg/L**	n/a	**2.96 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**51.8 pCi/L**	n/a	**19.9 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.97 pCi/L**	n/a	**0.57 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.88 pCi/L**	n/a	**1.93 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**2.92 pCi/L**	n/a	**1.32 pCi/L**	n/a	2	See Section IV Part B

Table VII-66 (continued) 2M-SMA-1.42 [Site 06-001(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-67
2M-SMA-1.43 [Sites 22-014(a) and 22-015(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.87 SU	Maximum: 6.87 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**35.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**35.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**13.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-67 (continued) 2M-SMA-1.43 [Sites 22-014(a) and 22-015(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**7.68 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**2.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total Suspended Solids / TSS	**618 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1500 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**9.47 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.46 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.74 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**27.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.92 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.25 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**13.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**20.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-67 (continued) 2M-SMA-1.43 [Sites 22-014(a) and 22-015(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**3.47 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**52 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.98 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.13 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.15 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-68
2M-SMA-1.44 [Site 06-001(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.94 SU	Maximum: 6.94 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**21.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**21.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**3.51 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-68 (continued) 2M-SMA-1.44 [Site 06-001(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**19.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**7.79 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**607 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**25.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**226 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**39.5 µg/L**	n/a	**35.3 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**862 mg/L**	n/a	**151 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**72.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**68.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**8.78 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-68 (continued) 2M-SMA-1.44 [Site 06-001(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**31.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**21.1 pCi/L**	n/a	**9.19 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.02 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.17 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.15 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-69
2M-SMA-1.45 (Site 06-006) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**100 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**43.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-69 (continued) 2M-SMA-1.45 (Site 06-006) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**137 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**398 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.52 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.25 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**4.73 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-69 (continued) 2M-SMA-1.45 (Site 06-006) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-70
2M-SMA-1.65 (Site 40-005) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**676 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-70 (continued) 2M-SMA-1.65 (Site 40-005) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**36.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.96 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**4.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**220 pCi/L**	n/a	**70.5 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**2.74 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**17.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**14.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-70 (continued) 2M-SMA-1.65 (Site 40-005) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-71
2M-SMA-1.67 [Site 06-003(h)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**493 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-71 (continued) 2M-SMA-1.67 [Site 06-003(h)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**0.95 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**9.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.77 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**6.41 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-71 (continued) 2M-SMA-1.67 [Site 06-003(h)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-72
2M-SMA-1.7 [Site 03-055(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**47.7 µg/L**	n/a	**29.9 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**318 µg/L**	n/a	**131 µg/L**	n/a	2	See Section IV Part B

Table VII-72 (continued) 2M-SMA-1.7 [Site 03-055(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2 µg/L**	n/a	**1 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**11.4 µg/L**	n/a	**5.75 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**17.3 mg/L**	n/a	**8.72 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.56 µg/L**	n/a	**0.54 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.6 µg/L**	n/a	**0.632 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**3.9 µg/L**	n/a	**1.4 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**23.2 µg/L**	n/a	**20.3 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**5.1 pCi/L**	n/a	**2.77 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-72 (continued) 2M-SMA-1.7 [Site 03-055(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-73
2M-SMA-1.8 [Site 03-001(k)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**72.9 µg/L**	n/a	**38.3 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	**4.4 µg/L**	n/a	**1.93 µg/L**	n/a	2	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-73 (continued) 2M-SMA-1.8 [Site 03-001(k)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.13 µg/L**	n/a	**0.0846 µg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**3.4 µg/L**	n/a	**1.84 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**2.3 µg/L**	n/a	**1.07 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**13.2 µg/L**	n/a	**9.33 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**11.6 mg/L**	n/a	**8.06 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.51 µg/L**	n/a	**0.357 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**3.7 µg/L**	n/a	**2.11 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**2 µg/L**	n/a	**1 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**71.8 µg/L**	n/a	**45.4 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**6.77 pCi/L**	n/a	**5.82 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-73 (continued) 2M-SMA-1.8 [Site 03-001(k)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-74
2M-SMA-1.9 [Site 03-003(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide (Total) / CN(TOTAL)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**30.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.78 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**16.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-74 (continued) 2M-SMA-1.9 [Site 03-003(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.81 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**2.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**24.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**7.48 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.39 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.38 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**314 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-74 (continued) 2M-SMA-1.9 [Site 03-003(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-75
2M-SMA-2 [Sites 03-050(d) and 03-054(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.88 SU	Maximum: 7.19 SU	Average: 7.03 SU	n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	0	n/a	2	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**40.3 mg/L**	n/a	**21.7 mg/L**	n/a	2	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**40.3 mg/L**	n/a	**21.7 mg/L**	n/a	2	See Section IV Part B
Chloride / Cl(-1)	**20.3 mg/L**	n/a	**8.25 mg/L**	n/a	2	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00207 mg/L**	n/a	**0.000993 mg/L**	n/a	4	See Section IV Part B

Table VII-75 (continued) 2M-SMA-2 [Sites 03-050(d) and 03-054(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**22.9 mg/L**	n/a	**17.4 mg/L**	n/a	2	See Section IV Part B
Sulfate / SO4(-2)	**10.4 mg/L**	n/a	**6.48 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**70.2 µg/L**	n/a	**32.6 µg/L**	n/a	4	See Section IV Part B
Antimony / Sb	**6.2 µg/L**	n/a	**1.63 µg/L**	n/a	4	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	4	See Section IV Part B
Boron / B	**36.1 µg/L**	n/a	**19.5 µg/L**	n/a	4	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	4	See Section IV Part B
Calcium / Ca	**12.4 mg/L**	n/a	**8.18 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	4	See Section IV Part B
Cobalt / Co	**2.7 µg/L**	n/a	**1.13 µg/L**	n/a	4	See Section IV Part B
Copper / Cu	**19.9 µg/L**	n/a	**13.2 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**36.3 mg/L**	n/a	**19.2 mg/L**	n/a	4	See Section IV Part B
Lead / Pb	**0.89 µg/L**	n/a	**0.343 µg/L**	n/a	4	See Section IV Part B
Magnesium / Mg	**1.26 mg/L**	n/a	**0.753 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	4	See Section IV Part B
Nickel / Ni	**2.4 µg/L**	n/a	**1.37 µg/L**	n/a	4	See Section IV Part B
Potassium / K	**14.1 mg/L**	n/a	**4.84 mg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	4	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	4	See Section IV Part B
Sodium / Na	**25.2 mg/L**	n/a	**10.8 mg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	4	See Section IV Part B
Vanadium / V	**2.18 µg/L**	n/a	**0.995 µg/L**	n/a	4	See Section IV Part B

Table VII-75 (continued) 2M-SMA-2 [Sites 03-050(d) and 03-054(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**140 µg/L**	n/a	**106 µg/L**	n/a	4	See Section IV Part B
Total PCB / 1336-36-3	**0.06 µg/L**	n/a	**0.0288 µg/L**	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**13.7 pCi/L**	n/a	**6.9 pCi/L**	n/a	4	See Section IV Part B
Radium-226 / Ra-226	**0.69 pCi/L**	n/a	**0.216 pCi/L**	n/a	4	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.62 pCi/L**	n/a	**0.904 pCi/L**	n/a	4	See Section IV Part B
Radium-228 / Ra-228	**1.13 pCi/L**	n/a	**0.597 pCi/L**	n/a	4	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-76
2M-SMA-2.2 [Site 03-003(k)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00168 mg/L**	n/a	**0.00112 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**35.3 µg/L**	n/a	**33 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Boron / B	**19.3 µg/L**	n/a	**12 µg/L**	n/a	2	See Section IV Part B

Table VII-76 (continued) 2M-SMA-2.2 [Site 03-003(k)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Cobalt / Co	**2.1 µg/L**	n/a	**2.05 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**16.4 µg/L**	n/a	**12.9 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**23 mg/L**	n/a	**17.1 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**0.63 µg/L**	n/a	**0.397 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Nickel / Ni	**2.1 µg/L**	n/a	**1.59 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**2.3 µg/L**	n/a	**1.73 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**97.2 µg/L**	n/a	**93.6 µg/L**	n/a	2	See Section IV Part B
Total PCB / 1336-36-3	**0.01 µg/L**	n/a	**0.00841 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**8.76 pCi/L**	n/a	**6.68 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.63 pCi/L**	n/a	**2.53 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**2.21 pCi/L**	n/a	**2.14 pCi/L**	n/a	2	See Section IV Part B

Table VII-76 (continued) 2M-SMA-2.2 [Site 03-003(k)] Discharge Information

Part C						
	Maximum Values *(include units)*		Average Values *(include units)*			
Pollutant and CAS Number *(if available)*	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Number of Storm Events Sampled	Sources of Pollutants
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-77
2M-SMA-3 [Sites 07-001(a), 07-001(b), 07-001(c), and 07-001(d)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.57 SU	Maximum: 6.57 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.12 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-77 (continued) 2M-SMA-3 [Sites 07-001(a), 07-001(b), 07-001(c), and 07-001(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**43.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.37 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**3750 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.24 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**25.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**6.11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6.05 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**23.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.74 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**3.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**6.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.38 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**6.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-77 (continued) 2M-SMA-3 [Sites 07-001(a), 07-001(b), 07-001(c), and 07-001(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**8.27 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-78
2M-SMA-2.5 [Site 40-001(c)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.34 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**20.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-78 (continued) 2M-SMA-2.5 [Site 40-001(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**12.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**3.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.32 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**47.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.53 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**6.59 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**11.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-78 (continued) 2M-SMA-2.5 [Site 40-001(c)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-79
3M-SMA-0.4 [Site 15-006(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.8 SU	Maximum: 7.8 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**126 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**126 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.79 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-79 (continued) 3M-SMA-0.4 [Site 15-006(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**22.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**60.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total Suspended Solids / TSS	**31300 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**175 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**3.06 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**32.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**52.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.46 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.56 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**160 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**6.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.36 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.89 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**10 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**6.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**13.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-79 (continued) 3M-SMA-0.4 [Site 15-006(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**120 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**8.03 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**9.86 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.83 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-80
PJ-SMA-1.05 (Site 09-013) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.81 SU	Maximum: 7.81 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**98.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**98.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.34 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-80 (continued) PJ-SMA-1.05 (Site 09-013) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**53.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**24.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**189 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**3.47 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**38.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**23.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.99 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**76.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**4.31 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.67 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**17.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**7.62 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-80 (continued) PJ-SMA-1.05 (Site 09-013) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.00872 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**11.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**3.81 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.29 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.48 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-81
PJ-SMA-3.05 [Site 09-004(o)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.02 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**217 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-81 (continued) PJ-SMA-3.05 [Site 09-004(o)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**7.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.84 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**0.61 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**6.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**65.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.72 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.67 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.95 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-81 (continued) PJ-SMA-3.05 [Site 09-004(o)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-82
PJ-SMA-4.05 [Site 09-004(g)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**536 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**38.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-82 (continued) PJ-SMA-4.05 [Site 09-004(g)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**11.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.26 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**37.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.27 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**4.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**11.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**34.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**47.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**4.62 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.98 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.35 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-82 (continued) PJ-SMA-4.05 [Site 09-004(g)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-83
PJ-SMA-5 [Site 22-015(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**225 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**17.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.42 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-83 (continued) PJ-SMA-5 [Site 22-015(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Calcium / Ca	**1.68 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**2.37 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.65 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**75.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**5.84 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**6.97 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**0.83 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-83 (continued) PJ-SMA-5 [Site 22-015(c)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-84
PJ-SMA-5.1 [Site 22-010(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00162 mg/L**	n/a	**0.0011 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**209 µg/L**	n/a	**158 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Arsenic / As	**2.9 µg/L**	n/a	**2.75 µg/L**	n/a	2	See Section IV Part B
Boron / B	**42.3 µg/L**	n/a	**39.3 µg/L**	n/a	2	See Section IV Part B

Table VII-84 (continued) PJ-SMA-5.1 [Site 22-010(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.13 µg/L**	n/a	**0.0846 µg/L**	n/a	2	See Section IV Part B
Chromium / Cr	**2.1 µg/L**	n/a	**1.45 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**3.3 µg/L**	n/a	**2.98 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**11.1 µg/L**	n/a	**9.54 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**23.7 mg/L**	n/a	**19.2 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**2.2 µg/L**	n/a	**0.742 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**0**	n/a	3	See Section IV Part B
Nickel / Ni	**1.5 µg/L**	n/a	**1.45 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	**1.8 µg/L**	n/a	**1.16 µg/L**	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**0**	n/a	2	See Section IV Part B
Vanadium / V	**6.1 µg/L**	n/a	**5.58 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**59.4 µg/L**	n/a	**54.8 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**43.5 pCi/L**	n/a	**40.9 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.84 pCi/L**	n/a	**0.41 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.94 pCi/L**	n/a	**2.94 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**3.1 pCi/L**	n/a	**2.45 pCi/L**	n/a	2	See Section IV Part B

Table VII-84 (continued) PJ-SMA-5.1 [Site 22-010(b)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-85
PJ-SMA-11 [Site 40-003(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.79 SU	Maximum: 7.79 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**52.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**52.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-85 (continued) PJ-SMA-11 [Site 40-003(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**6.48 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**6.93 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**80.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**9.06 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**42.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**27.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.25 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**2.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**3.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3.87 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.67 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-85 (continued) PJ-SMA-11 [Site 40-003(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**65.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.56 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.09 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-86
PJ-SMA-11.1 [Site 40-003(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.91 SU	Maximum: 6.91 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**9.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**9.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.67 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-86 (continued) PJ-SMA-11.1 [Site 40-003(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**10.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.87 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1040 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**16.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.58 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**20.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**12.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.81 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.14 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**2.87 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**3.17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.96 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.42 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-86 (continued) PJ-SMA-11.1 [Site 40-003(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**6.36 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**89.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**5.51 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**9.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.69 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-87
PJ-SMA-13.7 [Site 18-010(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**143 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-87 (continued) PJ-SMA-13.7 [Site 18-010(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**31.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.89 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**3.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**52.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.35 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.61 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.26 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-87 (continued) PJ-SMA-13.7 [Site 18-010(b)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-88
PJ-SMA-14.8 [Site 18-012(a)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**205 µg/L**	n/a	**122 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**13.6 µg/L**	n/a	**10.9 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**19.1 µg/L**	n/a	**12 µg/L**	n/a	2	See Section IV Part B

Table VII-88 (continued) PJ-SMA-14.8 [Site 18-012(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**3.9 µg/L**	n/a	**1.4 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**3.7 µg/L**	n/a	**3.16 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**12.7 mg/L**	n/a	**11.5 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.5 µg/L**	n/a	**1.07 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**2.5 µg/L**	n/a	**2.29 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**28.5 µg/L**	n/a	**24.8 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**7.91 pCi/L**	n/a	**5.49 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-88 (continued) PJ-SMA-14.8 [Site 18-012(a)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-89
PJ-SMA-16 (Site 27-002) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.58 SU	Maximum: 6.58 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**6.38 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**6.38 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**9.48 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Dissolved Organic Carbon / DOC	9.27 mg/L	n/a	n/a	n/a	1	See Section IV Part B

Table VII-89 (continued) PJ-SMA-16 (Site 27-002) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**1.76 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**162 µg/L**	n/a	**69 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	2	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Calcium / Ca	**0.55 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.49 µg/L**	n/a	**1.65 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**2.31 µg/L**	n/a	**2.15 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**13 mg/L**	n/a	**5.19 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**1.38 µg/L**	n/a	**0.587 µg/L**	n/a	2	See Section IV Part B
Magnesium / Mg	**0.16 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.04 µg/L**	n/a	**0.999 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**5.73 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Sodium / Na	**8.71 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**2.4 µg/L**	n/a	**2.34 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**8.9 µg/L**	n/a	**7.78 µg/L**	n/a	2	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-89 (continued) PJ-SMA-16 (Site 27-002) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**6.74 pCi/L**	n/a	**3.17 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-90
PJ-SMA-17 (Site 54-018) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.3 SU	Maximum: 7.3 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**90.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**90.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**9.68 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-90 (continued) PJ-SMA-17 (Site 54-018) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**29.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**2.34 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**130 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**7.31 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**28.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.76 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**5.13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**69.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.32 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**6.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**1.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**6.77 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-90 (continued) PJ-SMA-17 (Site 54-018) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**3.46 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**61.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**4.25 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**6.52 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.27 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-91
PJ-SMA-18 [Sites 54-014(d) and 54-017] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.47 SU	Maximum: 7.47 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**73.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**73.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-91 (continued) PJ-SMA-18 [Sites 54-014(d) and 54-017] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**19.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**209 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.93 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**19.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**14.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.36 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**46.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.51 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.49 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.27 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.38 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**5.87 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-91 (continued) PJ-SMA-18 [Sites 54-014(d) and 54-017] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**23.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**6.82 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**13.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**6.26 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-92
PJ-SMA-19 [Sites 54-013(b), 54-017, and 54-020] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.73 SU	Maximum: 7.73 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**48.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**48.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.97 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-92 (continued) PJ-SMA-19 [Sites 54-013(b), 54-017, and 54-020] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**8.97 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**761 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**8.75 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.94 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**4.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**28.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.56 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**1.67 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.31 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**3.15 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**5.82 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-92 (continued) PJ-SMA-19 [Sites 54-013(b), 54-017, and 54-020] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**5.69 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**51.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**26.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**43.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**16.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-93
PJ-SMA-20 (Site 54-017) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**155 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**10.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**28.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-93 (continued) PJ-SMA-20 (Site 54-017) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**8.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**46.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**27.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.000233 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-93 (continued) PJ-SMA-20 (Site 54-017) Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-94
STRM-SMA-1.05 [Site 08-009(f)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.43 SU	Maximum: 7.43 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**65.1 mg/L**	n/a	**57.2 mg/L**	n/a	2	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-94 (continued) STRM-SMA-1.05 [Site 08-009(f)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**32.7 mg/L**	n/a	**23.6 mg/L**	n/a	2	See Section IV Part B
Sulfate / SO4(-2)	**12 mg/L**	n/a	**11 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**101 µg/L**	n/a	**65.8 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**3.2 µg/L**	n/a	**2.83 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	2	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Calcium / Ca	**19.3 mg/L**	n/a	**17.2 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**1.3 µg/L**	n/a	**0.806 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**10.8 µg/L**	n/a	**8.06 µg/L**	n/a	4	See Section IV Part B
Hardness / HARDNESS	**55.7 mg/L**	n/a	**11.3 mg/L**	n/a	4	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Magnesium / Mg	**1.86 mg/L**	n/a	**1.46 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**1.6 µg/L**	n/a	**1.26 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**13.3 mg/L**	n/a	**11.5 mg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Sodium / Na	**55 mg/L**	n/a	**49.9 mg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**1.2 µg/L**	n/a	**0.775 µg/L**	n/a	2	See Section IV Part B

Table VII-94 (continued) STRM-SMA-1.05 [Site 08-009(f)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**10.5 µg/L**	n/a	**10.3 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**8 pCi/L**	n/a	**4.66 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-95
STRM-SMA-1.5 [Site 08-009(d)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.08 SU	Maximum: 7.08 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**15.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**15.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.02 mg/L**	n/a	**0.00409 mg/L**	n/a	2	See Section IV Part B

Table VII-95 (continued) STRM-SMA-1.5 [Site 08-009(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**16.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**1.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**461 µg/L**	n/a	**219 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**4.61 µg/L**	n/a	**1.52 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**3.43 µg/L**	n/a	**1.71 µg/L**	n/a	2	See Section IV Part B
Boron / B	**28.7 µg/L**	n/a	**14.7 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	**1.26 µg/L**	n/a	**0.263 µg/L**	n/a	2	See Section IV Part B
Calcium / Ca	**25.7 mg/L**	n/a	**9.8 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.35 µg/L**	n/a	**1.08 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**2.72 µg/L**	n/a	**2.67 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**79.1 mg/L**	n/a	**30.7 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Magnesium / Mg	**3.65 mg/L**	n/a	**1.49 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	**1.17 µg/L**	n/a	**0.286 µg/L**	n/a	2	See Section IV Part B
Nickel / Ni	**1.93 µg/L**	n/a	**1.07 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**3.98 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	**4.02 µg/L**	n/a	**1.53 µg/L**	n/a	2	See Section IV Part B
Sodium / Na	**2.71 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**1.65 µg/L**	n/a	**1.55 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**4.15 µg/L**	n/a	**2.62 µg/L**	n/a	2	See Section IV Part B

Table VII-95 (continued) STRM-SMA-1.5 [Site 08-009(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzo(a)pyrene / 50-32-8	Undetected	n/a	0	n/a	2	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	0	n/a	2	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	0	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**1270 pCi/L**	n/a	**143 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**21.3 pCi/L**	n/a	**4.3 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**38.5 pCi/L**	n/a	**5.15 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**17.2 pCi/L**	n/a	**2.72 pCi/L**	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-96
STRM-SMA-4.2 [Site 09-008(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**2330 µg/L**	n/a	**1270 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**25.1 µg/L**	n/a	**20 µg/L**	n/a	2	See Section IV Part B

Table VII-96 (continued) STRM-SMA-4.2 [Site 09-008(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	**2 µg/L**	n/a	**1.41 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**3.9 µg/L**	n/a	**3.69 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**3.5 µg/L**	n/a	**2.77 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**8.3 mg/L**	n/a	**7.62 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**1.1 µg/L**	n/a	**0.524 µg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	3	See Section IV Part B
Nickel / Ni	**1.9 µg/L**	n/a	**1.63 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	**0.46 µg/L**	n/a	**0.303 µg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**4.4 µg/L**	n/a	**2.73 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**14.4 µg/L**	n/a	**10 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**28.8 pCi/L**	n/a	**11.3 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.6 pCi/L**	n/a	**0.371 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.01 pCi/L**	n/a	**1.84 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**1.68 pCi/L**	n/a	**1.54 pCi/L**	n/a	2	See Section IV Part B

Table VII-96 (continued) STRM-SMA-4.2 [Site 09-008(b)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-97
STRM-SMA-5.05 (Site 09-013) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1170 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-97 (continued) STRM-SMA-5.05 (Site 09-013) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**9.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.73 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**5.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.00669 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**24.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.59 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.39 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.79 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-97 (continued) STRM-SMA-5.05 (Site 09-013) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-98
CDV-SMA-1.2 [Sites 16-017(b)-99 and 16-029(k)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.14 SU	Maximum: 7.14 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**23.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**23.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.67 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-98 (continued) CDV-SMA-1.2 [Sites 16-017(b)-99 and 16-029(k)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**10.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.27 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**233 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**29.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**7.11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.68 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.95 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**23.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.29 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.35 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**6.57 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-98 (continued) CDV-SMA-1.2 [Sites 16-017(b)-99 and 16-029(k)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**0.15 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**4.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-99
CDV-SMA-1.3 [Sites 16-017(a)-99 and 16-026(m)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.1 SU	Maximum: 7.1 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**14.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**14.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.26 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-99 (continued) CDV-SMA-1.3 [Sites 16-017(a)-99 and 16-026(m)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**3.42 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**157 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.21 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.87 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.51 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.68 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**12.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.21 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-99 (continued) CDV-SMA-1.3 [Sites 16-017(a)-99 and 16-026(m)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**34.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.34 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**9.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**6.76 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-100
CDV-SMA-1.4 [Sites 16-020, 16-026(l), 16-028(c), and 16-030(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Aluminum / Al	**110 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.48 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**46.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**13.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-100 (continued) CDV-SMA-1.4 [Sites 16-020, 16-026(l), 16-028(c), and 16-030(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.46 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.72 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**41.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.42 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	**7.86 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**5.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**6.22 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.01 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-100 (continued) CDV-SMA-1.4 [Sites 16-020, 16-026(l), 16-028(c), and 16-030(c)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-101
CDV-SMA-1.45 [Site 16-026(i)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**550 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-101 (continued) CDV-SMA-1.45 [Site 16-026(i)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**4.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.55 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**14.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**17.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-101 (continued) CDV-SMA-1.45 [Site 16-026(i)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-102
CDV-SMA-1.7 (Site 16-019) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.85 SU	Maximum: 7.85 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**39.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**39.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**6.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-102 (continued) CDV-SMA-1.7 (Site 16-019) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**0.57 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**205 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**7.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**11 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**23.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.57 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.15 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.65 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	**0.21 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.38 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**908 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-102 (continued) CDV-SMA-1.7 (Site 16-019) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	**2.93 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**36.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.69 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.11 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-103
CDV-SMA-2 [Site 16-021(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.27 SU	Maximum: 7.27 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**46.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**46.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.05 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00726 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**20 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-103 (continued) CDV-SMA-2 [Site 16-021(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**0.83 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**743 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.77 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**33.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**14.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.44 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**41.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.52 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.05 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3.05 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.64 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-103 (continued) CDV-SMA-2 [Site 16-021(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**18.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.51 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-104
CDV-SMA-2.41 (Site 16-018) Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**588 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**34.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-104 (continued) CDV-SMA-2.41 (Site 16-018) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**28.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**231 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.94 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.03 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-104 (continued) CDV-SMA-2.41 (Site 16-018) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-105
CDV-SMA-2.42 [Site 16-010(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.62 SU	Maximum: 7.62 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**59.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**59.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.28 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**9.26 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-105 (continued) CDV-SMA-2.42 [Site 16-010(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**3.38 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total Suspended Solids / TSS	**6430 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**356 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**2.61 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**17.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**14.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.95 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**4.37 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**40.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.07 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.14 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.81 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.78 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.99 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.44 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-105 (continued) CDV-SMA-2.42 [Site 16-010(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Total PCB / 1336-36-3	**0.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**89.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.32 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.14 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.81 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-106
CDV-SMA-2.5 [Sites 16-010(c), 16-010(d), and 16-028(a)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**534 µg/L**	n/a	**508 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	**18.4 µg/L**	n/a	**17.9 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-106 (continued) CDV-SMA-2.5 [Sites 16-010(c), 16-010(d), and 16-028(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Calcium / Ca	**2.96 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**2.8 µg/L**	n/a	**2.33 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**2.15 µg/L**	n/a	**2.02 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**11.7 mg/L**	n/a	**11.1 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Magnesium / Mg	**0.76 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.1 µg/L**	n/a	**0.0548 µg/L**	n/a	2	See Section IV Part B
Nickel / Ni	**1.04 µg/L**	n/a	**1.02 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**2.4 µg/L**	n/a	**2.36 µg/L**	n/a	2	See Section IV Part B
Zinc / Zn	**18.6 µg/L**	n/a	**8.52 µg/L**	n/a	2	See Section IV Part B
RDX / 121-82-4	**5.79 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**7.31 µg/L**	n/a	**4.99 µg/L**	n/a	2	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	0	n/a	2	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	0	n/a	3	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	0	n/a	3	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	0	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**12.5 pCi/L**	n/a	**11.3 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**4.63 pCi/L**	n/a	**1.1 pCi/L**	n/a	2	See Section IV Part B

Table VII-106 (continued) CDV-SMA-2.5 [Sites 16-010(c), 16-010(d), and 16-028(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Radium-226 and Radium-228 / Ra-226+228	**7.14 pCi/L**	n/a	**2.33 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**2.51 pCi/L**	n/a	**1.12 pCi/L**	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-107
CDV-SMA-2.51 [Site 16-010(i)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.7 SU	Maximum: 6.7 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**8.37 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**8.37 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.63 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**13.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-107 (continued) CDV-SMA-2.51 [Site 16-010(i)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**1.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**491 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.03 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**10.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.73 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.36 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.34 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**4.56 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**0.27 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-107 (continued) CDV-SMA-2.51 [Site 16-010(i)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**16.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.84 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.95 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-108
CDV-SMA-3 (Site 14-009) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00327 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**143 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**15.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-108 (continued) CDV-SMA-3 (Site 14-009) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**6.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.82 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**3.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**33.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.41 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.99 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-108 (continued) CDV-SMA-3 (Site 14-009) Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-109
CDV-SMA-6.02 [Site 14-002(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.61 SU	Maximum: 7.61 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**27.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**27.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	3	See Section IV Part B
Dissolved Organic Carbon / DOC	**4.85 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-109 (continued) CDV-SMA-6.02 [Site 14-002(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**0.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**496 µg/L**	n/a	**345 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	3	See Section IV Part B
Arsenic / As	**3.4 µg/L**	n/a	**1.35 µg/L**	n/a	3	See Section IV Part B
Boron / B	**28.1 µg/L**	n/a	**16.8 µg/L**	n/a	3	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	3	See Section IV Part B
Calcium / Ca	**6.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	3	See Section IV Part B
Cobalt / Co	**3.2 µg/L**	n/a	**2.07 µg/L**	n/a	3	See Section IV Part B
Copper / Cu	**29.3 µg/L**	n/a	**9.85 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**22.8 mg/L**	n/a	**18.9 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	**7.3 µg/L**	n/a	**3.05 µg/L**	n/a	3	See Section IV Part B
Magnesium / Mg	**0.45 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**1.6 µg/L**	n/a	**0.357 µg/L**	n/a	3	See Section IV Part B
Nickel / Ni	**1.3 µg/L**	n/a	**0.989 µg/L**	n/a	3	See Section IV Part B
Potassium / K	**0.95 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2 µg/L**	n/a	**1.04 µg/L**	n/a	3	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	3	See Section IV Part B
Sodium / Na	**0.43 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	3	See Section IV Part B
Vanadium / V	**2.1 µg/L**	n/a	**0.807 µg/L**	n/a	3	See Section IV Part B
Zinc / Zn	**10.4 µg/L**	n/a	**5.4 µg/L**	n/a	3	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-109 (continued) CDV-SMA-6.02 [Site 14-002(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	0	n/a	2	See Section IV Part B
RDX / 121-82-4	**0.36 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**199 pCi/L**	n/a	**58.9 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**4.33 pCi/L**	n/a	**1.93 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**8.5 pCi/L**	n/a	**4.36 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**6.41 pCi/L**	n/a	**2.05 pCi/L**	n/a	3	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-110
CDV-SMA-7 [Site 15-008(d)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.53 SU	Maximum: 6.53 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**29.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**29.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.77 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00281 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-110 (continued) CDV-SMA-7 [Site 15-008(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**37.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**6.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**956 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.23 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.31 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**30.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**11.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**6.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**4.05 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**38.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.36 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**3.04 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**5.52 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**5.33 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.15 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-110 (continued) CDV-SMA-7 [Site 15-008(d)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**6.58 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**191 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**5.13 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**12.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**7.02 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-111
F-SMA-2 [Site 36-004(c)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00285 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**866 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**98.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-111 (continued) F-SMA-2 [Site 36-004(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**72.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**42.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**2.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**6.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**8.38 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**140 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**6.17 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**10.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**4.01 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-111 (continued) F-SMA-2 [Site 36-004(c)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-112
PT-SMA-0.5 [Sites 15-009(e) and C-15-004] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00216 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1380 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**30.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-112 (continued) PT-SMA-0.5 [Sites 15-009(e) and C-15-004] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**13.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.74 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**5.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**79.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.32 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.84 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.52 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-112 (continued) PT-SMA-0.5 [Sites 15-009(e) and C-15-004] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-113
PT-SMA-1 [Sites 15-004(f) and 15-008(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**6550 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**109 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-113 (continued) PT-SMA-1 [Sites 15-004(f) and 15-008(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chromium / Cr	**4.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**174 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**36.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**4.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**5.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**10.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**75.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**104 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.79 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-113 (continued) PT-SMA-1 [Sites 15-004(f) and 15-008(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-114
PT-SMA-1.7 [Site 15-006(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**501 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-114 (continued) PT-SMA-1.7 [Site 15-006(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.03 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**10.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.67 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.34 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.34 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**92.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.39 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.27 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**3.88 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-114 (continued) PT-SMA-1.7 [Site 15-006(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-115
PT-SMA-2.01 [Sites C-36-001 and C-36-006(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.0015 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**467 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**16.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-115 (continued) PT-SMA-2.01 [Sites C-36-001 and C-36-006(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**59 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.65 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**295 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**7.02 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**13.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**6.29 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-115 (continued) PT-SMA-2.01 [Sites C-36-001 and C-36-006(e)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-116
W-SMA-1 [Sites 16-017(j)-99, 16-026(c2), and 16-026(v)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.97 SU	Maximum: 6.97 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**20.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**20.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**6.76 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	3	See Section IV Part B

Table VII-116 (continued) W-SMA-1 [Sites 16-017(j)-99, 16-026(c2), and 16-026(v)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**7.85 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.17 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1410 µg/L**	n/a	**1090 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	3	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	3	See Section IV Part B
Boron / B	**18.8 µg/L**	n/a	**10.2 µg/L**	n/a	3	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	3	See Section IV Part B
Calcium / Ca	**6.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**2.2 µg/L**	n/a	**1.3 µg/L**	n/a	3	See Section IV Part B
Cobalt / Co	**3.7 µg/L**	n/a	**2.34 µg/L**	n/a	3	See Section IV Part B
Copper / Cu	**4.01 µg/L**	n/a	**3.8 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**20.5 mg/L**	n/a	**16.2 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	**1.1 µg/L**	n/a	**0.843 µg/L**	n/a	3	See Section IV Part B
Magnesium / Mg	**1.04 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.12 µg/L**	n/a	**0.0424 µg/L**	n/a	4	See Section IV Part B
Nickel / Ni	**2.28 µg/L**	n/a	**1.8 µg/L**	n/a	3	See Section IV Part B
Potassium / K	**2.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	4	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	3	See Section IV Part B
Sodium / Na	**8.31 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	3	See Section IV Part B
Vanadium / V	**5.01 µg/L**	n/a	**1.87 µg/L**	n/a	3	See Section IV Part B

Table VII-116 (continued) W-SMA-1 [Sites 16-017(j)-99, 16-026(c2), and 16-026(v)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**18.9 µg/L**	n/a	**16.4 µg/L**	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**314 pCi/L**	n/a	**47.6 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**1.36 pCi/L**	n/a	**0.504 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.59 pCi/L**	n/a	**0.955 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**1.23 pCi/L**	n/a	**0.613 pCi/L**	n/a	3	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-117
W-SMA-1.5 [Sites 16-026(b2) and 16-028(d)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**503 µg/L**	n/a	**475 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**18.4 µg/L**	n/a	**7.91 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	2	See Section IV Part B
Boron / B	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-117 (continued) W-SMA-1.5 [Sites 16-026(b2) and 16-028(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	0	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	2	See Section IV Part B
Cobalt / Co	**3.2 µg/L**	n/a	**2.4 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**9.7 µg/L**	n/a	**5.48 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**8.1 mg/L**	n/a	**6.67 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	2	See Section IV Part B
Nickel / Ni	**0.91 µg/L**	n/a	**0.869 µg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	Undetected	n/a	0	n/a	2	See Section IV Part B
Zinc / Zn	**49.3 µg/L**	n/a	**29.3 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**22 pCi/L**	n/a	**12.2 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.92 pCi/L**	n/a	**1.57 pCi/L**	n/a	2	See Section IV Part B
Radium-228 / Ra-228	**1.7 pCi/L**	n/a	**0.889 pCi/L**	n/a	2	See Section IV Part B

Table VII-117 (continued) W-SMA-1.5 [Sites 16-026(b2) and 16-028(d)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-118
W-SMA-2.05 [Site 16-028(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1240 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**17.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-118 (continued) W-SMA-2.05 [Site 16-028(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**13.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.63 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**4.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**13.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.79 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.23 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.43 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-118 (continued) W-SMA-2.05 [Site 16-028(e)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.
n/a

Table VII-119
W-SMA-5 [Sites 16-001(e), 16-003(f), 16-026(b), 16-026(c), 16-026(d), and 16-026(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**21.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**111 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**Undetected**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-119 (continued) W-SMA-5 [Sites 16-001(e), 16-003(f), 16-026(b), 16-026(c), 16-026(d), and 16-026(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Calcium / Ca	**13.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**2.95 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**48.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**3.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.53 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**11.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**21.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**2.61 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-119 (continued) W-SMA-5 [Sites 16-001(e), 16-003(f), 16-026(b), 16-026(c), 16-026(d), and 16-026(e)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-120
W-SMA-8 [Sites 16-016(g) and 16-028(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.78 SU	Maximum: 6.78 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**20.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**20.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**3.32 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-120 (continued) W-SMA-8 [Sites 16-016(g) and 16-028(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**38 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**3.79 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**823 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**65.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.35 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**10.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**28.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**32.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**2.47 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.83 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**6.47 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**3.94 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**5.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**32.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-120 (continued) W-SMA-8 [Sites 16-016(g) and 16-028(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzo(a)pyrene / 50-32-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Hexachlorobenzene / 118-74-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Pentachlorophenol / 87-86-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**5.31 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-121
W-SMA-8.7 [Sites 13-001, 13-002, 16-004(a), 16-026(j2), 16-029(h), and 16-035] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.61 SU	Maximum: 6.61 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**17.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-121 (continued) W-SMA-8.7 [Sites 13-001, 13-002, 16-004(a), 16-026(j2), 16-029(h), and 16-035] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**2.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1920 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**16.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**3.18 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.32 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.72 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**12.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.01 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.06 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.65 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**5.11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**8.47 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-121 (continued) W-SMA-8.7 [Sites 13-001, 13-002, 16-004(a), 16-026(j2), 16-029(h), and 16-035] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.89 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.77 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**0.87 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-122
W-SMA-8.71 [Site 16-004(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.01 SU	Maximum: 7.01 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**34 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**34 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**18.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	**0.00177 mg/L**	n/a	**0.00122 mg/L**	n/a	2	See Section IV Part B

Table VII-122 (continued) W-SMA-8.71 [Site 16-004(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**24.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**22.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**424 µg/L**	n/a	**217 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	**1.34 µg/L**	n/a	**0.819 µg/L**	n/a	2	See Section IV Part B
Arsenic / As	**5.01 µg/L**	n/a	**2.06 µg/L**	n/a	2	See Section IV Part B
Boron / B	**61.3 µg/L**	n/a	**30.8 µg/L**	n/a	2	See Section IV Part B
Cadmium / Cd	**0.49 µg/L**	n/a	**0.164 µg/L**	n/a	2	See Section IV Part B
Calcium / Ca	**25.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**2 µg/L**	n/a	**1.41 µg/L**	n/a	2	See Section IV Part B
Cobalt / Co	**2 µg/L**	n/a	**1.46 µg/L**	n/a	2	See Section IV Part B
Copper / Cu	**19.8 µg/L**	n/a	**7.58 µg/L**	n/a	2	See Section IV Part B
Hardness / HARDNESS	**82.3 mg/L**	n/a	**22.8 mg/L**	n/a	2	See Section IV Part B
Lead / Pb	**1.2 µg/L**	n/a	**0.548 µg/L**	n/a	2	See Section IV Part B
Magnesium / Mg	**4.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**1.51 µg/L**	n/a	**0.213 µg/L**	n/a	2	See Section IV Part B
Nickel / Ni	**4.54 µg/L**	n/a	**2.04 µg/L**	n/a	2	See Section IV Part B
Potassium / K	**7.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	2	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	2	See Section IV Part B
Sodium / Na	**17.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	2	See Section IV Part B
Vanadium / V	**17.2 µg/L**	n/a	**4.54 µg/L**	n/a	2	See Section IV Part B

Table VII-122 (continued) W-SMA-8.71 [Site 16-004(c)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**55.4 µg/L**	n/a	**39.6 µg/L**	n/a	2	See Section IV Part B
Gross alpha / GROSSA	**15.8 pCi/L**	n/a	**5.88 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**0.44 pCi/L**	n/a	**0.21 pCi/L**	n/a	2	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	0	n/a	2	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	0	n/a	2	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-123
W-SMA-9.05 [Site 16-030(g)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.44 SU	Maximum: 7.44 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**28.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**28.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**6.13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**25 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-123 (continued) W-SMA-9.05 [Site 16-030(g)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**25.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**537 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**26.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**13.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**3.49 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**44.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.36 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**11 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**0.84 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-123 (continued) W-SMA-9.05 [Site 16-030(g)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.46 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-124
W-SMA-9.7 [Sites 11-011(a) and 11-011(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.51 SU	Maximum: 6.51 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**8.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**8.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.69 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-124 (continued) W-SMA-9.7 [Sites 11-011(a) and 11-011(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**23.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.65 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**344 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**43.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**4.95 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**9.74 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**17.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.48 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.23 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.35 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.73 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**8.35 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**1.29 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-124 (continued) W-SMA-9.7 [Sites 11-011(a) and 11-011(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**11.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**3.55 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**0.67 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-125
W-SMA-9.9 [Sites 11-006(b)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B
Aluminum / Al	**962 µg/L**	n/a	**438 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-125 (continued) W-SMA-9.9 [Sites 11-006(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**10.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.95 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**95.9 pCi/L**	n/a	**84.5 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**4.17 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**9.82 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**5.65 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-125 (continued) W-SMA-9.9 [Sites 11-006(b)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-126

W-SMA-10 [Sites 11-002, 11-003(b), 11-005(a), 11-005(b), 11-006(c), 11-006(d), and 11-011(d)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00403 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**512 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-126 (continued) W-SMA-10 [Sites 11-002, 11-003(b), 11-005(a), 11-005(b), 11-006(c), 11-006(d), and 11-011(d)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**9.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**106 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.51 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**8.79 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**6.27 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-126 (continued) W-SMA-10 [Sites 11-002, 11-003(b), 11-005(a), 11-005(b), 11-006(c), 11-006(d), and 11-011(d)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-127
W-SMA-11.7 [Site 49-008(c)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1020 µg/L**	n/a	**392 µg/L**	n/a	2	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-127 (continued) W-SMA-11.7 [Site 49-008(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**13.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**39.6 pCi/L**	n/a	**38.8 pCi/L**	n/a	2	See Section IV Part B
Radium-226 / Ra-226	**1.76 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.16 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-127 (continued) W-SMA-11.7 [Site 49-008(c)] Discharge Information

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-128
W-SMA-14.1 [Sites 15-004(h) and 15-014(l)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.63 SU	Maximum: 7.63 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**24.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**24.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.15 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	3	See Section IV Part B
Dissolved Organic Carbon / DOC	3.29 mg/L	n/a	n/a	n/a	1	See Section IV Part B

Table VII-128 (continued) W-SMA-14.1 [Sites 15-004(h) and 15-014(l)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**1.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**652 µg/L**	n/a	**163 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	**1.1 µg/L**	n/a	**0.65 µg/L**	n/a	3	See Section IV Part B
Arsenic / As	**3.6 µg/L**	n/a	**1.8 µg/L**	n/a	3	See Section IV Part B
Boron / B	**155 µg/L**	n/a	**40.8 µg/L**	n/a	3	See Section IV Part B
Cadmium / Cd	**0.15 µg/L**	n/a	**0.0768 µg/L**	n/a	3	See Section IV Part B
Calcium / Ca	**7.26 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	**3.6 µg/L**	n/a	**2.13 µg/L**	n/a	3	See Section IV Part B
Cobalt / Co	**1.8 µg/L**	n/a	**0.766 µg/L**	n/a	3	See Section IV Part B
Copper / Cu	**42.6 µg/L**	n/a	**13.1 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**24.8 mg/L**	n/a	**22.3 mg/L**	n/a	4	See Section IV Part B
Lead / Pb	**0.5 µg/L**	n/a	**0.315 µg/L**	n/a	3	See Section IV Part B
Magnesium / Mg	**0.62 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	0	n/a	3	See Section IV Part B
Nickel / Ni	**2.5 µg/L**	n/a	**1.28 µg/L**	n/a	3	See Section IV Part B
Potassium / K	**1.91 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	0	n/a	3	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	3	See Section IV Part B
Sodium / Na	**1.98 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	3	See Section IV Part B
Vanadium / V	**3.6 µg/L**	n/a	**3.04 µg/L**	n/a	3	See Section IV Part B
Zinc / Zn	**55.9 µg/L**	n/a	**13.1 µg/L**	n/a	3	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-128 (continued) W-SMA-14.1 [Sites 15-004(h) and 15-014(l)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	**2.04 µg/L**	n/a	**0.647 µg/L**	n/a	2	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**38.7 pCi/L**	n/a	**10.9 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**1.15 pCi/L**	n/a	**0.381 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**1.97 pCi/L**	n/a	**1.05 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**0.81 pCi/L**	n/a	**0.616 pCi/L**	n/a	3	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-129
W-SMA-15.1 [Site 49-005(a)] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**645 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-129 (continued) W-SMA-15.1 [Site 49-005(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**1.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**10 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.87 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**33.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.23 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.45 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.22 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-129 (continued) W-SMA-15.1 [Site 49-005(a)] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-130
A-SMA-2 [Sites 39-004(b) and 39-004(e)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.52 SU	Maximum: 7.52 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**33.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**33.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**3.69 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-130 (continued) A-SMA-2 [Sites 39-004(b) and 39-004(e)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**5.54 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**3.29 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**1310 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**1.93 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**7.08 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**1.81 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**23.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**22.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**1.58 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.43 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**5.72 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**9.15 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**5.62 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**8.22 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-130 (continued) A-SMA-2 [Sites 39-004(b) and 39-004(e)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
RDX / 121-82-4	**0.41 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**23.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**3.66 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.78 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.12 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-131
A-SMA-2.7 [Sites 39-002(c) and 39-008] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.87 SU	Maximum: 6.87 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**20.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**20.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**1.81 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide (Total) / CN(TOTAL)	**0.00747 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	0	n/a	2	See Section IV Part B

Table VII-131 (continued) A-SMA-2.7 [Sites 39-002(c) and 39-008] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**18 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.13 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**185 µg/L**	n/a	**89.4 µg/L**	n/a	3	See Section IV Part B
Antimony / Sb	Undetected	n/a	0	n/a	3	See Section IV Part B
Arsenic / As	Undetected	n/a	0	n/a	3	See Section IV Part B
Boron / B	**19.5 µg/L**	n/a	**10.3 µg/L**	n/a	3	See Section IV Part B
Cadmium / Cd	Undetected	n/a	0	n/a	3	See Section IV Part B
Calcium / Ca	**8.39 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	0	n/a	3	See Section IV Part B
Cobalt / Co	**3.3 µg/L**	n/a	**1.54 µg/L**	n/a	3	See Section IV Part B
Copper / Cu	**6.2 µg/L**	n/a	**4.59 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**48 mg/L**	n/a	**28.7 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	Undetected	n/a	0	n/a	3	See Section IV Part B
Magnesium / Mg	**1.16 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.16 µg/L**	n/a	**0.0524 µg/L**	n/a	3	See Section IV Part B
Nickel / Ni	**1.8 µg/L**	n/a	**1.37 µg/L**	n/a	3	See Section IV Part B
Potassium / K	**3.85 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**1.6 µg/L**	n/a	**0.965 µg/L**	n/a	3	See Section IV Part B
Silver / Ag	Undetected	n/a	0	n/a	3	See Section IV Part B
Sodium / Na	**1.86 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	0	n/a	3	See Section IV Part B
Vanadium / V	**1.8 µg/L**	n/a	**1.42 µg/L**	n/a	3	See Section IV Part B
Zinc / Zn	**14.6 µg/L**	n/a	**6.03 µg/L**	n/a	3	See Section IV Part B

Table VII-131 (continued) A-SMA-2.7 [Sites 39-002(c) and 39-008] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Amino-2,6-dinitrotoluene[4-] / 19406-51-0	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Amino-4,6-dinitrotoluene[2-] / 35572-78-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dinitrobenzene[1,3-] / 99-65-0	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dinitrotoluene[2,4-] / 121-14-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dinitrotoluene[2,6-] / 606-20-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
HMX / 2691-41-0	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nitrobenzene / 98-95-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nitrotoluene[2-] / 88-72-2	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nitrotoluene[3-] / 99-08-1	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Nitrotoluene[4-] / 99-99-0	Undetected	n/a	n/a	n/a	1	See Section IV Part B
PETN / 78-11-5	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	0	n/a	2	See Section IV Part B
Tetryl / 479-45-8	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrobenzene[1,3,5-] / 99-35-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	0	n/a	2	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**175 pCi/L**	n/a	**52.1 pCi/L**	n/a	3	See Section IV Part B
Radium-226 / Ra-226	**1.63 pCi/L**	n/a	**0.559 pCi/L**	n/a	3	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.7 pCi/L**	n/a	**2.91 pCi/L**	n/a	3	See Section IV Part B
Radium-228 / Ra-228	**5.06 pCi/L**	n/a	**2.9 pCi/L**	n/a	3	See Section IV Part B

Table VII-131 (continued) A-SMA-2.7 [Sites 39-002(c) and 39-008] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-132
A-SMA-3 [Sites 39-002(b) and 39-004(c)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	**0.00648 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**997 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**3.52 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**3.78 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**41.8 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-132 (continued) A-SMA-3 [Sites 39-002(b) and 39-004(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**25.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**7.25 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**245 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**82.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**14.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**4.5 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**9.04 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**5.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**18.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**12.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.16 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**4.51 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**13.2 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	**0.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**3.06 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**136 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**7.92 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 /	**17.7 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-132 (continued) A-SMA-3 [Sites 39-002(b) and 39-004(c)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Ra-226+228						
Radium-228 / Ra-228	**9.75 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-133
A-SMA-3.5 [Site 39-006(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.6 SU	Maximum: 6.6 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**20.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**20.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**49 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-133 (continued) A-SMA-3.5 [Site 39-006(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**10.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**5.42 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**347 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**6.65 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.27 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.15 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.16 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**12.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**17.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.16 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-133 (continued) A-SMA-3.5 [Site 39-006(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**4.77 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.000176 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**9.37 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**3.04 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.49 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.45 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-134
A-SMA-6 [Sites 33-004(k), 33-007(a), and 33-010(a)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.53 SU	Maximum: 7.53 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**132 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**132 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**2.77 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-134 (continued) A-SMA-6 [Sites 33-004(k), 33-007(a), and 33-010(a)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**42.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**4.22 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**187 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	**1.49 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**2.79 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**31.1 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	**0.12 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**33.8 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**4.92 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**5.86 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**94.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**2.39 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.41 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**3.18 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**9.53 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.46 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.28 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-134 (continued) A-SMA-6 [Sites 33-004(k), 33-007(a), and 33-010(a)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**29.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**6.18 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**8.39 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.21 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-135
CHQ-SMA-1.02 [Sites 33-004(h), 33-008(c), 33-011(d), and 33-015] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 8.03 SU	Maximum: 8.48 SU	Average: 8.25 SU	n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	**2.09 mg/L**	n/a	**0.867 mg/L**	n/a	2	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**79.6 mg/L**	n/a	**68 mg/L**	n/a	2	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**79.6 mg/L**	n/a	**66.8 mg/L**	n/a	2	See Section IV Part B
Chloride / Cl(-1)	**3.63 mg/L**	n/a	**1.86 mg/L**	n/a	2	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	**0**	n/a	3	See Section IV Part B

Table VII-135 (continued) CHQ-SMA-1.02 [Sites 33-004(h), 33-008(c), 33-011(d), and 33-015] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**6.25 mg/L**	n/a	**4.82 mg/L**	n/a	2	See Section IV Part B
Sulfate / SO4(-2)	**13.1 mg/L**	n/a	**5.71 mg/L**	n/a	2	See Section IV Part B
Aluminum / Al	**322 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Boron / B	**30 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Calcium / Ca	**15.9 mg/L**	n/a	**13.4 mg/L**	n/a	2	See Section IV Part B
Chromium / Cr	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Cobalt / Co	**2.4 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Copper / Cu	**8 µg/L**	n/a	**4.02 µg/L**	n/a	3	See Section IV Part B
Hardness / HARDNESS	**47 mg/L**	n/a	**37 mg/L**	n/a	3	See Section IV Part B
Lead / Pb	**0.6 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Magnesium / Mg	**1.75 mg/L**	n/a	**1.5 mg/L**	n/a	2	See Section IV Part B
Mercury / Hg	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Nickel / Ni	**2.8 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Potassium / K	**2.85 mg/L**	n/a	**2.12 mg/L**	n/a	2	See Section IV Part B
Selenium / Se	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Sodium / Na	**13.8 mg/L**	n/a	**7.13 mg/L**	n/a	2	See Section IV Part B
Thallium / Tl	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Vanadium / V	**5 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B

Table VII-135 (continued) CHQ-SMA-1.02 [Sites 33-004(h), 33-008(c), 33-011(d), and 33-015] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**10.9 µg/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.01 µg/L**	n/a	**0.00847 µg/L**	n/a	3	See Section IV Part B
Gross alpha / GROSSA	**8.34 pCi/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	**n/a**	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**5.94 pCi/L**	n/a	**n/a**	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**5.76 pCi/L**	n/a	**n/a**	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-136
CHQ-SMA-1.03 [Sites 33-008(c), 33-012(a), 33-017, C-33-001, and C-33-003] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**440 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**47.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-136 (continued) CHQ-SMA-1.03 [Sites 33-008(c), 33-012(a), 33-017, C-33-001, and C-33-003] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	**0.14 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**9.32 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.06 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**14.4 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**29.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.43 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.08 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.06 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.93 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**10.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.01 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**63.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.8 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**4.03 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.23 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-136 (continued) CHQ-SMA-1.03 [Sites 33-008(c), 33-012(a), 33-017, C-33-001, and C-33-003] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-137
CHQ-SMA-2 [Sites 33-004(d), 33-007(c), and C-33-003] Discharge Information

Part A						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum n/a	Maximum n/a	Minimum n/a	Maximum n/a	n/a	n/a
Part B						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**967 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**20.3 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-137 (continued) CHQ-SMA-2 [Sites 33-004(d), 33-007(c), and C-33-003] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**11.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**3.69 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**6.75 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**36.1 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.77 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.89 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.17 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.48 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.44 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.83 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**5.71 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**91.1 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**2.62 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**20.6 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**17.9 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-137 (continued) CHQ-SMA-2 [Sites 33-004(d), 33-007(c), and C-33-003] Discharge Information

Part C						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D					
1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					
7. Provide a description of the method of flow measurement or estimate.					
n/a					

Table VII-138
CHQ-SMA-3.05 [Site 33-010(f)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 7.65 SU	Maximum: 7.65 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**107 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**107 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.43 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-138 (continued) CHQ-SMA-3.05 [Site 33-010(f)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**34.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**3.86 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**123 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**30 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.93 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.19 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**81.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.61 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.07 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.42 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**3.56 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.59 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**3.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-138 (continued) CHQ-SMA-3.05 [Site 33-010(f)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	**0.000851 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**60.3 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**2.29 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**1.84 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-139
CHQ-SMA-4.1 (Site 33-016) Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.59 SU	Maximum: 6.59 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**16.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**16.2 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**10.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**10.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-139 (continued) CHQ-SMA-4.1 (Site 33-016) Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**2.23 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**268 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**2.15 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.06 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.21 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**7.05 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**0.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.09 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**0.7 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**5.47 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**2.83 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.54 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	Undetected	n/a	n/a	n/a	1	See Section IV Part B
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-139 (continued) CHQ-SMA-4.1 (Site 33-016) Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Total PCB / 1336-36-3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**34.5 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**1.37 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**3.49 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**2.12 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-140
CHQ-SMA-4.5 [Site 33-011(b)] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.57 SU	Maximum: 6.57 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**36.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**36.9 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.51 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B

Table VII-140 (continued) CHQ-SMA-4.5 [Site 33-011(b)] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Dissolved Organic Carbon / DOC	**24.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Sulfate / SO4(-2)	**0.88 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**237 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	**4.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**21.9 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**9.59 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**5.11 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**2.04 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**30.7 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.82 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.64 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.13 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**2.29 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.18 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.02 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**1.43 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-140 (continued) CHQ-SMA-4.5 [Site 33-011(b)] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Zinc / Zn	**3.46 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**103 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**11.4 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**19.2 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**7.75 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

Table VII-141
CHQ-SMA-6 [Sites 33-004(j), 33-006(a), 33-007(b), 33-010(c), 33-010(g), 33-010(h), and 33-014] Discharge Information

Part A

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	Not required	Not required	Not required	Not required	n/a	n/a
Biological Oxygen Demand (BOD5)	Not required	Not required	Not required	Not required	n/a	n/a
Chemical Oxygen Demand (COD)	Not required	Not required	Not required	Not required	n/a	n/a
Total Suspended Solids (TSS)	Not required	Not required	Not required	Not required	n/a	n/a
Total Nitrogen	Not required	Not required	Not required	Not required	n/a	n/a
Total Phosphorus	Not required	Not required	Not required	Not required	n/a	n/a
pH	Minimum: 6.81 SU	Maximum: 6.81 SU	Minimum n/a	Maximum n/a	n/a	See Section IV Part B

Part B

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Alkalinity-CO3 / ALK-CO3	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-CO3+HCO3 / ALK-CO3+HCO3	**27.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Alkalinity-HCO3 / ALK-HCO3	**27.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chloride / Cl(-1)	**0.68 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cyanide, weak acid dissociable / CN(WAD)	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Dissolved Organic Carbon / DOC	**35.3 mg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-141 (continued) CHQ-SMA-6 [Sites 33-004(j), 33-006(a), 33-007(b), 33-010(c), 33-010(g), 33-010(h), and 33-014] Discharge Information

Part B (continued)						
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Sulfate / SO4(-2)	**3.89 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Aluminum / Al	**641 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Antimony / Sb	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Arsenic / As	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Boron / B	**25.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Cadmium / Cd	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Calcium / Ca	**10.4 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Chromium / Cr	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Cobalt / Co	**2.91 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Copper / Cu	**87.6 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Hardness / HARDNESS	**31.6 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Lead / Pb	**0.5 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Magnesium / Mg	**1.38 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Mercury / Hg	**0.21 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Nickel / Ni	**1.66 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Potassium / K	**4.84 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Selenium / Se	**2.78 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Silver / Ag	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Sodium / Na	**0.59 mg/L**	n/a	n/a	n/a	1	See Section IV Part B
Thallium / Tl	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Vanadium / V	**2.89 µg/L**	n/a	n/a	n/a	1	See Section IV Part B
Zinc / Zn	**5.01 µg/L**	n/a	n/a	n/a	1	See Section IV Part B

Table VII-141 (continued) CHQ-SMA-6 [Sites 33-004(j), 33-006(a), 33-007(b), 33-010(c), 33-010(g), 33-010(h), and 33-014] Discharge Information

Part B (continued)

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values per Permit NM0030759 *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
RDX / 121-82-4	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Trinitrotoluene[2,4,6-] / 118-96-7	Undetected	n/a	n/a	n/a	1	See Section IV Part B
Gross alpha / GROSSA	**157 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 / Ra-226	**3.56 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-226 and Radium-228 / Ra-226+228	**7.83 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B
Radium-228 / Ra-228	**4.27 pCi/L**	n/a	n/a	n/a	1	See Section IV Part B

Part C

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
See Part B						

Part D

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
Not applicable. No composite samples reported.					

7. Provide a description of the method of flow measurement or estimate.

n/a

NPDES FORM 2F SECTION VIII – BIOLOGICAL TOXICITY TESTING DATA

Introduction

NPDES Form 2F Section VIII, included following this introduction, requests information and data regarding biological toxicity testing (acute or chronic) of any discharges, or receiving waters, within the last 3 years.

No biological toxicity tests have been made directly related to discharges from the permitted Sites within the last 3 years. However, toxicity tests have been performed on chironomids in multiple canyons since the 2005 Permit application. A brief summary of the testing is presented below, and the detailed discussion can be found in the appropriate investigations report.

Ecological risk assessments were performed under multiple canyons investigations and the findings presented in each investigation report. These assessments included toxicity testing on *Chironomus tentans*, per EPA test methods. Such testing provides a measure of effect for the aquatic community that can be related to the impacts on abundance and diversity of the aquatic community in the perennial stream segments of the particular watershed. Though these tests were not performed within the last 3 years, the canyon reports indicate concentrations in sediment, surface water, and alluvial groundwater are either relatively stable or decreasing over time for constituents derived from Laboratory SWMUs or AOCs. Subsequent studies and data have confirmed that these temporal trends persist, indicating similar or decreased concentrations in canyon sediments than when the chironomid toxicity tests were first conducted.

Below is a list of the relevant reports. Please see the reference section for additional information.

- Los Alamos and Pueblo Canyons Investigation Report, April 2004
- Mortandad Canyon Investigation Report, October 2006
- Pajarito Canyon Investigation Report, Revision 1, August 2009
- Investigation Report for Sandia Canyon, October 2009
- Investigation Report for Water Canyon/Canon de Valle

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

See SECTION VIII, INTRODUCTION, VOLUME 2, for additional information

NPDES FORM 2F SECTION IX – CONTRACT ANALYSIS INFORMATION

Introduction

NPDES Form 2F Section IX, included following this introduction, requests information regarding the contract laboratory that performed the analyses for water-quality data presented in “Section VII Discharge Information” in Volume 2 of this application. The requested information regarding the contract laboratories is provided in Section IX.

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

IX. Contract analysis Information

Were any of the analysis reported in item VII performed by a contract laboratory or consulting firm?

☒ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
General Engineering Laboratories	*2040 Savage Road Charleston, SC 29407*	*(843) 556-8171*	*Cyanide High explosives Metals Organics Pesticides*
Cape Fear Analytical	*3306 Kitty Hawk Dr. Suite 120 Wilmington, NC 28405*	*(910)795-0421*	*PCBs Dioxins*

NPDES FORM 2F SECTION X – CERTIFICATION

Form **2F** NPDES	United States Environmental Protection Agency Washington, DC 20460 **Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity**

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title *(type or print)*	B. Area Code and Phone No.
Jeff Mousseau, Director ADEP / Kim Davis Lebak, DOE Site Manager	(505) 606-2337 / (505) 667-5105
C. Signature Jeff Mou Kim Davis Lebak	D. Date Signed 3/25/2014 3/26/14