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Surface Water Data at Los Alamos National Laboratory

2007 Water Year

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2007 Water Year

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Abbreviations, Acronyms, and Glossary

Acre-foot (Ac-Ft, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, 325,851 gallons, or 1233.49 cubic meters.

CFS-day is the volume of water represented by the flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,445 cubic meters.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic feet per second per square mile [$(\text{ft}^3/\text{s})/\text{mi}^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, the volume of fluid including suspended sediment) that passes a given point within a given period of time.

Drainage area (DA) of a stream at a specified location is that area measured in a horizontal plane and enclosed by a topographic divide, from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (GH) is the water-surface elevation referred to in some arbitrary gage data. Gage height is often used interchangeably with the more general term “stage,” although gage height is more appropriate when used with a reading on a gage.

Gage station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Abbreviations, Acronyms, and Glossary (continued)

GPS is an abbreviation for global positioning system.

HWM is an abbreviation for high-water mark.

Instantaneous discharge is the discharge at a particular instant of time.

LANL is the acronym for Los Alamos National Laboratory

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada. It was formerly called Sea Level Datum of 1929, or “mean sea level,” in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific coasts, it does not necessarily represent the local mean sea level at any particular place.

NPDES is the abbreviation for National Pollution Discharge Elimination System.

SR means “State Road.”

Stage See **Gage Height**.

Stage-discharge relation is the relation between the water-surface elevation, termed “gage height,” and the volume of water flowing in a channel per unit of time.

Stream flow is the discharge that occurs in a natural channel.

SWSC is an abbreviation for sanitary wastewater systems consolidation.

USGS is the abbreviation for U.S. Geological Survey.

Water year in reports dealing with surface water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the “1980 water year.”

WDR is an abbreviation for “Water-Data Report” in the “Revised Records” paragraph to refer to annual hydrologic-data reports.

WSP is an abbreviation for “Water-Supply Paper” in references to previously published reports.

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Surface Water Data at Los Alamos National Laboratory: 2007 Water Year

by

D. Ortiz, B. Cata and G. Kuyumjian

ABSTRACT

The principal investigators collected and computed surface water discharge data from 69 stream-gage stations that cover most of Los Alamos National Laboratory and one at Bandelier National Monument. Also included are discharge data from three springs—two that flow into Cañon de Valle and one that flows into Water Canyon.

Introduction

This annual water data report from Los Alamos National Laboratory (LANL) contains flow data from 69 stream-gage stations that cover most of the Laboratory's property. Data collected on the Laboratory's downstream boundary approximates New Mexico State Road (SR) 4; the upstream boundary is approximated by New Mexico SR 501. Some of the gage stations are within Laboratory boundaries and were originally installed to assist groups other than the Water Stewardship Programs (EP-WSP) that also conducts site-specific earth science research.

Twenty five stations were added to publication.

Precipitation Records were added to publication. Rainfall/precipitation data collection began at selected stations starting March 2007–July 2007 and continued collection of data to the end of the Water Year. Tipping-bucket rain gages measured precipitation with data recorded every 5 minutes. Calendar totals (midnight to midnight) are tabulated and presented with the associated station record within this manuscript. Data gaps were estimated using surrounding stations.

Water chemistry data from selected storm events occurring at some stations will be published in the 2007 "Los Alamos National Laboratory Environmental Surveillance Report." Those data are also available on the web.

Station Identification Numbers

The U.S. Geological Survey (USGS), Water Resources Division, assigns a unique identification number to each stream-gage station it establishes. All sites numbered since 1950 are part of the downstream-order system. The downstream-order system increases station numbers in the downstream direction along main streams, and in the case of this report, their respective mouths to the Rio Grande.

This report adheres to the USGS convention of downstream order. Because of the proximity of stations in this network, the first five digits of all station numbers are 08313. We have replaced this number string with the letter E in the station number partly to abbreviate and also to accommodate instrumentation.

Data Collection and Computation

A complete record at a gage station gathers records of stage and discharge measurements from streams or canals. In addition to gathering these stage and discharge measurements, we directly observe factors affecting the stage/discharge relation, consult weather records, and use other information that supplements base data in determining daily flow. Direct readings on a non-recording gage or from the data logger provide integrated (5-minute) records of stage. We measure discharge with current meters, using methods the USGS adapted as a result of experience accumulated since 1880. Standard textbooks describe these methods, as do Water-Supply Paper 2175 and the U.S. Geological Survey Technique of Water Resources Investigations, Book 3, Chapter A6.

We use stage/discharge relation curves to prepare rating tables that give the discharge for any stage measured at a stream-gage station. When it is necessary to define discharge extremes outside the range of current meter measurements, we extend the curves using logarithmic plotting, velocity area studies, results of indirect measurements of peak discharge, such as slope area or contracted opening measurements and computations of flow over dams or weirs, or step backwater techniques.

Daily mean discharges are computed by applying daily mean gage height (stage) to the stage discharge curves or tables. If the stage/discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method. In the shifting-control method, correction factors based on individual discharge measurements and notes by personnel taking the measurements are applied to the gage heights before discharges are determined from the curves or tables.

The shifting-control method is also used if the stage/discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control. At some northern stream-gage stations, the stage/discharge relation is affected by ice in the winter, and it becomes impossible to compute discharge in the usual manner. Discharge for the period of ice effect is computed on the basis of gage height record and occasional winter discharge measurements. Consideration is given to the available information about temperature and precipitation, notes of observations, and comparable discharge records for other stations in the same or nearby basins for comparable periods of time.

For some gage stations, periods occur when no gage height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, etc. For such periods, the daily discharges are estimated on the basis of recorded range-in-stage, prior and subsequent records, discharge measurements, weather records, and record comparisons made against other stations in the same or nearby basins. Likewise, daily contents

may be estimated from operator logs, prior and subsequent records, inflow-outflow studies, and other information.

Accuracy of Records

The following two factors determine the accuracy of stream flow records:

- stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and
- accuracy of measurements or stage, accuracy of discharge measurements, and interpretations of records.

Accuracy attributed to records is noted under “Remarks.”

- Excellent—95% of daily discharges are within 5% of the true value.
- Good—95% of daily discharges are within 10% of the true value.
- Fair—95% of daily discharges are within 15% of the true value.
- Poor—records do not meet the criteria mentioned.

Accuracy determination is only based on days with flow.

The number of significant figures used to report daily mean discharges is based solely on the magnitude of the discharge value:

If —the value (ft ³ /s) is	Then —it is reported as
less than 1 ft ³ /s	nearest hundredth
1–10 ft ³ /s	nearest tenth
10–1,000 ft ³ /s	whole number
above 1,000 ft ³ /s	three significant figures

Data Presentation

The records published in this report are for each gage station and consist of three parts:

- station analysis summary,
- station manuscript description with photo and
- data table for the water year (October 1, 2006 to September 30, 2007).

The station analysis supplements each daily values tables and includes a description of monitoring equipment, problems associated with data collection during the water year and other information used to compute stream flow discharge.

The station manuscript provides data under various headings: station location, period of record, average discharge, historical extremes, record accuracy, and other points pertinent to station operation and regulation. Each continuous record of discharge includes the following categories of descriptions.

Location. The most accurate and available maps, plus global positioning system (GPS) technology, provide location information. The location of the gage with respect to the vicinity's cultural and physical features is given, as well as a name that refers to place. For a few stations, the U.S. Army Corps of Engineers or the Water Resources Council (River Mileage Measurement, Bulletin 14, rev. October 1968) provided river mileage. We define left and right banks from the perspective of facing downstream.

Drainage Area. The most accurate and available maps provide drainage area measurements. The accuracy of drainage area measurements varies, depending on the type of map available for this purpose.

Revised Records. Because of new information, published records occasionally are found to be incorrect and revisions are printed in later reports. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year as follows: (M) means that only instantaneous maximum discharge was revised; (m) means that only the instantaneous minimum was revised; and (P) means that only the peak discharge was revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

Period of Record. The period of record is the time during which published records exist for a station or its equivalent station. An equivalent station is one that was in operation when the present station was not in operation and was located so that records from it can reasonably be considered equivalent to records from the present station.

Gage. This section describes the type of gage in current use. The datum of the current gage referred to in the National Geodetic Vertical Datum of 1929 (NGVD) (see Abbreviations, Acronyms, and Glossary) and a condensed history of the types, locations, and data of previous gages are given under this heading.

Remarks. The text presents information relative to the accuracy of the records, special methods of computation, conditions that affect natural flow at the station, and other pertinent information.

Average Discharge. The average discharge is the average of the annual mean discharge published after 5 years of record. Once it is published, it continues as a moving average.

Extremes for Period of Record. Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest stage gage, or by direct observation of a nonrecording gage.

If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

Extremes outside Period of Record. This section contains information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may have been obtained from other agencies, old data files, newspapers, or local citizens.

Extremes for Current Year. Extremes given here are similar to those for the period of record. The time for occurrence of peaks is expressed in 24-h local standard time. For example, 12:30 A.M. is 0030 and 1:30 P.M. is 1330. The minimum for the current water year appears in this section.

Data Table of Daily Mean Values. The daily table of discharge records for stream-gage stations gives the mean discharge for each day of the water year. In the monthly summary for the table, the line headed “Total” gives the sum of the daily figures for each month; the line headed “Mean” gives the average flow in cubic feet per second for the month; and the lines headed “Max” and “Min” give the maximum and minimum daily mean discharges for each month and in acre feet, respectively, in the line headed “Acre-Ft.”

Acknowledgments

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References

Water-Supply Paper 2175 and the U.S. Geological Survey Technique of Water Resources Investigations, Book 3, Chapter A6.
U.S. Army Corps of Engineers, River Mileage Measurement, Bulletin 14, rev. October 1968.
National Geodetic Vertical Datum of 1929.

<http://www.esg.montana.edu/gl/glcus.html> Used to obtain legal locations.

Previous Los Alamos National Laboratory reports in this series—“Surface Water Data at Los Alamos National Laboratory” for water years 1995–2004

1995: LA-13177-PR (August 1996)

1996: LA-13234-PR (November 1996)

1997: LA-13403-PR (January 1996)

1998: LA-13551-PR (February 1999)

1999: LA-13706-PR (April 2000)

2000: LA-13814-PR (July 2001)

2001: LA-13905-PR (April 2002)

2002: LA-14019-PR (March 2003)

2003: LA-14131-PR (March 2004)

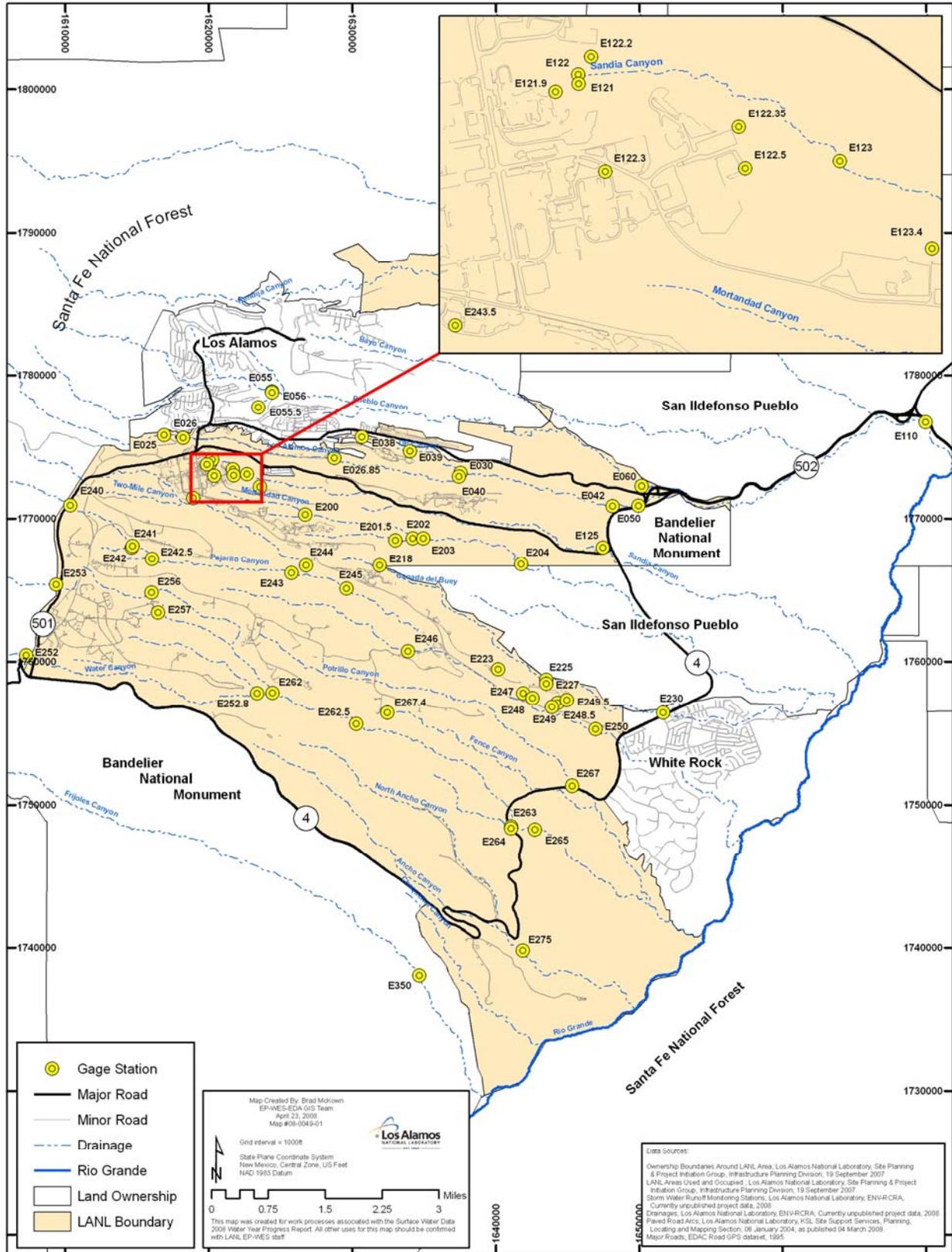
2004: LA-14211-PR (April 2005)

2005: LA-14239-PR (May 2006)

2006: LA-14328-PR (August 2007)

Gage Stations

Gage Stations at Los Alamos National Laboratory



**Summary of Discharges from Stream Monitoring Stations at
Los Alamos National Laboratory**

Water Year 2007
October 1, 2006 to September 30, 2007

Canyon Sites	Days with Flow	Volume in Ac-Ft	Instantaneous Max in ft³/s
E025 Los Alamos Canyon above Ice Rink	218	418	6.1
E026 Los Alamos Canyon below Ice Rink	168	367	5.0
E02685 Los Alamos Canyon at TA-2	173	452	52
E030 Los Alamos Canyon above DP Canyon	114	300	24
E038 DP Canyon above TA-21	61	109	149
E039 DP Canyon below Meadow at TA-21	74	101	125
E040 DP Canyon above Los Alamos Canyon	28	234	11
E042 Los Alamos Canyon above SR 4	97	103	85
E050 Los Alamos Canyon below LA Weir	91	103	30
E055 Pueblo Canyon above Acid Canyon	181	58	21
E0555 South Fork Acid Canyon	56	30	43
E056 Acid Canyon at Mouth	96	79	216
E060 Pueblo Canyon above SR 502	354	558	31
E121 Sandia Canyon Right Fork at Power Plant	365	566	67
E1219 Sandia Canyon East of Power Plant	31	1.4	3.1
E122 Sandia Canyon near Roads and Grounds at TA-3	292	30	13
E1222 Sandia Canyon Tributary from Roads and Grounds	21	2.3	4.4
E1223 Sandia Canyon Tributary from Sigma Building	7	0.42	0.54
E12235 Sandia Canyon Tributary from MRF	8	0.24	2.5
E1225 Sandia Canyon Tributary at Heavy Equipment	48	4.3	8.1
E123 Sandia Canyon below Wetlands	365	421	67
E1234 Sandia Canyon Roads and Grounds at Sigma	18	0.89	3.7
E125 Sandia Canyon above SR 4	0	0	3.0
E196 TA-55 above Effluent Canyon	14	0.48	0.95
E200 Mortandad Canyon below Effluent Canyon	121	32	32
E2005 Mortandad Canyon Tributary Batch Plant at Sigma	19	6.4	1.6
E201 Mortandad Canyon above Ten Site Canyon	3	2.0	49
E2011 TA-50 Area 006	18	1.7	4.6
E2013 TA-50 Area C	18	1.1	7.5
E2015 Ten Site Canyon above Mortandad Canyon	1	0.16	2.8
E202 Mortandad Canyon above Sediment Traps	1	0.61	5.6
E203 Mortandad Canyon below Sediment Traps	0	0	0
E204 Mortandad Canyon at LANL Boundary	0	0	0
E218 Cañada del Buey near TA-46	82	14	4.3
E220 TA-54 RANT	13	0.40	2.1
E223 MDA Area L	2	0.06	1.8
E225 Cañada del Buey near MDA G	0	0	5.0
E227 MDA G-6	3	0.08	1.7

**Summary of Discharges from Stream Monitoring Stations at
Los Alamos National Laboratory (continued)**

Water Year 2007
October 1, 2006 to September 30, 2007

Canyon Sites	Days with Flow	Volume in Ac-Ft	Instantaneous Max in ft³/s
E230 Cañada del Buey above SR 4	8	3.6	50
E240 Pajarito Canyon below SR 501	70	47	7.2
E241 Pajarito Canyon above Starmers Gulch	246	19	17
E242 Starmers Gulch above Pajarito Canyon	350	438	628
E2425 Arroyo de La Delfe above Pajarito	365	37	8
E243 Pajarito Canyon above Two Mile Canyon	214	170	116
E2435 Two Mile Canyon Tributary at TA-3	58	6.6	60
E244 Two Mile Canyon above Pajarito Canyon	184	69	203
E245 Pajarito Canyon above TA-18	135	205	59
E246 Three Mile Canyon above Pajarito Canyon	104	25	0.70
E247 MDA G-1	2	0.04	0.94
E248 MDA G-2	11	2.9	4.9
E2485 MDA G-6	7	0.52	3.8
E249 MDA G-4	1	0.02	0.76
E2495 MDA G-7	26	3.0	3.1
E250 Pajarito Canyon above SR 4	2	0.54	2.0
E252 Water Canyon above SR 501	365	207	6.4
E2528 S-Site Canyon above Water Canyon	9	13	150
E253 Cañon del Valle above SR 501	2	0.16	1.8
E256 Cañon del Valle below MDA P	237	45	22
E257 Cañon del Valle at Burn Grounds	45	3.6	9.5
E262 Cañon del Valle above Water Canyon	10	4.3	19
E2625 Water Canyon below MDA AB	117	73	306
E263 Water Canyon at SR 4	9	17	83
E264 Indio Canyon at SR 4	10	0.20	0.03
E265 Water Canyon below SR 4	9	14	72
E267 Portillo Canyon above SR 4	1	0.10	4.0
E2674 TA-36 Minie Site	3	0.10	0.44
E275 Ancho Canyon below SR 4	4	1.60	25
E350 Rito de Los Frijoles at Bandalier	365	811	722

E025 Los Alamos Canyon at Los Alamos

Location. Lat 35° 52' 50", long 106° 19' 45", NW ¼, Sec. 17, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 6.92 mi².

Period of Record. October 1, 1993 to September 30, 2001; October 2001 to September 2006 (fragmentary). October 1, 2006 to September 30, 2007.

Revised Record. Drainage Area (this report).

Gage. Data logger and 24" Parshall flume. Elevation of gage is 7,237 ft above NGVD.

Remarks. Records are good except estimated daily discharges which are poor. Flow is partially regulated by Los Alamos Reservoir about 1.52 mi upstream.

Extremes for Period of Record. Maximum discharge, 185 ft³/s, August 9, 2001, gage height not determined. No flow at times.

Extremes for Current Water Year. Peak discharge above base of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
March 29	0730	5.0	0.74
July 26	1300	6.1*	0.84*

No Flow at times.



E025 Los Alamos Canyon at Los Alamos

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8200(5 min. interval) with a shaft encoder float system (5 min. interval). The system is powered by a solar panel battery system housed in a National Electric Manufacturing Association (NEMA) shelter on top of a 18" Corrugated Metal Pipe (CMP) well attached to a 24" Parshall flume on right bank. No provision for measurement above wading stage.

Field Work. The station was visited twenty-two times for the purpose of making discharge measurements and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None from levels. Gage height corrections were applied for minor base gage data logger differences.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the periods from October 1-5 when data logger malfunctioned and February 17 to March 3 when encoder malfunctioned.

Rating. The low flow control is a 24" Parshall flume. Low flow is subject to minor shifting due to accumulation of leaves. The medium to high flow control becomes the channel. Channel is straight for 100' above and below gage and is subject to over flow at very high stages. The streambed is gravel, cobbles with grass covering over banks.

Rating No. 1 was used for the entire water year.

Discharge. Discharge was computed using rating No. 1. Discharges if frozen or equipment malfunction were estimated with reference to E026.

Flow is somewhat controlled by Los Alamos Reservoir about 1 River mile upstream of gage.

Remarks. Records are good, except for estimated daily discharges and high flow during the year, which are poor.

Peak flow since the Cerro Grand fire has been too high to record at gage. Station E026 has been established 0.1 mile downstream for high flow. E025 will functionally be operated as low to medium flow partial record station.

E025 Los Alamos Canyon at Los Alamos

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	.01	0	0	0	.32*	2.5	1.3	.82	0	.19	.10
2	0*	0	0	0	0	.30*	1.8	1.8	.75	0	.19	.18
3	0*	0	0	0	0	.36*	1.5	2.1	.69	0	.13	.11
4	0*	0	0	0	0	.39	1.5	2.2	.66	0	.11	.08
5	0*	0	0	0	0	.35	1.5	2.2	.88	0	.08	.17
6	0	0	0	0	0	.31	1.9	2.0	.51	0	.12	.35
7	0	0	0	0	0	.30	2.2	1.8	.42	0	.15	.29
8	0	0	0	0	0	.32	2.2	1.7	.40	0	.13	.38
9	.10	0	0	0	0	.70	2.2	1.9	.32	0	.12	.34
10	.18	0	0	0	0	1.1	2.2	2.0	.31	0	.09	.26
11	.14	0	0	0	.03	1.3	2.1	2.1	.34	0	.05	.30
12	.11	0	0	0	.17	1.5	2.1	2.1	.40	0	0	.25
13	.09	0	0	0	.27	1.8	2.1	2.2	.32	0	0	.18
14	.10	0	0	0	.31	2.3	2.1	2.0	.28	.07	0	.16
15	.19	0	0	0	.34	3.2	2.0	1.9	.26	.13	0	.15
16	.13	0	0	0	.37	4.2*	1.9	1.7	.25	.09	0	.15
17	.11	0	0	0	.30*	4.1*	1.5	1.6	.24	.05	0	.15
18	.10	0	0	0	.28*	4.3*	1.4	1.5	.21	.01	.05	.16
19	.16	0	0	0	.30*	4.5*	1.4	1.4	.20	0	.06	.13
20	.16	0	0	0	.34*	3.6*	1.6	1.5	.19	0	.03	.24
21	.16	0	0	0	.30*	3.2*	1.7	1.5	.18	0	0	.20
22	.16	0	0	0	.28*	3.5*	1.7	1.6	.18	0	0	.14
23	.16	0	0	0	.39*	3.8*	1.6	1.6	.17	0	0	.18
24	.16	0	0	0	.43*	4.1*	1.5	1.7	.14	0	0	.17
25	.15	0	0	0	.40*	4.5	1.5	1.6	.10	0	0	.15
26	.19	0	0	0	.34*	4.7	1.4	1.5	.06	.35	0	.13
27	.23	0	0	0	.35*	4.5	1.3	1.3	.01	.11	0	.11
28	.19	0	0	0	.33*	4.3	1.3	1.2	0	.07	0	.10
29	.17	0	0	0	-----	4.6	1.2	1.1	0	.02	.04	.14
30	.13	0	0	0	-----	4.4	1.2	1.0	0	.23	.08	.12
31	.06	-----	0	0	-----	3.4	-----	.92	-----	.07	.06	-----
Total	3.33	0.01	0	0	5.53	80.25	52.1	52.02	9.29	1.20	1.68	5.57
Mean	.11	0	0	0	.20	2.59	1.74	1.68	.31	.039	.054	.19
Max	.23	.01	0	0	.43	4.7	2.5	2.2	.88	.35	.19	.38
Min	0	0	0	0	0	.30	1.2	.92	0	0	0	.08
Acre-Ft	6.6	.02	0	0	11	159	103	103	18	2.4	3.3	11
Wtr Year	2007	Total	210.98	Mean	.58	Max	4.7	Min	0	Acre-Ft	418	
Cal Year	2006	Total	14.54	Mean	.046	Max	3.5	Min	0	Acre-Ft	29	

* Estimated

E026 Los Alamos Canyon below Ice Rink

Location. Lat 35° 52' 49" long 106° 19' 30", NE ¼, Sec. 17, T. 19 N., R. 6 E., Los Alamos County, on left bank 0.3 mi upstream from "Rainbow" bridge on Diamond Drive over Los Alamos Canyon and 1.55 mi downstream from Los Alamos Reservoir.

Drainage Area. 7.07 mi².

Period of Record. February 26, 2001, to September 30, 2007.

Revised Record. Drainage Area (2006); Section (this report).

Gage. Data logger with cellular telemetry. Elevation of gage is 7,183 ft above NGVD.

Remarks. Water discharge records are good except estimated daily discharges, which are fair. Flow partially regulated by Los Alamos Reservoir about 1.55 mi upstream.

Extremes for Period of Record. Maximum discharge, 185 ft³/s, August 9, 2001, gage height 1.52 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge, 5 ft³/s at 1530 h, March 25, gage height 0.61 ft. No peak above base of 15 ft³/s. No flow at times.



E026 Los Alamos Canyon below Ice Rink

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) and shaft encoder float system with cellular phone with speech modem. The system is powered by a solar panel battery system housed in a NEMA shelter on top of a 24" CMP well 16' long attached to a 40' steel walkway on left bank. Station is equipped with ISCO samplers for water quality sample collection and housed in a 3' x 4' metal box. Samplers are triggered by stage through the data logger. An outside staff is available for reference. No provision for measurement above wading stage. All high flow measurement will be by slope-area or critical depth computation methods.

Field Work. The station was visited twenty one times for the purpose of making discharge measurements and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Level run Nov. 21, 2001 and datum correction applied as detailed on PCS.

Gage-Height Record. The data logger referenced to the inside staff gave a complete and satisfactory record for the period of record.

Rating. The channel at the gage is about 20' wide and straight for 20' upstream where it bends to the left and then straight for about 150' downstream. The streambed through this reach is primary gravel with cobbles. Low flow control is rock and grave riffle 15' downstream from gage. Channel control for medium and high stages. The build-up and scour of this control leads to changes of shifts during the water year.

Nineteen discharge measurements (Nos. 44-62) and twenty-one inspections were made during the period.

Rating No. 2 was developed based on measurement No. 41-62. Measurement No. 42 being a critical depth computation of peak flow.

Flow is partially regulated by Los Alamos Reservoir about 1.5 miles upstream of gage and draining of this reservoir. Gage of reference at this station is the inside reference point (RP measure). Fall exists at all low to medium flow regimes between staff and well.

Discharge. Discharges were computed from Rating No. 2 using variable shift curves that were defined by the measurements and listed on the work sheet. Periods of lost gage height record were computed from record computation of auxiliary station E025 one-quarter mile upstream. (That station has a 24" flume and record is good to excellent.

Remarks. Records are good, except for estimated daily discharges which are fair.

E026 Los Alamos Canyon below Ice Rink

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.29	2.8	1.1	.77	0	0	.03
2	0	0	0	0	0	.26	2.5	1.7	.70	0	0	.12
3	0	0	0	0	0	.27	2.1	2.0	.68	0	0	0
4	0	0	0	0	0	.25	1.9	2.0	.63	0	0	0
5	0	0	0	0	0	.26	2.0	1.9	.80	0	0	.05
6	0	0	0	0	0	.25	2.2	1.8	.37	0*	.03	.48
7	0	0	0	0	0	.20	2.4	1.6	.28	0*	0	.08
8	0	0	0	0	0	.19	2.3	1.5	.23	0*	0*	.09
9	.13	0	0	0	0	.44	2.1	1.6	.13	0*	0*	.07
10	.01	0	0	0	0	1.0	2.0	1.6	.11	0*	0*	.05
11	0	0	0	0	0	1.3	1.9	1.7	.20	0*	0*	.09
12	0	0	0	0	.03	1.3	1.8	1.7	.39	0*	0*	.06
13	0	0	0	0	.12	1.5	1.9	1.9	.18	0	0*	.03
14	.01	0	0	0	.19	2.1	1.6	1.9	.10	.18	0	.02
15	.06	0	0	0	.14	3.2	1.4	1.7	.07	0	0	.02
16	0	0	0	0	.10	4.2	1.3	1.5	.07	0*	0	.01
17	0	0	0	0	.08	4.2	1.3	1.3	.06	0*	0	.06
18	0	0	0	0	.07	3.9	1.3	1.2	.03	0*	0	.11
19	0	0	0	0	.07	3.9	1.4	1.1	.02	0*	0	.05
20	0	0	0	0	.12	3.4	1.5	1.3	.02	0*	0	.57
21	0	0	0	0	.20	3.1	1.6	1.2	.01	0	0	.35
22	0	0	0	0	.24	3.3	1.7	1.3	.01	0	0	.10
23	0	0	0	0	.34	3.9	1.6	1.6	0	0	0	.29
24	0	0	0	0	.39	4.2	1.5	1.7	0	0	0	.24
25	0	0	0	0	.33	4.6	1.4	1.6	0	0*	0	.11
26	.02	0	0	0	.29	4.4	1.4	1.5	0	.37	0	.04
27	0	0	0	0	.28	4.1	1.2	1.4	0	0	0	.03
28	0	0	0	0	.29	3.8	1.1	1.2	0	0*	0	.02
29	0	0	0	0	-----	3.5	1.1	1.1	0	0*	0	.13
30	0	0	0	0	-----	3.1	1.1	1.0	0	.20	0	.04
31	0	-----	0	0	-----	2.9	-----	.89	-----	0	0	-----
Total	0.23	0	0	0	3.28	73.31	51.4	46.59	5.86	0.75	0.03	3.34
Mean	.007	0	0	0	.12	2.36	1.71	1.50	.20	.024	.001	.11
Max	.13	0	0	0	.39	4.6	2.8	2.0	.80	.37	.03	.57
Min	0	0	0	0	0	.19	1.1	.89	0	0	0	0
Acre-Ft	.46	0	0	0	6.5	145	102	92	12	1.5	.06	6.6
Wtr Year	2007	Total	184.79	Mean	.51	Max	4.6	Min	0	Acre-Ft	367	
Cal Year	2006	Total	23.53	Mean	.064	Max	3.2	Min	0	Acre-Ft	47	

*Estimated

E02685 Los Alamos Canyon at TA-2

Location. Lat 35° 52' 34", long 106° 17' 21", SE ¼, Sec. 15, T. 19 N., R. 6 E., Los Alamos County

Drainage Area. 7.97 mi².

Period of Record. March 8, 2006 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 6,853 ft above NGVD.

Remarks. Water discharge records are good, except for estimated daily discharges, which are fair. Flow partially regulated by Los Alamos Reservoir about 3.0 miles upstream.

Extremes for Period of Record. Maximum discharge 52 ft³/s, September 6, 2007 gage height 1.94 ft. No flow most of time.

Extremes for Current Water Year. Peak discharges above base of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height
May 13	1510	16	1.21
June 16	1535	18	1.27
July 14	1715	19	1.27
July 30	1235	22	1.34
August 28	1450	24	1.37
September 2	1445	26	1.43
September 6	1455	52*	1.94*

No flow at times.



E02685 Los Alamos Canyon at TA-2

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5 min. interval) with a Sutron accububble self contained bubbler system and cellular phone with speech modem. System is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. No provision for direct measurement of flows above wading stage.

Field Work. The station was visited twenty-nine times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels of March 6, 2006 found gage within limits, no correction needed.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record except for the following dates; July 6–12, 16–20, 25 and 29 when orifice was isolated from flow.

Rating. The channel is straight for 100' upstream and downstream. Bed is large gravel and well armored and should not be subject to much movement. Channel is trapezoidal with some vegetation. Flow is regulated some what by Los Alamos Reservoir about 3.0 miles upstream.

Rating No. 1 was developed based on all the measurement made during the period of record. Shifts are small and variable. Flows are very flashy, less than an hour, so mean daily discharge are very small relation to the instantaneous peak.

Twenty one discharge measurements (Nos. 5–25) and eight inspections of no flow were made during the year.

Discharge. Discharge was computed from Rating No. 1 with shifts applied by stage V diagram. Periods of lost record are estimated using station E026.

Remarks. Records are good except for estimated daily discharges, which are fair.

E02685 Los Alamos Canyon at TA-2

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	0	0	0	.63	3.0	1.0	.66	0	0	.59
2	0	0	0	0	0	.57	2.5	2.3	.59	0	0	1.7
3	0	0	0	0	0	.89	2.2	2.0	.58	0	0	.06
4	0	0	0	0	0	1.1	2.1	2.1	.53	0	.29	.03
5	0	0	0	0	0	.55	2.2	2.1	.63	0	.03	.29
6	0	0	0	0	0	.56	2.4	1.9	.36	0	.20	3.1
7	0	0	0	0	0	.57	2.7	1.7	.23	0	.02	.30
8	0	0	0	0	0	.62	2.6	2.1	.18	0	0*	.12
9	1.5	0	0	0	0	.91	2.5	2.0	.14	0	0*	.09
10	.37	0	0	0	0	1.6	2.3	1.9	.13	0	0*	.07
11	.09	0	0	0	0	1.8	2.1	2.0	.41	0	0*	.19
12	.07	0	0	0	0	2.0	1.9	2.1	.42	0	0*	.08
13	.05	0	0	0	.09*	2.2	2.2	2.8	.20	0	0*	0*
14	.09	0	0	0	.48*	2.4	1.7	2.2	.11	.54	0*	0*
15	.40	0	0	0	.58	3.4	1.5	1.9	.07	0*	0*	0*
16	.08	0	0	0	.66	4.1	1.3	1.7	.77	0*	0*	0*
17	.05	0	0	0	.46	4.2	1.2	1.6	.06	0*	0*	0*
18	0	0	0	0	.47	4.1	1.2	1.5	0	0*	.32	0*
19	0	0	0	0	.50	4.1	1.2	1.4	0	0*	.02	.07
20	0	0	0	0	.50	3.7	1.3	1.7	0	0*	0*	1.1
21	0	0	0	0	.58	3.3	1.4	1.4	0	0*	0*	.15
22	0	0	0	0	.65	3.0	1.5	1.4	0	0*	0*	.07
23	0	0	0	0	.66	4.3	1.4	1.5	0	0*	0*	.64
24	0	0	0	0	.71	4.9	1.3	1.5	0	0*	0*	.17
25	0	0	0	0	.76	5.4	1.2	1.5	0	0*	0*	.08
26	0	0	0	0	.72	5.7	1.1	1.3	0	.50	.13	0
27	0	0	0	0	.67	5.7	1.0	1.2	0	0*	.01	0
28	0	0	0	0	.68	5.4	.95	1.1	0	0*	.06	.20
29	0	0	0	0	-----	5.0	.92	.95	0	0*	1.9	.92
30	0	0	0	0	-----	4.5	.93	.90	0	.99	.10	.17
31	0	-----	0	0	-----	3.7	-----	.81	-----	.05	.09	-----
Total	2.71	0	0	0	9.17	90.90	51.80	51.56	6.07	2.08	3.17	10.19
Mean	.087	0	0	0	.33	2.93	1.73	1.66	.20	.067	.10	.34
Max	1.5	0	0	0	.76	5.7	3.0	2.8	.77	.99	1.9	3.1
Min	0	0	0	0	0	.55	.92	.81	0	0	0	0
Acre-Ft	5.4	0	0	0	18	180	103	102	12	4.1	6.3	20
Wtr Year	2007	Total	227.65	Mean	.62	Max	5.7	Min	0	Acre-Ft	452	
Cal Year	2006	Total	2.71	Mean	.029	Max	1.5	Min	0	Acre-Ft	5.4	

E030 Los Alamos Canyon above DP Canyon

Location. Lat 35° 52' 21", long 106° 15' 36", SW ¼, sec. 13, T. 19 N., R. 6 E., Los Alamos County, 150 ft upstream from mouth of DP Canyon wash and 2.4 mi upstream from SR 4.

Drainage Area. 8.57 mi².

Period of Record. July 1994 to September 30, 2007.

Revised Record. Drainage Area (2006); Township (this report).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,621 ft above NGVD from GPS survey.

Remarks. Water discharge records are good. Flow partially regulated by Los Alamos Reservoir about 2.5 mi upstream.

Average Discharge. 13yr, 0.30 ft³/s, 217 acre-ft/yr.

Extremes Outside Period of Record. Flood of July 31, 1968, was 329 ft³/s from slope area determination. Gage height was established later at 3.71 ft present datum.

Extremes for Period of Record. Maximum discharge, 125 ft³/s, June 22, 2002, gage height 2.88 ft from peak flow computation. No flow most of time.

Extremes for Current Water Year. Peak discharges above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 2	1725	17	1.75
September 6	1400	24*	1.9*

No flow at times.



E030 Los Alamos Canyon above DP Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5min. interval) with shaft encoder float system (5 min. interval) and cellular phone with speech modem. The system is powered by a solar panel battery system housed in NEMA shelter on 18" CMP well on right bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for direct discharge measurements above wading stages.

Datum Correction. None

Gage-Height Record. The recorder referenced to the outside gage gave a complete and satisfactory record for the year.

Rating. Streambed is sand and gravel and subject to slight movement during flow events. The channel is straight for 300' above gage and 50' below. Vegetation on bank is sparse grass.

Seven discharge measurement (Nos. 34–40) and ten inspections were made during the water year. Measurement No. 37 was a slope area measurement made to verify the upper end of rating curve. Shifts were used on the low point of the "V" diagram. Plus zero shifts were defined by measurements 35 and 36. -.02 and -0.1 may be from debris on weir. No. 36 had a shift of +0.10 and was only used for one day. Positive shifting at low end is from fill in gage pool resulting in approach to notch.

Rating No. 2 was used for the entire water year.

Discharge. Discharge was computed from Rating No. 2 using variable shift diagrams.

Remarks. Records are good.

E030 Los Alamos Canyon above DP Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	2.9	.77	.32	0	0	.16
2	0*	0*	0*	0*	0*	0*	2.5	1.6	.28	0	0	.41
3	0*	0*	0*	0*	0*	0*	2.1	1.3	.27	0	0	0
4	0*	0*	0*	0*	0*	0*	1.8	1.4	.24	0	.05	0
5	0*	0*	0*	0*	0*	0*	1.8	1.4	.32	0	0	0
6	0*	0*	0*	0*	0*	0*	2.0	1.2	.19	0	0	1.4
7	0*	0*	0*	0*	0*	0*	2.3	1.1	.08	0	0	0
8	0*	0*	0*	0*	0*	0	2.3	1.4	.05	0	0	0
9	.57*	0*	0*	0*	0*	.16	2.2	1.3	0	0	0	0
10	.08*	0*	0*	0*	0*	.54	2.0	1.2	0	0	0	0
11	0*	0*	0*	0*	0*	.77	1.8	1.2	.09	0	0	0
12	0*	0*	0*	0*	0*	1.0	1.7	1.3	.19	0	0	0
13	0*	0*	0*	0*	0*	1.3	2.0	1.7	0	0	0	0
14	0*	0*	0*	0*	0*	1.7	1.5	1.5	0	.21	0	0
15	.08*	0*	0*	0*	0*	2.5	1.3	1.2	0	0	0	0
16	0*	0*	0*	0*	0*	3.0	1.2	1.0	.34	0	0	0
17	0*	0*	0*	0*	0*	3.1	1.1	.99	.01	0	0	0
18	0*	0*	0*	0*	0*	3.2	1.1	.96	0	0	.02	0
19	0*	0*	0*	0*	0*	3.1	1.0	.88	0	0	0	0
20	0*	0*	0*	0*	0*	3.0	1.1	1.1	0	0	0	.10
21	0*	0*	0*	0*	0*	2.8	1.1	.97	0	0	0	0
22	0*	0*	0*	0*	0*	3.0	1.1	.93	0	0	0	0
23	0*	0*	0*	0*	0*	3.8	1.1	1.0	0	0	0	0
24	0*	0*	0*	0*	0*	4.0	1.1	1.1	0	0	0	.01
25	0*	0*	0*	0*	0*	4.1	.96	1.1	0	0	0	0
26	0*	0*	0*	0*	0*	4.3	.94	1.0	0	.21	0	0
27	0*	0*	0*	0*	0*	4.2	.84	.90	0	.01	0	0
28	0*	0*	0*	0*	0*	4.2	.79	.72	0	0	0	
29	0*	0*	0*	0*	-----	4.1	.76	.54	0	0	.76	.34
30	0*	0*	0*	0*	-----	3.8	.75	.46	0	.49	.03	0
31	0*	-----	0*	0*	-----	3.4	-----	.41	-----	.01	0	-----
Total	0.73	0	0	0	0	65.07	45.14	33.63	2.38	0.93	0.86	2.42
Mean	.024	0	0	0	0	2.10	1.50	1.08	.079	.030	.028	.083
Max	.57	0	0	0	0	4.3	2.9	1.7	.34	.49	.76	1.4
Min	0	0	0	0	0	0	.75	.41	0	0	0	0
Acre-Ft	1.4	0	0	0	0	129	90	67	4.7	1.8	1.7	4.8
Wtr Year	2007	Total	151.16	Mean	.42	Max	4.3	Min	0	Acre-Ft	300	
Cal Year	2006	Total	23.71	Mean	.065	Max	5.7	Min	0	Acre-Ft	47	

*Estimated

E038 DP Canyon above TA-21

Location. Lat 35° 52' 49", long 106° 16' 58", SW ¼, sec. 14, T. 19 N., R. 6 E., Los Alamos County, on left bank 1.3 mi west of SR 502.

Drainage Area. 0.22 mi².

Period of Record. April 26, 2000 to September 30, 2007.

Revised Record. Drainage Area (2006); Section (this report).

Average Discharge. 7 years, 0.14 ft³/s, 101 acre-ft/yr.

Gage. Data logger with cellular telemetry. Elevation of gage is 7,087 ft above NGVD.

Remarks. Records are good except estimated daily discharges, which are fair.

Extremes for Period of Record. Maximum discharge, 295 ft³/s, July 24, 2004 gage height 4.36 ft from rating curve extended above 10 ft³/s on basis of peak flow computations. No flow most of time.

Extremes for Current Year. Peak discharges above base of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1400	149*	3.37*
September 2	1410	148	3.36

No flow at times.



E038 DP Canyon above TA-21

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with a Sutron accububble self contained bubbler system was installed on April 16, 2004. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff gage is available for reference. No provision for discharge measurements above wading stage. All high flow measurement will be by slope-area or peak flow computation methods.

Field Work. The station was visited twenty-six times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None from levels.

Gage-Height Record. The data logger referenced to the outside gage gave a complete and satisfactory record for the year, except for the months of January to March. Gage height was affected by ice. During this period no flow was recorded, reference to field inspections. Some days had to be reworked when silted on recession of flood water.

Rating. The channel is about 10' wide and straight for about 30' upstream and downstream. The streambed through this reach is primary sand, gravel and larger bolder. Low flow control is a rock outcrop downstream from gage about 5'. Channel is control for medium and high stages.

Twenty-six inspections were made this water year. Three measurements No. 6–8 was used in this analysis due to poor measurement conditions. All inspections of no flow used to develop a “V” diagram shift needed to adjust PZF.

Discharge. Rating No. 2 was used with “V” diagrams to compute this record.

Remarks. Records are good.

E038 DP Canyon above TA-21

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	.61	0	0	0	2.0
2	0	.06	0	0	0	0	0	2.0	0	0	0	3.3
3	0	0	0	0	0	0	0	0	.23	0	0	.10
4	0	0	0	0	0	0	0	.20	0	0	2.0	.55
5	0	0	0	0	0	0	0	0	0	0	0	.24
6	0	0	0	0	0	0	0	0	0	0	.62	2.1
7	0	0	0	0	0	0	0	0	0	.01	.03	.04
8	1.1	0	0	0	0	0	0	2.0	0	0	0	0
9	6.3	0	0	0	0	0	.27	.06	0	0	0	0
10	.05	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0*	0	0	1.4	.21	0	0
12	0	0	0	0	0	0*	0	0	.01	.09	0	0
13	0	0	0	0	0	0*	1.5	.39	0	.02	0	0
14	.63	0	0	0	0	0*	.05*	.78	0	.51	0	0
15	.58	0	0	0	0	0*	0*	0	0	0	0	0
16	0	0	0	0	0	0*	0*	0	1.8	0	0	0
17	0	0	0	0	0	0*	0	.25	0	0	0	.17
18	0	0	0	0	0	0*	0	.42	0	0	1.3	.21
19	0	0	0	0	0	0*	0	0	0	0	.03	0
20	0	0	0	0	0	0*	0	.56	0	.02	0	2.8
21	0	0	0	0	0	1.1	0	0	0	.23	0	.01
22	0	0	0	0	0	.13	0	0	.29	0	0	0
23	0	0	0	0	0	3.1	0	0	0	0	0	2.2
24	0	0	0	0	0	1.1	0	0	0	0	.64	0
25	0	0	0	0	0	.01	0	.02	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	1.3	0
27	0	0	0	0	0	0	0	0	0	0	.07	0
28	0	0	0	0	0	0	0	0	0	0	0	.80
29	0	0	0	0	-----	.22	0	0	0	0	4.7	1.3
30	0	0	0	0	-----	0	0	0	0	0	.04	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	8.66	0.06	0	0	0	5.66	1.82	7.29	3.73	1.09	10.73	15.82
Mean	.28	.002	0	0	0	.18	.061	.24	.12	.035	.35	.53
Max	6.3	.06	0	0	0	3.1	1.5	2.0	1.8	.51	4.7	3.3
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	17	.12	0	0	0	11	3.6	14	7.4	2.2	21	31
Wtr Year	2007	Total	54.86	Mean	.15	Max	6.3	Min	0	Acre-Ft	109	
Cal Year	2006	Total	104.02	Mean	.28	Max	12	Min	0	Acre-Ft	206	

*Estimated

E039 DP Canyon below Meadow at TA-21

Location. Lat 35° 52' 41", long 106° 15' 28", SE ¼, sec. 14, T. 19 N., R. 6 E., Los Alamos County, on right bank, 0.50 mi to frontage road and 1.0 mi SW of SR 502.

Drainage Area. 0.315 mi².

Period of Record. October 1, 1999 to September 30, 2007

Revised Record. Section, Township, Range (this report).

Average Discharge. 7 years, 0.11ft³/s, 83 acre-ft/yr.

Gage. Data logger with cellular telemetry. Elevation of gage is 7,010 ft above NGVD from topographic map.

Remarks. Records are good except estimated daily discharges which are fair.

Extremes for Period of Record. Maximum discharge, 200 ft³/s, July 24, 2004 gage height 2.58 ft. No flow most of time.

Extremes for Current Water Year. Peak discharges above base of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1520	73	1.52
August 29	1420	83	1.63
September 2	1425	125*	2.04*

No flow at times.



E039 DP Canyon below Meadow at TA-21

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5 min. interval) and Sutron Accubar bubble sensor with cellular phone speech modem. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. Low to medium flow can be waded. High flow will be measured by indirect methods.

Field Work. The station was visited twenty-six times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Levels run July 14, 2005 found gage within acceptable limits. Gage height corrections were applied for minor base gage and recorder difference.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory for the water year except during the period from December 6–13, January 14, and February 15–16 when gage height was affected by ice.

Rating. The channel has rock outcrop in bed with pockets of sand mostly from deposition below riffles. Channel is straight for 50' above and below gage. A slight left bend 50' below gage also has a 2' drop and could act as a broad crested weir at high flow. Banks and canyon bottom are thickly vegetated with grass.

Rating No. 2 was developed from 3 critical depth computations and a PZF.

Eight discharge measurements (No. 6–13) and twenty-six inspections were made during the year.

Discharge. Discharge was computed by applying gage height to Rating No. 2. The channel in winter is heavily glaciated and choked with ice and snow with flow frozen dry. The winter record is published as zero based on comparison with E038 and E040. Variable shift diagrams were used at lower flows defined by discharge measurements.

Remarks. Records are good, except for estimated daily discharges, which are fair.

E039 DP Canyon below Meadow at TA-21

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0*	0	0	0	0	.63	0	0	0	1.6
2	0	0	0*	0	0	0	0	2.6	0	0	0	2.4
3	0	0	0*	0	0	0	0	.08	.08	0	0	.01
4	0	0	0*	0	0	0	0	.33	.02	0	1.3	.26
5	0	0	0*	0	0	0	0	.07	0	0	0	.12
6	0	0	0*	0	0	0	0	.04	0	0	.27	1.5
7	0	0	0*	0	0	0	0	.04	0	0	0	0
8	0	0	.15*	0	0	0	0	2.8	0	0	0	0
9	3.3	0	.27*	0	0	0	.02	.64	0	0	0	0
10	.17	0	.35*	0	0	0	0	.06	0	0	0	0
11	0	0	.41*	0	0	0	0	.02	1.3	0	0	0
12	0	0	.16*	0	0*	0	0*	.02	.31	0	0	0
13	0	0	.05*	0	0*	0	.18*	.58	0*	0	0	0
14	0*	0	0*	0*	0*	0	.10*	1.4	0*	.17	0	0
15	.14	0	0*	0*	0*	0	.05*	.43	0*	0	0	0
16	0	0	0*	0	0*	0	.10*	.41	1.8	0	0	0
17	0	0	0*	0	0*	0	.07*	.74	.02	0	0	0
18	0	0	0*	0	0	0	.01*	1.1	0	0	.73	0
19	0	0	0*	0	0	0	0	.42	0	0	0	0
20	0	0	0*	0	0	0	0	1.3	0	0	0	2.0
21	0	0	0	0	0	.74	0	.53	0	0	0	.01
22	0	0	0	0	0	.40	0	.47	0	0	0	0
23	0	0	0	0	0	3.3	0	.37	0	0	0	1.9
24	0	0	0	0	0	2.6	0	.30	.14	0	.25	.05
25	0	0	0	0	0	.18	0	.21	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	.55	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	.81
29	0	0	0	0	-----	0	0	0	0	0	3.5	1.3
30	0	0	0	0	-----	0	0	0	0	0	.07	.01
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	3.61	0	1.39	0	0	7.22	0.53	15.59	3.67	0.17	6.67	11.97
Mean	.12	0	.045	0	0	.23	.018	.50	.12	.006	.22	.40
Max	3.3	0	.41	0	0	3.3	.18	2.8	1.8	.17	3.5	2.4
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	7.2	0	2.8	0	0	14	1.1	31	7.3	.34	13	24
Wtr Year	2007	Total	50.82	Mean	.14	Max	3.5	Min	0	Acre-Ft	101	
Cal Year	2006	Total	20.94	Mean	.057	Max	3.8	Min	0	Acre-Ft	42	

*Estimated

E040 DP Canyon above Los Alamos Canyon

Location. Lat 35° 52' 24", long 106° 15' 34", SW ¼, sec. 13, T. 19 N., R. 6 E., Los Alamos County, on right bank 150 ft upstream from confluence of DP Canyon and Los Alamos Canyon, and 2.4 mi upstream from SR 4.

Drainage Area. 0.60 mi².

Period of Record. May 1999 to September 30, 2007.

Revised Record. Drainage Area (2006); Section (this report).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,620 ft above NGVD from GPS survey.

Remarks. Water discharge records are good, except estimated daily discharges, which are poor.

Average Discharge. 8 yr, 0.033ft³/s, 24 acre-ft/yr.

Extremes for Period of Record. Maximum discharge 452 ft³/s, August 8, 2006 gage height 5.65 ft. (from slope area measurement). No flow most of time.

Extremes for Current Water Year. Maximum discharge 11 ft³/s at 1440 h, August 29, gage height 2.79 ft. No peak above base of 30 ft³/s. No flow most of time.



E040 DP Canyon above Los Alamos Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with milltronics sonic probe, cellular phone and speech modem. The system is powered by a solar panel battery system. All equipment is housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality collection in a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. High flow measurements can be made from bridge upstream of gage.

Field Work. The station was visited twenty three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Corrections. None from levels.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except for the periods from December 26 to January 12, February 26 to March 22 when gage height was affected by ice. The periods of April 12, 14–31, June 19 and September 4, 5, 17, 21–23, gage became isolated after each flow event.

Rating. The channel is about 15' wide, and bends to the right above gage and straight for about 100' downstream. The streambed through this reach is primarily sand with large boulders. The control at this site is a concrete control with a V notch in the middle for low flow. Channel becomes the control for medium to high flows.

Rating No. 3 is good up to 30 ft³/s and fair above that.

One discharge measurement (No. 14) and twenty two inspections of no flow were made during the year.

Discharge. Discharge was computed using Rating No. 3. Those days estimated at zero flow were based on comparison with nearby gage stations and precipitation records. No flow most of time.

Remarks. Records are good except for estimated daily discharges, which are poor.

E040 DP Canyon above Los Alamos Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.01	0*	0	0*	0*	.03	0	0	0	.11
2	0	0	0	0*	0	0*	0*	.15	0	0	0	.17
3	0	0	0	0	0	0*	0*	0	0	0	0	.02
4	0	0	0	0	0	0*	0*	0	0	0	.06	0*
5	0	0	0	0	0	0*	0*	0	0	0	0	0*
6	0	0	0	0*	0	0*	0*	0	0	0	0	.08
7	0	0	0	0*	0	0*	0*	0	0	0	0	0
8	0	0	0	0*	0	0*	0*	.12	0	0	0	0
9	.08	0	0	0*	0	0*	0*	.02	0	0	0	0
10	0	0	0	0*	0	0*	0*	0	0	0	0	0
11	0	0	0	0*	0	0*	0*	0	.03	0	0	0
12	0	0	0	0*	0	0*	0*	0	.02	0	0	0
13	0	0	0	0	0	0*	.06	0	0	0	0	0
14	0	0	0	0	0	0*	0*	.05	0	0	0	0
15	0	0	0	0	0	0*	0*	0	0	0	0	0
16	0	0	0	0	0	0*	0*	0	.13	0	0	0
17	0	0	0	0	0	0*	0*	0	.02	0	0	0*
18	0	0	0	0	0	0*	0*	.02	0*	0	0	0
19	0	0	0	0	0	0*	0*	0*	0	0	0	0
20	0	0	0	0	0	0*	0*	.03	0	0	0	.09
21	0	0	0	0	0	0*	0*	0	0	0	0	.05*
22	0	0	0	0	0	0*	0*	0	0	0	0	.02*
23	0	0	0	0	0	.22	0*	0	0	0	0	.01*
24	0	0	0	0	0	0*	0*	0	0	0	0	0
25	0	0	0	0	0	0*	0*	0	0	0	0	0
26	0	0	0	0	0*	0*	0*	0	0	0	.01	0
27	0	0	0	0	0*	0*	0*	0	0	0	0	0
28	0	0	0	0	0*	0*	0*	0	0	0	0	.04
29	0	.02	0	0	-----	0*	0*	0	0	0	.32	.07
30	0	.03	.03*	0	-----	0*	0*	0	0	0	.01	0
31	0	-----	0*	0	-----	0*	-----	0	-----	0	0	-----
Total	0.08	0.05	0.04	0	0	0.22	0.06	0.42	0.20	0	0.40	0.66
Mean	.003	.002	.001	0	0	.007	.002	.014	.007	0	.013	.022
Max	.08	.03	.03	0	0	.22	.06	.15	.13	0	.32	.17
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.16	.10	.08	0	0	.44	.12	.83	.40	0	.79	1.3
Wtr Year	2007	Total	2.13	Mean	.006	Max	.32	Min	0	Acre-Ft	4.2	
Cal Year	2006	Total	18.70	Mean	.051	Max	7.2	Min	0	Acre-Ft	37	

*Estimated

E042 Los Alamos Canyon above SR 4

Location. Lat 35° 52' 01", long 106° 13' 25", NW ¼, sec. 20, T. 19 N., R. 7 E., Santa Fe County, on right bank, 0.25 mi upstream from SR 4, 2.7 mi northwest of White Rock, NM, 3.9 mi east of Los Alamos, and 13.5 mi southwest of Española.

Drainage Area. 10.11 mi².

Period of Record. November 1970 to June 1971, October 1991 to September 30, 2007.

Revised Record. Drainage Area (2006); Quarter (this report). The following peak discharges above base of 40 ft³/s and maximum (*) were revised (this report).

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 5, 2006	00:05	194	3.42
August 25, 2006	13:25	221*	3.62*

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,300 ft above NGVD from GPS survey.

Remarks. Records are good. Flow partially regulated by Los Alamos Reservoir about 7.8 mi upstream.

Average Discharge. 13 yr, 0.275 ft³/s, 199 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 240 ft³/s, August 08, 2006 gage height 3.76 ft (from flood marks). No flow at times.

Extremes for Current Water Year. Peak discharges above base of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1650	41	2.15
August 29	1525	53	2.26
September 2	1525	85*	2.53*
September 6	1550	64	2.36

No flow most of time.



E042 Los Alamos Canyon above SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular speech modem driven by a quadrature encoder driven by float tape in stilling well. System is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. Outside staff available for reference. Control is broad crested weir that has deteriorated somewhat over the years, but is still fairly stable. Footbridge is available for high flow discharge measurements.

Station is also equipped with a tipping bucket rain gage, Rain Collection II installed on February 26, 2008. All equipment is powered with a solar panel battery charging system.

Field Work. This station was visited sixty one times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the water year, except for June 18–July 5 and September 4–12 when the data logger malfunctioned. During these periods several days were estimated to have no flow.

Rating. Streambed is sand and gravel and channel is straight for over 150' above and below broad crested weir. Fill and scour, mostly fill, of the gage pool occurs on most flow events.

Twenty two discharge measurements (Nos. 35–56) were made and 39 inspections of no flow were made. Measurements Nos. 50–54, 56 were measurements made using a 3" or 6" Parshall flume and were only used to verify the current rating. Shifts were small and variable and applied only to low flows.

Rating 3 was developed from current measurements and some measurements from previous years. No shifts applied above 1.0 ft³/s.

Discharge. Discharge computed from rating 3 using V diagrams with no shifts on high flows or even above 1.0 ft³/s. Those days estimated were based on precipitation and nearby gage stations for verification.

Remarks. Records are good, except for estimated daily discharges which are poor.

E042 Los Alamos Canyon above SR-4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	1.2	.52	.07	0*	0	.47
2	0	0	0	0	0	0	1.1	2.4	.01	0*	0	3.2
3	0	0	0	0	0	0	1.2	1.0	.03	0*	0	0
4	0	0	0	0	0	0	1.0	1.0	0	0*	.16	0*
5	0	0	0	0	0	0	1.0	1.1	0	0*	0	0
6	0	0	0	0	0	0	1.1	.99	0	0	.14	4.1
7	0	0	0	0	0	0	1.5	.79	0	0	0	.04*
8	0	0	0	0	0	0	1.5	2.2	0	0	0	0*
9	1.5	0	0	0	0	0	1.4	1.2	0	0	0	0*
10	.43	0	0	0	0	0	1.3	.88	0	0	0	0*
11	0	0	0	0	0	0	1.2	.83	0	0	0	0*
12	0	0	0	0	0	0	1.2	.90	.61	0	0	0*
13	0	0	0	0	0	0	1.6	1.6	0	0	0	0
14	0	0	0	0	0	0	1.1	1.7	0	0	0	0
15	0	0	0	0	0	0	.88	.99	0	0	0	0
16	0	0	0	0	0	.01	.66	.88	1.3	0	0	0
17	0	0	0	0	0	.15	.56	.87	0	0	0	0
18	0	0	0	0	0	.58	.71	.83	0*	0	0	0
19	0	0	0	0	0	.65	.83	.72	0*	0	0	0
20	0	0	0	0	0	.59	.84	1.3	0*	0	0	.32
21	0	0	0	0	0	.63	.95	.87	0*	0	0	.01
22	0	0	0	0	0	1.5	.97	.74	0*	0	0	0
23	0	0	0	0	0	5.1	.89	.80	0*	0*	0	.94
24	0	0	0	0	0	6.2	.90*	.78	0*	0*	0	.27
25	0	0	0	0	0	5.2	.97	.73	0*	0	0	0
26	0	0	0	0	0	5.4	.91	.63	0*	.01	0	0
27	0	0	0	0	0	4.3	.71	.47	0*	0	0	0
28	0	0	0	0	0	3.1	.52	.31	0*	0	0	0
29	0	0	0	0	-----	3.7	.49	.15	0*	0	2.1	.71
30	0	0	0	0	-----	3.1	.50	.16	0*	.85	.04	0
31	0	-----	0	0	-----	2.1	-----	.15	-----	0	0	-----
Total	1.93	0	0	0	0	42.31	29.69	28.49	2.02	0.86	2.44	10.06
Mean	.062	0	0	0	0	1.36	.99	.92	.067	.028	.079	.34
Max	1.5	0	0	0	0	6.2	1.6	2.4	1.3	.85	2.1	4.1
Min	0	0	0	0	0	0	.49	.15	0	0	0	0
Acre-Ft	3.8	0	0	0	0	84	59	57	4.0	1.7	4.8	20
Wtr Year	2007	Total	117.80	Mean	.32	Max	6.2	Min	0	Acre-Ft	234	
Cal Year	2006	Total	45.28	Mean	.12	Max	12	Min	0	Acre-Ft	90	

*Estimated

E042 Los Alamos Canyon above SR-4

Daily Mean Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	0	.16	0	0	.14	.03
2						0	0	.63	0	.02	.01	.06
3						0	0	.01	.29	0	0	0
4						0	0	0	.01	.05	0	.03
5						0	0	.01	0	0	.01	.01
6						0	0	0	0	0	.87	.01
7						0	.01	0	0	0	0	0
8						0	.01	.76	0	0	0	0
9						0	.18	0	.06	0	0	0
10						0	.03	0	.03	0	0	.01
11						0	0	0	.31	.33	0	0
12						0	.03	0	.03	0	.02	0
13						0	.37	0	0	.02	0	0
14						0	0	.03	0	0	0	0
15						0	.01	.01	0	0	0	0
16						0	0	.22	.07	0	0	0
17						0	0	.14	0	0	0	.51
18						0	0	0	0	0	.48	0
19						0	0	0	0	.67	0	.02
20						0	0	.10	0	.04	0	.45
21						.26	0	0	0	.14	0	0
22						.05	0	0	.01	.01	0	0
23						.39	.04	.04	0	0	.01	.41
24						.18	.04	.02	0	0	.26	.01
25						.01	.01	.24	0	0	0	0
26					0	0	0	.01	0	.02	.12	0
27					0	0	0	0	.02	0	0	0
28					0	0	0	0	0	0	0	.26
29					-----	0	0	0	.03	.01	.38	.13
30					-----	0	0	0	0	.56	.01	0
31		-----			-----	0	-----	0	-----	0	0	-----
Total					0	0.89	0.73	2.38	0.86	1.87	2.31	1.94
Mean					0	.029	.024	.077	.029	.060	.075	.065
Max					0	.39	.37	.76	.31	.67	.87	.51
Min					0	0	0	0	0	0	0	0
Wtr Year	2007	Total	10.98	Mean	.051	Max	.87	Min	0	InstMax	.35	
Cal Year	2006	Total		Mean		Max		Min		InstMax		

E050 Los Alamos Canyon below Los Alamos Weir

Location. Lat 35° 52' 71", long 106° 13' 0.03", NE ¼, sec. 20, T. 19N., R. 7E., on right bank, 200' downstream from Los Alamos Weir, beside SR 4, 2.7 mi northwest of White Rock, NM.

Drainage Area. 10.42 mi².

Period of Record. May 2001 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 6,345 ft above NGVD from GPS survey.

Remarks. Water discharge records are good, except for estimated daily discharges, which are fair. Flows partially regulated by broad-crested weir 200' upstream.

Extremes for Period of Record. Maximum discharge, 252 ft³/s August 08, 2006, gage height 3.20 ft (from slope area measurement). No flow most of time.

Extremes for Current Year. Peak discharge above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 2	1555	30*	1.41*

No flow most of time.



E050 Los Alamos Canyon below Los Alamos Weir

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular phone and speech modem housed in a NEMA shelter on left bank. Bubble gage is sensing device an outside staff is available for reference. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. No provision for direct measurement of flows above wading stage.

Field Work. The station was visited thirty-four times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels of May 31, 2001 found gage within limits; no correction needed.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record except for the following dates; April 18–20, April 28–May 1 when gage height record was lost due to lost of power.

Rating. The channel is straight for 100' upstream and downstream. Bed is large gravel and well armored and should not be subject to much movement. Channel is trapezoidal with little or no vegetation. Flow is regulated somewhat by detention weir just upstream.

Rating No. 2 was developed based on all the measurement made during the period of record. Shifts are small and variable. Flows are very flashy, less than an hour, daily mean discharge are very small in relation to the instantaneous peak.

Twelve discharge measurements (Nos. 22–35) and twenty-two inspections of no flow were made during the year.

Discharge. Discharge was computed from Rating No. 2 with shifts applied by stage diagram. Periods of lost record are estimated using station E042.

Remarks. Records are good except for estimated daily discharges, which are fair.

E050 Los Alamos Canyon below Los Alamos Weir

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	1.2	0*	0*	0	0	.26
2	0	0	0	0	0	0	.71	1.0	0	0	0	1.5
3	0	0	0	0	0	0	.34	.66	0	0	0	.02
4	0	0	0	0	0	0	.17	.71	0	0	.12	0
5	0	0	0	0	0	0	.15	.75	0	0	0	0
6	0	0	0	0	0	0	.23	.70	0	0	.20	1.6
7	0	0	0	0	0	0	.67	.48	0	0	.01	.03
8	0	0	0	0	0	0	.71	.96	0	0	0	0
9	.12	0	0	0	0	0	.68	.83	0	0	0*	0
10	.02	0	0	0	0	0	.62	.47	0	0	0*	0
11	0	0	0	0	0	0	.70	.37	0	0	0	0
12	0	0	0	0	0	0	.75	.45	.07	0	0	0
13	0	0	0	0	0	0	1.0	.73	0	0	0	0
14	0	0	0	0	0	0	.67	1.0	0	0	0	0
15	0	0	0	0	0	0	.37	.65	0	0	0	0
16	0	0	0	0	0	0	.11	.44	.37	0	0	0
17	0	0	0	0	0	0	.05	.27	0	0	0	.05
18	0	0	0	0	0	0	.07*	.21	0	0	.01	.02
19	0	0	0	0	0	.11	.06*	.23	0	.01	0	0
20	0	0	0	0	0	.20	.15*	.38	0	0	0	0
21	0	0	0	0	0	.20	.20	.33	0	0	0	.02
22	0	0	0	0	0	.74	.26	.16	0	0	0	0
23	0	0	0	0	0	2.6	.20	.17	0	0	0	0
24	0	0	0	0	0	2.5	.22	.19	0	0	.01	.01
25	0	0	0	0	0	2.2	.14	.09	0	0	0	0
26	0	0	0	0	0	2.4	.11	.05	0	0	0	0
27	0	0	0	0	0	2.6	.05	0*	0	0	0	0
28	0	0	0	0	0	2.7	0*	0*	0	0	0	.03
29	0	0	0	0	-----	2.6	0*	0*	0	0	1.2	.30
30	0	0	0	0	-----	2.3	0*	0*	0	.27	.01	.02
31	0	-----	0	0	-----	1.8	-----	0*	-----	0	0	-----
Total	0.14	0	0	0	0	22.95	10.59	12.28	0.44	0.28	1.56	3.86
Mean	.005	0	0	0	0	.74	.35	.40	.015	.009	.050	.13
Max	.12	0	0	0	0	2.7	1.2	1.0	.37	.27	1.2	1.6
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.28	0	0	0	0	46	21	24	.87	.56	3.1	7.7
Wtr Year	2007	Total	52.10	Mean	.14	Max	2.7	Min	0	Acre-Ft	103	
Cal Year	2006	Total	25.37	Mean	.070	Max	9.2	Min	0	Acre-Ft	50	

*Estimated

E055 Pueblo Canyon above Acid Canyon

Location. Lat. 35° 53' 20", long 106° 18' 14", SE ¼, Sec. 9, T 19 N., R 6 E., Los Alamos County on left bank, 100 ft above mouth of Acid Canyon, 0.75 mi downstream from Diamond Drive and 1.0 mi south of Los Alamos County Golf Course.

Drainage Area. 3.42 mi².

Period of Record. October 1, 2002 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 6,945 ft above NGVD from topographic map.

Remarks. Water discharge records are fair to poor.

Average Discharge. 5 yr, 0.45 ft³/s, 324 acre-ft/yr.

Extremes for Period Outside of Record. Maximum discharge, 1,600 ft³/s (from slope-area computation), July 2, 2001, gage height 7.3 ft (from flood mark). No flows most of time.

Extremes for Period of Record. Maximum discharge, 1,780 ft³/s, August 8, 2006, gage height 7.50 ft (from critical depth computation). No flow most of time.

Extremes for Current Year. Peak discharge above base of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 26	1310	21*	2.51*

No flow most of time.



E055 Pueblo Canyon above Acid Canyon

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5 min. interval) with cellular phone and speech modem housed in a NEMA shelter on right bank with Sutron Accubar bubble gage as stage sensor. Station is equipped with ISCO pump sampler for water quality sample collection. ISCO is housed in separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for direct discharge measurements above wading stage.

Field Work. The station was visited twenty five times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the periods from December to February. Gage was affected by ice during these months. During August 7–22 gage became isolated from flow.

Rating. Channel comes into gage from a left to right bend and bends hard left about 100' below gage. Bed is unstable sand and gravel with some boulders. The left bank downstream from gage is heavily wooded and that tends to hold the flow to the right, away from the reach of the gage. Lower end of any stage-discharge relation here will be unstable. The upper end could be stable, but floods and construction have enabled the flow to jump channel at the bend above the gage and allow significant flow to go down the road not in accordance with recorded gage heights. This jump-out occurs at about 500 ft³/s. This channel problem was corrected in March of this year.

Rating No. 1 was developed using a slope area computation of about 1,400 ft³/s, one critical depth measurement of 850 ft³/s and various low flow measurements (No. 33). Low water definition is poor and high end needs to be confirmed. Low end of rating was verified by dye study used to enhance rating. At the time of this analysis, Rating No. 1 is fair.

Ten discharge measurements (Nos. 24–33) were made this year, covering a small range of discharge. Six inspections of no flow were observed

Discharge. Discharge was computed using Rating No. 1 and series of “V” diagrams with some rather erratic shift patterns. High flows were computed directly. Several days listed as estimated on 9-211 because fill conditions in channel did not allow rating to compute zero flow.

Remarks. Records are fair to poor.

E055 Pueblo Canyon above Acid Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.25*	.32	.03	.07	0	0	.23
2	0	0	0	0	0	.42*	.30	.19	.06	0	0	.23
3	0	0	0	0	0	.93*	.28	.10	.06	0	0	.10
4	0	0	0	0	0	.90*	.27	.07	.08	0	.05	.07
5	0	0	0	0	0	.35	.26	.06	.06	0	0	.12
6	0	0	0	0	0	.35	.24	.05	.06	0	.01	.31
7	0	0	0	0	0	.38	.23	.05	.06	0	.01*	.16
8	0	0	0	0	0	.44	.22	.11	.06	0	.02*	.12
9	.09	0	0	0	0	.49	.22	.15	.06	0	.01*	.10
10	.09	0	0	0	0	.52	.20	.10	.06	0	.01*	.10
11	.04	0	0	0	0	.55	.17	.08	.08	0	.01*	.13
12	.02	0	0	0	0	.58	.16	.08	.14	0	.01*	.11
13	0	0	0	0	0	.57	.23	.15	.10	0	.01*	.11
14	.01	0	0	0	0	.57	.17	.18	.09	.04	.01*	.10
15	.12	0	0	0	0	.56	.14	.13	.10	0	.01*	.09
16	.04	0	0	0	0	.55	.12	.12	.13	0	.02*	.08
17	.02	0	0	0	0	.54	.10	.12	.07	0	.02*	.07
18	.01	0	0	0	0	.52	.08	.14	.04	0	.01*	.06
19	0	0	0	0	0	.50	.08	.15	.02	0	.01*	0
20	0	0	0	0	0	.48	.07	.17	.01	0	.01*	.22
21	0	0	0	0	0	.47	.07	.11	0	0	.02*	.11
22	0	0	0	0	0	.49	.06	.09	0	0	.02*	.06
23	0	0	0	0	0	.53	.05	.09	0	0	0	.18
24	0	0	0	0	0	.49	.07	.07	0	0	.02	.13
25	0	0	0	0	0	.47	.07	.08	0	0	.01	.09
26	0	0	0	0	0	.44	.05	.08	0	.34	.01	.08
27	0	0	0	0	0	.42	.04	.08	0	0	.02	.07
28	0	0	0	0	.18*	.40	.04	.08	0	0	.03	.07
29	0	0	0	0	-----	.38	.03	.07	0	0	.15	.16
30	0	0	0	0	-----	.36	.03	.06	0	.06	.08	.11
31	0	-----	0	0	-----	.33	-----	.06	-----	0	.07	-----
Total	0.44	0	0	0	0.18	15.23	4.37	3.10	1.41	0.44	0.66	3.57
Mean	.014	0	0	0	.006	.49	.15	.10	.047	.014	.021	.12
Max	.12	0	0	0	.18	.93	.32	.19	.14	.34	.15	.31
Min	0	0	0	0	0	.25	.03	.03	0	0	0	0
Acre-Ft	.87	0	0	0	.36	30	8.7	6.1	2.8	.87	1.3	7.1
Wtr Year	2007	Total	29.40	Mean	.081	Max	.93	Min	0	Acre-Ft	58	
Cal Year	2006	Total	61.71	Mean	.17	Max	35	Min	0	Acre-Ft	122	

*Estimated

E0555 South Fork of Acid Canyon

Location. Lat 35° 53' 10", long 106° 18' 26", SE ¼, Sec. 9, T 19 N., R 6 E., Los Alamos County, on left bank, 0.6 mi NW of county swimming pool, 1.2 mi from junction of Diamond Drive and Canyon Road.

Drainage Area. 0.08 mi².

Period of Record. August 18, 2002 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 7,100 ft above NGVD from GPS survey.

Remarks. Water discharge records are good.

Extremes for Period of Record. Maximum discharge, 108 ft³/s, August 08, 2006, gage height 6.22 ft. (from critical depth computation). No flow most of time.

Extremes for Current Year. Peak discharges above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1455	19	5.38
July 14	1625	13	5.20
August 4	1225	26	5.50
August 18	1150	11	5.15
August 29	1400	22	5.44
September 2	1405	43*	5.75*
September 6	1255	16	5.31
September 20	0320	14	5.24

No flow most of time.



E0555 South Fork of Acid Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with a Sutron shaft encoder and cellular phone with speech modem housed in a NEMA shelter on left bank. The system is powered by a solar panel battery system. The station is also equipped with a pair of ISCO pump samplers for water quality sample collection. Samples are triggered by stage through the data logger. Samplers are housed in a separate shelter a 3' × 4' metal box. An outside staff gage is available for reference. No provision for discharge measurements above wading stage. All high measurement will be by slope area or peak flow computation methods.

Station is also equipped with a tipping bucket rain gage, Rain Collection II installed on December 18, 2007. All equipment is powered with a solar panel battery charging system.

Field Work. The station was visited thirty-seven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels from November 8, 2005 found gage within limits. No corrections needed.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except for the period from February 11–16 when gage height was affected by ice.

Rating. The channel is straight for about 75' upstream and 100' downstream. The channel is trapezoidal with little vegetation. Bed is rock with gravel and should not be subject to very much movement.

Rating No. 1 was developed by one discharge measurement of low flow and one slope area measurement of peak flow. Rating curve was extended to 6.22, based on a critical depth computation.

One discharge measurement was made (No. 4). No. 4 being a critical depth computation and twenty nine inspections of no flow.

Discharge. Discharge was computed by applying Rating No. 1. Shift was applied with a "V" diagram for the entire year. Days estimated were based field on notes.

Remarks. Records are good except for estimated daily discharges which are fair.

E0555 South Fork Acid Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.08	0	.19	0	0	0	.06
2	0	0	0	0	0	0	0	.92	0	0	0	.56
3	0	0	0	0	0	0	0	.19	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	.41	0
5	0	0	0	0	0	0	0	0	0	0	.06	0
6	0	0	0	0	0	.02	0	0	0	0	.03	.33
7	0	0	0	0	0	0*	0	0	0	0	.06	0
8	0	0	0	0	0	0*	0	.20	0	0	.01	0
9	.58	0	0	0	0	0*	.17	.01	0	0	0	0
10	.02	0	0	0	0	0*	.16	0	0	0	0	0
11	0	0	0	0	0*	0*	0	0	.09	0	0	0
12	0	0	0	0	0*	0	0	0	0	.01	0	0
13	0	0	0	0	0*	0	.64	.06	0	0	0	0
14	.05	0	0	0	0*	.02	.45	.03*	0	.15	0	0
15	.18	0	0	0	0*	.13	.21	.01*	0	0	0	0
16	.03	0	0	0	0*	0	0	.01*	.32	0	0	0
17	0	0	0	0	0	0	0	.01	0	0	0	0
18	0	0	0	0	0	0	0	.02*	0	0	.10	0
19	0	0	0	0	0	.35	0	.01*	0	0	0	0
20	0	0	0	0	0	.01	0	.08	0	0	0	.21
21	0	0	0	0	0	.50	0	0	0	0	0	0
22	0	0	0	0	0	1.5	0	0	0	.02	0	0
23	0	0	0	0	0	1.7	0	0	0	0	0	.05
24	0	0	0	0	0	1.3	0	0	0	0	.02	0
25	0	0	0	0	0	.95	0	0	0	0	0	0
26	0	0	0	0	0	.93	0	0	0	0	.04	0
27	0	0	0	0	0	.34	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	.02
29	0	0	0	0	-----	0	0	0	0	0	.43	.05
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0.86	0	0	0	0	7.83	1.63	1.74	0.41	0.18	1.16	1.28
Mean	.028	0	0	0	0	.25	.054	.056	.014	.006	.037	.043
Max	.58	0	0	0	0	1.7	.64	.92	.32	.15	.43	.56
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	1.7	0	0	0	0	16	3.2	3.5	.81	.36	2.3	2.5
Wtr Year	2007	Total	15.09	Mean	.041	Max	1.7	Min	0	Acre-Ft	30	
Cal Year	2006	Total	34.40	Mean	.094	Max	3.8	Min	0	Acre-Ft	68	

*Estimated

E0555 South Fork Acid Canyon

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	0	0	0	0	.03	.03	.45
2				0	0	0	0	0	0	0	0	.63
3				0	0	0	0	.01	.20	0	0	0
4				0	0	0	0	0	0	.09	.76	.08
5				0	0		0	.04	0	0	0	.22
6				0	0	0	0	.02	0	0	.16	.92
7				0	0	0	0	0	0	.11	0	0
8				0	0	0	0	.55	0	.05	0	0
9				0	0	0	0	0	0	0	0	0
10				0	0	0	0	0	0	0	0	.02
11				0	0	0	0	0	.53	.20	0	.08
12				0	0	0	0	0	.03	.01	.03	0
13				0	0	0	0	.45	0	.09	0	0
14				0	0	0	0	.27	0	.43	0	0
15				0	0	0	0	0	.01	0	0	0
16				0	0	0	0	.03	.72	0	.01	0
17				0	0	0	0	.16	0	0	0	.15
18			0	0	0	0	0	.20	0	0	.36	0
19			0	0	0	0	0	.03	0	.01	0	.02
20			0	0	0	0	0	.43	0	.05	0	.92
21			0	0	0	0	0	0	0	.16	0	0
22			0	0	0	0	0	0	.06	0	0	0
23			0	0	0	0	0	.04	0	0	0	.55
24			0	0	0	0	0	.02	0	0	.25	0
25			0	0	0	0	0	.09	0	0	0	0
26			0	0	0	0	0	0	0	.01	.21	0
27			0	0	0	0	0	.06	0	0	0	0
28			0	0	0	0	0	0	0	0	0	.24
29			0	0	-----	0	0	0	0	.01	1.1	.30
30			0	0	-----	0	0	0	0	.04	0	0
31		-----	0	0	-----	0	-----	0	-----	.01	.01	-----
Total			0	0	0	0	0	2.40	1.55	1.30	2.92	4.58
Mean			0	0	0	0	0	.077	.052	.042	.094	.15
Max			0	0	0	0	0	.55	.72	.43	1.1	.92
Min			0	0	0	0	0	0	0	0	0	0
Wtr Year	2007	Total	12.75	Mean	.045	Max	1.1	Min	0	InstMax	.27	
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	InstMax	0	

E056 Acid Canyon above Pueblo Canyon

Location. Lat 35° 53' 19", long 106° 18' 14" SE ¼, Sec. 9, T 19 N., R 6 E., Los Alamos County, 200 ft from confluence of Acid Canyon and Pueblo Canyon, 0.75 mi downstream from Diamond Drive and 1.0 mi south of Los Alamos Count Golf Course.

Drainage Area. 0.452 mi².

Period of Record. October 1, 2002 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 6,944 above NGVD.

Remarks. Water discharge records are fair to poor.

Extremes for Period of Record. Maximum discharge, 216 ft³/s, July 26, 2007, gage height 2.81 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1505	75	2.13
July 26	1310	216*	2.81*
September 1	1335	58	2.01
September 2	1430	55	1.98
September 6	1315	88	2.21

No flow most of time.



E056 Acid Canyon above Pueblo Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with milltronics sonic probe mounted on a 6" channel cantilevered over streambed. Station has cellular phone and speech modem housed in a NEMA shelter on right bank. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. Outside staff is available for reference. No provisions for measurements above wading stage.

Field Work. The station was visited twenty-six times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels from June 6, 2006 were run when gage was established. Gage is within acceptable limits.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year except for the periods from December 10–19 when gage height was affected by ice and May 9–17, June 17–18, July 15–21 when orifice was isolated from flow.

Rating. The channel is about 20' wide and straight for about 15' upstream and straight for about 40' downstream and 20' above the confluence of Pueblo Canyon. The streambed through this reach is primarily sand and cobbles. The low water control is a 90-degree shape weir. At high flow, the channel becomes the control.

Five discharge measurements (Nos. 1–5) and eight visits of no flow and eighteen visits of very little from spring above were made during the year. All inspections of no flow were used to develop a "V" diagram shift needed to adjust for PZF.

Rating No. 1 is based on the five discharge measurements, measurements plotted -0.14 and 0.00 respectively. These shifts were applied to low flow using "V" diagrams.

Discharge. Discharge was computed by applying gage height to Rating No.1 through shift adjustment based on "V" diagrams. Record for estimated daily discharge were based on precipitation record, field notes and some comparison with E0555 .

Remarks. Records are good, except for estimated daily discharges which are poor.

E056 Acid Canyon above Pueblo Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.39	.15*	0*	0	0	0	.87
2	0	0	0	0	0	.38	.10*	0*	0	0	0	1.8
3	0	0	0	0	0	.38	.05*	0*	0	0	0	.29
4	0	0	0	0	0	.38	.01*	0*	0	0	.36	.24
5	0	0	0	0	0	.39	0	0*	0	0	0	.29
6	0	0	0	0	0	.38	0	0*	0	0	0	4.4
7	0	0	0	0	0	.38	0	0	0	0	0	.63
8	0	0	0	0	0	.38	0	.27	0	0	0	.67
9	.37	0	0	0	0	.34	0	0*	0	0	0	.61
10	0	0	0*	0	0	.22	0	0*	0	0	0	.88
11	0	0	0*	0	0	.11	0	0*	.34	0	0	1.3
12	0	0	0*	0	0	.06	0	0*	0	0	0	.70
13	0	0	0*	0	0	.05	.34	.66	0	0	0	.43
14	.04	0	0*	0	0	.05	.01	.05*	0	.28	0	.51
15	.01	0	0*	0	0	.05	0	.02*	0	.14*	0	.48
16	0	0	0*	0	0	.05*	0	.03*	.94	.53*	0	.45
17	0	0	0*	0	0	.10*	0*	.02*	.10*	.47*	0	.42
18	0	0	0*	0	0	.86*	0*	.03	.05*	.41*	.05	.38
19	0	0	0	0	0	.81*	0*	0	.01*	.35*	0	.26
20	0	0	0	0	0	.76*	0*	.27	0	.29*	0	.38
21	0	0	0	0	0	.71*	0*	0	0	.23*	0	0
22	0	0	0	0	0	.65*	0*	0	0	.17*	0	0
23	0	0	0	0	0	.60*	0*	0	0	.11*	0	.06
24	0	0	0	0	0	.55*	0*	0	0	.05*	0	0
25	0	0	0	0	0	.50*	0*	0	0	.01*	0	0
26	0	0	0	0	0	.45*	0*	0	0	3.1	0	0
27	0	0	0	0	0	.40*	0*	0	0	.01	0	0
28	0	0	0	0	.24	.35*	0*	0	0	.01	0	0
29	0	0	0	0	-----	.30*	0*	0	0	.01	.59	.14
30	0	0	0	0	-----	.25*	0*	0	0	.25	0	0
31	0	-----	0	0	-----	.20*	-----	0	-----	0	0	-----
Total	0.42	0	0	0	0.24	11.48	0.66	1.35	1.44	6.42	1.00	16.19
Mean	.014	0	0	0	.009	.37	.022	.044	.048	.21	.032	.54
Max	.37	0	0	0	.24	.86	.34	.66	.94	3.1	.59	4.4
Min	0	0	0	0	0	.05	0	0	0	0	0	0
Acre-Ft	.83	0	0	0	.48	23	1.3	2.7	2.9	13	2.0	32
Wtr Year	2007	Total	39.20	Mean	.11	Max	4.4	Min	0	Acre-Ft	79	
Cal Year	2006	Total	1007.52	Mean	3.92	Max	6.2	Min	0	Acre-Ft	2000	

*Estimated

E060 Pueblo Canyon above SR 502

Location. Lat 35° 52' 15", long 106° 13' 1", NE ¼, Sec. 20, T. 19 N., R. 7 E., Santa Fe County, on right bank, 300' east of SR maintenance yard, 200' north of SR 502, and 4.2 mi east of Los Alamos.

Drainage Area. 8.21 mi².

Period of Record. January 1992 to September 30, 2007.

Revised Record. Drainage area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 6,341 ft above NGVD from GPS survey.

Remarks. Records are fair. No diversion above station. Perennial flow is primarily from effluent.

Average Discharge. 13 yr, 0.92 ft³/s, 665 acre-ft/yr.

Extremes for Period of Record. Maximum discharge 1,930 ft³/s August 24, 2006 gage height 11.75 ft (from slope area measurement). Rating curve extended above 130 ft³/s on basis of slope area measurement. No flow at times.

Extremes for Current Water Year. Maximum discharge 31 ft³/s at 0545 h, April 30, gage height 8.82'. No peak above base of 75 ft³/s. No flow at times.



E060 Pueblo Canyon above SR 502

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) and Sutron Accubar non-submersible transducer housed in a NEMA shelter on right bank. A milltronics sonic probe auxiliary stage sensor is mounted on top of a 4" × 4" steel channel that is used to support outside staff and was installed June 1, 2006. The station is also equipped with a pair of ISCO samplers for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference gage. No provision for discharge measurements above wading stage.

Field Work. This station was visited forty-two times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels of May 7, 2007 found gage to be correct.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except for the periods December 1, 2 when gage height was affected by ice and July 1–8, 26, August 16–19, 28–30 and September 1–7, 11–20 when orifice was out of the water.

Rating. Channel is sand gravel with hard pan bed. Sand degrades easily and will change with flow events. Channel is straight at high flow but incised in sand and meandering at low flow. Channel bottom elevation or PZF may change many times throughout the year and is critical in the determination of shift values.

Seventeen discharge measurements (Nos. 104–120) and twenty five inspections were made during the year. Grasses become 4–5' tall and cause considerable backwater at most stages. These grasses are usually flattened at high flow.

Ratings No. 6 and No. 7 were developed based on measurements made this year. The upper ends of both of these ratings are based on slope area measurement from the previous year. Measuring conditions at this site are poor. Generally, low flows are shallow and characterized by high velocities and uneven measuring sections. Peak flows are flashy and change quickly, mean gage heights for measurements are difficult to determine.

Discharge. Discharge was computed from rating No. 6 and No. 7 using V diagrams. Various ice days occurred in December, flow was estimated at zero.

Remarks. Records are fair, except for estimated daily discharges which are poor.

E060 Pueblo Canyon above SR-502

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64*	.74*	.98*	.63*	.45*	.56*	.71*	.54	.91	0*	.84*	1.2
2	.62*	.73*	.90*	.65*	.48*	.51*	.61*	.43	.96	0*	.80*	1.0
3	.64*	.71*	.92*	.66*	.51*	.45*	.53*	1.1	.88	0*	.88*	1.3
4	.63*	.79*	.88*	.63*	.52*	.41*	.55*	1.7	.43	0*	.64*	1.3
5	.62*	.88*	.70*	.62*	.52*	.39*	.52*	1.5	.61	0*	.55	1.4
6	.60*	.83*	.68*	.62*	.51*	.44*	.54*	1.3	.97	0*	.69	1.2
7	.58*	.78*	.66*	.62*	.51*	.42*	.71*	.99	.95	0*	.44	1.3
8	.61*	.79*	.64*	.61*	.54*	.42*	.73*	.92	1.1	.94	.43	1.4
9	.65*	.86*	.60*	.57*	.55*	.42*	.72*	1.0	1.1	.02*	1.4	1.4
10	.65*	.95*	.62*	.53*	.56*	.42*	.85*	.64	.93	0*	1.4	1.4*
11	.64*	.99*	.66*	.52*	.56*	.45*	.77*	.34	1.1	.01*	1.2	1.2*
12	.63*	.94*	.60*	.51*	.57*	.56*	.78*	.47	.62	0*	1.2	1.1*
13	.67*	.94*	.70*	.50*	.60*	.63*	1.0*	.46	.56	.95	1.1	1.0*
14	.69*	.96*	.72*	.47*	.59*	.63*	1.0*	.85	.91	.36	1.4	1.2*
15	.78*	.94*	.78*	.50*	.58*	.63*	.83*	.98	.88	.34	1.4	1.1*
16	.71*	.95*	.76*	.50*	.57*	.61*	.90*	.85	.81	.83	1.0*	1.0*
17	.69*	.99*	.74*	.50*	.58*	.61*	.83*	1.2	.45	1.4	.92*	1.1*
18	.79*	.97*	.70*	.47*	.56*	.62*	.59*	.76	.74	1.4	.84*	1.2*
19	.80*	.99*	.80*	.44*	.52*	.60*	1.1*	.79	.31*	1.3	.81	1.3*
20	.85*	1.0*	.86*	.44*	.51*	.61*	.59*	.74	0*	.84	.75	1.3
21	.87*	1.0*	.93*	.43*	.52*	.64*	.72*	.84	.01*	.72	1.4	1.2
22	.87*	.99*	.85*	.37*	.52*	.65*	1.2*	.59	.92	.77	1.3	1.3
23	.84*	.99*	.84*	.34*	.50*	.52*	.76*	.50	.36	.66	1.4	1.3
24	.83*	.99*	.72*	.32*	.48*	.63*	2.2	.53	.92	1.2	1.3	1.2
25	.83*	1.0*	.65*	.33*	.44*	.66*	.81	.69	.99	.75	.89	1.3
26	.83*	1.0*	.64*	.42*	.47*	.60*	.45	.47	0*	.64	1.3	1.4
27	.76*	1.0*	.62*	.46*	.49*	.64*	1.3	.46	0*	1.2	1.3	1.4
28	.69*	1.0*	.56*	.44*	.57*	.64*	.35	.49	.88	1.0*	1.1*	1.4
29	.83*	1.2*	.54*	.41*	-----	.66*	3.1	.84	.02*	.98*	1.0*	1.3
30	.84*	1.1*	.56*	.41*	-----	.79*	2.7	.97	.01*	.92*	1.1	1.3
31	.81*	-----	.59*	.43*	-----	.82*	-----	1.1	-----	.88*	1.3	-----
Total	22.49	28.00	22.40	15.35	14.78	17.64	28.45	25.04	19.33	18.11	32.08	37.5
Mean	.73	.93	.72	.50	.53	.57	.95	.81	.64	.58	1.03	1.25
Max	.87	1.2	.98	.66	.60	.82	3.1	1.7	1.1	1.4	1.4	1.4
Min	.58	.71	.54	.32	.44	.39	.35	.34	0	0	.43	1.0
Acre-Ft	45	56	44	30	29	35	56	50	38	36	64	74
Wtr Year	2007	Total	281.17	Mean	.77	Max	3.1	Min	0	Acre-Ft	558	
Cal Year	2006	Total	266.22	Mean	.73	Max	58	Min	0	Acre-Ft	528	

*Estimated

E121 Sandia Canyon Right Fork at Power Plant

Location. Lat 35° 52' 31", long 106° 19' 7", SW ¼, Sec. 16, T. 19 N., R. 6 E., Los Alamos County, on left bank 300 ft downstream from power plant, and 0.5 mi north of East Jemez Road.

Drainage Area. 0.08 mi².

Period of Record. June 6, 2002 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 7,283, ft above NGVD from GPS survey.

Remarks. Water discharge records are good. Records for this site existed before published period but are not reliable.

Extremes for Period of Record. Maximum discharge, 191 ft³/s June 21, 2002, from peak flow computation, gage height 8.13 ft. Minimum daily 0.17 ft³/s, December 9, 2003.

Extremes for Current Year. Peak discharges above 35 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1450	40	7.02
July 14	1625	67*	7.15*
July 30	1145	53	6.90
August 18	1150	50	6.82
August 29	1415	48	6.78
September 2	1425	47	6.74
September 6	1250	49	6.80
September 29	1340	48	6.78

Minimum daily discharge, 0.25 ft³/s June 24.



E121 Sandia Canyon Right Fork at Power Plant

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with a Sutron Accubar non-submersible transducer and cellular phone and speech modem housed in a NEMA shelter on left bank. Station is also equipped with two ISCO pump samplers for water quality sample collection. ISCO is housed in a separate shelter, 3' × 4' metal box. An outside staff is available for reference. There is no provision for discharge measurement above wading stage.

Field Work. The station was visited sixty-five times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height. The data logger reference to the outside staff gave a complete and satisfactory record for the year except for July 31 to August 14, 20–23 when data logger malfunctioned. During this period eleven days were estimated, using precipitation records, site inspections as well as comparison with nearby gage stations.

Rating. The channel is straight for about 30', with a step upstream slope and straight for 50' downstream with a sharp slope downstream. The streambed through this reach is primarily sand, gravel and cobbles more so below the gage. The low water control is a bedrock riffle below gage.

Twenty-eight discharge measurements (Nos. 44–71) measurement No. 72 was also used in this analysis and twenty-seven inspections during the water year. Discharge measurements were used to define a “V” diagram. Range in stage is fairly limited because most flow is effluent.

Rating No. 3 was until June 25, 2007 when Rating No. 4 was developed On June 26, 2007, based on the measurements made during this period and was used till the end of the water year.

Discharge. Discharge was computed by applying Rating Nos. 3 and 4 with variable shifts defined by measurements and applied by “V” diagram. No shifts were applied to higher flows. There were no ice affected discharges.

Remarks. Records are good, except for estimated daily discharges which are fair.

E121 Sandia Canyon Right Fork at Power Plant

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97*	1.0*	.83*	.82*	.75*	.80*	1.0*	.91*	.97*	.49	.36*	.56
2	.88*	1.0*	.77*	.87*	.73*	.72*	1.0*	1.2*	1.0*	.44	.30*	1.3
3	.83*	.93*	.92*	.87*	.82*	.85*	.99*	1.0*	.98*	.47	.25*	.32
4	.97*	.93*	.85*	.92*	.76*	.74*	.95*	1.0*	.98*	.50	.24*	.34
5	.96*	.94*	.85*	.82*	.84*	.74*	.96*	.94*	1.0*	.51	.34*	.40
6	.97*	.89*	.79*	.95*	.69*	.75*	1.0*	.91*	.91*	.51	.40*	2.0
7	.89*	.89*	.90*	.76*	.77*	.75*	1.0*	1.0*	1.0*	.58	.30*	.34
8	.96*	.83*	.85*	.83*	.83*	.76*	.89*	1.2*	.87*	.68	.28*	.37
9	1.6*	.91*	.87*	.85*	.82*	.79*	.98*	1.1*	.86*	.67	.30*	.45
10	1.2*	.90*	.82*	.95*	.78*	.72*	.96*	1.0*	.91*	.62	.27*	.29
11	.92*	.88*	.80*	.80*	.84*	.79*	.98*	.98*	1.2*	.74	.50*	.51
12	.93*	.94*	.86*	.90*	.86*	.78*	.95*	1.0*	.95*	.77	.48*	.21
13	.94*	.88*	.83*	.87*	.79*	.80*	1.1*	1.3*	.89*	.80	.34*	.18
14	1.1*	.83*	.92*	.84*	.79*	.77*	1.0*	1.2*	.94*	1.5	.36*	.30
15	1.1*	.91*	.97*	.89*	.80*	.79*	.94*	1.1*	1.0*	.28	.38	.33
16	.94*	.86*	.81*	.86*	.76*	.75*	.98*	1.1*	1.3*	.30	.27	.28
17	1.0*	.94*	.76*	.88*	.74*	.77*	.95*	1.1*	.82*	.30	.29	.35
18	.99*	.81*	.90*	.84*	.73*	.72*	.92*	1.1*	.89*	.30	.73	.40
19	.92*	.80*	.84*	.80*	.72*	.76*	.91*	1.2*	.84*	.34	.40	.31
20	.94*	.78*	.87*	.84*	.77*	.74*	.93*	1.2*	.77*	.36	.32*	.79
21	1.0*	.89*	.79*	.70*	.79*	.81*	.91*	1.1*	.80*	.39	.34*	.38
22	.85*	.87*	.78*	.81*	.73*	.77*	.91*	1.1*	.40*	.35	.40*	.32
23	.93*	.77*	.80*	.80*	.78*	1.4*	1.0*	1.1*	.18*	.36	.45*	.69
24	.90*	.86*	.75*	.80*	.74*	1.1*	.97*	1.1*	.17*	.41	.51	.38
25	.91*	.86*	.77*	.78*	.79*	1.0*	.91*	1.1*	.58*	.38	.40	.33
26	.93*	.90*	.82*	.77*	.71*	1.1*	.92*	1.1*	.32*	.27	.53	.30
27	.87*	.89*	.76*	.79*	.77*	.97*	.94*	1.1*	.39*	.25	.51	.41
28	.83*	.97*	.78*	.81*	.76*	.99*	.87*	1.1*	.25*	.25	.40	.42
29	.90*	.88*	.77*	.78*	-----	1.1*	.89*	1.2*	.43	.28	1.6	.84
30	1.1*	.93*	.84*	.88*	-----	1.0*	.90*	1.0*	.43	1.4	.50	.46
31	.98*	-----	.79*	.81*	-----	1.0*	-----	.93*	-----	.39*	.47	-----
Total	30.21	26.67	25.66	25.89	21.66	26.53	28.61	33.47	23.03	15.89	13.22	14.56
Mean	.97	.89	.83	.84	.77	.86	.95	1.08	.77	.51	.43	.49
Max	1.6	1.0	.97	.95	.86	1.4	1.1	1.3	1.3	1.5	1.6	2.0
Min	.83	.77	.75	.70	.69	.72	.87	.91	.17	.25	.24	.18
Acre-Ft	60	53	51	51	43	53	57	66	46	32	26	29
Wtr Year	2007	Total	285.40	Mean	.78	Max	2.0	Min	.17	Acre-Ft	566	
Cal Year	2006	Total	82.54	Mean	.90	Max	1.6	Min	.75	Acre-Ft	164	

*Estimated

E1219 Sandia Canyon East of Power Plant

Location. Lat. 35° 52' 30", long. 106° 19' 10", SW ¼, Sec. 16, T 19 N., R 6 E., Los Alamos County on right bank 150 ft downstream of power plant and 0.3 miles north of east Jemez Road.

Drainage Area. 0.002 mi².

Period of Record. March 3, 2006 to September 30, 2007

Gage. Data logger and 9" Parshall flume. Elevation of gage is 7,337 ft above NGVD from land survey.

Remarks. Water discharge records are good.

Extremes for Period of Record. Maximum discharge, 3.1 ft³/s, August 25, 2005, gage height 1.01ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 2.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1455	2.5	0.87
July 14	1635	3.1	1.01
July 30	1145	3.1*	1.01*
August 18	1150	2.4	0.85
August 29	1350	2.1	0.79
September 6	1245	2.1	0.79
September 29	1335	2.7	0.93

No flow most of time.



E1219 Sandia Canyon East of Power Plant

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station is also equipped with a tipping bucket rain gage, Rain Collection II installed on May 2, 2008. All equipment is powered with a solar panel battery charging system.

Field Work. The station was visited forty-seven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year.

Rating. The channel is straight above and below gage. It is confined to the main channel by cut banks on both sides. The bottom is 4' wide channel prone to some shifting with vegetation on each bank. Low water control is the 9' Parshall flume.

Rating No. 1 was developed based on the computation of 9' Parshall flume. Point of zero flow is 0.00 gage height.

Forty-six inspections of no flow and one day of snow melt were made this year.

Discharge. Discharge was computed by applying Rating No. 1 directly.

Remarks. Records are good.

E1219 Sandia Canyon East of Power Plant

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	.01
2	0	0	0	0	0	0	0	.01	0	0	0	.04
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	.01	0
5	0	0	0	0	0	0	0	0	0	0	0	.01
6	0	0	0	0	0	0	0	0	0	0	.02	.06
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	.02	0	0	0	0
9	.06	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	.02	.01	0	.01
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	.01	.02	0	0	0	0
14	.01	0	0	0	0	0	0	0	0	.03	0	0
15	.01	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	.03	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	.02	0
19	0	0	0	0	0	0	0*	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	.04
21	0	0	0	0	0	.01	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	.03	0	0	0	0	0	.02
24	0	0	0	0	0	.01	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	.03	0	0	0	0	.03	0
27	0	0	0	0	0	0	0	0	0	0	.03	0
28	0	0	0	0	0	0	0	0	0	0	0	.01
29	0	0	0	0	-----	0	0	0	0	0	.05	.02
30	0	0	0	0	-----	0	0	0	0	.03	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0.08	0	0	0	0	0.08	0.01	0.05	0.05	0.07	0.16	0.22
Mean	.003	0	0	0	0	.003	0	.002	.002	.002	.005	.007
Max	.06	0	0	0	0	.03	.01	.02	.03	.03	.05	.06
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.16	0	0	0	0	.16	.02	.10	.10	.14	.32	.44
Wtr Year	2007	Total	0.72	Mean	.002	Max	.06	Min	0	Acre-Ft	1.4	
Cal Year	2006	Total	0.40	Mean	.001	Max	.08	Min	0	Acre-Ft	.79	

E1219 Sandia Canyon East of Power Plant

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	.01	.01	.27
2								.02	0	.01	0	.68
3								0	.09	0	0	0
4								0	0	.08	.20	.07
5								.03	0	0	0	.24
6								.01	0	0	.35	1.2
7								0	0	.05	0	0
8								.47	0	.06	0	0
9								0	0	0	0	0
10								0	0	0	0	.04
11								0	.55	.21	0	.19
12								0	.02	0	.07	0
13								.22	0	.06	0	0
14								.06	0	.57	0	0
15								0	.01	0	0	0
16								.03	.66	.01	0	0
17								.05	0	0	0	.14
18								.15	0	0	.49	0
19								.01	0	.04	0	.01
20								.13	0	.07	0	.88
21								0	0	.15	0	0
22								.28	.15	0	0	0
23								.03	0	0	.01	.57
24								.03	0	0	.13	0
25								.09	0	0	0	0
26								0	0	.09	.13	0
27								.06	0	0	0	0
28								0	.01	0	0	.26
29					-----			0	0	0	1.1	.47
30					-----			0	0	.46	0	0
31		-----			-----		-----	0	-----	.02	.11	-----
Total								1.67	1.49	1.89	2.60	5.02
Mean								.056	.050	.061	.084	.17
Max								.47	.66	.57	1.1	1.2
Min								0	0	0	0	0
Wtr Year	2007	Total	12.67	Mean	.083	Max	1.2	Min	0	InstMax	.28	
Cal Year	2006	Total		Mean		Max		Min		InstMax		

E122 Sandia Canyon near Roads and Grounds at TA-3

Location. Lat 35° 52' 31", long 106° 9' 6", SW ¼, Sec. 16, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 0.08 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 7,290 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before period of record but not reliable.

Extremes for Period of Record. Maximum discharge, 88 ft³/s August 23, 2003, gage height 4.23 ft. Minimum daily discharge 0.08 ft³/s, June 22, 2003.

Extremes for Current Year. Peak discharges above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1455	10	2.51
July 14	1635	13*	2.80
July 30	1150	13	2.74
August 18	1150	11	2.54
August 29	1410	12	2.70
September 2	1420	12	2.66
September 6	1245	12	2.67
September 29	1340	11	2.59

Minimum daily discharge, 0.0 ft³/s September 30.



E122 Sandia near Roads and Grounds at TA-3

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and a milltronics sonic probe. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is also equipped with ISCO brand pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. An outside staff is available for reference.

Field Work. The station was visited forty-three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None, levels of July 25, 2005, found gage to be within limits.

Gage-Height Record. The data logger referenced to the inside gage height gave a complete and satisfactory record for the year.

Rating. The channel is straight for about 20' above with a step downstream slope and straight for 15' downstream with a sharp slope 5' downstream. The stream bed through this reach is primarily bed rock with some cobbles below gage. The low water control is a bed rock riffle below gage.

Rating No. 2 was developed based on the measurements made this year. Shifts are small and mostly negative caused by small amounts of deposition near gage or some bank slough during high flows. They have been distributed using variable diagrams with no shifts applied on the peak flows.

Twelve discharge measurements (Nos. 29–40) and thirty-one inspections were available for this analysis.

Discharge. Discharge computed from Rating No.2 with shifts applied by “V” diagrams.

Remarks. Records are good.

E122 Sandia Canyon near Roads and Grounds at TA-3

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	.01	.01	.01	.02	.01	.01	.05	.01	.01	.16	.13
2	0*	.01	0	.01	.01	.01	.01	.38	0	.01	.16	.39
3	0*	.01	0	.01	.02	.01	.01	.01	.02	0	.13	.01
4	0*	.01	.01	.01	.01	.01	.01	.01	.02	.03	.18	.03
5	.03	.01	0	0	.02	.01	.01	.01	.02	.01	.17	.14
6	.03	.01	0	.01	.03	.01	.01	.01	.01	.03	.35	.71
7	.01	.01	0	0	.04	.02	.01	.01	.01	.10	.13	.03
8	.06	.01	0	.01*	.04	.02	.01	.33	.01	.09	.10	.02
9	.82	0	0	0	.02	.01	.04	.02	.01	.03	.07	.02
10	.10	0	0	.01	.04	.01	.01	.01	.01	0	.07	.04
11	.01	0	0	.01	.11	.02	.02	.01	.37	.10	.06	.16
12	.01	0	0	.03	.04*	.02	.01	0	.03	.03	.12	.01
13	.01	0	0	.03	.01	.01	.15	.27	.01	.03	.06	.01
14	.01	0	0	.01	.02	.02	.04	.01	.01	.34	.06	.01
15	.30	0	.01	.01	.04	.01	.01	0	.01	.06	.07	.01
16	.01	0	0	0	.04	.01	.01	.02	.20	.05	.07	.01
17	.01	0	0	0	.02	.01	.01	.05	0	.04	.05	.02
18	.01	0	0	.01	.02	.01	.01	.08	.01	.04	.18	.02
19	.01	0	0	.01	.02	.01	.01	.01	.01	.04	.01	.01
20	.01	0	.01	.02	.02	.01	.01	.13	.01	.10	.01	.48
21	0	0	0	.02	.02	.09	.01	.01	.01	.14	.01	.01
22	0	0	0	.03	.02	.04	.01	0	.05	.09	.01	.01
23	0	0	0	.02	.01	.47	.01	.01	.01	.05	.01	.22
24	0	0	0	.07	.01	.11	.01	.01	.01	.03	.07	0
25	.06	0	0	.11	.01	.01	.01	.03	.01	.03	.01	0
26	.02	0	0	.05	.01	.02	.01	.01	.01	.11	.08	0
27	.01	0	.01	.01	.01	0	.01	.03	.02	.09	.01	0
28	.01	0	.01	.01	.01	.02	.01	.01	.01	.08	.02	.05
29	.01	0	0	.01	-----	.02*	.02	.01	.01	.08	.51	.24
30	.01	0	0	.01	-----	.01	.01	.01	.01	.47	.02	0
31	.01	-----	.01	.04	-----	0	-----	.01	-----	.18	.05	-----
Total	1.57	0.08	0.07	0.58	0.69	1.04	0.52	1.56	0.93	2.49	3.01	2.79
Mean	.051	.003	.002	.019	.025	.034	.017	.050	.031	.080	.097	.093
Max	.82	.01	.01	.11	.11	.47	.15	.38	.37	.47	.51	.71
Min	0	0	0	0	.01	0	.01	0	0	0	.01	0
Acre-Ft	3.1	.16	.14	1.2	1.4	2.1	1.0	3.1	1.8	4.9	6.0	5.5
Wtr Year	2007	Total	15.33	Mean	.042	Max	.82	Min	0	Acre-Ft	30	
Cal Year	2006	Total	7.70	Mean	.028	Max	.82	Min	0	Acre-Ft	15	

*Estimated

E1222 Sandia Canyon Tributary from Roads and Grounds

Location. Lat. 35° 52' 33", long. 106° 19' 5", Sec. 16, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 0.01 mi².

Period of Record. October 1, 2006 to September 30, 2007

Gage. Data logger and 9" Parshall flume. Elevation of gage is 7,326 ft above NGVD.

Remarks. Water discharge records are good except for estimated daily discharges which are fair. Records for this site existed before published period but not reliable.

Extremes for Period of Record. Maximum discharge, 4.4 ft³/s September 2, 2007, gage height 1.26 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 2.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 14	1640	2.3	0.84
August 29	1415	2.9	0.96
September 2	1420	4.4*	1.26*
September 6	1410	4.3	1.25

No flow most of time.



E1222 Sandia Canyon Tributary from Roads and Grounds

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. An outside staff gage is available for reference. No provision for discharge measurements above wading stage. All high measurements will be by slope area or peak flow computation methods.

Station was originally equipped with a Geomation data logger, as of June 28, the Geomation was removed and replaced with the present equipment.

Field Work. This station was visited twenty-two times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to June 28, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being. During this period, 40 days were estimated to have no flow.

Rating. Channel description, vegetation, bed rock, gravel.

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Fourteen inspections of no flow were made and eight inspections of flow were made this water year.

Discharge. September 6 was peak of year and was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations.

Remarks. Records are good except for estimated daily discharges, which are fair.

E1222 Sandia Canyon Tributary from Roads and Grounds

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	0*
2	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	.12*
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
6	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	.23*
7	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
9	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
10	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
11	0*	.01*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
12	0*	0*	0*	0*	0*	0*	0*	0*	.08*	0*	0*	0*
13	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
14	0*	0*	0*	0*	0*	0*	0*	0*	0*	.05*	0*	0*
15	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
17	0*	0*	0*	0*	0*	0*	0*	0*	.02*	0*	0*	0*
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*
19	0*	0*	.04*	0*	0*	0*	0*	0*	0*	0*	0*	0*
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.06*
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
22	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
23	0*	0*	0*	0*	0*	.21*	0*	0*	0*	0*	0*	.03*
24	0*	0*	0*	0*	0*	.03*	0*	0*	0*	0*	0*	0*
25	0*	0*	0*	0*	.01*	.02*	0*	0*	0*	0*	0*	0*
26	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
27	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	0*	0*
28	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	.12*	.05*
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	.03*	0*	0*
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0*	-----
Total	0	0.01	0.04	0	0.02	0.29	0	0	0.10	0.08	0.13	0.50
Mean	0	0	.001	0	.001	.009	0	0	.003	.003	.004	.017
Max	0	.01	.04	0	.01	.21	0	0	.08	.05	.12	.23
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	.02	.08	0	.04	.58	0	0	.20	.16	.26	.99
Wtr Year	2007	Total	1.17	Mean	.003	Max	.23	Min	0	Acre-Ft	2.3	
Cal Year	2006	Total	0.05	Mean	.001	Max	.04	Min	0	Acre-Ft	.10	

*Estimated

E1223 Sandia Canyon Tributary from Sigma Building

Location. Lat 35° 52' 22", long 106° 19' 3", SW ¼, Sec. 16, T. 19 N., R. 6 E., Los Alamos County

Drainage Area. 0.003 mi².

Period of Record. October 1, 2006 to September 30, 2007

Gage. Data logger and 9" Parshall flume. Elevation of gage is 7,368 ft above NGVD.

Remarks. Water discharge records are good except estimated daily discharges, which are fair. Records for this site existed before published period but not reliable.

Extremes for Period of Record. Maximum discharge, 0.54 ft³/s, September 29, 2007 gage height 0.32 ft. No flow most of time.

Extremes for Current Water Year. Maximum discharge is 0.54 ft³/s at 1335 h September 29, gage height 0.32 ft. No peak above base of 1.0 ft³/s. No flow most of time.



E1223 Sandia Canyon Tributary from Sigma Building

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomation data logger. Geomation was removed August 2, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty-three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to August 8, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period, 46 days were estimated to have no flow.

Rating. Above 9" Parshall flume is asphalt lot. Flume is located SW of road way on the shoulder of the road. Below flume is asphalt roadway.

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-three inspections of no flow were made this year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E1223 Sandia Canyon Tributary from Sigma Building

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
2	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
7	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
9	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
10	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
11	0*	0*	0*	0*	0*	0*	0*	0*	.10*	0*	0*	0*
12	0*	0*	0*	0*	0*	0*	0*	0*	.06*	0*	0*	0*
13	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*	0*	0*
14	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
15	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
17	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
19	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
22	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
23	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
24	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
25	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
26	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
27	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
28	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	.01*	0*
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0*
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0*	-----
Total	0	0	0	0	0	0	0	0	0.17	0	0.01	0.03
Mean	0	0	0	0	0	0	0	0	.006	0	0	.001
Max	0	0	0	0	0	0	0	0	.10	0	.01	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	.34	0	.02	.06
Wtr Year	2007	Total	0.21	Mean	.001	Max	.10	Min	0	Acre-Ft	.42	
Cal Year	2006	Total	0.01	Mean	0	Max	.01	Min	0	Acre-Ft	.02	

*Estimated

E12235 Sandia Canyon Tributary from MRF

Location. Lat. 35° 52' 26", long 106° 18' 47", SW ¼, Sec. 16, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 0.001 mi².

Period of Record. October 1, 2006 to September 30, 2007

Gage. Data logger and 9" Parshall flume. Elevation of gage is 7,285 ft above NGVD.

Remarks. Water discharge records are good except estimated daily discharges, which are fair. Records for this site existed before period of record but not reliable.

Extremes for Period of Record. Maximum discharge, 2.50 ft³/s August 26, 2007, gage height 1.13 ft. No flow most of time.

Extremes for Current Year. Peak discharge above base of 2.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height(ft)
August 26	1515	2.5*	1.13*

No flow most of time.



E12235 Sandia Canyon Tributary from MRF

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomatics data logger. Geomatics was removed June 28, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to June 28, 2007 when gage height record was not complete due to transmission from the Geomatics to the home site being lost. During this period, 17 days were estimated to have no flow.

Rating. Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Nineteen inspections of no flow and one day of snow melt were made this year

Discharge. August 26 was peak of year with a gage height of 1.13 ft and a discharge of 2.50ft³/s. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E12235 Sandia Canyon Tributary from MRF

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
2	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.02*
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.02*
7	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
9	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
10	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
11	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
12	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
13	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
14	0*	0*	0*	0*	0*	0*	0*	0*	0*	.02*	0*	0*
15	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
17	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*
19	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
22	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
23	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
24	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
25	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
26	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*
27	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
28	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	.02*	0*
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0*
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0*	-----
Total	0	0	0	0	0	0	0	0	0	0.02	0.04	0.06
Mean	0	0	0	0	0	0	0	0	0	.001	.001	.002
Max	0	0	0	0	0	0	0	0	0	.02	.02	.02
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	.04	.08	.12
Wtr Year	2007	Total	0.12	Mean	0	Max	.02	Min	0	Acre-Ft	.24	
Cal Year	2006	Total	0.03	Mean	0	Max	.03	Min	0	Acre-Ft	.06	

*Estimated

E1225 Sandia Canyon Tributary at Heavy Equipment

Location. Lat 35° 52' 22", long 106° 18' 46", SW ¼, Sec. 16, T.19 N., R 6 E., Los Alamos County, 600 ft behind motor pool and 0.50 mi downstream from Diamond Drive.

Drainage Area. 0.008 mi².

Period of Record. October 1, 2002 to September 30, 2007

Gage. Data logger and 12" Parshall flume. Elevation of gage is 7,322 ft above NGVD from land survey.

Remarks. Water discharge records are good.

Extremes for Period of Record. Maximum discharge, 8.1 ft³/s September 2, 2007, gage height 1.59 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
April 13	1935	7.5	1.51
June 16	1450	7.6	1.53
July 14	1630	5.3	1.20
August 26	1515	7.9	1.56
August 29	1350	8.0	1.57
September 2	1405	8.1*	1.59*
September 6	1410	6.2	1.34

No flow most of time.



E1225 Sandia Canyon Tributary at Heavy Equipment

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular phone telemetry with speech modem with a solar panel battery charging system are housed in a NEMA shelter on right bank. A milltronics sonic probe stage sensor is mounted on top a 12" Parshall flume. The gage station is also equipped with an ISCO pump sampler for water quality data collection and is housed in a separate shelter 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 12" Parshall flume is the reference gage. There is no provision for direct discharge measurements above wading stage.

Field Work. The station was visited twenty-three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory for the year. During this period of record after some flow events, flume would become silted, these days were modified with Hydron to PZO.

Rating. The channel is straight above and below gage. It is confined to the main channel by cut banks on both sides. The bottom is 10' wide channel prone to no shifting. Low water control is the 12" Par shall flume.

Rating No. 1 was developed based on the computation of 12" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-one inspections of no flow were made this period of record.

Discharge. Discharge was computed by applying Rating No. 1 direct.

Records. Records are good.

E1225 Sandia Canyon Tributary at Heavy Equipment

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	.01	0	0	.02	.03
2	0	0	0	0	0	0	0	.05	0	0	0	.17
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	.01	0
5	.01	0	0	0	0	0	0	0	0	0	0	.01
6	.01	0	0	0	0	0	0	0	0	0	.05	.15
7	0	0	0	0	0	0	0	0	0	0	.06	0
8	.02	0	0	0	0	0	0	.05	0	0	0	0
9	.10	0	0	0	0	0	0	0	0	0	0	0
10	.01	0	0	0	0	0	0	0	0	0	0	.05
11	.01	0	0	0	0	0	0	0	.05	.01	0	0
12	.01	0	0	0	0	0	0	0	0	0	.06	0
13	0	0	0	0	0	0	.05	0	0	0	0	0
14	.01	0	0	0	0	0	.01	0	0	.08	0	0
15	.01	0	0	0	0	0	0	0	0	.07	0	0
16	0	0	0	0	0	0	0	0	.10	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	.01	0	0	.03	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	.01	0	0	0	.13
21	0	0	0	0	0	.01	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	.08	0	0	0	0	0	.07
24	0	0	0	0	0	.03	0	.01	0	0	.01	0
25	0	0	0	0	0	.02	0	0	0	0	0	0
26	0	0	0	0	0	.02	0	0	0	0	.08	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	.03
29	0	0	0	0	-----	0	0	0	0	0	.22	.05
30	0	0	0	0	-----	0	0	.01	0	.02	.03	0
31	0	-----	0	0	-----	0	-----	0	-----	.01	0	-----
Total	0.19	0	0	0	0	0.16	0.06	0.15	0.15	0.19	0.57	0.69
Mean	.006	0	0	0	0	.005	.002	.005	.005	.006	.018	.023
Max	.10	0	0	0	0	.08	.05	.05	.10	.08	.22	.17
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.38	0	0	0	0	.32	.12	.30	.30	.38	1.1	1.4
Wtr Year	2007	Total	2.16	Mean	.006	Max	.22	Min	0	Acre-Ft	4.3	
Cal Year	2006	Total	1.40	Mean	.004	Max	.19	Min	0	Acre-Ft	2.8	

E123 Sandia Canyon below Wetlands

Location. Lat 35° 52' 23", long 106° 18' 35", SE ¼, Sec. 16, T. 19 N., R. 6 E., Los Alamos County, 0.15 mi behind Los Alamos County Landfill off Jemez Road, and 0.80 mi downstream from Diamond Drive.

Drainage Area. 0.29 mi².

Period of Record. August 1, 1999 to September 30, 2007.

Revised Record. Drainage Area (2006); Section (this report).

Gage. Data logger with cellular telemetry. Elevation of gage is 7,204 ft above NGVD from GPS survey.

Remarks. Water discharge records are good.

Average Discharge. 7 yr, 0.58 ft³/s, 449 acre-ft/year.

Extremes for Period of Record. Maximum discharge, 88 ft³/s, August 23, 2003 gage height 4.23 ft. Minimum daily discharge, 0.08 ft³/s June 22, 2003.

Extremes for Current Year. Peak discharges above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
June 16	1520	67*	3.92*
July 14	1700	59	3.86
July 30	1220	40	3.54
August 29	1440	44	3.57
September 2	1445	50	3.68
September 6	1445	53	3.73

Minimum daily discharge, 0.13 ft³/s August 28.



E123 Sandia Canyon below Wetlands

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5min. interval) with a Sutron self-contained bubbler as stage sensor. Data logger is equipped with cellular speech modem telemetry. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is also equipped with ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. An outside staff is available for reference. No provision for discharge measurements above wading stage.

Field Work. The station was visited thirty nine times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None, levels of July 25, 2005, found gage to correct datum.

Gage-Height Record. The data logger referenced to the inside gage height gave a complete and satisfactory record for the year, except August 1–8 when data logger failed.

Rating. Channel is trapezoidal with rock outcrop and small depositional bars within pools. Banks have some grass, not very tall or thick. Channel is straight for about 100' above and below gage.

Rating No. 2 was developed based on the measurements made this year. Shifts are small and mostly negative caused by small amounts of deposition near gage or some bank slough during high flows. They have been distributed using variable diagrams with no shifts applied on the peak flows.

Sixteen discharge measurements (Nos. 77–95), No. 93 being a critical depth computation. Thirty nine inspections were made.

Discharge. Discharge computed from Rating No.2 with shifts applied by “V” diagrams.

Remarks. Records are good.

E123 Sandia Canyon below Wetlands

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56*	.64*	.48*	.47*	.41*	.67*	.63*	.39*	.33*	.33*	.33*	.96*
2	.41*	.63*	.37*	.57*	.44*	.48*	.61*	2.0*	.33*	.32*	.21*	2.7*
3	.27*	.46*	.64*	.64*	.71*	.88*	.61*	.51*	.32*	.13*	.24*	.37*
4	.54*	.53*	.59*	.77*	.56*	.51*	.46*	.43*	.38*	.23*	.25*	.42*
5	.64*	.53*	.59*	.45*	.76*	.56*	.51*	.43*	.43*	.14*	.14*	1.1*
6	.62*	.44*	.39*	.75*	.30*	.61*	.66*	.35*	.18*	.16*	.32*	4.2*
7	.47*	.42*	.64*	.31*	.53*	.64*	.66*	.71*	.39*	.25*	.36*	.32*
8	.83*	.42*	.56*	.63*	.77*	.67*	.40*	1.7*	.27*	.25*	.22*	.37*
9	5.2*	.54*	.65*	.55*	.73*	.70*	.71*	.72*	.27*	.24*	.22*	.45*
10	1.2*	.43*	.46*	.81*	.59*	.48*	.53*	.51*	.35*	.16*	.25*	.27*
11	.63*	.48*	.40*	.40*	.87*	.67*	.58*	.44*	1.9*	.48*	.23*	.76*
12	.65*	.70*	.46*	.72*	1.0*	.72*	.50*	.50*	.66*	.35*	.48*	.45*
13	.66*	.52*	.49*	.69*	.59*	.70*	1.5*	1.4*	.38*	.39*	.48*	.19*
14	1.0*	.42*	.65*	.54*	.63*	.57*	.94*	.64*	.58*	2.4*	.31*	.19*
15	1.8*	.56*	.87*	.73*	.73*	.70*	.54*	.48*	.93*	.95*	.36*	.20*
16	.68*	.45*	.48*	.65*	.53*	.52*	.57*	.52*	2.3*	.23*	.23*	.17*
17	.79*	.64*	.32*	.54*	.46*	.62*	.52*	.55*	.35*	.24*	.26*	.22*
18	.77*	.37*	.60*	.46*	.42*	.42*	.50*	.69*	.52*	.25*	1.1*	.25*
19	.56*	.38*	.51*	.52*	.41*	.65*	.41*	.66*	.40*	.29*	.15*	.19*
20	.62*	.35*	.55*	.58*	.54*	.53*	.44*	.99*	.46*	.39*	.10*	2.3*
21	.69*	.55*	.37*	.28*	.68*	.77*	.38*	.44*	.34*	.57*	.22*	.49*
22	.39*	.51*	.55*	.54*	.47*	.72*	.38*	.52*	.43*	.65*	.27*	.39*
23	.58*	.33*	.46*	.50*	.61*	2.8*	.63*	.51*	.40*	.33*	.15*	1.7*
24	.52*	.54*	.38*	.57*	.42*	1.4*	.51*	.35*	.33*	.40*	.62*	.48*
25	.66*	.55*	.46*	.59*	.53*	.62*	.42*	.40*	.44*	.39*	.21*	.41*
26	.55*	.60*	.65*	.46*	.44*	.78*	.42*	.35*	.19*	.33*	.94*	.38*
27	.46*	.53*	.35*	.45*	.60*	.53*	.45*	.43*	.37*	.21*	.36*	.46*
28	.37*	.65*	.40*	.51*	.55*	.56*	.36*	.35*	.31*	.24*	.13*	.62*
29	.47*	.47*	.36*	.46*	-----	.78*	.39*	.67*	.22*	.24*	3.5*	1.5*
30	.87*	.61*	.53*	.68*	-----	.60*	.35*	.40*	.23*	1.4*	.20*	.62*
31	.51*	-----	.40*	.59*	-----	.64*	-----	.25*	-----	.32*	.37*	-----
Total	24.97	15.25	15.61	17.41	16.28	22.50	16.57	19.29	14.99	13.26	13.21	23.13
Mean	.81	.51	.50	.56	.58	.73	.55	.62	.50	.43	.43	.77
Max	5.2	.70	.87	.81	1.0	2.8	1.5	2.0	2.3	2.4	3.5	4.2
Min	.27	.33	.32	.28	.30	.42	.35	.25	.18	.13	.10	.17
Acre-Ft	50	30	31	35	32	45	33	38	30	26	26	46
Wtr Year	2007	Total	212.47	Mean	.58	Max	5.2	Min	.10	Acre-Ft	421	
Cal Year	2006	Total	215.21	Mean	.59	Max	6.2	Min	.07	Acre-Ft	427	

*Estimated

E1234 Sandia Canyon Roads and Grounds at Sigma

Location. Lat 35° 52' 14", long 106° 18' 24", Sec. 21, T. 19 N., R. 6 E., Los Alamos Country.

Drainage Area. 0.001 mi².

Period of Record. July 24, 2007 to September 30, 2007

Gage. Data logger and 24" Parshall flume. Elevation 7,311 ft above NGVD.

Remarks. Water discharge records are good.

Extremes for Period of Record. Maximum discharge is 3.72 ft³/s, September 2, 2007 gage height 0.61 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 2.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 26	1515	2.2	0.44
August 29	1350	2.1	0.42
September 2	1405	3.7*	0.61*

No flow most of time.



E1234 Sandia Canyon Roads and Grounds at Sigma

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 24" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 24" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

New station, installed July 24, 2007.

Field Work. This station was visited eleven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record.

Rating. The control for this station is the 24" Parshall flume.

Rating No. 1 was developed based on the computation of 24" Parshall flume. Point of zero flow is 0.00 gage height.

Eleven inspections of no flow were made this year.

Discharge. Discharge was computed using 24" Parshall flume computations.

Remarks. Records are good.

E1234 Sandia Canyon Roads and Grounds at Sigma

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	.01
2											0	.05
3											0	0
4											.01	.01
5											0	.03
6											.04	.04
7											0	0
8											0	0
9											0	0
10											0	0
11											0	0
12											.02	0
13											0	0
14											0	0
15											0	0
16											0	0
17											0	.01
18											.02	0
19											0	0
20											0	.05
21											0	0
22											0	0
23											0	.04
24										.18	.01	0
25										0	0	0
26										0	.03	0
27										0	0	0
28										0	0	.01
29					-----					0	.05	.02
30					-----					0	0	0
31		-----			-----		-----		-----	0	0	-----
Total										0.18	0.18	0.27
Mean										.023	.006	.009
Max										.18	.05	.05
Min										0	0	0
Acre-Ft										.36	.36	.54
Wtr Year	2007	Total	0.63	Mean	.009	Max	.18	Min	0	Acre-Ft	.89	
Cal Year	2006	Total		Mean		Max		Min		Acre-Ft		

E125 Sandia Canyon above SR 4

Location. Lat 35° 51' 32", long 106° 13' 34", SW ¼, Sec. 20, T. 19 N., R.7 E., Santa Fe County, on right bank 0.25 mi north of East Jemez Road and 0.5 mi upstream from SR 4.

Drainage Area. 2.05 mi².

Period of Record. October 1, 1994 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,495 ft above NGVD from GPS survey.

Remarks. Water discharge records are fair.

Average Discharge. 13 yr, 0.001 ft³/s, 1.0 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 59 ft³/s, August 25, 2006, gage height 3.60 ft (from slope-area measurement). No flow most of time.

Extremes for Current Year. No peak above base of 3.0 ft³/s. No flow during current year.



E125 Sandia Canyon above SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5 min. interval) and a shaft encoder float system with cellular phone and speech modem. The system is powered by a solar panel battery system. All equipment housed in NEMA shelter on a 18" CMP well on left bank. Station is equipped with an ISCO pump ampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. Control is a concrete broad crested weir. No provision for measurements above wading stage.

Field Work. The station was visited twelve times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record.

Rating. Channel is straight for 150' above and 100' below gage. Bed material is sand with vegetation on banks, bottom is well supported.

Rating No. 1 is from theoretical points computed from broad-crested weir formula from USGS-TWRI. Worksheet in record folder shows computations including estimated velocity head used in computation because "p" in equation was functionally zero. Rating No. 1 is considered fair.

Two discharge measurements (Nos. 1–2) were made, No. 1 being a slope area measurement of peak flow during the years. No. 2 is a high flow and critical depth computation. Twelve inspections of no flow were used to develop a "V" diagram shift needed to adjust to PZF.

Slope area measurement is peak of record.

Discharge. Discharge computed directly from Rating No.1 without shift correction.

Remarks. Records are good.

E125 Sandia Canyon above SR-4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	0
Wtr Year	2007	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	0
Cal Year	2006	Total	2.23	Mean	.006	Max	2.2	Min	0	Acre-Ft	4.4	0

E196 TA-55 above Effluent Canyon

Location. Lat 35° 51' 52", long 106° 18' 13", NE ¼, Sec. 21, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 0.008 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger and 12" Parshall flume. Elevation of gage is 7,270 ft above NGVD.

Remarks. Water discharge records are good except for estimated daily discharges, which are fair. Records for this site existed before published date but not reliable.

Extremes for Period of Record. Maximum discharge, 0.95 ft³/s, September 2, 2007 gage height 0.42 ft. No flow most of time.

Extremes for Current Year. Maximum discharge, 0.95 ft³/s, 1355 h September 2, gage height 0.42 ft. No peak above base of 1.0 ft³/s. No flow most of time.



E196 TA-55 above Effluent Canyon

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 12" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. The staff in the 12" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station is also equipped with a tipping bucket rain gage, Rain Collection II installed on April 27, 2007. All equipment is powered with a solar panel battery charging system.

Station was originally equipped with a Geomation data logger. Geomation was removed April 24, 2007 and replaced with the present equipment.

Field Work. This station was visited forty nine times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to April 24, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period 5 days were estimated to have flow.

Rating. The control for the station is a 12" Parshall flume.

Rating No. 1 was developed based on the computation of 12" Parshall flume. Point of zero flow is 0.00 gage height.

Forty nine inspections of no flow were made this year.

Discharge. Discharge was computed using 12" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E196 TA-55 above Effluent Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
2	0*	0*	0*	0*	0*	0*	0*	.01	0	0	0	.01
3	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
4	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
5	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
6	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	.01
7	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
8	0*	0*	0*	0*	0*	0*	0*	.01	0	0	0	0
9	.01*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
10	.02*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
11	0*	0*	0*	0*	0*	0*	0*	0	.01	0	0	0
12	0*	0*	0*	0*	0*	0*	0*	0	0	0*	0	0
13	0*	0*	0*	0*	0*	0*	0*	0	0	0*	0	0
14	0*	0*	0*	0*	0*	0*	0*	0	0	0*	0	0
15	0*	0*	.06*	0*	0*	0*	0*	0	0	0*	0	0
16	0*	0*	.01*	0*	0*	0*	0*	0	0	0*	0	0
17	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
18	0*	0*	0*	0*	0*	0*	0*	0	0	0	.01	0
19	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
20	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	.01
21	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
22	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
23	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	.01
24	0*	0*	0*	0*	0*	0*	0*	0	0	0	0	0
25	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
26	0*	0*	0*	0*	0*	0*	0	0	0	0	.01	0
27	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
28	0*	0*	.03*	0*	0*	0*	0	0	0	0	0	0
29	0*	0*	0*	0*	-----	0*	0	0	0	0	.02	0
30	0*	0*	0*	0*	-----	0*	0	0	0	0	0	0
31	0*	-----	0*	0*	-----	0*	-----	0	-----	0	0	-----
Total	0.03	0	0.10	0	0	0	0	0.02	0.01	0	0.04	0.04
Mean	.001	0	.003	0	0	0	0	.001	0	0	.001	.001
Max	.02	0	.06	0	0	0	0	.01	.01	0	.02	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.06	0	.20	0	0	0	0	.04	.02	0	.08	.08
Wtr Year	2007	Total	0.24	Mean	.001	Max	.06	Min	0	Acre-Ft	.48	
Cal Year	2006	Total	6.42	Mean	.018	Max	1.5	Min	0	Acre-Ft	13	

*Estimated

E196 TA-55 above Effluent Canyon

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								.26	0	.07	.06	.39
2								.41	0	0	0	.87
3								0	.07	0	0	0
4								0	.02	.05	.24	.18
5								.03	0	0	0	.18
6								.01	0	0	.19	.58
7								0	0	.06	0	0
8								.61	0	.06	0	0
9								0	0	.05	0	0
10								0	.08	0	0	.04
11								0	.44	.19	0	.08
12								0	.05	0	.06	0
13								.06	0	.05	0	0
14								.05	0	.67	0	0
15								0	.01	.03	0	0
16								.01	.34	.01	0	0
17								.05	0	0	0	.17
18								.03	0	0	.50	.01
19								0	0	.02	0	.01
20								.09	0	.04	0	.67
21								0	0	.13	0	.01
22								0	.13	0	0	0
23								.01	0	0	.03	.70
24								.04	0	0	.17	0
25								.08	0	0	0	0
26								.01	0	.02	.72	0
27							0	.08	0	0	0	0
28							0	0	0	0	0	.29
29					-----		0	0	0	0	1.2	.32
30					-----		0	0	0	.02	0	0
31		-----			-----		-----	0	-----	.02	.02	-----
Total							0	1.83	1.14	1.49	3.19	4.50
Mean							0	.059	.038	.048	.10	.15
Max							0	.61	.44	.67	1.2	.87
Min							0	0	0	0	0	0
Wtr Year	2007	Total	12.15	Mean	.077	Max	1.2	Min	0	InstMax	.67	
Cal Year	2006	Total		Mean		Max		Min		InstMax		

E200 Mortandad Canyon below Effluent Canyon

Location. Lat 35° 51' 55", long 106° 17' 46", NW ¼, Sec. 22, T. 19 N., R. 6 E., Los Alamos County, 0.25 mi north of LANL TA-50, 0.25 mi below TA-50 outfall, and 0.6 mi north of Pajarito Road.

Drainage Area. 0.49 mi².

Period of Record. May 10, 1995 to September 30, 2007.

Gage. Data logger with cellular telemetry and steel “fabricated” nonstandard flume as low-water control. Elevation of gage is 7,062.50 ft above NGVD from survey.

Remarks. Water discharge records are good, except estimated daily discharges, which are fair. Flow is mostly effluent from LANL TA-50, liquid radiological waste plant.

Average Discharge. 13 yr, 0.054 ft³/s, 39 acre-ft/yr.

Extremes outside Period of Record. Maximum discharge, 34 ft³/s, August 19, 1970, gage height 3.07 ft, from old data files of USGS.

Extremes for Period of Record. Maximum discharge, 448 ft³/s, August 24, 2006, gage height 5.38 ft (from critical depth computation of flood marks). No flow at times.

Extremes for Current Year. Peak discharges above base of 13 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1440	13	2.20
September 2	1425	32*	3.03*
September 6	1445	14	2.24

No flow at times.



E200 Mortandad Canyon below Effluent Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and Sutron Accubar non-submersible transducer with cellular phone speech modem. The system is powered by a solar panel battery system. All equipment is housed in a NEMA shelter mounted on a 2' CMP well. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is trigger by stage through the data logger. The staff in the 9" flume is the reference gage a larger staff is also available for high flow. No provision for measurements above wading stage.

Field Work. The station was visited twenty times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory for the water year except during the period from December 1 to March 7, record was not complete due to frozen orifice.

Rating. The channel at the gage is about 33' wide and straight for about 50' upstream and straight for about 75' below gage. The streambed is sand and gravel and subject to fill behind flume from flow events and gage silting problem from effluent release. Flow is mostly effluent from TA-50 water treatment plant. The control is a fabricated steel flume about 5" at the throat.

Rating No. 1, which was developed on measurements made during the years, is effective and was used with a variable shift diagram from last measurement made at gage station.

One discharge measurement (No. 29) was made and twenty inspections were made during the water year.

Discharge. Discharge was computed by applying gage height to Rating No. 1 through shift adjustment based on variable shift diagram. Partial days were computed based on TA-50 release and analysis of precipitation records. Winter period (frozen orifice) was computed using TA-50 discharges.

Remarks. Records are good, except for estimated daily discharges, which are fair.

E200 Mortandad Canyon below Effluent Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	.01	0	0	0	.08
2	0	0	0	0	0	0	.02	.28	0	0	0	2.4
3	.02	0	0	.03	0	0	0	.01	0	0	0	.08
4	.04	0	.03	0	0	0	0	0	.02	0	0	.06
5	0	0	0	0	.03	.03	0	0	0	0	0	.26
6	0	.02	0	0	0	0	0	0	0	0	.01	1.5
7	0	0	0	0	.03	.03	0	.02	0	0	0	.16
8	0	0	.03	.03	0	0	0	.53	0	0	0	.07
9	1.2	0	0	0	0	0	.04	.07	0	0	0	.01
10	.39	0	0	0	0	0	.04	.11	0	0	0	0
11	.06	0	0	0	0	0	0	0	.13	0	0	.03
12	.02	0	.03	0	.03	.03	0	0	.04	0	0	.01
13	.01	.01	0	0	0	.03	.12	0	.01	0	0	0
14	.02	.02	.03	0	0	.02	.03	.02	0	.01	0	.03
15	.06	.01	0	0	.03	.04	.01	0	0	.01	0	0
16	.04	.01	0	0	0	.01	.03	0	.04	.05	0	0
17	.01	.02	0	.03	0	.01	0	0	.01	0	0	.02
18	.02	0	0	0	0	0	0	0	0	0	.12	.06
19	0	0	0	0	0	.02	0	0	.02	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	.27
21	0	0	0	0	.03	.07	0	.04	0	0	0	.07
22	0	0	0	0	0	.05	0	0	0	.01	.01	.02
23	.02	0	0	.03	0	.86	0	0	0	0	0	.85
24	0	0	0	0	0	.52	0	0	0	0	.02	.24
25	.02	0	0	.03	0	.11	0	0	0	.01	0	.03
26	0	0	0	0	0	.05	0	0	0	0	.24	.01
27	0	.01	0	0	0	.01	0	0	.01	0	.06	.03
28	0	0	0	0	0	.01	0	0	0	0	.05	.11
29	0	.02	0	0	-----	.01	0	.04	.02	0	2.0	.48
30	0	0	0	.03	-----	0	0	0	0	0	.41	.05
31	0	-----	0	0	-----	0	-----	0	-----	0	.07	-----
Total	1.93	0.12	0.12	0.18	0.15	1.91	0.29	1.13	0.30	0.09	2.99	6.93
Mean	.062	.004	.004	.006	.005	.062	.010	.036	.010	.003	.096	.23
Max	1.2	.02	.03	.03	.03	.86	.12	.53	.13	.05	2.0	2.4
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	3.8	.24	.24	.36	.30	3.8	.58	2.2	.60	.18	5.9	14
Wtr Year	2007	Total	16.14	Mean	.044	Max	2.4	Min	0	Acre-Ft	32	
Cal Year	2006	Total	44.44	Mean	.12	Max	14	Min	0	Acre-Ft	88	

E2005 Mortandad Canyon Tributary Batch Plant at Sigma

Location. Lat 35° 51' 57", long 106° 17' 24", NE ¼, Sec. 22, T.19 N., R. 6 E., Los Alamos County.

Drainage Area. 7.69 mi².

Period of Record. July 25, 2007 to September 30, 2007

Gage. Data logger and 24" Parshall flume. Elevation of gage is 7,215 ft above NGVD.

Remarks. Water discharge records are good.

Extremes for Period of Record. Maximum discharge, 1.64 ft³/s, September 2, 2007 gage height 0.36 ft. No flow most of time.

Extremes for Current Year. Peak discharge above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 2	1405	1.6*	0.36*

No flow most of time.



E2005 Mortandad Canyon Tributary Batch Plant at Sigma

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 24" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 24" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station is also equipped with a tipping bucket rain gage, Rain Collection II installed on July 25, 2007. All equipment is powered with a solar panel battery charging system.

Station installed July 25, 2007.

Field Work. This station was visited twenty-one times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record.

Rating. Rating No. 1 was developed based on the computation of 24" Parshall flume. Point of zero flow is 0.00 gage height.

Fifteen inspections of no flow were made this year.

Discharge. Discharge was computed using 24" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good.

E2005 Mortandad Canyon Tributary Batch Plant at Sigma

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	.03
2											0	.14
3											0	.05
4											.01	0
5											0	.04
6											.02	.01
7											0	0
8											0	0
9											0	0
10											0	0
11											0	0
12											.01	0
13											0	0
14											0	0
15											0	0
16											0	0
17											0	0
18											.02	0
19											0	0
20											0	.03
21											0	0
22											0	0
23											0	.05
24											0	.06
25										0	0	0
26										0	.02	0
27										0	0	0
28										0	0	.02
29					-----					0	.13	.04
30					-----					.01	0	0
31		-----			-----		-----		-----	.01	.03	-----
Total										0.02	0.24	0.47
Mean										.003	.008	.016
Max										.01	.13	.14
Min										0	0	0
Acre-Ft										.04	.48	.93
Wtr Year	2007	Total	0.73	Mean	.011	Max	.14	Min	0	Acre-Ft	6.4	
Cal Year	2006	Total		Mean		Max		Min		Acre-Ft		

E2005 Mortandad Canyon Tributary Batch Plant at Sigma

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											.06	.22
2											0	.61
3											0	0
4											.12	.14
5											0	.08
6											.23	.17
7											0	0
8											0	0
9											0	0
10											0	.03
11											0	.05
12											.06	0
13											0	0
14											0	0
15											0	0
16											0	0
17											0	.19
18											.53	0
19											0	0
20											0	.65
21											0	.01
22											0	0
23											.02	.64
24											.23	0
25										0	0	0
26										0	.50	0
27										0	0	0
28										0	0	.18
29					-----					0	1.4	.31
30					-----					.02	0	0
31		-----			-----		-----		-----	.02	.02	-----
Total										0.04	3.17	3.28
Mean										.006	.10	.11
Max										.02	1.4	.65
Min										0	0	0
Wtr Year	2007	Total	6.49	Mean	.095	Max	1.4	Min	0	InstMax	.31	
Cal Year	2006	Total		Mean		Max		Min		InstMax		

E201 Mortandad Canyon above Ten Site Canyon

Location. Lat. 35° 51' 46", long. 106° 16' 29", SW ¼, Sec. 22, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 0.25 mi².

Period of Record. October 1, 1998 to September 30, 2007.

Gage. Data logger with cellular telemetry and steel “fabricated” non standard flume. Elevation of gage is 6864 ft from GPS point.

Remarks. Water discharge records are good.

Extremes for Period of Record. Maximum discharge, 49 ft³/s, September 2, 2007 gage height 1.86 ft. No flow most of time.

Extremes for Current Year. Peak discharge above base of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 2	1450	49*	1.86*

No flow most of time.



E201 Mortandad Canyon above Ten Site Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 10' flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is trigger by stage through the data logger. An outside staff is available for reference. No provision for measurements above wading stage.

Field Work. The station was visited eleven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory for the water year.

Rating. Channel is straight above and below modified flume. Flow is confined to cut banks. Channel bottom is 3' ft wide with some vegetation above and below flume.

The streambed is sand and gravel and subject to fill flume from flow events. The control is a fabricated steel flume 10' at the throat.

Rating No. 1 was developed based on slope area computations and discharge measurements

Eleven inspections of no flow were made this year.

Discharge. Discharge was computed by applying gage height to Rating No. 1.

Remarks. Records are good.

E201 Mortandad Canyon above Ten Site Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	1.0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	.02
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	.01	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0.01	1.02
Mean	0	0	0	0	0	0	0	0	0	0	0	.034
Max	0	0	0	0	0	0	0	0	0	0	.01	1.0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	.02	2.0
Wtr Year	2007	Total	1.03	Mean	.003	Max	1.0	Min	0	Acre-Ft	2.0	
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	

E2011 TA-50 Area 006 (C)

Location. Lat 35° 51' 41", long 106° 17' 50", SW ¼, Sec. 22, T. 19 N., R. 6 E., Los Alamos County.

Drainage Area. 0.019 mi².

Period of Record. October 1, 2006 to September 30, 2007

Gage. Data logger and 24" Parshall flume. Elevation of gage is 7,220 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable.

Extremes for Period of Record. Maximum discharge, 4.60 ft³/s, September 2, 2007 gage height 0.70 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 18	1155	4.3	0.67
August 26	1520	3.3	0.57
August 29	1425	3.4	0.58
September 2	1355	4.6*	0.70*

No flow most of time.



E2011 TA-50 Area 006 (C)

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 24" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 24" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomatic data logger. Geomatic was removed August 9, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to August 9, 2007 when gage height record was not complete due to transmission from the Geomatic to the home site being lost. During this period days were estimated to have no flow.

Rating. Rating No. 1 was developed based on the computation of 24" Parshall flume. Point of zero flow is 0.00 gage height.

Upstream and downstream sections are formed cement, as a result of recent construction to building adjacent to the site.

Twenty inspections of no flow were made.

Discharge. Discharge was computed using 24" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good, except for estimated daily discharges which are fair.

E2011 TA-50 Area 006 (C)

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
2	0*	0*	0*	0*	0*	0*	0*	.03*	0*	0*	0*	.34*
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.02*
7	0*	.01*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
9	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
10	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
11	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
12	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
13	0*	0*	0*	0*	0*	0*	.02*	0*	0*	0*	0*	0*
14	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
15	.01*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
17	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.04*	0*
19	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.03*
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
22	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	0*
23	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	.03*
24	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0*	0*
25	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
26	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	.04*	0*
27	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
28	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	.11*	.01*
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0*
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0*	-----
Total	0.01	0.01	0	0	0	0.04	0.02	0.03	0	0	0.19	0.46
Mean	0	0	0	0	0	.001	.001	.001	0	0	.006	.015
Max	.01	.01	0	0	0	.01	.02	.03	0	0	.11	.34
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.02	.02	0	0	0	.08	.04	.06	0	0	.38	.91
Wtr Year	2007	Total	0.76	Mean	.002	Max	.34	Min	0	Acre-Ft	1.7	
Cal Year	2006	Total	0.72	Mean	.003	Max	.16	Min	0	Acre-Ft	1.4	

*Estimated

E2013 TA-50 Area C

Location. Lat 35° 51' 41", long 106° 17' 49", SW ¼, Sec. 22, T. 19 N., R. 6 E., Los Alamos Country.

Drainage Area. 0.002 mi².

Period of Record. October 1, 2006 to September 30, 2007

Gage. Data logger and 12" Parshall flume. Elevation of gage is 7,213 ft above NGVD.

Remarks. Water discharge records are good except for estimated daily discharges, which are fair. Records for site existed before published period but not reliable.

Extremes for Period of Record. Maximum discharge, 7.50 ft³/s, September 20, 2007 gage height 1.51 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 4	2135	1.5	0.52
September 20	0855	7.5*	1.51*

No flow most of time.



E2013 TA-50 Area C

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 12" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 12" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomation data logger. Geomation was removed August 9, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty-seven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None

Gage-Height Record. The data logger referenced to the outside staff gave a fair record except during the period from October 1, 2006 to August 9, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period, days were estimated to have no flow.

Rating. Rating No. 1 was developed based on the computation of 12" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-seven inspections of no flow were made.

Discharge. Discharge was computed using 12" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good, except for estimated daily discharges which are fair.

E2013 TA-50 Area C

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
2	0*	0*	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.07
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.02
7	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
9	.01*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
10	.05*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
11	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
12	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
13	0*	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*	0
14	0*	0*	0*	0*	0*	0*	0*	.04*	0*	0*	0*	0
15	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
17	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.04*	0
19	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.06
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
22	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
23	0*	0*	.01*	0*	0*	.03*	0*	0*	0*	0*	0*	.02
24	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
25	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
26	0*	0*	.01*	0*	0*	0*	0*	0*	0*	0*	.04*	0
27	0*	0*	.01*	0*	0*	0*	0*	0*	0*	0*	0*	0
28	0*	0*	.01*	0*	0*	0*	0*	0*	0*	0*	0*	0
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	.10*	.01
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0	0
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0	-----
Total	0.06	0	0.04	0	0	0.03	0.01	0.05	0	0	0.18	0.18
Mean	.002	0	.001	0	0	.001	0	.002	0	0	.006	.006
Max	.05	0	.01	0	0	.03	.01	.04	0	0	.10	.07
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.12	0	.08	0	0	.06	.02	.10	0	0	.36	.36
Wtr Year	2007	Total	0.55	Mean	.002	Max	.10	Min	0	Acre-Ft	1.1	
Cal Year	2006	Total	21.34	Mean	.095	Max	9.8	Min	0	Acre-Ft	42	

*Estimated

E2015 Ten Site Canyon above Mortandad Canyon

Location. Lat. 35° 51' 38", long. 106° 16' 30", SE ¼, Sec. 23, T. 19 N., R. 6 E., Los Alamos County, on left bank 0.25 mi upstream from E202 and 2.8 mi upstream from SR 4.

Drainage Area. 0.32 mi².

Period of Record. October 2000 to September 30, 2007.

Revised record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 90° sharp-crested weir. Elevation of gage is 6,858 ft above NGVD from GPS survey.

Remarks. Water discharge records are good except estimated daily discharges, which are poor.

Extremes for Period of Record. Maximum discharge, 303 ft³/s, August 25, 2006, gage height 4.60 ft (from slope-area measurement of peak flow). No flow most of time.

Extremes for Current Year. Maximum discharge, 2.8 ft³/s at 1505 h, September 2, gage height 2.33 ft (from slope-area measurement of peak flow). No peak above base of 10 ft³/s. No flow most of time.



E2015 Ten Site Canyon above Mortandad Canyon

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular phone and speech modem housed in a NEMA shelter on left bank. The stage sensor is a milltronics sonic probe mounted on a 6" channel on left bank unit May 12, 2005 when a Sutron bubbler was installed. The station is also equipped with an ISCO pump sampler for water quality collection in a 3' × 4' metal box. An outside staff is available for reference. No provisions are made for measurement above wading stage.

Field Work. The station was visited seventeen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Levels run on May 12, 2005 and November 17, 2005 found the gage to be 0.05 ft higher. A datum correction of 0.05 was added from May 12 until outside staff is reset to correct datum. On May 24, 2007 all gages set to correct datum. Gage destroyed due to flood on August 25, 2006. Bubbler outlet reset to gage datum of 1.33 ft.

Gage-Height Record. The data logger reference to the outside staff gave a complete and satisfactory record.

Rating. The channel is about 8' wide and straight for about 60' upstream and straight for about 30' downstream. The streambed through this reach is primarily sand with gravel.

Rating No. 2 is based on a theoretical computation for 90 degree sharp crested weir, and one critical depth computation of peak flow of 4.60 ft gage height from last year computation.

Discharge. Discharge computed from Rating No. 2 with zero shifts for the entire year. Discharges were estimated from field notes and weather record.

Seventeen inspections of no flow were made during the water year.

Remarks. Records are good.

E2015 Ten Site Canyon above Mortandad Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	.08
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0.08
Mean	0	0	0	0	0	0	0	0	0	0	0	.003
Max	0	0	0	0	0	0	0	0	0	0	0	.08
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	.16
Wtr Year	2007	Total	0.08	Mean	0	Max	.08	Min	0	Acre-Ft	.16	
Cal Year	2006	Total	5.64	Mean	.015	Max	5.5	Min	0	Acre-Ft	11	

E202 Mortandad Canyon above Sediment Traps

Location. Lat 35° 51' 39", long 106° 16' 15", SE ¼, Sec. 23, T. 19 N., R. 6 E., Los Alamos County, 4.3 mi upstream from SR 4.

Drainage Area. 1.14 mi².

Period of Record. October 1, 1997 to September 30, 2007.

Gage. Data logger with cellular telemetry and 30" Parshall flume. Elevation of gage is 6,833 ft above NGVD from land survey.

Remarks. Water discharge records are good, except periods of estimated records, which are fair.

Average Discharge. 11 yr, 0.018 ft³/s, 1.2 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 292 ft³/s, gage height unknown, August 25, 2006 (from critical depth computation of peak flow). No flow most of time.

Extremes for Current Year. Maximum discharge, 5.60 ft³/s, at 1520 h September 2, gage height 0.69 ft. No peak above base of 10 ft³/s. No flow most of time.



E202 Mortandad Canyon above Sediment Traps

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 30" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 30" Parshall Flume is the reference gage. No provision for discharge measurements above wading stage.

Field Work. This station was visited twelve times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record.

Rating. Rating No.1 was developed based on the computation of 30" Parshall flume. Point of zero flow is 0.00 gage height.

Approach and escape sections are spread because of overgrowth and debris in channel.

Twelve inspections of no flow were made this year.

Discharge. Discharge was computed using 30" Parshall flume computations.

Remarks. Records are good.

E202 Mortandad Canyon above Sediment Traps

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	.31
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0.31
Mean	0	0	0	0	0	0	0	0	0	0	0	.010
Max	0	0	0	0	0	0	0	0	0	0	0	.31
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	.61
Wtr Year	2007	Total	0.31	Mean	.001	Max	.31	Min	0	Acre-Ft	.61	
Cal Year	2006	Total	6.19	Mean	.017	Max	5.6	Min	0	Acre-Ft	12	

E203 Mortandad Canyon below Sediment Traps

Location. Lat 35° 51' 39", long. 106° 16' 6", SE ¼, Sec. 23, T. 19 N., R. 6 E., Los Alamos County, at exit from sediment collection traps, 4.2 mi upstream from SR 4.

Drainage Area. 1.17 mi².

Period of Record. October 1, 1996 to August 25, 2006 (destroyed by flood), September 2006 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger and 6" Parshall flume. Elevation of gage is 6,817 ft above NGVD from land survey.

Remarks. Records are good.

Average Discharge. 11 yr, 0.025 ft³/s, 1.5 acre ft/yr.

Extremes for Period of Record. Maximum discharge, 220 ft³/s, August 25, 2006(from critical depth computation), gage height unknown. No flow most of the time.

Extremes for Current Year. No peak discharge above base of 1.0 ft³/s. No flow for current year.



E203 Mortandad Canyon below Sediment Traps

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 6" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 6" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station is also equipped with a rain gage, Rain Collection II installed on May 5, 2007. All equipment is powered with a solar panel battery charging system.

Field Work. This station was visited forty one times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year.

Rating. Rating No. 1 was developed based on the computation of 6" Parshall flume. Point of zero flow is 0.00 gage height.

Forty one inspections of no flow were made this year.

Discharge. Discharge was computed using 6" Parshall flume computations.

Remarks. Records are good. No discharge for the year.

E203 Mortandad Canyon below Sediment Traps

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	0
Wtr Year	2007	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	0
Cal Year	2006	Total	9.2	Mean	.025	Max	9.2	Min	0	Acre-Ft	18	18

E203 Mortandad Canyon below Sediment Traps

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	.02	.01	0
2									0	0	0	0
3									.20	0	0	0
4									.02	0	0	0
5								.03	0	.05	.01	.01
6								0	0	0	.37	.01
7								0	0	.05	0	0
8								.62	0	.01	0	0
9								0	0	.02	0	0
10								0	.08	0	0	0
11								0	.42	.18	0	.01
12								0	.02	0	.24	0
13								0	0	.04	0	0
14								.16	0	.01	0	0
15								0	0	.01	0	0
16								.12	.26	0	0	0
17								.19	0	0	0	.26
18								.01	0	0	.15	.08
19								.01	0	.10	0	.02
20								.16	0	.04	0	.64
21								0	.02	.12	0	0
22								0	.01	0	0	0
23								.03	0	0	0	.50
24								.03	0	0	.12	0
25								.13	0	0	0	0
26								.01	0	.02	.01	0
27								.02	0	0	0	0
28								0	0	.02	0	.06
29					-----			0	0	.01	0	.01
30					-----			0	0	.32	0	0
31		-----			-----		-----	0	-----	0	0	-----
Total								1.52	1.03	1.02	0.91	1.60
Mean								.056	.034	.033	.029	.053
Max								.62	.42	.32	.37	.64
Min								0	0	0	0	0
Wtr Year	2007	Total	6.08	Mean	.041	Max	.64	Min	0	InstMax	.09	
Cal Year	2006	Total		Mean		Max		Min		InstMax		

E204 Mortandad Canyon at LANL Boundary

Location. Lat 35° 51' 21", long 106° 14' 43", NW ¼, Sec. 30, T. 19 N., R. 7 E., Santa Fe County, 100 ft upstream from LANL and San Ildefonso Indian Reservation Boundary, and 2.8 mi upstream from SR 4.

Drainage Area. 1.61 mi².

Period of Record. October 1, 1993 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,651 ft above NGVD from survey.

Remarks. Records are good.

Average Discharge. 14 yr, zero.

Extremes for Period of Record. No flow for period.

Extremes for Current Year. No flow for year.



E204 Mortandad Canyon at LANL Boundary

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) and shaft encoder float system with cellular phone and speech modem. The system is powered by a solar panel battery system housed in a NEMA shelter on top of a 24" CMP well. 16 ft. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Samplers are triggered by stage through the data logger. Gage has outside staff for reference. No provision for measurement above wading stage. All high flow measurement will be by slope-area or critical depth computation methods.

Field Work. This station was visited fourteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra data base. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels run May 24, 2007 showed the gage to be reading within allowable limits.

Gage-Height Record. The data logger referenced to the outside staff gage gave a complete and satisfactory record.

Rating. Channel is straight above and below gage for 100 ft. Channel is not well defined and resembles a low grass covered swale. Flow is infrequent. The control is broad crested weir with V notch 5' downstream from gage.

No rating has been developed but PZF is well defined for concrete broad crested weir.

Fourteen inspections of no flow were made.

Discharge. All recorded values were below PZF. No flow most of time.

Remarks. Records are good.

E204 Mortadad Canyon at LANL Boundary

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	0
Wtr Year	2007	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	0
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	0

E218 Cañada del Buey near TA-46

Location. Lat 35° 51' 31", long 106° 17' 17" SW ¼, Sec. 26, T. 19 N., R. 6 E., Los Alamos County, on left bank 0.25 mi upstream from east gate of SWSC plant.

Drainage Area. 0.30 mi².

Period of Record. June 1, 2000 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 24" Parshall flume. Elevation of gage is 6,937 ft above NGVD from GPS survey.

Remarks. Water discharge records are good.

Average Discharge. 7 yr, 0.02 ft³/s, 13 acre-ft/year.

Extremes for Period of Record. Maximum discharge, 228 ft³/s, August 25, 2005, gage height 3.40 ft, from critical depth computation of peak flow. No flow most of time.

Extremes for Current Year. Maximum discharge 4.30 ft³/s at 0735 h April 3, gage height 0.67 ft. No peak above base of 8.0 ft³/s. No flow most of time.



E218 Cañada del Buey near TA-46

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with milltronics sonic probe mounted on a 24" Parshall flume. Station has cellular phone and speech modem housed in a NEMA shelter on left bank. The station is also equipped with ISCO pump sampler which is housed in a 3' x 4' metal box on left bank and is triggered by the data logger. The system is powered by a solar panel battery system. An outside staff is available for reference. No provision for discharge measurements above wading stage. All high flow measurement will be by slope-area or peak flow computation methods.

Field Work. The station was visited nineteen times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record except a few days which had to be reworked when flume became silted on recession.

Rating. The channel is 15' wide and straight upstream and downstream for about 100'. The streambed through this reach is boulders with sand and gravel. The low flow control is the 24" Parshall flume, and at very high flow the channel becomes control.

Rating No. 1 is based on the 24" Parshall flume and two peak flow computation.

Nineteen inspections of no flow were made during the year.

Discharge. Discharge was computed by applying gage height to Rating No. 1 through shift adjustment based on PZF on variable shift diagram for the period of record.

Remarks. Records are good.

E218 Cañada Del Buey near TA-46

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	.01*	0*	0*	0*	0*
2	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*
3	0*	0*	0*	0*	0*	0*	1.2*	.01*	.01*	0*	0*	.01*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	.01*
5	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*	.01*	0*
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	.01*
7	0*	0*	0*	0*	0*	.35*	0*	0*	0*	0*	.01*	.01*
8	0*	0*	0*	0*	0*	.65*	0*	.01*	.01*	0*	0*	.01*
9	0*	0*	0*	0*	0*	.52*	0*	0*	0*	0*	.01*	.01*
10	0*	0*	0*	0*	0*	.27*	0*	0*	0*	0*	0*	0*
11	0*	0*	0*	0*	0*	.06*	0*	0*	.01*	0*	.01*	0*
12	0*	0*	0*	0*	0*	.04*	0*	0*	0*	0*	.01*	.01*
13	0*	0*	0*	0*	0*	.04*	0*	0*	0*	0*	.01*	0*
14	0*	0*	0*	0*	0*	.03*	.02*	0*	0*	0*	0*	0*
15	0*	0*	0*	0*	0*	0*	0*	.01*	0*	0*	0*	.01*
16	0*	0*	0*	0*	0*	0*	.02*	0*	0*	0*	0*	0*
17	0*	0*	0*	0*	0*	0*	.02*	.01*	0*	0*	.01*	0*
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01*	0*
19	0*	0*	0*	0*	0*	0*	.02*	.01*	0*	0*	0*	0*
20	0*	0*	0*	0*	0*	0*	.03*	.01*	0*	.01*	0*	.01*
21	0*	0*	0*	0*	0*	0*	.02*	0*	0*	.01*	0*	0*
22	0*	0*	0*	0*	0*	0*	.08*	0*	0*	.01*	0*	.01*
23	0*	0*	0*	0*	0*	.82*	.18*	0*	0*	.01*	.01*	0*
24	0*	0*	0*	0*	0*	1.5*	.14*	.01*	.01*	.01*	.01*	0*
25	0*	0*	0*	0*	0*	0*	.02*	0*	0*	0*	0*	.01*
26	0*	0*	0*	0*	0*	0*	.08*	.01*	0*	.01*	.01*	0*
27	0*	0*	0*	0*	0*	0*	.12*	0*	0*	.01*	.01*	.01*
28	0*	0*	0*	0*	0*	0*	.14*	.01*	0*	.01*	0*	.01*
29	0*	0*	0*	0*	-----	0*	.12*	.01*	0*	.01*	.01*	0*
30	0*	0*	0*	0*	-----	0*	.07*	0*	0*	.01*	0*	0*
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	.01*	0*	-----
Total	0	0	0	0	0	4.28	2.28	0.11	0.05	0.11	0.16	0.13
Mean	0	0	0	0	0	.14	.076	.004	.002	.004	.005	.004
Max	0	0	0	0	0	1.5	1.2	.01	.01	.01	.01	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	8.5	4.5	.22	.10	.22	.32	.26
Wtr Year	2007	Total	7.12	Mean	.020	Max	1.5	Min	0	Acre-Ft	14	
Cal Year	2006	Total	9.66	Mean	.026	Max	8.0	Min	0	Acre-Ft	19	

*Estimated

E220 TA-54 RANT

Location. Lat 35° 50' 41", long 106° 15' 52", Sec. 25, T. 19 N., R. 6 E., Los Alamos County, Ramon Vigil Grant.

Drainage Area. 0.0004 mi².

Period of Record. March 29, 2007 to September 30, 2007

Gage. Data logger and 9" Parshall flume. Elevation of gage is 6,877 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 2.09 ft³/s, July 30, 2007 gage height 0.78 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 30	1355	2.1*	0.78*
September 20	0840	1.1	0.52
September 23	1805	1.2	0.54

No flow most of time.



E220 TA-54 RANT

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomation data logger. Geomation was removed March 29, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty-six times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to March 29, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period, 12 days were estimated to have no flow.

Rating. Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-six inspections of no flow were made this year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E220 TA-54 RANT

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
2	0*	0*	0*	0*	0*	0*	0	.01	0	0	0	0
3	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
4	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
5	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
6	0*	0*	0*	0*	0*	.01*	0	0	0	0	.01	0
7	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
8	0*	0*	0*	0*	0*	0*	0	.01	0	0	0	0
9	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
10	.01*	0*	0*	0*	0*	0*	0	0	0	0	0	0
11	0*	0*	0*	0*	0*	0*	0	0	.01	0	0	0
12	0*	0*	0*	0*	0*	.01*	0	0	0	0	0	0
13	0*	0*	0*	0*	0*	.01*	0	0	0	0	0	0
14	0*	0*	0*	0*	.04*	0*	0	0	0	0	0	0
15	0*	0*	0*	0*	.02*	0*	0	0	0	0	0	0
16	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
17	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
18	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
19	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
20	0*	0*	0*	.01*	0*	0*	0	0	0	0	0	.01
21	0*	0*	0*	.01*	0*	0*	0	0	0	0	0	0
22	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
23	0*	0*	0*	0*	0*	0*	0	0	0	0	0	.01
24	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
25	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
26	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
27	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
28	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
29	0*	0*	0*	0*	-----		0	0	0	0	0	0
30	0*	0*	0*	0*	-----	0	0	0	0	.02	0	0
31	0*	-----	0*	0*	-----	0	-----	0	-----	0	0	-----
Total	0.01	0	0	0.02	0.06	0.03	0	0.02	0.01	0.02	0.01	0.02
Mean	0	0	0	.001	.002	.001	0	.001	0	.001	0	.001
Max	.01	0	0	.01	.04	.01	0	.01	.01	.02	.01	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.02	0	0	.04	.12	.06	0	.04	.02	.04	.02	.04
Wtr Year	2007	Total	0.20	Mean	.001	Max	.04	Min	0	Acre-Ft	.40	
Cal Year	2006	Total	0.02	Mean	0	Max	.01	Min	0	Acre-Ft	.04	

*Estimated

E223 MDA Area L

Location. Lat 35° 50' 8", long 106° 15' 2", Sec. 36, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos Country.

Drainage Area. 0.003 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger and 9" Parshall flume. Elevation of gage is 6,776 ft above NGVD.

Remarks. Water discharge records are good except estimated daily discharges, which are fair. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 1.80 ft³/s, September 23, 2007 gage height 0.92 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 17	1555	1.2	0.72
September 23	1805	1.8*	0.92*

No flow most of time.



E223 MDA Area L

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomation data logger. Geomation was removed March 21, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to March 21, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period 10 days were estimated to have no flow.

Rating. Above 9" Parshall flume

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty one inspections of no flow were made.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E223 MDA Area L

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
2	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
3	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
4	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
5	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
6	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
7	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
8	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
9	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
10	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
11	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
12	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
13	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
14	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
15	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
16	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
17	0*	0*	0*	0*	0*	0*	0	0	0	0	0	.01
18	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
19	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
20	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
21	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
22	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
23	0*	0*	0*	0*	0*	0*	0	0	0	0	0	.01
24	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
25	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
26	0*	0*	0*	0*	0*	0*	0	0	0	.01	0	0
27	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
28	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
29	0*	0*	0*	0*	-----	0*	0	0	0	0	0	0
30	0*	0*	0*	0*	-----	0	0	0	0	0	0	0
31	0*	-----	0*	0*	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0.01	0	0.02
Mean	0	0	0	0	0	0	0	0	0	0	0	.001
Max	0	0	0	0	0	0	0	0	0	.01	0	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	.02	0	.04
Wtr Year	2007	Total	0.03	Mean	0	Max	.01	Min	0	Acre-Ft	.06	
Cal Year	2006	Total	0.02	Mean	0	Max	.01	Min	0	Acre-Ft	.04	

*Estimated

E225 Cañada del Buey near MDA G

Location. Lat 35° 50' 1", long 106° 14' 22", Sec. 31, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County, 0.1 mi south of Santa Fe, Los Alamos county line and 2.5 mi upstream from SR 4 in White Rock, NM.

Drainage Area. 1.48 mi².

Period of Record. October 1, 1993 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,599 ft above NGVD from GPS survey.

Remarks. Water discharge records good. Legal location approximate via projection.

Average Discharge. 11 yr, zero.

Extremes for Period of Record. Maximum discharge, 17 ft³/s, September 8, 1995, gage height 2.71 ft. No flow most of time.

Extremes for Current Year. No peak discharge above base of 5.0 ft³/s. No flow for year.



E225 Cañada del Buey near MDA G

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular telemetry and speech modem and quadrature encoder which is float driven on 18" CMP well on right bank. The system is powered by a solar panel battery system. All equipment is housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for discharge measurements above wading stage.

Field Work. The station was visited sixteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year.

Rating. Channel is straight for at least 100' above and below gage. Bed material is sand with thin covering of grass. The control is a concrete broad crested weir 10' downstream of gage.

Rating No. 1 was developed by broad crested weir computation.

Sixteen inspections of no flow were made during this period.

Discharge. Discharge was computed using Rating No. 1 directly with no shifts. No flow most of time.

Remarks. Records are good.

E225 Cañada Del Buey near MDA G

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	0
Wtr Year	2007	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	
Cal Year	2006	Total	0.01	Mean	0	Max	.01	Min	0	Acre-Ft	.02	

E227 MDA G-6

Location. Lat 35° 49' 58", long 106° 14' 21", Sec. 31, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.012 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger and 9" Parshall flume. Elevation of gage is 6,614 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 1.7 ft³/s, July 26, 2007 gage height 0.67 ft. No flow most of time.

Extremes for Current Year. Maximum discharge, 1.7 ft³/s at 1310 h, July 26, gage height 0.67 ft. No peak discharge above base of 1.0 ft³/s. No flow for year.



E227 MDA G-6

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomation data logger. Geomation was removed April 19, 2007 and replaced with the present equipment.

Field Work. This station was visited twenty-five times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 1, 2006 to April 19, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period 6 days were estimated to have no flow.

Rating. Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-five inspections of no flow were made during the year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E227 MDA G-6

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
2	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
7	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
9	0*	0*	0*	-0*	0*	0*	0*	0*	0*	0*	0*	0*
10	0*	0*	0*	-0*	0*	0*	0*	0*	0*	0*	0*	0*
11	.02*	0*	0*	-0*	0*	0*	0*	0*	0*	0*	0*	0*
12	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
13	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
14	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
15	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
17	0*	0*	0*	-0*	0*	0*	0*	0*	0*	0*	0*	.01*
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
19	0*	0*	0*	-0*	0*	0*	0*	0*	0*	0*	0*	0*
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
22	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
23	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
24	0*	0*	0*	-0*	0*	0*	0*	0*	0*	0*	0*	0*
25	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
26	0*	0*	0*	-0*	0*	0*	0*	0*	0*	.01*	0*	0*
27	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
28	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0*
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0*
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0*	-----
Total	0.02	0	0	0	0	0	0	0	0	0.01	0	0.01
Mean	.001	0	0	0	0	0	0	0	0	0	0	0
Max	.02	0	0	0	0	0	0	0	0	.01	0	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.04	0	0	0	0	0	0	0	0	.02	0	.02
Wtr Year	2007	Total	0.04	Mean	0	Max	.02	Min	0	Acre-Ft	.08	
Cal Year	2006	Total	0.42	Mean	.002	Max	.11	Min	0	Acre-Ft	.83	

*Estimated

E230 Cañada del Buey above SR 4

Location. Lat 35° 49' 38", long 106° 12' 43", Sec. 33, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County, on left bank 250 ft upstream from SR 4 in White Rock, NM.

Drainage Area. 2.15 mi².

Period of Record. October 1991 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,395 ft above NGVD from GPS survey.

Remarks. Water discharge records are good. Legal location approximate via projection.

Average Discharge. 13 yr, 0.009 ft³/s, 6.50 acre-ft/yr.

Extremes for Period of Record. Maximum discharge 210 ft³/s June 17, 1999 gage height 3.30 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 26	1325	50*	1.58*
September 17	1620	29	1.23

No flow most of time.



E230 Cañada del Buey above SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5 min. interval) with cellular phone in 40" shelter on top of 24" CMP well on right bank. Reference gage is electric tape with outside staff also available. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. A second auxiliary shelter will accommodate two additional ISCO samplers. This site is also a temporary site for dye study. No provision for discharge measurements above wading stage.

Field Work. This station was visited twenty times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger reference to the outside staff gave a complete and satisfactory record for the period, except for silting on recession of most peaks. Three days were estimated to have no flow.

Rating. Channel has fairly sharp right bend 50' above gage where two channels converge. Channel is straight for 100' below gage where it enters a rectangular double box culvert under SR 4. Control is a tapered (low-end on left) broad crested weir.

Rating No. 1 is based on discharge measurements Nos. 1–8 that were made in previous years. No measurements made this water year.

Twenty inspections of no flow were made during the year.

Discharge. Rating No. 1 was used for the entire water year, and is considered good.

Remarks. Records are good.

E230 Cañada Del Buey above SR-4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	.12	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	.03	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	.51
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	.10	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	.17
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	.80	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	.09	.01
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0.15	0	0	0	0	0	0	0	0	0.90	0.09	0.69
Mean	.005	0	0	0	0	0	0	0	0	.029	.003	.023
Max	.12	0	0	0	0	0	0	0	0	.80	.09	.51
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.30	0	0	0	0	0	0	0	0	1.8	.18	1.4
Wtr Year	2007	Total	1.83	Mean	.005	Max	.80	Min	0	Acre-Ft	3.6	
Cal Year	2006	Total	3.18	Mean	.009	Max	2.0	Min	0	Acre-Ft	6.3	

E240 Pajarito Canyon below SR 501

Location. Lat 35° 52' 02", long 106° 21' 05", NW ¼, Sec. 19, T. 19 N., R. 6 E., Los Alamos County, 100 ft downstream from NM SR 501.

Drainage Area. 1.90 mi².

Period of Record. October 1993 to June 28, 2000 (destroyed by flood); April 2001 to September 30, 2007.

Revised Records. WDR 1997: Gage height "Extremes for Period of Record." Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 7,719 ft above NGVD from GPS survey. Formerly published as "Pajarito Canyon above Highway 501 near Los Alamos, NM" at different datum.

Remarks. Records are poor.

Average Discharge. 13 yr, 0.10 ft³/s, 75 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 1,020 ft³/s, June 28, 2000, from peak flow computation, gage height not determined. No flow at times.

Extremes for Current Year. Peak discharges above base of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1415	7.1	1.28
September 6	0535	7.2*	1.28*

No flow most of time.



E240 Pajarito Canyon below SR 501

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular telemetry and speech modem. The stage sensor is a quadrature encoder that is float driven (5-min. interval). Instruments are housed in NEMA shelter on top of 24" CMP stilling well on left bank. Station is equipped with two ISCO automatic pump samplers which are housed in separate shelters and are both stage activated through the data logger. ISCO is housed in a 3' x 4' metal box. An outside staff is available for reference. Tipping bucket rain gage operated at this station.

Field Work. This station was visited fifty-six times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None from levels run December 11, 2004.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record except June 19 to July 20 when data logger malfunctioned.

Rating. Gage is about 100 yards below outlet of two round culverts through Highway 501 road bed. Channel bed is sand and gravel and subject to movement. Grass and brush are fairly thick in over banks areas. Banks are not high (about 1-2' most places). Two gabions were installed in the fall of 2001, which act as low water controls. One is 2' below gage across entire width of channel with a 6" V notch for low water. Another gabion is 50' above gage.

Rating No. 3 was developed based on the six measurements (Nos. 22-27) and slope area made during the year. Six discharge measurements and forty-five inspections of no flow were made this year. All measurements made at low flow, less than 1 ft³/s.

Discharge. Discharge was computed by applying Rating No. 3 using variable shift diagrams. Annual maximum was computed using HWM. Missing periods were estimated using E241.

Remarks. Records are poor.

E240 Pajarito Canyon below SR-501

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	.52*	0*	.07*	0*	0*	.04*
2	0*	0*	0*	0*	0*	0*	.24*	0*	.05*	0*	0*	.05*
3	0*	0*	0*	0*	0*	0*	.15*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	.17*	0*	0*	0*	0*	.03*
5	0*	0*	0*	0*	0*	0*	.18*	0*	0*	0*	0*	.07*
6	0*	0*	0*	0*	0*	0*	.15*	0*	0*	0*	0*	1.3*
7	0*	0*	0*	0*	0*	0*	.13*	0*	0*	0*	0*	0*
8	0*	0*	0*	0*	0*	0*	.07*	0*	0*	0*	0*	0*
9	.01*	0*	0*	0*	0*	0*	.06*	0*	0*	0*	0*	0*
10	0*	0*	0*	0*	0*	0*	.06*	0*	0*	0*	0*	0*
11	0*	0*	0*	0*	0*	0*	.04*	0*	0*	0*	0*	0*
12	0*	0*	0*	0*	0*	0*	.04*	0*	0*	0*	0*	0*
13	0*	0*	0*	0*	0*	0*	.09*	.15*	0*	0*	0*	0*
14	0*	0*	0*	0*	0*	0*	.01*	.30*	0*	.06*	0*	0*
15	0*	0*	0*	0*	0*	.04*	0*	.34*	0*	0*	0*	0*
16	0*	0*	0*	0*	0*	.05*	0*	.34*	0*	0*	0*	0*
17	0*	0*	0*	0*	0*	.05*	0*	.30*	0*	0*	0*	0*
18	0*	0*	0*	0*	0*	.07*	0*	.22*	0*	0*	0*	.06*
19	0*	0*	0*	0*	0*	.08*	0*	.17*	0*	0*	0*	.05*
20	0*	0*	0*	0*	0*	.05*	0*	.20*	0*	0*	0*	.06*
21	0*	0*	0*	0*	0*	.01*	0*	.19*	0*	0*	0*	.04*
22	0*	0*	0*	0*	0*	.15*	0*	.33*	0*	0*	0*	.04*
23	0*	0*	0*	0*	0*	.95*	0*	.30*	0*	0*	0*	.05*
24	0*	0*	0*	0*	0*	2.7*	0*	.29*	0*	0*	0*	.01*
25	0*	0*	0*	0*	0*	2.5*	0*	.27*	0*	0*	0*	0*
26	0*	0*	0*	0*	0*	2.0*	0*	.25*	0*	.09*	0*	0*
27	0*	0*	0*	0*	0*	1.7*	0*	.15*	0*	0*	0*	0*
28	0*	0*	0*	0*	0*	1.6*	0*	.02*	0*	0*	0*	0*
29	0*	0*	0*	0*	-----	1.4*	0*	.07*	0*	0*	.10*	.02*
30	0*	0*	0*	0*	-----	1.1*	0*	.15*	0*	.09*	.03*	0*
31	0*	-----	0*	0*	-----	.91*	-----	.07*	-----	0*	.03*	-----
Total	0.01	0	0	0	0	15.36	1.91	4.11	0.12	0.24	0.16	1.82
Mean	0	0	0	0	0	.50	.064	.13	.004	.008	.005	.061
Max	.01	0	0	0	0	2.7	.52	.34	.07	.09	.10	1.3
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.02	0	0	0	0	30	3.8	8.2	.24	.48	.32	3.6
Wtr Year	2007	Total	23.73	Mean	.065	Max	2.7	Min	0	Acre-Ft	47	
Cal Year	2006	Total	1.14	Mean	.003	Max	.38	Min	0	Acre-Ft	2.3	

*Estimated

E240 Pajarito Canyon below SR-501

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	0	0	0	.09	0	.35
2					0	0	0	.10	0	0	.01	.49
3					0	0	0	0	0	0	0	0
4					0	0	0	0	.01	.15	.29	.22
5					0	0	0	.05	0	0	0	.61
6					0	0	0	.06	0	0	.56	.51
7					0	0	0	0	0	.13	0	.01
8					0	0	0	.45	0	.12	0	0
9					0	0	0	.02	0	.02	.01	0
10					0	0	0	0	0	0	0	.09
11				0	0	0	0	.07	.52	.33	0	.42
12				0	0	0	0	.01	.14	.01	.43	0
13				0	0	0	0	.66	0	.05	0	0
14				0	0	0	0	0	0	.51	0	0
15				0	0	0	0	.01	.12	0	0	0
16				0	0	0	0	.06	.02	0	.01	0
17				0	0	0	0	.10	0	0	0	.23
18				0	0	0	0	.11	0	0	.33	0
19				0	0	0	0	.02	0	.01	0	0
20				0	0	0	0	.40	0	.06	0	.73
21				0	0	0	0	0	0	.17	0	0
22				0	0	0	0	0	.11	.01	0	0
23				0	0	0	0	.08	0	0	.09	.56
24				0	0	0	0	.03	0	.01	.27	0
25				0	0	0	0	.18	0	0	0	0
26				0	0	0	0	.02	0	1.3	.11	0
27				0	0	0	0	.22	0	0	.01	0
28				0	0	0	0	0	0	0	0	.15
29				0	-----	0	0	.01	0	.01	1.0	.38
30				0	-----	0	0	0	.09	.42	0	0
31		-----		0	-----	0	-----	0	-----	.23	.24	-----
Total				0	0	0	0	2.66	1.01	3.63	3.36	4.75
Mean				0	0	0	0	.086	.034	.12	.11	.16
Max				0	0	0	0	.66	.52	1.3	1.0	.73
Min				0	0	0	0	0	0	0	0	0
Wtr Year	2007	Total	15.41	Mean	.059	Max	1.3	Min	0	InstMax	.35	
Cal Year	2006	Total	0.66	Mean	.006	Max	.21	Min	0	InstMax	.06	

E241 Pajarito Canyon above Starmer's Gulch

Location. Lat. 35°51'33.6", long 106°20'12.6", SW ¼, Sec. 20, T. 19 N., R. 6 E., Los Alamos County, 100 ft upstream from mouth of Starmer's Gulch (E242), 0.5 mi south of LANL TA-22, Building 91.

Drainage Area. 3.97 mi².

Period of Record. March 1999 to June 28, 2000 (destroyed by flood); July 2001 to September 30, 2006.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 90° sharp-crested weir. Elevation of gage is 7,382 ft above NGVD from GPS survey.

Remarks. Records are good, except for estimated daily discharges, which are poor.

Average Discharge. 7 yr, 0.06 ft³/s, 45 acre ft/yr.

Extremes for Period of Record. Maximum discharge, 300 ft³/s, June 28, 2000, from peak flow computation, gage height 5.0 ft. No flow at times.

Extremes for Current Year. Peak discharges above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 14	1435	10	2.45
July 26	1250	11	2.53
August 29	1435	17*	2.74*

No flow at times.



E241 Pajarito Canyon above Starmer's Gulch

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with Sutron self-contained bubbler and cellular telemetry. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. An outside staff is available for reference. Gage was rebuilt after destruction by June 28, 2000 flood. Recording instruments are the same. Footbridge was installed as part of reconstruction and may be used for high flow measurements and sampling. Bridge also provides access to gage E242 during high flow periods.

Field Work. The station was visited twenty times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Most recent levels run August 8, 2001 found the wire weight gage and PZF within limits. No changes necessary.

Gage-Height Record. The data logger referenced to the outside and wire weight gage gave a complete and satisfactory record for the water year.

Rating. The channel is straight for 100' above and below weir. Banks have significant vegetation and streambed is sand and gravel, somewhat armored and firm.

Rating No. 2 is standard 90-degree sharp crested weir formula. Point of zero flow is 0.70 ft from levels. Weir should be very effective with virtually no approach velocity to interfere.

Seven discharge measurements (Nos. 42–47) were made during the period. Shifts defined by measurements were used for “V” diagrams. These were applied to lower end with no shifting above 2 ft/s. Shifts were computed and record worked to inside gage readings. Although wire weight is reference gage, natural fall occurs between the wire weight and the orifice from filling after flow events. Effectively, the wire weight becomes a general check at this station.

Discharge. Discharge was computed from Rating No. 2 with “V” diagrams for the entire year. Records for estimated days were estimated using field notes.

Remarks. Records are good.

E241 Pajarito Canyon above Starmers Gulch

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.01	0	.01	.02	.06	.01	.02	0	.01	.02
2	.01	.01	.01	0	.01	.02	.05	.02	.02	0	.01	.19
3	.01	.01	0	0	.01	.02	.05	.02	.02	0	.01	.02
4	.01	0	0	0	.01	.01	.04	.01	.02	0	.01	.02
5	0	0	0	0	.01	.01	.04	.01	.02	0	0	.11
6	0	0	0	0	.01	.01	.04	.02	.02	0	.02	.23
7	0	0	0	0	0	.02	.04	.02	.01	0	.01	.03
8	0	0	0	0	0	.03	.04	.02	.01	0	.01	.02
9	.11	0	0	0	.01	.03	.04	.02*	.01	0	.01	.02
10	.02	0	0	0	.01	.03	.04	.02	.01	0	.01	.02
11	.02	0	0	.01*	.01	.03	.03	.02	.02	0	.01	.05
12	.01	0	0	.01	.01	.03	.03	.02	.02	0	.05	.04
13	.01	0	0	.01	.02	.03	.04	.02	.02	0	.01	.03
14	.02	0	0	.01	.02	.03	.03	.02	.01	.16	.01	.03
15	.02	0	0	.03	.02	.03	.03	.02	.01	.01	.01	.02
16	.01	0	.01	.02	.02	.03	.02	.02	.01	.01	0	.03
17	.01	0	0	.01	.02	.02	.02	.03	.01	0	0	.02
18	.01	0	0	.01	.02	.02	.02	.03	.01	0	.05	.03
19	.01	0	0	.01	.02	.02	.02	.03	.01	0	0	.02
20	.01	0	0	0	.02	.03	.02	.03	0	0	0	.07
21	.01	0	0	.01	.02	.03	.02	.03	.01	0	0	.04
22	.01	0	.01	.01	.02	.03	.02	.02	.01	0	0	.03
23	.01	0	.01	.01	.02	.14	.02	.02	0	0	0	.05
24	.01	0	0	.01	.02	.80	.02	.02	0	0	0	.04
25	.01	0	0	.01	.02	.78	.02	.03	0	0	0	.03
26	.01	0	0	.01	.02	.45	.02	.03	0	.37	0	.02
27	.01	0	0	0	.02	.27	.02	.03	0	.02	0	.01
28	.01	0	0	0	.02	.25	.02	.03	0	.01	0	0
29	.01	0	0	0	-----	.17	.01	.02	0	.01	.51	.05
30	.01	0	0	0	-----	.07	.01	.02	0	.05	.02	.01
31	.01	-----	0	.01	-----	.06	-----	.02	-----	.01	.15	-----
Total	0.41	0.03	0.05	0.19	0.42	3.52	0.88	0.68	0.30	0.65	0.92	1.30
Mean	.013	.001	.002	.006	.015	.11	.029	.022	.010	.021	.030	.043
Max	.11	.01	.01	.03	.02	.80	.06	.03	.02	.37	.51	.23
Min	0	0	0	0	0	.01	.01	.01	0	0	0	0
Acre-Ft	.81	.06	.10	.38	.83	7.0	1.7	1.3	.60	1.3	1.8	2.6
Wtr Year	2007	Total	9.35	Mean	.026	Max	.80	Min	0	Acre-Ft	19	
Cal Year	2006	Total	4.00	Mean	.011	Max	.61	Min	0	Acre-Ft	7.9	

*Estimated

E242 Starmer's Gulch above Pajarito Canyon

Location. Lat 35° 51' 33", long 106° 20' 13", SW ¼, Sec. 20, T. 19 N., R. 6 E., Los Alamos County, 100 ft upstream from confluence of Starmer's Gulch and Pajarito Canyon, 0.5 mi south of LANL TA-22, Building 91.

Drainage Area. 1.03 mi².

Period of Record. March 1999 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 7,377 ft above NGVD from GPS survey.

Remarks. Water discharge records are good, except estimated daily discharges, which are poor.

Average Discharge. 7 yr, 0.20 ft³/s, 142 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 628 ft³/s, August 29, 2007, gage height 3.98 ft. No flow at times.

Extremes for Current Year. Peak discharges above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
March 23	1450	12	1.98
July 14	1645	136	3.35
July 26	1400	152	3.41
August 12	1555	12	2.53
August 18	1225	11	2.52
August 29	1435	628*	3.98*
August 31	1520	18	2.08
September 5	1340	28	2.19
September 6	1445	30	2.21

Minimum daily 0.0 ft³/s, January 14.



E242 Starmers Gulch above Pajarito Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with Sutron self-contained bubbler and cellular telemetry. The system is powered by a solar panel battery system housed in a NEMA shelter. On December 18, a milltronics probe sensor was installed and used for the period of record. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. The gage reference is an enamel staff plate mounted in 4" channel on left bank which also supports the orifice line. There is no provision for discharge measurement above wading stage.

Field Work. The station was visited twenty times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Last levels run September 22, 2005 found gage within limits. A datum correction of 2.0 ft was added when gage scour after flood of July, 2005.

Gage-Height Record. The data logger reference to the outside staff gave a complete and satisfactory record for the year except from October 1 to November 6 when gage height was isolated from flow and January 22 to February 10 when gage height was affected by ice.

Rating. The channel is about 13' wide and straight for about 100' upstream and straight for about 50' downstream then bends to the left. The streambed through this reach is rock with cobbles. The right and left bank are covered with scrub oak and some conifers.

Rating No. 4 was used all year. Stage application of shifts is illustrated by "V" diagrams and time application of shifts.

Nine discharge measurements (Nos. 44–52) and twenty inspections were made this water year.

Discharge. Discharge was computed by applying Rating No. 4 direct with "V" diagrams. Discharge estimates due to ice effect was based on temperature and precipitation.

All measurements were low (less than 1.0 ft³/s) and checked using Rating 4 within 0.10 ft of shift. Rating 4 is considered good.

Remarks. Records are good except for estimated daily discharges, which are poor.

E242 Starmers Gulch above Pajarito Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02*	.06*	.15	0	.30*	.26	1.6	.19	.98	.23	3.4	.02
2	.04*	.06*	.14	0	.22*	.13	1.3	.29	.96	.19	3.3	.34
3	.05*	.06*	.08	.01	.20*	.10	.98	.27	1.0	.14	3.2	.04
4	.03*	.06*	.12	0	.25*	.10	.85	.24	.77	.19	3.1	.03
5	.03*	.06*	.10	0	.21*	.05	.76	.29	.72	.18	2.7	.96
6	.03*	.06*	.10	0	.20*	.05	.79	.34	.56	.16	3.0	1.3
7	.03*	.06	.08	0	.22*	.10	.87	.32	.53	.19	3.1	.37
8	.03*	.05	.05	0	.25*	.19	.85	.38	.58	.17	3.1	.31
9	.03*	.05	.05	.01	.30*	.23	.72	.38	.54	.15	3.2	.37
10	.03*	.04	.06	0	.20*	.29	.71	.33	.53	.12	3.1	.32
11	.03*	.07	.02	0	.02	.40	.63	.32	.55	.12	2.7	.45
12	.03*	.03	.01	0	.10	.64	.64	.30	.57	.14	3.2	.14
13	.04*	.04	.01	0	.26	.72	.67	.36	.45	.14	2.7	.07
14	.04*	.04	0	0	.16	.64	.56	.29	.39	2.2	2.2	.06
15	.04*	.04	.01	.02	.18	.78	.50	.36	.36	.69	1.9	.04
16	.04*	.04	0	.03	.26	.90	.39	1.0	.38	.46	1.9	.02
17	.04*	.03	0	.03	.17	.97	.33	1.9	.29	.31	1.8	.01
18	.04*	.03	0	.28*	.15	1.1	.32	2.0	.20	.32	2.2	.01
19	.04*	.04	0	.30*	.11	1.1	.22	2.0	.30	.29	2.3	.01
20	.04*	.04	0	.32*	.09	1.3	.32	1.9	.39	.31	1.8	.14
21	.05*	.03	.01	.34*	.11	1.4	.37	1.6	.45	.33	1.6	.07
22	.05*	.03	.03	.30*	.13	1.7	.33	1.5	.48	.30	1.5	.03
23	.05*	.02	.03	.25*	.13	2.5	.30	1.7	.32	.27	1.5	.27
24	.05*	.02	.05	.25*	.09	2.2	.34	1.5	.32	.28	1.7	.13
25	.05*	.02	.18	.20*	.10	2.3	.27	1.8	.30	.26	1.5	.06
26	.05*	.02	.38	.15*	.09	2.6	.24	1.7	.28	5.1	1.5	.06
27	.05*	.02	.39	.20*	.14	2.5	.25	1.7	.25	3.1	1.5	.05
28	.06*	.02	.31	.30*	.21	2.1	.27	1.5	.25	3.2	1.4	.03
29	.06*	.01	.02	.25*	-----	2.2	.24	1.3	.19	3.3	11	.26
30	.06*	.02	.01	.30*	-----	2.0	.20	1.3	.19	3.1	.05	.06
31	.06*	-----	0	.25*	-----	1.9	-----	1.2	-----	3.1	.50	-----
Total	1.29	1.17	2.39	3.79	4.85	33.45	16.82	30.26	14.08	29.04	77.65	6.03
Mean	.042	.039	.077	.12	.17	1.08	.56	.98	.47	.94	2.50	.20
Max	.06	.07	.39	.34	.30	2.6	1.6	2.0	1.0	5.1	11	1.3
Min	.02	.01	0	0	.02	.05	.20	.19	.19	.12	.05	.01
Acre-Ft	2.6	2.3	4.7	7.5	9.6	66	33	60	28	58	154	12
Wtr Year	2007	Total	220.82	Mean	.60	Max	11	Min	0	Acre-Ft	438	
Cal Year	2006	Total	11.41	Mean	.031	Max	.39	Min	0	Acre-Ft	23	

*Estimated

E2425 Arroyo de La Delfe above Pajarito Canyon

Location. Lat 35° 51' 25", long 106° 19' 56", NW ¼, Sec. 29, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County 0.25 mi west of Starmer's Gulch and Pajarito Canyon and 0.75 mi south of LANL TA-22, Building 91.

Drainage Area. 0.15 mi².

Period of Record. June 1, 2000 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 90° sharp crested weir. Elevation of gage is 7,311 ft above NGVD from GPS survey.

Remarks. Water discharge records are good.

Average Discharge. 7 yr, 0.04 ft³/s, 30 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 30 ft³/s, August 24, 2005, gage height 2.64 ft. No flow at times.

Extremes for Current Year. Peak discharge above base of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1455	8.7*	2.04*

No flow most of time.



E2425 Arroyo de La Delfe above Pajarito Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with Sutron self-contained bubbler and cellular telemetry. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for measurements above wading stage.

Field Work. The station was visited eighteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record. Orifice partially frozen a few days but cleaned itself out.

Rating. Channel is straight and narrow above and below gage. Bed material is sand and coarse gravel. Control is 90-degree sharp crested weir plate.

Rating 1 was continued in use. Six discharge measurements (No. 18–23) were made this year, No. 24 made subsequently but used for this analysis.

“V” diagrams were used to apply shift, nothing but low flow occurred during the shifting period.

Discharge. Discharge was computed using Rating No.1 and variable shift diagrams.

Remarks. Records are good.

E2425 Arroyo de La Delfe above Pajarito Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.02	.01	.01	.09	.16	.06	.06	.03	.03	.07
2	.02	.02	.02	.01	.01	.08	.15	.08	.05	.03	.03	.16
3	.02	.02	.02	.01	.01	.07	.14	.07	.05	.03	.03	.10
4	.02	.02	.02	.01	.02	.07	.14	.07	.05	.03	.03	.06
5	.02	.02	.02	.01	.02	.07	.13	.07	.05	.03	.03	.14
6	.02	.02	.03	.01	.02	.08	.13	.06	.05	.03	.03	.32
7	.02	.02	.03	.01	.02	.10	.13	.06	.05	.03	.03	.12
8	.02	.02	.02	.01	.02	.13	.12	.06	.04	.03	.03	.06
9	.07	.02	.02	.01	.02	.16	.12	.07	.04	.03	.03	.05
10	.07	.02	.02	.01	.03	.16	.11	.06	.04	.02	.03	.04
11	.04	.02	.02	.01	.03	.15	.11	.06	.05	.03	.03	.04
12	.03	.02	.02	.01	.05	.15	.11	.06	.05	.03	.08	.05
13	.03	.02	.02	.02	.06	.15	.11	.06	.05	.03	.03	.04
14	.03	.02	.02	.02	.06	.16	.10	.05	.04	.15	.02	.03
15	.03	.02	.02	.01	.06	.15	.10	.05	.04	.04	.02	.03
16	.04	.02	.02	.01	.06	.13	.10	.06	.04	.03	.02	.03
17	.03	.02	.02	.01	.06	.12	.09	.06	.04	.03	.02	.03
18	.03	.02	.02	.01	.06	.12	.09	.07	.04	.02	.04	.03
19	.03	.02	.03	.01	.06	.11	.09	.07	.04	.02	.02	.02
20	.03	.02	.03	.02	.06	.11	.08	.07	.03	.02	.02	.03
21	.03	.02	.03	.02	.07	.12	.08	.07	.03	.02	.02	.05
22	.03	.02	.03	.02	.07	.12	.08	.07	.03	.02	.02	.04
23	.03	.02	.03	.01	.08	.17	.08	.07	.03	.02	.02	.06
24	.03	.02	.03	.01	.08	.25	.08	.07	.03	.02	.02	.08
25	.03	.02	.03	.01	.07	.24	.08	.07	.03	.02	.02	.05
26	.03	.02	.03	.01	.07	.21	.07	.07	.03	.08	.02	.03
27	.03	.02	.03	.01	.08	.20	.07	.07	.03	.03	.02	.03
28	.02	.02	.03	.01	.10	.18	.07	.07	.03	.03	.02	.03
29	.02	.02	.03	.01	-----	.18	.07	.07	.03	.03	.31	.04
30	.02	.02	.02	.01	-----	.17	.07	.06	.03	.03	.03	.04
31	.02	-----	.02	.01	-----	.17	-----	.06	-----	.03	.19	-----
Total	0.91	0.60	0.75	0.36	1.36	4.37	3.06	2.02	1.20	1.02	1.29	1.90
Mean	.029	.020	.024	.012	.049	.14	.10	.065	.040	.033	.042	.063
Max	.07	.02	.03	.02	.10	.25	.16	.08	.06	.15	.31	.32
Min	.02	.02	.02	.01	.01	.07	.07	.05	.03	.02	.02	.02
Acre-Ft	1.8	1.2	1.5	.71	2.7	8.7	6.1	4.0	2.4	2.0	2.6	3.8
Wtr Year	2007	Total	18.84	Mean	.052	Max	.32	Min	.01	Acre-Ft	37	
Cal Year	2006	Total	7.84	Mean	.021	Max	.71	Min	0	Acre-Ft	16	

E243 Pajarito Canyon above Two Mile Canyon

Location. Lat 35° 51' 14", long 106° 17' 48", Sec. 27, T. 19N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on left bank, 200 ft downstream above confluence of Two Mile Canyon, 0.6 mi upstream from E245, 1.0 mi upstream from E2455 and 2 mi from Pajarito road.

Drainage Area. 4.24 mi².

Period of Record. February 2002 to September 30, 2007.

Revisions. Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage 6,941 ft above NGVD from GPS survey.

Remarks. Water discharge records are good, except estimated daily discharges which are poor. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 272 ft³/s August 24, 2005, gage height 4.38 ft. No flow most time.

Extremes for Current Year. Peak discharges above base of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
March 25	0355	5.3	1.51
July 14	1745	32	1.97
July 26	1450	33	1.98
August 29	1520	116*	2.58*
August 31	1620	14	1.74
September 2	1430	31	1.96
September 5	1500	7.7	1.59
September 6	1545	20	1.83

No flow most of time.



E243 Pajarito Canyon above Two Mile Canyon

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with Sutron self-contained bubbler and cellular telemetry. The system is powered by a solar panel battery system housed in a NEMA shelter on left bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. Porcelain staff gage was available for outside reference until August 24, 2005. A steel post was installed September 1, 2005, on left bank to datum and used as a reference point of 2.56 gage height to datum until gage reconstruction was accomplished in April 2006. No provision for direct measurement above wading stage.

Field Work. The station was visited twenty seven-times for the purpose of making a discharge measurement and or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. On September 1, 2006 a datum correction of 1.0 ft lower was applied due to the scour in channel after the flood of August 24. Levels run September 15, 2005, found gage within limits, no corrections necessary. RM 1 was lost due to the flood of August 24. RM 2 was used to established gage datum.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record except during the period the period from February 15-28 when gage height was affected by backwater from ice.

Rating. The channel is straight for 150' above and below gage. It is trapezoidal with the bed fairly well armored with large gravel and some cobbles. Banks are fairly well vegetated with grasses and should remain stable at all flows. Once rating is developed, the rating should be stable.

Rating 4 was redrawn based on low measurements (Nos. 21–25) and slope area computations of flood in 2005. Rating “back out” to left at top, but that is hydraulically most likely the case.

Discharge. Discharge was computed Rating 4 with shift at low flow applied by “V” diagrams. PCS shows some estimated zero flow in winter from icing over orifice, during this time stream was frozen dry.

Remarks. This station was originally at a site downstream about 0.5 miles. With the building of the Pajarito Flood Control Structure, it had to be moved. That site was never rated and although gage height record is available in HYDSTA, the record for 1998–2002 will not be published. Records are good, except for estimated daily discharges which are poor.

E243 Pajarito Canyon above Two Mile Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.27	1.1	.26	.38	.05	.10	.48
2	0	0	0	0	0	.25	1.0	.38	.35	.05	.09	2.1
3	0	0	0	0	0	.20	.93	.29	.33	.05	.09	.33
4	0	0	0	0	0	.36	.85	.27	.30	.04	.08	.16
5	0	0	0	0	0	.21	.79	.28	.27	.05	.06	.82
6	0	0	0	0	0	.17	.76	.28	.26	.04	.10	2.0
7	0	0	0	0	0	.28	.80	.28	.28	.04	.08	.58
8	0	0	0	0	0	.41	.75	.34	.27	.04	.07	.38
9	0	0	0	0	0	.46	.73	.34	.26	.04	.09	.38
10	0	0	0	0	0	.49	.67	.32	.27	.04	.09	.35
11	0	0	0	0	0	.61	.58	.31	.28	.04	.06	.39
12	0	0	0	0	0	.78	.58	.30	.27	.04	.24	.24
13	0	0	0	0	0	.88	.64	.31	.21	.04	.08	.15
14	0	0	0	0	0	.85	.54	.32	.19	1.1	.04	.12
15	0	0	0	0	0*	.75	.49	.35	.18	.15	.04	.09
16	0	0	0	0	0*	.71	.44	.41	.22	.06	.04	.06
17	0	0	0	0	0*	.71	.41	.53	.17	.04	.03	.07
18	0	0	0	0	0*	.78	.38	.57	.14	.04	.08	.06
19	0	0	0	0	0*	.76	.37	.57	.13	.04	.04	.05
20	0	0	0	0	0*	.76	.38	.59	.12	.04	.03	.18
21	0	0	0	0	0*	.85	.39	.53	.12	.03	.03	.21
22	0	0	0	0	0*	.99	.39	.50	.12	.03	.04	.10
23	0	0	0	0	0*	1.8	.39	.53	.10	.03	.04	.23
24	0	0	0	0	0*	2.5	.40	.53	.10	.03	.03	.36
25	0	0	0	0	0*	2.1	.37	.56	.09	.03	.03	.17
26	0	0	0	0	0*	2.0	.36	.55	.08	1.4	.03	.13
27	0	0	0	0	0*	2.0	.34	.57	.08	.12	.03	.10
28	0	0	0	0	0*	1.8	.30	.53	.07	.09	.03	.09
29	0	0	0	0	-----	1.5	.27	.48	.06	.10	3.5	.26
30	0	0	0	0	-----	1.2	.26	.44	.06	.12	.26	.18
31	0	-----	0	0	-----	1.2	-----	.41	-----	.09	1.3	-----
Total	0	0	0	0	0	28.63	16.66	12.93	5.76	4.10	6.85	10.82
Mean	0	0	0	0	0	.92	.56	.42	.19	.13	.22	.36
Max	0	0	0	0	0	2.5	1.1	.59	.38	1.4	3.5	2.1
Min	0	0	0	0	0	.17	.26	.26	.06	.03	.03	.05
Acre-Ft	0	0	0	0	0	57	33	26	11	8.1	14	21
Wtr Year	2007	Total	85.75	Mean	.23	Max	3.5	Min	0	Acre-Ft	170	
Cal Year	2006	Total	20.70	Mean	.057	Max	6.5	Min	0	Acre-Ft	41	

*Estimated

E2435 Two Mile Canyon Tributary at TA-3

Location. Lat 35° 52' 08", long 106° 19' 21", NE ¼, Sec. 20, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on right bank, 0.5 mi north of Pajarito Road.

Drainage Area. 0.02 mi².

Period of Record. October 1, 2005 to September 30, 2007.

Revisions. Drainage Area (2006).

Gage. Data logger and 12" Parshall flume. Elevation of gage is 7,402 ft above NGVD from land survey.

Remarks. Water discharge records are good. Records for this site existed before the published period but not reliable.

Extremes for Period of Record. Maximum discharge, 60 ft³/s July 14, 2007, gage height 2.40 ft. No flow most time.

Extremes for Current Year. Peak discharges above base of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
May 13	1430	5.7	1.26
June 16	1455	8.5	1.64
July 14	1635	60*	2.40*
July 30	1140	7.5	1.50
August 18	1150	9.8	1.80
August 29	1410	12	1.93
September 2	1415	8.7	1.66
September 6	1250	8.6	1.65
September 11	1250	5.4	1.22
September 20	0320	6.2	1.33
September 29	1335	9.7	1.79

No flow most of time.



E2435 Two Mile Canyon Tributary at TA-3

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 12" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 12" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Field Work. The station was visited thirty-four times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year.

Rating. The channel is straight above and below gage. It is confined to the main channel by cut banks on both sides. The bottom is a 10' wide channel prone to some shifting with vegetation on each bank. Low water control is the 12" Parshall flume.

Rating No. 1 was developed based on the computation of 12" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-five inspections of no flow were made this water year.

Discharge. Discharge was computed by applying Rating No. 1 direct.

Remarks. Records are good.

E2435 Two Mile Canyon Tributary at TA-3

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	.01	0	0	0	.03
2	0	0	0	0	0	.01	0	.10	0	0	0	.19
3	0	0	0	0	.01	0	0	0	0	0	0	0
4	0	0	0	0	.01	0	0	0	0	.01	0	0*
5	.01	0	0	0	0	0	0	0	0	0	0	0*
6	0	0	0	0	0	0	0	0	0	0	.09	.25
7	0	0	0	0	0	0	0	0	0	.01	0	0
8	.01	0	0	0	.01	0	0	.10	0	0	0	0
9	.23	0	0	0	0	0	.01	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	.02	0	0	0	.10	.03	0	.05
12	0	0	0	0	0	0	0	0	0	0	.03	0
13	0	0	0	0	0	0	.02	.08	0	0	0	0
14	.06	0	0	0	.02	0	.01	0	0	.36	0	0
15	.01	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	.10	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	.02	0	0	.07	0
19	0	0	.02	0	0	0	0	0	0	0	0	0
20	0	0	.02	0	0	0	0	.02	0	.01	0	.17
21	0	0	0	0	0	.03	0	0	0	.01	0	0
22	0	0	0	0	0	0	0	0	.01	0	0	0
23	0	0	0	0	0	.14	0	0	0	0	0*	.10
24	0	0	0	0	0	.02	0	0	0	0	.08	0
25	.01	0	0	.01	0	0	0	.01	0*	0	0	0
26	0	0	0	0	0	0	0	0	0*	.01	.03	0
27	0	0	0	0	0	0	0	.01	0*	0	0	0
28	0	0	0	0	.01	0	0	0	0	0	0	.02
29	0	.04	0	0	-----	0	0	0	0	0	.24	.10
30	0	.01	0	0	-----	0	0	0	0	.08	0	0
31	0	-----	0	.01	-----	0	-----	0	-----	.01	.01	-----
Total	0.33	0.05	0.04	0.02	0.08	0.20	0.04	0.35	0.21	0.53	0.55	0.91
Mean	.011	.002	.001	.001	.003	.007	.001	.011	.007	.017	.018	.030
Max	.23	.04	.02	.01	.02	.14	.02	.10	.10	.36	.24	.25
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.65	.10	.08	.04	.16	.40	.08	.69	.42	1.1	1.1	1.8
Wtr Year	2007	Total	3.31	Mean	.009	Max	.36	Min	0	Acre-Ft	6.6	
Cal Year	2006	Total	2.88	Mean	.008	Max	.45	Min	0	Acre-Ft	5.7	

*Estimated

E244 Two Mile Canyon above Pajarito Canyon

Location. Lat 35° 51' 15", long 106° 17' 46", Sec. 27, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on left bank 300 ft upstream from influence with Pajarito Canyon.

Drainage Area. 3.15 mi².

Period of Record. January 15, 2000 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 6,940 ft above NGVD from GPS survey.

Remarks. Records are fair except for estimated daily discharges which are poor. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 628 ft³/s August 25, 2006, gage height 6.01 ft (from flood marks). No flow most of time.

Extremes for Current Year. Peak discharges above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 14	1725	40	2.18
August 29	1505	34	2.04
September 2	1440	203*	3.95*

No flow most of time.



E244 Two Mile Canyon above Pajarito Canyon

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe with cellular phone and speech modem. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff gage is available for reference. Wading measurements can be in the vicinity of the gage. No provision for measurement above wading stages.

Field Work. The station was visited thirty-six times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None from levels. Datum corrections applied, but are really “pen” corrections. Gage reset by levels after destruction by flood in August 2006.

Gage-Height Record. The data logger referenced to the outside staff gage a complete and satisfactory record for the water year, except for the following periods. October 12 to November 25, May 14, 22, 25, 27–28, June 8–25, July 8–10, 16–25, August 9–25 when recorder malfunctioned, and February 13–20 when gage height was affected by ice.

Rating. The channel at the gage is straight for about 150' above gage and 50' feet below gage. Channel expands quite a bit below gage. Bed material is coarse sand and gravel. Banks are grassy with some small trees and outcrops affecting roughness at higher flows.

Rating No. 1 was continued in use with large -0.27 shift at extreme low flows. A -0.70 shift was used when channel filled during spring runoff and used until channel came back to normal flow. Shift diagrams are distributed by time/stage and no shift was used above 10 ft³/s.

Five discharge measurements (Nos. 12–16) were made during the water year and thirty-six inspections were made. Rating No. 1 was extended by log plotting to 6.5 ft stage.

Rating No. 1 is good to fair.

Discharge. Discharge was computed by applying Rating No. 1, using variable shift diagrams. Some periods have large shifts on lower end because of dry condition varying the PZF. Periods of lost record were estimated using weather records and comparison with E243, which is just downstream in Pajarito Canyon.

Remarks. Records are fair, except for estimated daily discharges, which are poor. This station was operated at a site 200' downstream but never rated. It had to be moved because that site is in backwater from Pajarito Flood Control structure, which was built in 2000 just after the Cerro Grande Fire.

E244 Two Mile Canyon above Pajarito Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.03*	0	0	0	0	.06	.01	.02	.03	.05	.12
2	.09	.02*	0	0	0	0	.08	.03	.02	.03	.04	7.9
3	.11	.02*	0	0	0	0	.03	.01	.02	.02	.03	2.0
4	.09	.03*	0	0	0	0	0	.01	.02	.01	.03	1.0*
5	.08	.02*	0	0	0	0	0	0	.03*	0	.02	.90*
6	.08	.04*	0	0	0	.23	0	.01	.01*	0	.06	.70*
7	.08	.03*	0	0	0	.29	0	.01	0*	0	.11	.23
8	.12	.02*	0	0	0	0	0	.06	0*	.04*	.10	.16
9	1.2	.03*	0	0	0	0	0	.03	0*	0*	.04*	.17
10	.91	.02*	0	0	0	0	0	.03	0*	0*	.01*	.16
11	.38	.02*	0	0	0	0	0	.02	0*	0	0*	.15
12	.30*	.02*	0	0	0	0	0	.02	0*	0	0*	.09
13	.26*	.02*	0	0	0*	0	0	.03	0*	0	0*	.09
14	.20*	.01*	0	0	0	0	0	.03*	0*	1.2	0*	.08
15	.20*	.01*	0	0	0*	0	0	.03	0*	.24	0*	.07
16	.24*	.02*	0	0	0*	0	0	.03	.09*	0*	0*	.06
17	.24*	.02*	0	0	0*	0	0	.03	.02*	0*	0*	.12
18	.28*	.01*	0	0	0*	0	0	.03	.01*	0*	0*	.15
19	.22*	.01*	0	0	0*	0	0	.04*	.03*	0*	0*	.17
20	.23*	.02*	0	0	0*	0	0	.05*	.05*	0*	0*	.45
21	.22*	.01*	0	0	0	0	0	.04	.06*	0*	0*	.17
22	.26*	.02*	0	0	0	0	0	.02	.07*	0*	0*	.14
23	.25*	.03*	0	0	0	.90	.03*	.03*	.02*	0*	0*	.30
24	.26*	.02*	0	0	0	.22	0	.03	.03*	0*	0*	.11
25	.22*	.01*	0	0	0	.07	.01	.05*	.03*	0*	0*	.05
26	.24*	0	0	0	0	.06	0	.04	.04	.70	.13*	.04
27	.26*	0	0	0	0	.09	.01	.04*	.03	.15	.01*	.03
28	.25*	0	0	0	0	.07	0	.03*	.04	.11	.05	.08
29	.20*	0	0	0	-----	.07	.01	.03	.04	.11	2.3	.25
30	.15*	0	0	0	-----	.06	0	.02	.03	.71	.07	.06
31	.10*	-----	0	0	-----	.05	-----	.02	-----	.08	.07	-----
Total	7.82	0.51	0	0	0	2.11	0.23	0.86	0.71	3.43	3.12	16.00
Mean	.25	.017	0	0	0	.068	.008	.028	.024	.11	.10	.53
Max	1.2	.04	0	0	0	.90	.08	.06	.09	1.2	2.3	7.9
Min	.08	0	0	0	0	0	0	0	0	0	0	.03
Acre-Ft	16	1.0	0	0	0	4.2	.46	1.7	1.4	6.8	6.2	32
Wtr Year	2007	Total	34.79	Mean	.095	Max	7.9	Min	0	Acre-Ft	69	
Cal Year	2006	Total	93.07	Mean	.25	Max	52	Min	0	Acre-Ft	185	

*Estimated

E245 Pajarito Canyon above TA-18

Location. Lat 35° 51' 4", long 106° 17' 11", Sec. 27, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County on left bank 0.15 mi southeast of Pajarito Road, and upstream from LANL TA-18 and Three Mile Canyon.

Drainage Area. 7.56 mi².

Period of Record. November 1993 to September 30, 2007.

Revisions. Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,880 ft above NGVD from GPS survey.

Remarks. Water discharge records are good except for estimated daily discharges, which are fair. Legal location approximate via projection.

Average Discharge. 13 yr, 0.20 ft³/s, 147 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 517 ft³/s June 28, 2000, gage height 5.03 ft (from flood mark). No flow most of time.

Extremes for Current Year. Peak discharge above base of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
September 6	1615	59*	2.62*

No flow most of time.



E245 Pajarito Canyon above TA-18

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) with shaft encoder float system (5-min. interval) and cellular phone with speech modem. The system is powered by a solar panel battery system housed in NEMA shelter on 18" CMP well on the right bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for direct discharge measurements above wading stages.

Field Work. The station was visited sixteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gage gave a complete and satisfactory record for the year, except for all or part of the following days: January 17 to February 27 when gage was affected by ice, and June 6 to September 4 when data logger malfunctioned.

Rating. The channel is straight for 100' above and below gage. Bed material is gravel with fine sand movement during flow events. Control is concrete broad crested weir.

Rating No. 2 was used all year.

Two discharge measurements (Nos. 15–16) were made, ten visits of no flow and six visits when there was flow. One critical depth computation was done on peak flow of September 6, 2007.

Discharge. Discharge was computed from Rating No. 2 using "V" shift diagrams. Long period of lost record was estimated at zero flow based on precipitation and nearby gage stations.

Remarks. Records are good, except for estimated daily discharges, which are fair.

E245 Pajarito Canyon above TA-18

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0*	.58	1.7	.06	.21	0*	0*	.15*
2	0	0	0	0	0*	.65	1.5	.39	.16	0*	0*	1.0*
3	0	0	0	0	0*	.67	1.3	.15	.15	0*	0*	.50*
4	0	0	0	0	0*	.65	1.2	.12	.12	0*	0*	.50*
5	0	0	0	0	0*	.66	1.1	.12	.09	0*	0*	.85
6	0	0	0	0	0*	.70	1.0	.11	.10*	0*	0*	7.5
7	0	0	0	0	0*	.91	1.1	.10	.05*	0*	0*	.95
8	0	0	0	0	0*	.86	1.0	.35	.01*	0*	0*	.81
9	.82	0	0	0	0*	.82	.99	.29	0*	0*	0*	.79
10	.59	0	0	0	0*	.89	.84	.18	0*	0*	0*	.78
11	0	0	0	0	0*	.96	.73	.15	0*	0*	0*	.76
12	0	0	0	0	0*	1.1	.69	.13	0*	0*	0*	.50
13	0	0	0	0	0*	1.1	.89	.14	0*	2.3*	0*	0
14	0	0	0	0	0*	1.1	.60	.18	0*	.50*	0*	0
15	.26	0	0	0	0*	1.2	.53	.18	0*	.10*	0*	0
16	0	0	0	0	0*	1.3	.43	.29	0*	.02*	0*	0
17	0	0	0	0*	0*	1.3	.33	.46	0*	0*	0*	0
18	0	0	0	0*	0*	1.2	.30	.52	0*	0*	0*	0
19	0	0	0	0*	0*	1.2	.25	.55	0*	0*	0*	0
20	0	0	0	0*	0*	1.2	.25	.57	0*	0*	0*	.58
21	0	0	0	0*	0*	1.2	.28	.48	0*	0*	0*	.46
22	0	0	0	0*	0*	1.3	.25	.42	0*	0*	0*	.04
23	0	0	0	0*	0*	3.4	.24	.43	0*	0*	0*	.59
24	0	0	0	0*	0*	4.5	.24	.43	0*	0*	0*	.79
25	0	0	0	0*	0*	3.9	.19	.51	0*	0*	0*	.22
26	0	0	0	0*	0*	3.3	.17	.48	0*	0*	0*	.07
27	0	0	0	0*	0*	2.9	.13	.50	0*	0*	0*	.03
28	0	0	0	0*	.65	2.6	.11	.46	0*	0*	0*	.03
29	0	0	0	0*	-----	2.4	.09	.38	0*	.15*	0*	.70
30	0	0	0	0*	-----	2.1	.08	.32	0*	.07*	.54*	1.3
31	0	-----	0	0*	-----	1.9	-----	.26	-----	0*	.30*	-----
Total	1.67	0	0	0	0.65	48.55	18.51	9.71	0.89	3.14	0.84	19.90
Mean	.054	0	0	0	.023	1.57	.62	.31	.030	.10	.027	.66
Max	.82	0	0	0	.65	4.5	1.7	.57	.21	2.3	.54	7.5
Min	0	0	0	0	0	.58	.08	.06	0	0	0	0
Acre-Ft	3.3	0	0	0	1.3	96	37	19	1.8	6.2	1.7	39
Wtr Year	2007	Total	103.86	Mean	.28	Max	7.5	Min	0	Acre-Ft	205	
Cal Year	2006	Total	56.01	Mean	.15	Max	30	Min	0	Acre-Ft	111	

*Estimated

E246 Three Mile Canyon above Pajarito Canyon

Location. Lat 35° 50' 20", long 106° 16' 17", Sec. 35, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, 0.05 mi northeast of TA-18, and 0.50 mi southeast of Pajarito Road.

Drainage Area. 1.62 mi².

Period of Record. October 1998 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 9" Parshall flume. Elevation of gage is 6,755 ft above NGVD.

Remarks. Water discharge records are good except for estimated daily discharges, which are fair.

Average Discharge. 9 yr, 0.02 ft³/s, 13 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 536 ft³/s August 25, 2006, gage height 3.50 ft from critical depth computation of peak flow. No flow most of time.

Extremes for Current Year. Maximum discharge 0.70 ft³/s at 0135 h May 2, gage height 0.38 ft. No peak discharge above base of 5.0 ft³/s. No flow most of time.



E246 Three Mile Canyon above Pajarito Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on 9" Parshall flume. Station equipped with cellular phone telemetry with speech modem. System powered by a solar panel battery system housed in a NEMA shelter on right bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. There is no provision for direct discharge measurements above wading stage.

Field Work. The station was visited fourteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year; except during the period from November 31 to December 4 when flume became silted after a flow event.

Rating. The channel is straight above and below gage. It is confined to the main channel by cut banks on both sides. The bottom is 10' wide, channel prone to some shifting with vegetation on each bank. Low water control is the 9" Parshall flume.

Rating No. 1 was developed based on the computation of 9" Parshall flume and was extended on the basis of two critical depth computations and was used directly; except during the spring run-off in 2001 water year when one discharge measurement was made and a variable shift was used. PZF is 0.00 gage height.

Discharge. Discharge was computed by applying Rating No. 1 direct.

Remarks. Records are good, except for estimated daily discharges which are fair.

E246 Three Mile Canyon above Pajarito Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0*	0	0	0	0	.45	.09	.02	0	0
2	0	0	0*	0	0	0	0	.18	.09	.02	0	0
3	0	0	0*	0	0	0	0	.11	.10	.01	0	0
4	0	0	0*	0	0	0	0	.10	.10	.01	0	0
5	0	0	0	0	0	0	0	.10	.09	.01	0	0
6	0	0	0	0	0	0	0	.10	.09	.01	0	0
7	0	0	0	0	0	0	0	.09	.07	.02	0	0
8	0	0	0	0	0	0	0	.14	.08	.02	0	0
9	0	0	0	0	0	0	0	.13	.08	.01	0	0
10	0	0	0	0	0	0	.04	.10	.08	.01	0	0
11	0	0	0	0	0	0	.05	.09	.09	.01	0	0
12	0	0	0	0	0	0	.09	.10	.10	.02	0	0
13	0	0	0	0	0	0	.31	.10	.08	.01	0	0
14	0	0	0	0	0	0	.31	.10	.07	.01	0	0
15	0	0	0	0	0	0	.33	.10	.06	.01	0	0
16	0	0	0	0	0	0	.31	.11	.06	.01	0	0
17	0	0	0	0	0	0	.29	.11	.06	.01	0	0
18	0	0	0	0	0	0	.34	.11	.05	.01	0	0
19	0	0	0	0	0	0	.32	.10	.04	.01	0	0
20	0	0	0	0	0	0	.35	.11	.04	.01	0	0
21	0	0	0	0	0	0	.40	.10	.04	.01	0	0
22	0	0	0	0	0	0	.39	.09	.04	.01	0	0
23	0	0	0	0	0	0	.41	.10	.04	0	0	0
24	0	0	0	0	0	0	.43	.10	.03	0	0	0
25	0	0	0	0	0	0	.43	.11	.03	0	0	0
26	0	0	0	0	0	0	.44	.11	.02	0	0	0
27	0	0	0	0	0	0	.42	.11	.03	0	0	0
28	0	0	0	0	0	0	.44	.10	.03	0	0	0
29	0	.01	0	0	-----	0	.43	.09	.02	0	0	0
30	0	0*	0	0	-----	0	.45	.09	.02	.01	0	0
31	0	-----	0	0	-----	0	-----	.10	-----	0	0	-----
Total	0	0.01	0	0	0	0	6.98	3.63	1.82	0.28	0	0
Mean	0	0	0	0	0	0	.23	.12	.061	.009	0	0
Max	0	.01	0	0	0	0	.45	.45	.10	.02	0	0
Min	0	0	0	0	0	0	0	.09	.02	0	0	0
Acre-Ft	0	.02	0	0	0	0	14	7.2	3.6	.56	0	0
Wtr Year	2007	Total	12.72	Mean	.035	Max	.45	Min	0	Acre-Ft	25	
Cal Year	2006	Total	9.34	Mean	.026	Max	9.3	Min	0	Acre-Ft	19	

*Estimated

E247 MDA G-1

Location. Lat 35° 49' 51", long 106° 14' 41", Sec. 31, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.002 mi².

Period of Record. October 1, 2004 to September 30, 2007.

Gage. Data logger and 9" Parshall flume. Elevation of gage is 6,626 ft above NGVD.

Remarks. Records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 0.94 ft³/s, September 23, 2007, gage height 0.46 ft. No flow most of time.

Extremes for Current Year. Maximum discharge, 0.94 ft³/s at 1813 h, September 23, gage height 0.46 ft. No peak discharge above base of 1.0 ft³/s. No flow most of time.



E247 MDA G-1

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. An outside staff gage is available for reference. No provision for discharge measurements above wading stage. All high measurements will be by slope area or peak flow computation methods.

Station was originally equipped with a Geomation data logger. Geomation was removed June 30 and replaced with the present equipment.

Field Work. This station was visited twenty times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from October 7 to January 9, and May 29 to June 30 when gage height record was not complete due to transmission from the Geomation to the home site and August 30 to September 30 when probe malfunctioned. During this period, days were estimated to have no flow based on the inspections made.

Rating. Channel description, vegetation, bed rock, gravel.

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Twelve inspections of no flow were made and eight inspections of flow were made this water year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations.

Remarks. Records are good except for estimated daily discharges which are fair.

E247 MDA G-1

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
2	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
3	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
4	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
5	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
6	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
7	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
8	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
9	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
10	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
11	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
12	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
13	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
14	0*	0*	0*	0*	0*	0*	0	0	0	0	0	0
15	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
16	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
17	0*	0*	0*	0*	0*	0	0	0	0	0	0	.01
18	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
19	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
20	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
21	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
22	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
23	0*	0*	0*	0*	0*	0	0	0	0	0	0	.01
24	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
25	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
26	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
27	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
28	0*	0*	0*	0*	0*	0	0	0	0	0	0	0
29	0*	0*	0*	0*	-----	0	0	0	0	0	0	0
30	0*	0*	0*	0*	-----	0	0	0	0	0	0	0
31	0*	-----	0*	0*	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0.02
Mean	0	0	0	0	0	0	0	0	0	0	0	.001
Max	0	0	0	0	0	0	0	0	0	0	0	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	.04
Wtr Year	2007	Total	0.02	Mean	0	Max	.01	Min	0	Acre-Ft	.04	
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	

*Estimated

E248 MDA G-2

Location. Lat 35° 49' 48", long 106° 14' 33", Sec. 31. T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.016 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger and 9" Parshall Flume. Elevation of gage is 6,621 ft above NGVD.

Remarks. Records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 4.8 ft³/s, August 6, 2007, gage height 1.72 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 26	1325	1.7	0.90
August 2	2145	2.4	1.10
August 3	1950	3.1	1.30
August 4	1125	2.1	1.00
August 6	1350	4.9*	1.72*
August 12	1350	1.6	0.84
August 18	0110	1.6	0.84

No flow most of time.



E248 MDA G-2

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. An outside staff gage is available for reference. No provision for discharge measurements above wading stage. All high measurements will be by slope area or peak flow computation methods.

Station was originally equipped with a Geomation data logger. Geomation was removed March 14 and replaced with the present equipment.

Field Work. This station was visited fourteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra data base.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from May 2 to June 19 when the data logger malfunctioned. Based on the inspection during this period, there was no flow.

Rating. The control for this station is the 9" Parshall flume. The channel is straight 30' upstream with sand, gravel and vegetation. The channel downstream from the flume is 40' long with large boulders on both banks.

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow (PZF) is 0.00 gage height.

Fourteen inspections of no flow were made and eight inspections of flow were made this water year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations.

Remarks. Records are good.

E248 MDA G-2

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0*	0*	0*	0	0	0	0	0*	0*	.02	0*
2	0	0*	0*	0*	0	0	0	0	0*	0*	.14	0*
3	0	0*	0*	0*	0	0	0	0	0*	0*	.06	0*
4	0	0*	0*	0*	0	0	0	0	0*	0*	.03	0*
5	0	0*	0*	0*	0	0	0	0	0*	0*	0	0*
6	0	0*	0*	0*	0	0	0	0	0*	0*	.34	0*
7	0*	0*	0*	0*	0	0	0	0	0*	0*	.76	0*
8	0*	0*	0*	0*	0	0	0	0	0*	0*	0	0*
9	0*	0*	0*	0*	0	0	0	0	0*	0*	0	0*
10	0*	0*	0*	0	0	0	0	0	0*	0*	0	0*
11	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
12	0*	0*	0*	0	0	0	0	0	0*	0	.08	0*
13	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
14	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
15	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
16	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
17	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
18	0*	0*	0*	0	0	0	0	0	0*	0	.01	0*
19	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
20	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
21	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
22	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
23	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
24	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
25	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
26	0*	0*	0*	0	0	0	0	0	0*	.02	0	0*
27	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
28	0*	0*	0*	0	0	0	0	0	0*	0	0	0*
29	0*	0*	0*	0	-----	0	0	0*	0*	0	0	0*
30	0*	0*	0*	0	-----	0	0	0*	0*	.01	0*	0*
31	0*	-----	0*	0	-----	0	-----	0*	-----	.01	0*	-----
Total	0	0	0	0	0	0	0	0	0	0.04	1.44	0
Mean	0	0	0	0	0	0	0	0	0	.001	.046	0
Max	0	0	0	0	0	0	0	0	0	.02	.76	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	.08	2.9	0
Wtr Year	2007	Total	1.48	Mean	.004	Max	.76	Min	0	Acre-Ft	2.9	
Cal Year	2006	Total	0.21	Mean	.001	Max	.08	Min	0	Acre-Ft	.42	

*Estimated

E2485 MDA G-6

Location. Lat 35° 49' 45", long 106° 14' 12", Sec. 31, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.03 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger and 9" Parshall flume. Elevation of gage is 6,602 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 3.8 ft³/s, September 17, 2007, gage height 1.15 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 26	1330	3.4	1.07
September 17	1615	3.8*	1.15*
September 18	0850	2.5	0.88
September 23	1830	2.8	0.95

No flow most of time.



E2485 MDA G-6

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. An outside staff gage is available for reference. No provision for discharge measurements above wading stage. All measurements above wading stage will be by slope area or peak flow computation methods.

Field Work. This station was visited sixteen times for the purpose of making discharge measurements and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra data base.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from November 29 to January 8, when the gage height was affected by ice and snow. Based on the inspection during this period, there was no flow.

Rating. The control for this station is the 9" Parshall flume. The channel is straight 40' upstream with sand, gravel and vegetation. The channel downstream from the flume is 70' long with vegetation, sand on both banks.

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow (PZF) is 0.00 gage height.

Sixteen inspections of no flow were made and eight inspections of flow were made this water year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations.

Remarks. Records are good.

E2485 MDA G-6

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0*	0*	0	0	0	0	0	0	0	0
2	0	0	0*	0*	0	0	0	0	0	0	0	0
3	0	0	0*	0*	0	0	0	0	0	0	0	0
4	0	0	0*	0*	0	0	0	0	0	0	0	0
5	.01	0	0*	0*	0	0	0	0	0	0	0	0
6	.01	0	0*	0*	0	0	0	0	0	0	0	0
7	0	0	0*	0*	0	0	0	0	0	0	0	0
8	0	0	0*	0*	0	0	0	0	0	0	0	0
9	.05	0	0*	0	0	0	0	0	0	0	0	0
10	0	0	0*	0	0	0	0	0	0	0	0	0
11	0	0	0*	0	0	0	0	0	0	0	0	0
12	0	0	0*	0	0	0	0	0	0	0	0	0
13	0	0	0*	0	0	0	0	0	0	0	0	0
14	0	0	0*	0	0	0	0	0	0	0	0	0
15	0	0	0*	0	0	0	0	0	0	0	0	0
16	0	0	0*	0	0	0	0	0	0	0	0	0
17	0	0	0*	0	0	0	0	0	0	0	0	.06
18	0	0	0*	0	0	0	0	0	0	0	0	.03
19	0	0	0*	0	0	0	0	0	0	0	0	0
20	0	0	0*	0	0	0	0	0	0	0	0	0
21	0	0	0*	0	0	0	0	0	0	0	0	0
22	0	0	0*	0	0	0	0	0	0	0	0	0
23	0	0	0*	0	0	0	0	0	0	0	0	.04
24	0	0	0*	0	0	0	0	0	0	0	0	0
25	0	0	0*	0	0	0	0	0	0	0	0	0
26	0	0	0*	0	0	0	0	0	0	.06	0	0
27	0	0	0*	0	0	0	0	0	0	0	0	0
28	0	0	0*	0	0	0	0	0	0	0	0	0
29	0	0*	0*	0	-----	0	0	0	0	0	0	0
30	0	0*	0*	0	-----	0	0	0	0	0	0	0
31	0	-----	0*	0	-----	0	-----	0	-----	0	0	-----
Total	0.07	0	0	0	0	0	0	0	0	0.06	0	0.13
Mean	.002	0	0	0	0	0	0	0	0	.002	0	.004
Max	.05	0	0	0	0	0	0	0	0	.06	0	.06
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.14	0	0	0	0	0	0	0	0	.12	0	.26
Wtr Year	2007	Total	0.26	Mean	.001	Max	.06	Min	0	Acre-Ft	.52	
Cal Year	2006	Total	1.46	Mean	.005	Max	.18	Min	0	Acre-ft	2.9	

*Estimated

E249 MDA G-4

Location. Lat 35° 49' 42", long 106° 14' 17", Sec. 31, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.007 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger 9" Parshall flume. Elevation of gage is 6,602 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 0.76 ft³/s, September 17, 2007, gage height 0.40 ft. No flow most of time

Extremes for Current Year. Maximum discharge, 0.76 ft³/s 1600 h, September 17, gage height of 0.40 ft. No peak discharge above 1.0 ft³/s. No flow most of time.



E249 MDA G-4

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station was originally equipped with a Geomation data logger. Geomation was removed February 16, 2007 and replaced with the present equipment.

Field Work. The station was visited thirteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year, except for the periods of October 1, 2006 to February 16, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period, four days were estimated to have no flow.

Rating. Rating No. 1 was developed based on the computation of a 9" Parshall flume. Point of zero flow is 0.00 gage height.

Discharge. Discharge was computed using Rating No. 1. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good except for estimated daily discharges, which are fair.

E249 MDA G-4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
2	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
5	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
6	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
7	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
8	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
9	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
10	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
11	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
12	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
13	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
14	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
15	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
16	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
17	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	.01
18	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
19	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
21	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
22	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
23	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
24	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
25	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
26	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
27	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
28	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0
29	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0
30	0*	0*	0*	0*	-----	0*	0*	0*	0*	0*	0*	0
31	0*	-----	0*	0*	-----	0*	-----	0*	-----	0*	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0.01
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	.02
Wtr Year	2007	Total	0.01	Mean	0	Max	.01	Min	0	Acre-Ft	.02	
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	

*Estimated

E2495 MDA G-7

Location. Lat 35° 49' 47", long 106° 14' 05", Sec. 31, T. 19 N., R. 7 E., Ramon Vigil Grant, Los Alamos County on left bank. North of Pajarito Road, 0.5 mi upstream from SR 4 and 2.0 mi from White Rock.

Drainage Area. 0.01 mi².

Period of Record. October 1, 2005 to September 30, 2007.

Gage. Data logger and 9" Parshall flume. Elevation of gage is 6,633 ft above NGVD from GIS 9.1.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 5.7 ft³/s, August 7, 2006, gage height 1.50 ft. No flow most of time.

Extremes for Current Year. Maximum discharge, 3.1 ft³/s at 1325 h, July 26, gage height 1.01 ft. No peak discharge above base of 5.0 ft³/s. No flow most of time.



E2495 MDA-G-7

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Field Work. The station was visited twenty times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year; except for January 7–13, 26 to February 6, March 7–9, 18–26 when sonic probe was not working.

Rating. The channel is straight above and below gage. It is confined to the main channel by cut banks on both sides. The bottom is 4' wide channel both banks should be very stable. Low water control is the 9" Parshall flume.

Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

During the year, twenty visits of no flow were made.

Discharge. Discharge was computed by applying Rating No. 1. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good, except for estimated daily discharges, which are poor.

E2495 MDA G-7

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0*	0	0	0	0	0	0	0
2	0	0	0	0	0*	0	0	.06	0	0	0	0
3	0	0	0	0	0*	0	0	0	0	0	0	0
4	0	0	0	0	0*	0	0	0	0	0	0	0
5	0	0	0	0*	0*	0	0	0	0	0	0	0
6	0	0	0	0*	0*	0	0	0	0	0	.01	0
7	0	0	0	0*	0	0*	0	0	0	0	0	0
8	0	0	0	0*	0	0*	0	.04	0	0	0	0
9	.14	0	0	0*	0	0*	.01	0	0	0	0	0
10	0	0	0	0*	0	0	0	0	0	0	0	0
11	0	0	0	0*	0	0	0	0	.05	.05	0	0
12	0	0	0	0*	0	0	0	0	0	0	0	0
13	0	0	0	0*	0	0	.04	0	0	0	0	0
14	0	0	0	0	0	0*	0	0	0	0	0	0
15	.02	0	0	0	0	0*	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	.02	0	0	0
17	0	0	0	0	0	0	0	.01	0	0	0	.12
18	0	0	0	0	0	0*	0	0	0	0	0	0
19	0	0	0	0	0	0*	0	0	0	.03	0	0
20	0	0	0	0	0	0*	0	0	0	.04	0	.06
21	0	0	0	0	0	0*	0	0	0	.01	0	0
22	0	0	0	0	0	.01*	0	0	0	0	0	0
23	0	0	0	0	0	.48*	0	0	0	0	0	.09
24	0	0	0	0	0	.03*	0	0	0	0	0	0
25	0	0	0	0	0	0*	0	0	0	0	0	0
26	0	0	0	0*	0	0*	0	0	0	.10	.01	0
27	0	0	0	0*	0	0	0	0	0	0	0	0
28	0	0	0	0*	0	0	0	0	0	0	0	.03
29	0	0	0	0*	-----	0	0	0	0	0	.04	.01
30	0	0	0	0*	-----	0	0	0	0	0	0	0
31	0	-----	0	0*	-----	0	-----	0	-----	0	.01	-----
Total	0.16	0	0	0	0	0.52	0.05	0.11	0.07	0.23	0.07	0.31
Mean	.005	0	0	0	0	.017	.002	.004	.002	.007	.002	.010
Max	.14	0	0	0	0	.48	.04	.06	.05	.10	.04	.12
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.32	0	0	0	0	1.0	.10	.22	.14	.46	.14	.61
Wtr Year	2007	Total	1.52	Mean	.004	Max	.48	Min	0	Acre-Ft	3.0	
Cal Year	2006	Total	1.37	Mean	.004	Max	.42	Min	0	Acre-Ft	2.7	

*Estimated

E250 Pajarito Canyon above SR 4

Location. Lat 35° 49' 26", long 106° 13' 40", Sec. 5, T. 18 N., R. 7 E., Ramon Vigil Grant, Los Alamos County on left bank, 400 ft southeast of Pajarito Road, 0.40 mi upstream from SR 4, and 1.4 mi from White Rock, NM.

Drainage Area. 10.6 mi².

Period of Record. November 1993 to August 25, 2006 (destroyed by flood); September 2006 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,528 ft. above NGVD from GPS survey.

Remarks. Water discharge records are good. Legal location approximate via projection.

Average Discharge. 13yr, 0.05 ft³/s, 37 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 206 ft³/s, August 25, 2006, gage height 4.62 ft (from peak flow computations). No flow most of time.

Extremes for Current Water Year. Maximum discharge, 2.0 ft³/s at 0000 h, September 7, gage height 2.40 ft. No peak discharge above base of 5.0 ft³/s. No flow most of time.



E250 Pajarito Canyon above SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) with shaft encoder float system (5-min. interval) and cellular phone with speech modem. The system is powered by a solar panel battery system housed in NEMA shelter on 18" CMP well on right bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for direct discharge measurements above wading stages.

Field Work. The station was visited eight times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Most recent levels run November 19, 1993 found gage within acceptable limits.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record.

Rating. The channel is straight for 50' above and 100' below gage. Bed material is gravel. The control is concrete with a 90-degree weir plate.

Rating No. 1 was developed from 90-degree weir formula and broad crested weir computation above notch.

Eight visits were made this water year. Rating No. 1 was continued in use and is considered good.

Discharge. Discharge was computed from Rating No. 1 using mean daily gage height three "V" diagram with -0.14 ft shift was used for all low flow periods. This shift value was defined by previous measurements.

Remarks. Records are good. Access to this station is controlled by DX access control personnel because of explosive testing in parts of the area.

E250 Pajarito Canyon above SR-4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	.04
7	0	0	0	0	0	0	0	0	0	0	0	.23
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0*	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0	0	0.27
Mean	0	0	0	0	0	0	0	0	0	0	0	.009
Max	0	0	0	0	0	0	0	0	0	0	0	.23
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	0	0	.54
Wtr Year	2007	Total	0.27	Mean	.001	Max	.23	Min	0	Acre-Ft	.54	
Cal Year	2006	Total	15.4	Mean	.042	Max	14	Min	0	Acre-Ft	31	

*Estimated

E252 Water Canyon above SR 501

Location. Lat 35° 50' 18", long 106° 21' 42", Sec. 36, T. 19 N., R. 5 E., Los Alamos County in Santa Fe National Forest, 0.3 mi upstream from SR 501, and 0.4 mi northwest of junction SR 501 and SR 4.

Drainage Area. 3.25 mi².

Period of Record. October 1994 to September 2000; October 2000 to June 2000 (destroyed by flood); April 2001 to September 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 7,553 ft above NGVD from GPS survey.

Remarks. Records are good. Legal location approximate via projection.

Average Discharge. 13 yr, 0.11 ft³/s, 79 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 840 ft³/s on June 28, 2000, from peak flow computation, gage height 7.91 ft. No flow at times.

Extremes for Current Year. Peak discharge above base of 2.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
March 9	1030	3.0	2.80
March 17	0750	2.2	2.76
March 23	1235	2.1	2.75
March 25	0440	6.4*	2.93*
March 31	0225	2.0	2.75

No flow most of time.



E252 Water Canyon above SR 501

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval), with shaft encoder float system (5-min. interval) and cellular phone with speech modem. The system is powered by a solar panel battery system housed in NEMA shelter on 24" CMP well on right bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. There is no low water control. No provision for direct discharge measurements above wading stages.

Rain gage was removed from this site on May 10, 2006.

Field Work. The station was visited fifteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels run when gage was established April 16, 2001. New gage is at same datum as old and is about 20' upstream of old well.

Gage-Height Record. The data logger referenced to the inside staff and reference point gave a complete and satisfactory record except for May 21, June 16 and August 3–8 when data logger malfunctioned.

Rating. The channel at the gage is 30' wide and straight for about 40' upstream then bends to the left, downstream the gage is straight for 100'. The streambed through this reach is primary sand, gravel and cobbles. Low flow control is rock riffle 5' below gage. The channel has been scoured and filled significantly by high flows resulting from the Cerro Grande fire.

Rating No. 3 should be considered good except for the extreme lower end (less than 0.5 ft³/s), which will continue to change back and forth in response to high flows. Steep slopes in the gage reach and throughout the region cause considerable movement of material either scours or fills. Low water records at this site will continue to be a problem until increased runoff from the burned areas returns to something close to prefire conditions.

Five discharge measurements (Nos. 47–51) were made during the period. All measurements listed indicated shifts ranging from +0.19 to -0.02. The shifts were applied using several different variable stage shifts prorated over time.

Discharge. Discharge was computed using Rating No. 3 for the entire water year.

Remarks. Records are good, except for estimated daily discharges, which are fair.

E252 Water Canyon above SR-501

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.14	.09	.07	.06	.22	1.5	.50	.32	.13	.06	.01
2	.09	.14	.08	.07	.06	.23	1.3	.51	.32	.13	.05	.01
3	.09	.13	.07	.07	.06	.23	1.1	.53	.32	.13	.04*	.01
4	.12	.13	.07	.07	.06	.20	.94	.54	.31	.13	.04*	.02
5	.16	.13	.07	.07	.07	.19	.74	.55	.31	.11	.04*	.02
6	.15	.12	.07	.07	.08	.15	.66	.57	.30	.10	.03*	.03
7	.13	.12	.07	.07	.07	.12	.59	.58	.26	.10	.03*	.03
8	.13	.12	.07	.07	.06	.28	.59	.51	.26	.10	.04*	.03
9	.13	.12	.07	.07	.06	.60	.60	.51	.26	.10	.04	.03
10	.12	.12	.07	.07	.05	.61	.61	.52	.25	.08	.04	.04
11	.12	.12	.07	.07	.05	.61	.56	.52	.25	.09	.04	.04
12	.12	.11	.07	.07	.05	.62	.55	.51	.25	.09	.04	.05
13	.12	.11	.07	.07	.05	.66	.56	.51	.25	.08	.04	.05
14	.12	.11	.07	.07	.04	.74	.55	.51	.25	.08	.04	.05
15	.13	.11	.07	.07	.03	1.2	.56	.50	.24	.08	.04	.05
16	.13	.11	.07	.06	.03	1.5	.52	.50	.23*	.08	.03	.05
17	.13	.10	.07	.07	.03	1.8	.52	.49	.23	.08	.03	.05
18	.14	.10	.07	.07	.04	1.5	.53	.42	.24	.08	.03	.05
19	.14	.09	.07	.07	.05	1.2	.54	.41	.24	.08	.03	.05
20	.14	.09	.06	.07	.07	1.0	.55	.41	.23	.08	.03	.05
21	.15	.09	.06	.07	.08	.86	.56	.55*	.20	.07	.03	.05
22	.16	.09	.06	.07	.10	.95	.53	.40	.20	.07	.03	.04
23	.16	.09	.06	.07	.10	2.2	.50	.40	.20	.06	.03	.02
24	.16	.09	.06	.07	.12	4.6	.51	.40	.20	.06	.03	.02
25	.16	.09	.06	.06	.14	5.6	.51	.40	.17	.06	.03	.02
26	.16	.09	.06	.06	.14	4.5	.48	.39	.17	.06	.03	.02
27	.16	.09	.06	.06	.14	3.7	.46	.39	.16	.05	.03	.02
28	.16	.09	.07	.06	.17	3.1	.47	.39	.16	.05	.02	.02
29	.15	.09	.06	.06	-----	2.5	.48	.39	.13	.05	.02	.02
30	.15	.09	.07	.06	-----	2.2	.49	.34	.13	.06	.01	.02
31	.15	-----	.07	.06	-----	1.8	-----	.35	-----	.06	.01	-----
Total	4.22	3.22	2.11	2.09	2.06	45.67	19.06	14.50	7.04	2.58	1.03	0.97
Mean	.14	.11	.068	.067	.074	1.47	.64	.47	.23	.083	.033	.032
Max	.16	.14	.09	.07	.17	5.6	1.5	.58	.32	.13	.06	.05
Min	.09	.09	.06	.06	.03	.12	.46	.34	.13	.05	.01	.01
Acre-Ft	8.4	6.4	4.2	4.1	4.1	91	38	29	14	5.1	2.0	1.9
Wtr Year	2007	Total	104.55	Mean	.29	Max	5.6	Min	.01	Acre-Ft	207	
Cal Year	2006	Total	21.71	Mean	.059	Max	.56	Min	.01	Acre-Ft	43	

*Estimated

E2528 S Site Canyon above Water Canyon

Location. Lat 35° 49' 51", long 106° 18' 27", Sec. 33, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on left bank, 50 ft above confluence with Water Canyon, 0.4 mi upstream of E262, 2.0 mi upstream from E2625, and 4.6 mi upstream from SR 4.

Drainage Area. 0.76 mi².

Period of Record. April 1999 to September 30, 2007.

Revised Record. Drainage Area (2006)

Gage. Data logger with cellular telemetry and 90° sharp-crested weir. Elevation of gage is 6,840 ft above NGVD from GPS survey.

Remarks. Water discharge records are good. Legal location approximate via projection.

Average Discharge. 8 yr, 0.004 ft³/s, 3.1 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, of 162 ft³/s, August 20, 2004, gage height 4.03 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 1.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
March 13	0745	1.2	1.60
July 6	0955	4.0	2.06
August 29	Unknown	150*	4.04*
September 6	1740	1.2	1.61

No flow most of time.



E2528 S Site Canyon above Water Canyon

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with milltronics sonic probe cellular telemetry and speech modem. The system is powered by a solar panel battery system housed in a NEMA shelter on left bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for discharge measurements above wading stage.

Field Work. The station was visited seventeen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except during the period from May 7, 2007 to July 6, 2007 and from August 10, 2007 to September 5, 2007 when gage height record was not complete due to power failure from a lack of solar gain because a bear had damaged the gage wiring. During these periods data was estimated to have no flow.

Rating. Control is 90 degree weir with 2' deep notch. Canyon is very steep directly above station, but does flatten out enough to allow weir to be effective.

Rating No. 1 was developed using weir formula $Q = 2.49 h^{2.48}$ and one critical depth computation made during the 2004 water year. Rating No. 1 is fair and was used for the entire period of this analysis. Large shifts were applied to the low end (PZF) because of filling in the pool. These were most likely to change over time when fill conditions occurred.

Sixteen inspections of no flow were made this year.

Discharge. Discharge was computed from Rating No. 1 with "V" diagrams adjusting the PZF. Those periods estimated at zero flow were based on precipitation and adjoining stations E2525 and E262.

Remarks. Records are good except for estimated daily discharges, which are fair.

E2528 S Site Canyon above Water Canyon

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0*	0*	0	0*
2	0	0	0	0	0	0	0	0	0*	0*	0	0*
3	0	0	0	0	0	0	0	0	0*	0*	0	0*
4	0	0	0	0	0	0	0	0	0*	0*	0	0*
5	0	0	0	0	0	0	0	0	0*	0*	0	0*
6	0	0	0	0	0	0	0	0	0*	0*	0	.06
7	0	0	0	0	0	0	0	0*	0*	0	0	0
8	0	0	0	0	0	0	0	0*	0*	0	0	0
9	0	0	0	0	0	0	0	0*	0*	0	0	0
10	0	0	0	0	0	0	0	0*	0*	0	0*	0
11	0	0	0	0	0	0	0	0*	0*	0	0*	0
12	0	0	0	0	0	0	0	0*	0*	0	.10*	0
13	0	0	0	0	0	.02	0	0*	0*	0	0*	0
14	0	0	0	0	0	0	0	0*	0*	0	0*	0
15	0	0	0	0	0	0	0	0*	0*	0	0*	0
16	0	0	0	0	0	0	0	0*	0*	0	0*	0
17	0	0	0	0	0	0	0	0*	0*	0	0*	0
18	0	0	0	0	0	0	0	0*	0*	0	.05*	0
19	0	0	0	0	0	0	0	0*	0*	0	0*	0
20	0	0	0	0	0	0	0	0*	0*	0	0*	0
21	0	0	0	0	0	0	0	0*	0*	0	0*	0
22	0	0	0	0	0	0	0	0*	0*	0	0*	0
23	0	0	0	0	0	0	0	0*	0*	0	0*	0
24	0	0	0	0	0	.23*	0	0*	0*	0	0*	0
25	0	0	0	0	0	.20*	0	0*	0*	0	0*	0
26	0	0	0	0	0	.01*	0	0*	0*	0	0*	0
27	0	0	0	0	0	0	0	0*	0*	0	0*	0
28	0	0	0	0	0	0	0	0*	0*	0	0*	0
29	0	0	0	0	-----	0	0	0*	0*	0	6.0*	0
30	0	0	0	0	-----	0	0	0*	0*	0	0*	0
31	0	-----	0	0	-----	0	-----	0*	-----	0	.05*	-----
Total	0	0	0	0	0	0.46	0	0	0	0	6.20	0.06
Mean	0	0	0	0	0	.015	0	0	0	0	.20	.002
Max	0	0	0	0	0	.23	0	0	0	0	6.0	.06
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	.91	0	0	0	0	12	.12
Wtr Year	2007	Total	6.72	Mean	.018	Max	6.0	Min	0	Acre-Ft	13	
Cal Year	2006	Total	3.05	Mean	.008	Max	1.8	Min	0	Acre-Ft	6.0	

*Estimated

E253 Cañon del Valle above SR 501

Location. Lat 35° 51' 6", long 106° 21' 17", NE ¼, Sec. 25, T. 19 N., R. 5 E., Los Alamos County in Santa Fe National Forest, on left bank 0.25 mi upstream from SR 501, 4.7 mi above mouth, and 1.5 mi north of junction SR 501 and SR 4.

Drainage Area. 2.27 mi².

Period of Record. October 1994 to June 2000 (gage destroyed by flood); January 31, 2001, to September 30, 2007.

Gage. Data logger with cellular telemetry and 120° weir plate. Elevation of gage is 7,701 ft above NGVD from GPS survey.

Remarks. Records are good.

Average Discharge. 13 yr, 0.03 ft³/s, 20 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 740 ft³/s, June 28, 2000, from peak flow computation, gage height 8.42 ft. No flow most of time.

Extremes for Current Year. Maximum discharge 1.8 ft³/s, 1430 h, August 29, gage height 0.98 ft. No peak discharge above base of 5.0 ft³/s. No flow most of time.



E253 Cañon del Valle above SR 501

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) with shaft encoder float system (5-min. interval) and cellular phone with speech modem. The system is powered by a solar panel battery system housed in NEMA shelter on 24" CMP well, 16' long attached to a 60' metal walkway on left bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for direct discharge measurements above wading stages.

Field Work. The station was visited thirteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels were run in April 16, 2001 when gage was reestablished.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year, except for February 28 to March 12 when gage height was affected by ice.

Rating. The channel at the gage is about 8' wide and straight for about 50' upstream then bends to the left and straight for 100' downstream and bends to the right. The streambed through this reach is primarily gravel with cobbles. The low flow control is a 120-degree sharp crested weir. The channel becomes the control at high flow.

Rating No. 2 is based on four discharge measurements and one critical depth computation, and theoretical computation for 120-degree sharp crested weir to a gage height of 2.30 feet. Broad-crested weir computation is used above that stage.

No discharge measurements were made this water year. Thirteen inspections of no flow were made during the period.

Discharge. Discharge was computed by applying Rating No. 2 direct with one variable shift applied. Discharge compared with station E256, which is downstream about 3 miles.

Remarks. Records are good.

E253 Cañon del Valle above SR-501

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0*	0	0	0	0	0	0
2	0	0	0	0	0	0*	0	0	0	0	0	0
3	0	0	0	0	0	0*	0	0	0	0	0	0
4	0*	0	0	0	0	0*	0	0	0	0	0	0
5	0*	0	0	0	0	0*	0	0	0	0	0	0
6	0	0	0	0	0	0*	0	0	0	0	0	0
7	0	0	0	0	0	0*	0	0	0	0	0	0
8	0	0	0	0	0	0*	0	0	0	0	0	0
9	0	0	0	0	0	0*	0	0	0	0	0	0
10	0	0	0	0	0	0*	0	0	0	0	0	0
11	0	0	0	0	0	0*	0	0	0	0	0	0
12	0	0	0	0	0	0*	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	.04	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0*	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	.04	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0.04	0.04	0
Mean	0	0	0	0	0	0	0	0	0	.001	.001	0
Max	0	0	0	0	0	0	0	0	0	.04	.04	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	.08	.08	0
Wtr Year	2007	Total	0.08	Mean	0	Max	.04	Min	0	Acre-Ft	.16	
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	

*Estimated

E256 Cañon del Valle below MDA P

Location. Lat 35° 51' 01", long 106° 19' 57", Sec. 29, T.19 N., R. 6 E., Ramon Vigil Grant Los Alamos County, on right bank, 2.0 mi northwest of DX, and 2.1 mi west of SR 501.

Drainage Area. 3.13 mi².

Period of Record. January 24, 2002 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 24" Parshall flume. Elevation of gage is 7,329 ft above NGVD from GPS survey.

Remarks. Water discharge records are good, except estimated daily discharges, which are poor. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 19 ft³/s, August 24, 2005, gage height 1.74 ft. No flow most of time.

Extremes for Current Year. Peak discharge above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1445	22*	1.91*

No flow most of time.



E256 Cañon del Valle below MDA P

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with Sutron self-contained bubbler within 24" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter on left bank. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. An outside staff is available for reference. There is no provision for discharge measurement above wading stage.

Field Work. The station was visited twenty-eight times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Corrections. None.

Gage-Height Record. The data logger referenced to the inside staff gave a complete and satisfactory record except for the following date: December 21 to February 28 when gage was affected by ice.

Rating. The channel is straight for 50' upstream and 20' downstream from gage. The streambed is sand with gravel subject to fill behind flume from flow events and gage silting problems. The banks are covered with vegetation.

Rating No. 1 is based on 24" Parshall flume.

One discharge measurement (No. 8) and twenty-eight observations of flow were made.

Discharge. Discharge computed from Rating No. 1 using variable shift diagrams. Period of lost or ice affected record was estimated using weather data, field inspections and comparison with E253.

Remarks. Records are good, except for estimated daily discharges which are poor.

E256 Cañon del Valle below MDA-P

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.06	.08	0*	0*	.13	.23	.13	.01	0	0	.05
2	.13	.06	.08	0*	0*	.15	.24	.15	.02	0	0	.08
3	.14	.06	.08	0*	0*	.16	.25	.13	.02	0	0	.04
4	.14	.06	.08	0*	0*	.17	.26	.13	.02	0	0	.03
5	.15	.06	.09	0*	0*	.12	.26	.13	.01	0	0	.06
6	.15	.06	.09	0*	0*	.13	.26	.12	.01	0	.01	.20
7	.15	.06	.08	0*	0*	.16	.26	.12	.02	0	0	.05
8	.17	.06	.08	0*	0*	.18	.26	.13	.02	0	0	.04
9	.37	.06	.07	0*	0*	.19	.22	.13	.02	0	0	.03
10	.18	.06	.07	0*	0*	.19	.19	.07	.02	0	0	.03
11	.09	.06	.06	0*	0*	.21	.18	.03	.02	0	0	.03
12	.09	.06	.07	0*	0*	.21	.18	.03	.02	0	.10	.03
13	.08	.06	.06	0*	0*	.21	.19	.03	.02	0	.01	.02
14	.08	.07	.07	0*	0*	.22	.18	.03	.02	.04	.01	.02
15	.09	.07	.07	0*	0*	.21	.18	.03	.01	.01	0	.02
16	.08	.07	.06	0*	0*	.19	.17	.03	.02	0	0	.02
17	.08	.07	.06	0*	0*	.18	.16	.03	.02	0	0	.03
18	.08	.07	.06	0*	0*	.17	.16	.03	.01	0	.02	.02
19	.08	.06	.07	0*	0*	.16	.16	.02	.01	0	0	.02
20	.07	.06	.05	0*	0*	.16	.16	.03	.01	0	0	.05
21	.07	.05	.01*	0*	0*	.16	.16	.02	.01	0	0	.03
22	.07	.05	0*	0*	0*	.16	.15	.02	.01	0	0	.02
23	.07	.05	0*	0*	0*	.23	.15	.02	.01	0	0	.05
24	.07	.05	0*	0*	0*	.24	.14	.02	.01	0	0	.04
25	.07	.05	0*	0*	0*	.22	.14	.02	0	0	0	.03
26	.07	.05	0*	0*	0*	.21	.13	.02	0	0	0	.03
27	.07	.05	0*	0*	0*	.21	.13	.02	0	0	0	.02
28	.07	.05	0*	0*	0*	.21	.13	.02	0	0	0	.02
29	.07	.05	0*	0*	-----	.22	.13	.02	0	0	.82	.05
30	.06	.07	0*	0*	-----	.22	.13	.02	0	0	.03	.03
31	.06	-----	0*	0*	-----	.23	-----	.02	-----	0	.25	-----
Total	3.28	1.77	1.44	0	0	5.81	5.54	1.75	0.37	0.05	1.25	1.19
Mean	.11	.059	.046	0	0	.19	.18	.056	.012	.002	.040	.040
Max	.37	.07	.09	0	0	.24	.26	.15	.02	.04	.82	.20
Min	.06	.05	0	0	0	.12	.13	.02	0	0	0	.02
Acre-Ft	6.5	3.5	2.9	0	0	12	11	3.5	.73	.10	2.5	2.4
Wtr Year	2007	Total	22.45	Mean	.062	Max	.82	Min	0	Acre-Ft	45	
Cal Year	2006	Total	16.44	Mean	.045	Max	.87	Min	0	Acre-Ft	33	

*Estimated

E257 Cañon del Valle Tributary at Burn Grounds

Location. Lat 35° 50' 47", long 106° 19' 50", Sec. 29, T. 19 N., R. 6 E., Ramon Vigil Grant, Santa Fe National Forest.

Drainage Area. 0.040 mi².

Period of Record. July 11, 2002 to September 30, 2007.

Gage. Data logger and 24" Parshall flume. Elevation of gage is 7,359 ft above NGVD.

Remarks. Water discharge records are good, except estimated daily discharges, which are poor. Records for this site existed before published period but are not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 9.5 ft³/s, August 29, 2007, gage height 1.77 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 3.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1420	9.5*	1.77*
August 31	1450	5.1	1.18
September 2	1420	3.4	0.89
September 6	1430	4.1	1.01

No flow most of time.



E257 Cañon del Valle Tributary at Burn Grounds

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 12" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 12" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Station is also equipped with a tipping bucket rain gage, Rain Collection II installed on April 27, 2007. All equipment is powered with a solar panel battery charging system.

Station was originally equipped with a Geomation data logger. Geomation was removed April 26, 2007 and replaced with the present equipment.

Field Work. This station was visited thirty-seven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra data base.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory for the year; except during the period from October 1, 2006 to April 27, 2007 when gage height record was not complete due to transmission from the Geomation to the home site being lost. During this period 34 days were estimated to have no flow.

Rating. The channel is straight above and below gage. It is confined to the main channel by cut banks on both sides. The bottom is 10' wide; channel is prone to some shifting with vegetation on each bank. Low water control is the 12" Parshall flume.

Rating No. 1 was developed based on the computation of 12" Parshall flume. Point of zero flow is 0.00 gage height.

Thirty-five inspections of no flow and two inspections of flow were made this water year.

Discharge. Discharge was computed by applying Rating No. 1 direct. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good, except for estimated daily discharges, which are fair.

E257 Cañon del Valle Tributary at Burn Grounds

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0*	0*	0*	0*	.07*	0*	0	0	0*	0	0
2	0*	0*	0*	0*	0*	.03*	0*	0	0	0*	0	.06
3	0*	0*	0*	0*	0*	.06*	0*	0*	0	0*	0	0
4	0*	0*	0*	0*	0*	.03*	0*	0*	0	0*	0	0
5	0*	0*	0*	0*	0*	.01*	0*	0	0	0*	0	0
6	0*	0*	0*	0*	0*	.03*	0*	0*	0	0*	0	.06
7	0*	0*	0*	0*	0*	.01*	0*	0*	0	0*	0	0
8	0*	0*	0*	0*	0*	.03*	0*	.01*	0	0*	0	0
9	0*	0*	0*	0*	0*	0*	0*	0	0	0*	0	0
10	0*	0*	0*	0*	0*	.03*	0*	0	0	0*	0	0
11	0*	0*	0*	0*	0*	.04*	0*	0	0	0*	0	0
12	0*	0*	0*	0*	0*	.01*	0*	0	0	0	.02	0
13	0*	0*	0*	0*	0*	.04*	0*	0	0	0	0	0
14	0*	0*	0*	0*	0*	.03*	0*	0	0	.03	0	0
15	0*	0*	0*	0*	0*	.04*	0*	0	0	0	0	0
16	0*	0*	0*	0*	0*	.03*	0*	0	0	0	0	0
17	0*	0*	0*	0*	0*	.03*	0*	0	0	0	0	0
18	0*	0*	0*	0*	0*	.03*	0*	0	0*	0	.01	0
19	0*	0*	0*	0*	0*	.03*	0*	0	0*	0	0	.01
20	0*	0*	0*	0*	0*	.04*	0*	0	0*	0	0	.02
21	0*	0*	0*	0*	0*	.03*	0*	.01	0*	0	0	0
22	0*	0*	0*	0*	0*	.05*	0*	0	0*	0	0	0
23	0*	0*	0*	0*	0*	.07*	0*	0	0*	0	0	.02
24	0*	0*	0*	0*	0*	.07*	0*	0	0*	0	0	0
25	0*	0*	0*	0*	0*	.05*	0*	0	0*	0	0	0
26	0*	0*	0*	0*	0*	.04*	0*	0	0*	0	0	0
27	0*	0*	0*	0*	.06*	.06*	0	0	0*	0	0	0
28	0*	0*	0*	0*	.07*	.05*	0	0	0*	0	0	0
29	0*	0*	0*	0*	-----	.05*	0	0	0*	0	.20	.01
30	0*	0*	0*	0*	-----	.04*	0	0	0*	0	0	0
31	0*	-----	0*	0*	-----	0*	-----	0	-----	.01	.10	-----
Total	0	0	0	0	0.13	1.13	0	0.02	0	0.04	0.33	0.18
Mean	0	0	0	0	.005	.036	0	.001	0	.001	.011	.006
Max	0	0	0	0	.07	.07	0	.01	0	.03	.20	.06
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	.26	2.2	0	.04	0	.08	.65	.36
Wtr Year	2007	Total	1.83	Mean	.005	Max	.20	Min	0	Acre-Ft	3.6	
Cal Year	2006	Total	5.04	Mean	.030	Max	1.2	Min	0	Acre-Ft	10	

*Estimated

E257 Cañon del Valle Tributary at Burn Grounds

Daily Total Rainfall in Inches

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1								.24	0	.02	.03	.23	
2								.53	0	0	0	.64	
3								0	.07	0	0	.01	
4								0	0	.19	.04	.03	
5								.04	0	0	0	.48	
6								.01	0	0	.55	.47	
7								0	0	.02	0	0	
8								.36	0	.04	0	0	
9								.01	0	.03	0	0	
10								0	.04	0	0	.20	
11								0	.56	.17	0	.18	
12								0	.11	.01	.47	0	
13								.02	0	.09	0	0	
14								0	0	.90	0	0	
15								0	.12	.08	0	0	
16								.05	.28	0	0	0	
17								.09	0	0	0	.01	
18								.08	0	0	.59	0	
19								.01	0	0	0	0	
20								.42	0	.06	0	0	
21								0	.03	.19	0	0	
22								0	.15	.01	0	0	
23								.05	0	0	.03	.74	
24								.05	0	.14	.29	0	
25								.12	0	.01	0	0	
26								0	0	.30	.28	0	
27									0	.17	0	0	
28									0	.01	.01	.26	
29					-----			0	0	0	0	1.6	.41
30					-----			0	0	0	.05	0	0
31		-----			-----		-----	0	-----	.52	.70	-----	
Total								0	2.16	1.37	3.01	4.58	3.66
Mean								0	.070	.046	.097	.15	.12
Max								0	.53	.56	.90	1.6	.74
Min								0	0	0	0	0	0
Wtr Year	2007	Total	14.78	Mean	.094	Max	1.6	Min	0	InstMax	.31		
Cal Year	2006	Total		Mean		Max		Min		InstMax			

E262 Cañon del Valle above Water Canyon

Location. Lat 35° 49' 51", long 106° 18' 14", Sec. 33, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on right bank 200 ft above confluence with Water Canyon, 1.6 mi upstream from E2625 and 4.2 mi upstream from SR 4.

Drainage Area. 4.32 mi².

Period of Record. October 1998 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 90° weir plate. Elevation of gage is 6,840 ft above NGVD.

Remarks. Records are good. Legal location approximate via projection.

Average Discharge. 8 yr, 0.014 ft³/s, 10 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 63 ft³/s, August 20, 2004, gage height 4.10 ft. No flow most of time.

Extremes for Current Year. Peak discharge above base of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1510	19*	3.34*

No flow most of time



E262 Cañon del Valle above Water Canyon

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular phone and speech modem housed in a NEMA shelter on left bank. The stage sensor is a milltronics sonic probe mounted on a 6" channel cantilevered spanning into stream. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a 3' × 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for discharge measurements above wading stage.

Field Work. The station was visited fifteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record except for February 26 to March 28 when the crested weir was silted.

Rating. The channel is about 10' wide and straight for about 50' upstream and straight for about 30' downstream. The streambed through this reach is primarily rock with gravel, sand and cobbles.

Rating No. 1 is based on a theoretical computation for 90-degree sharp crested weir up to a gage height of 2.95 ft. Broad-crested weir computation is used above that stage.

One discharge measurement (No. 11) and fourteen inspections of no flow were made during the water year.

Discharge. Discharge was computed by applying Rating No. 1 directly.

Remarks. Records are good, except for estimated daily discharges which are poor.

E262 Cañon del Valle above Water

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0*	.21	0	0	0	0	0
2	0	0	0	0	0	0*	.21	0	0	0	0	.11
3	0	0	0	0	0	0*	.20	0	0	0	0	0
4	0	0	0	0	0	0*	.17	0	0	0	0	0
5	0	0	0	0	0	0*	.13	0	0	0	0	0
6	0	0	0	0	0	0*	.03	0	0	0	0	0
7	0	0	0	0	0	0*	0	0	0	0	0	0
8	0	0	0	0	0	0*	0	0	0	0	0	0
9	0	0	0	0	0	0*	0	0	0	0	0	0
10	0	0	0	0	0	0*	0	0	0	0	0	0
11	0	0	0	0	0	0*	0	0	0	0	0	0
12	0	0	0	0	0	0*	0	0	0	0	0	0
13	0	0	0	0	0	0*	0	0	0	0	0	0
14	0	0	0	0	0	0*	0	0	0	0	0	0
15	0	0	0	0	0	0*	0	0	0	0	0	0
16	0	0	0	0	0	0*	0	0	0	0	0	0
17	0	0	0	0	0	0*	0	0	0	0	0	0
18	0	0	0	0	0	0*	0	0	0	0	0	0
19	0	0	0	0	0	0*	0	0	0	0	0	0
20	0	0	0	0	0	0*	0	0	0	0	0	0
21	0	0	0	0	0	0*	0	0	0	0	0	0
22	0	0	0	0	0	0*	0	0	0*	0	0	0
23	0	0	0	0	0	0*	0	0	0*	0	0	0
24	0	0	0	0	0	0*	0	0	0*	0	0	0
25	0	0	0	0	0	0*	0	0	0*	0	0	0
26	0	0	0	0	0*	0*	0	0	0*	0	0	0
27	0	0	0	0	0*	0*	0	0	0*	0	0	0
28	0	0	0	0	0*	0*	0	0	0	0	0	0
29	0	0	0	0	-----	0*	0	0	0	0	.72	0
30	0	0	0	0	-----	.16	0	0	0	0	0	0
31	0	-----	0	0	-----	.22	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0.38	0.95	0	0	0	0.72	0.11
Mean	0	0	0	0	0	.012	.032	0	0	0	.023	.004
Max	0	0	0	0	0	.22	.21	0	0	0	.72	.11
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	.75	1.9	0	0	0	1.4	.22
Wtr Year	2007	Total	2.16	Mean	.006	Max	.72	Min	0	Acre-Ft	4.3	
Cal Year	2006	Total	2.98	Mean	.008	Max	2.7	Min	0	Acre-Ft	5.9	

*Estimated

E2625 Water Canyon below MDA AB

Location. Lat 35° 49' 31", long 106° 17' 03", Sec. 3, T. 18 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on left bank 1.6 mi downstream from E262, 2.6 mi upstream from SR 4, and 4.6 mi northeast of Pajarito Road junction.

Drainage Area. 11.55 mi².

Period of Record. May 1 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry and 90° weir plate. Elevation of gage is 6,666 ft above NGVD.

Remarks. Records fair except estimated daily discharges, which are poor. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 306 ft³/s, August 29, 2007 gage height 4.57 ft. No flow most of time.

Extremes for Current Year. Peak discharges above base of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1515	306*	4.57*
August 31	1600	33	3.22

No flow most of time.



E2625 Water Canyon below MDA AB

Station Analysis

2007 Water year

Equipments. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe with cellular phone and speech modem housed in a NEMA shelter on right bank. The probe is mounted on a 6" channel cantilevered over the stream. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. The outside staff is available for reference. No provisions are made for measurement above wading stage.

Field Work. The station was visited fourteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels on March 4, 2005 found gage within allowable range.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year except for the following days December 12 to February 24 when gage height was affected by ice and August 23 to September 28 when channel filled above PZF.

Rating. The channel is about 20' wide and straight for about 75' upstream and straight for about 100' downstream. The streambed through this reach is primarily sand and cobbles. The low water control is a 90-degree shaped weir. During high flow, the channel becomes the control.

Two discharge measurements (Nos. 16–17) and eight visits of no flow, six visits with flow were made during the year. All inspections of no flow were used to develop a "V" diagram shift needed to adjust for PZF.

Rating No. 2 is based on a theoretical computation for 90 degrees shape-crested weir up to a gage height of 2.75 ft, and extended to 4.38 ft gage height based on a slope area measurement.

Measurements plotted -0.34 and -0.10, respectively. These shifts were applied to low flow using "V" diagrams. Large negatives (about 0.5 ft) were also applied to zero flow observations.

Discharge. Discharge was computed using Rating No. 2 through shift adjustment based on "V" diagrams. Estimated daily discharges were based on precipitation record, field notes and some comparison with E262 and E2525.

Remarks. Records are good, except for estimated daily discharges which are poor.

E2625 Water Canyon below MDA AB

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	0*	0	0*	0*	0*	.85	.19	.18	0*	0*	.33
2	.02	0*	0	0*	0*	0*	.72	.37	.18	0*	0*	.16
3	.02	.02*	0	0*	0*	0*	.61	.23	.18	0*	0*	.07
4	.02	.02*	0	0*	0*	0*	.56	.20	.14	0*	0	0*
5	.02	.02*	0	0*	0*	0*	.51	.21	.14	0*	0	0*
6	.01	.02*	0	0*	0*	0*	.49	.15	.13	0*	0	.68
7	.01	.02*	0	0*	0*	0*	.49	.10	.29	0*	0	.10
8	.02	.02*	0	0*	0*	0*	.46	.34	.02	0	0	0*
9	.55	.01*	0	0*	0*	0*	.45	.41	.02	0*	0	0*
10	.41	.01*	0	0*	0*	0*	.44	.21	.02	0*	0	0*
11	.07*	.01*	0	0*	0*	0*	.43	.19	.02	0	0	0*
12	.04*	.01*	0*	0*	0*	0*	.46	.18	.10	0*	0	0*
13	0*	.01*	0*	0*	0*	0*	.55	.19	.05	0	0	0*
14	0*	.01*	0*	0*	0*	0*	.41	.21	.02	0*	0	0*
15	0*	.01*	0*	0*	0*	0*	.40	.20	.01	0*	0	0*
16	0*	0*	0*	0*	0*	0*	.37	.21	0	0*	0	0*
17	0*	0*	0*	0*	0*	0*	.35	.21	0	0*	0	0*
18	0*	0*	0*	0*	0*	0*	.36	.20	.01	0*	0	0*
19	0*	0*	0*	0*	0*	0*	.30	.20	0*	0*	0	0*
20	0*	0*	0*	0*	0*	0*	.31	.20	0*	0	0	.03
21	0*	0*	0*	0*	0*	0*	.34	.19	0*	0	0	0*
22	0*	0*	0*	0*	0*	0*	.29	.21	0*	0	0	0*
23	0*	0*	0*	0*	0*	0*	.28	.23	0*	0	0*	0*
24	0*	0*	0*	0*	0*	0*	.30	.21	0*	0	0*	0*
25	0*	0*	0*	0*	.10*	0*	.24	.23	0*	0	0*	0*
26	0*	0*	0*	0*	.25*	0*	.24	.22	0*	0	0*	0*
27	0*	0*	0*	0*	.05*	0*	.22	.22	0*	0	0*	0
28	0*	0*	0*	0*	0*	0*	.22	.20	0*	0*	0*	0
29	0*	0*	0*	0*	-----	.43	.20	.19	0*	0*	8.2	0
30	0*	0	0*	0*	-----	1.3	.20	.18	0*	0*	.03	0
31	0*	-----	0*	0*	-----	1.0	-----	.18	-----	0*	2.4	-----
Total	1.21	0.19	0	0	0.40	2.73	12.05	6.66	1.51	0	10.63	1.37
Mean	.039	.006	0	0	.014	.088	.40	.21	.050	0	.34	.046
Max	.55	.02	0	0	.25	1.3	.85	.41	.29	0	8.2	.68
Min	0	0	0	0	0	0	.20	.10	0	0	0	0
Acre-Ft	2.4	.38	0	0	.79	5.4	24	13	3.0	0	21	2.7
Wtr Year	2007	Total	36.75	Mean	.10	Max	8.2	Min	0	Acre-Ft	73	
Cal Year	2006	Total	19.84	Mean	.054	Max	5.9	Min	0	Acre-Ft	39	

*Estimated

E263 Water Canyon at SR 4

Location. Lat 35° 48' 20", long 106° 14' 52" Sec. 12, T. 18 N., R. 6 E., Ramon Vigil Grant, Los Alamos County, on right bank 50 ft downstream from SR 4, 150 ft above mouth of Indio Canyon and 4.0 mi southwest of White Rock, NM.

Drainage Area. 12.43 mi².

Period of Record. April 1999 to September 30, 2007.

Revised Record. Drainage Area (2006).

Gage. Data logger with cellular telemetry. Elevation of gage is 6,365 ft above NGVD from GPS survey.

Remarks. Water discharge records are good to fair. Legal location approximate via projection.

Average Discharge: 7 yr, 0.086ft³/s, 62 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 306 ft³/s, June 28, 2000, gage height 3.78 ft. No flow most of time.

Extremes for Current Year. Peak discharge above base of 35 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1610	83*	2.03*

No flow most of time.



E263 Water Canyon at SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular telemetry and stage sensor is a milltronics sonic probe. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. A staff gage is available for reference. No provision for discharge measurements above wading stage.

Field Work. This station was visited fifteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside gage gave a complete and satisfactory record for the year.

Rating. Streambed is well armored with bedrock and boulders. Some pockets of sand exist from sediment deposition. Vegetation is sparse in the channel bottom and the banks. Scour should be minimal to non-existent. The gage reach is straight for 400' upstream and 200' downstream.

No discharge measurements were made this year; fifteen inspections of no flow were made this water year.

Rating No. 1 was continued in use.

Discharge. Discharge was computed by applying gage height to Rating No. 1 through shift adjustment based on "V" diagrams. Discharge for period of missing gage height record was computed by comparison with E265 and analysis of precipitation records.

Remarks. Records are good to fair.

E263 Water Canyon at SR 4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	.18	0	0	0	0	0	0	0	0	0	0	0
10	.33	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	.34	0	0	0	0	0	0
26	0	0	0	0	0	.42	0	0	0	0	.07	0
27	0	0	0	0	0	.08	0	0	0	0	.07	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	5.5	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	1.8	-----
Total	0.51	0	0	0	0	0.84	0	0	0	0	7.44	0
Mean	.016	0	0	0	0	.027	0	0	0	0	.24	0
Max	.33	0	0	0	0	.42	0	0	0	0	5.5	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	1.0	0	0	0	0	1.7	0	0	0	0	15	0
Wtr Year	2007	Total	8.79	Mean	.024	Max	5.5	Min	0	Acre-Ft	17	
Cal Year	2006	Total	11.38	Mean	.031	Max	6.5	Min	0	Acre-Ft	23	

E264 Indio Canyon at SR 4

Location. Lat 35° 48' 18", long 106° 14' 51", Sec. 12, T. 18 N., R. 6 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.49 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger with cellular telemetry. Elevation of gage is 6,366 ft above NGVD.

Remarks. Water discharge records are good. Records for this site existed before published period but not reliable.

Extremes for Period of Record. Maximum discharge, of 0.03 ft³/s, March 2, 2007, gage height 0.76 ft. No flow most of time.

Extremes for Current Year. Maximum discharge of 0.03 ft³/s at 1945 h, March 2, gage height 0.76 ft. No peak discharge above 1.0 ft³/s. No flow most of time.



E264 Indio Canyon at SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) with Sutron self-contained bubbler and cellular telemetry. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3'× 4' metal box. An outside staff is available for reference. No provision for discharge measurement above wading stage.

Field Work. The station was visited thirteen times for the purpose of making a discharge measurement and/or servicing the instrumentation. Inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None. Levels were run May 13, 2005 found gage correct to datum.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year.

Rating. The channel at the gage is about 8' wide and straight for about 50' upstream 25' downstream and bends to the right. The streambed through this reach is primarily sand. The low flow control is a 120-degree sharp crested weir. The channel becomes the control at high flow.

Rating No.1 is based on a theoretical computation for 120-degree sharp crested weir to a gage height of 2.60 ft. Broad crested weir computation is used above that stage.

No discharge measurements were made this water year. Thirteen inspections of no flow were made during the period.

Discharge. Discharge was computed by applying Rating No. 1.

Remarks. Records are good.

E264 Indio Canyon at SR 4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	.01	0	0	0	0	0	0
9	0	0	0	0	0	.01	0	0	0	0	0	0
10	.01	0	0	0	0	.01	0	0	0	0	0	0
11	0	0	0	0	0	.01	0	0	0	0	0	0
12	0	0	0	0	0	.01	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	.01	0	0	0	0	0	0
23	0	0	0	0	0	.01	0	0	0	0	0	.01
24	0	0	0	0	0	.01	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0.01	0	0	0	0	0.08	0	0	0	0	0	0.01
Mean	0	0	0	0	0	.003	0	0	0	0	0	0
Max	.01	0	0	0	0	.01	0	0	0	0	0	.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.02	0	0	0	0	.16	0	0	0	0	0	.02
Wtr Year	2007	Total	0.10	Mean	0	Max	.01	Min	0	Acre-Ft	.20	
Cal Year	2006	Total	0.01	Mean	0	Max	.01	Min	0	Acre-Ft	.02	

E265 Water Canyon below SR 4

Location. Lat 35° 48' 18", long 106° 14' 31" Sec. 7, T. 18 N., R. 7 E., Ramon Vigil Grant, Los Alamos County, on left bank 0.4 mi downstream from SR 4, and 4.0 mi southwest of White Rock, NM.

Drainage Area. 13.11 mi².

Period of Record. October 1993 to September 30, 2007.

Revised Records. LA-13905-PR: Drainage area (2006).

Gage. Data logger with cellular telemetry and stabilized natural rock control. Elevation of gage is 6,309 ft above NGVD from GPS survey.

Remarks. Water discharge records good, except estimated daily discharges, which are fair. Legal location approximate via projection.

Average Discharge. 13 yr, 0.045ft³/s, 33 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 274 ft³/s, June 28, 2000, gage height 5.13 ft (from flood mark). No flow most of time.

Extremes for Current Year. Peak discharge above base of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1610	72*	2.03*

No flow most of time.



E265 Water Canyon below SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped Sutron 8210 data logger (5-min. interval) with cellular speech modem driven by quadrature encoder driven by float tape in stilling well. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' × 4' metal box. Sampler is triggered by stage through the data logger. Outside staff is reference gage. No provisions for measurement above wading stage. All high flow measurement will be by slope-area or critical depth computation methods.

Field Work. The station was visited thirty-one times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Most recent levels run December 10, 1993 found gage within limits. No changes necessary.

Gage-Height Record. The data logger referenced to the outside staff gave complete and satisfactory record for the year.

Rating. The channel is straight for 100' above and below gage. Banks are low and have very little vegetation. Streambed is mostly rock with lenses of sand.

Thirty-one inspections of no flow were made this year.

Rating No. 4 was used for the entire water year.

Discharge. Discharge was computed from Rating No. 4. Records were compared with E263.

Remarks. Records are fair.

E265 Water Canyon below SR 4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	.05
2	0	0	0	0	0	0	0	0	0	0	0	.02
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	.14	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0*	0	0	0
13	0	0	0	0	0	0	0	0	0*	0	0	0
14	0	0	0	0	0	0	0	0	0*	0	0	0
15	0	0	0	0	0	0	0	0	0*	0	0	0
16	0	0	0	0	0	0	0	0	0*	0	0	0
17	0	0	0	0	0	0	0	0	0*	0	0	0
18	0	0	0	0	0	0	0	0	0*	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	.10	0	0	0	0	0	0
26	0	0	0	0	0	.26	0	0	0	0	0	0
27	0	0	0	0	0	.08	0	0	0	0	0	0
28	0	0	0	0	0	.03	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	4.2	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	2.3	-----
Total	0.14	0	0	0	0	0.47	0	0	0	0	6.5	0.07
Mean	.005	0	0	0	0	.015	0	0	0	0	.21	.002
Max	.14	0	0	0	0	.26	0	0	0	0	4.2	.05
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.28	0	0	0	0	.93	0	0	0	0	13	.14
Wtr Year	2007	Total	7.18	Mean	.020	Max	4.2	Min	0	Acre-Ft	14	
Cal Year	2006	Total	9.50	Mean	.026	Max	5.1	Min	0	Acre-Ft	19	

*Estimated

E267 Potrillo Canyon above SR 4

Location. Lat 35° 48' 48", long 106° 14' 00", Sec. 6, T. 18 N., R. 7 E., Ramon Vigil Grant, Los Alamos County, on left bank 0.25 mi upstream from NM SR 4 and 2.0 mi southwest of White Rock, NM.

Drainage Area. 2.26 mi².

Period of Record. October 1993 to September 30, 2007.

Revised Record. LA-13551-PR (1998): Station number; Drainage Area (2006).

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6,454 ft above NGVD from GPS survey.

Remarks. Water discharge records are good. Legal location approximate via projection.

Average Discharge. 13 yr, 0.003 ft³/s, 2.17 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 63 ft³/s, August 29, 1995, gage height 2.70 ft (from slope-area determination). No flow most of time.

Extremes for Current Year. Maximum discharge, 4.1 ft³/s 1405 h, August 20, gage height 1.16 ft. No peak discharge above base of 5.0 ft³/s. No flow most of time.



E267 Portillo Canyon above SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with shaft encoder float system (5-min. interval) and cellular phone with speech modem. The system is powered by a solar panel battery system housed in NEMA shelter on 18" CMP well. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3'× 4' metal box. Sampler is triggered by stage through the data logger. An outside staff is available for reference. No provision for direct discharge measurements above wading stages.

Field Work. The station was visited eleven times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. Most recent levels run November 19, 1993 found gage within limits.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year except for December 19 to January 16 when the data logger lost power.

Rating. The channel is fairly straight for 300' above gage and 150' below. Streambed is mostly sand. Brush is fairly thick along stream bank but not below gage height of about 1.7 feet. The control is a concrete broad crested weir.

Rating No. 1 was developed based on measurements Nos. 1–3, PZF and theoretical computation using broad crested weir. All measurements were made in 1995 water year.

Original shape and definition of rating was by computation using weir geometry with slope area used to define peak discharge and slope of upper end. Measurements 1, 2 were made on recession and checked with rating rather well. Measurements did shift some to the right, attributed to changing stage and sand movement from high flow. Shifts were applied by stage using the last year discharge measurements.

No discharge measurements were made during the analysis period. Eleven visits of no flow were made this year. Rating No. 1 is considered good.

Discharge. Discharge was computed by applying gage height to Rating No. 1 through shift adjustment based on one shift diagram.

Remarks. Records are good.

E267 Potrillo Canyon above SR 4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0*	0	0	0	0	0	0	0	0
2	0	0	0	0*	0	0	0	0	0	0	0	0
3	0	0	0	0*	0	0	0	0	0	0	0	0
4	0	0	0	0*	0	0	0	0	0	0	0	0
5	0	0	0	0*	0	0	0	0	0	0	0	0
6	0	0	0	0*	0	0	0	0	0	0	0	0
7	0	0	0	0*	0	0	0	0	0	0	0	0
8	0	0	0	0*	0	0	0	0	0	0	0	0
9	0	0	0	0*	0	0	0	0	0	0	0	0
10	0	0	0	0*	0	0	0	0	0	0	0	0
11	0	0	0	0*	0	0	0	0	0	0	0	0
12	0	0	0	0*	0	0	0	0	0	0	0	0
13	0	0	0	0*	0	0	0	0	0	0	0	0
14	0	0	0	0*	0	0	0	0	0	0	0	0
15	0	0	0	0*	0	0	0	0	0	0	0	0
16	0	0	0	0*	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0*	0	0	0	0	0	0	0	0	0
20	0	0	0*	0	0	0	0	0	0	.05	0	0
21	0	0	0*	0	0	0	0	0	0	0	0	0
22	0	0	0*	0	0	0	0	0	0	0	0	0
23	0	0	0*	0	0	0	0	0	0	0	0	0
24	0	0	0*	0	0	0	0	0	0	0	0	0
25	0	0	0*	0	0	0	0	0	0	0	0	0
26	0	0	0*	0	0	0	0	0	0	0	0	0
27	0	0	0*	0	0	0	0	0	0	0	0	0
28	0	0	0*	0	0	0	0	0	0	0	0	0
29	0	0	0*	0	-----	0	0	0	0	0	0	0
30	0	0	0*	0	-----	0	0	0	0	0	0	0
31	0	-----	0*	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0	0	0.05	0	0
Mean	0	0	0	0	0	0	0	0	0	.002	0	0
Max	0	0	0	0	0	0	0	0	0	.05	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	.10	0	0
Wtr Year	2007	Total	0.05	Mean	0	Max	.05	Min	0	Acre-Ft	.10	
Cal Year	2006	Total	0.29	Mean	.001	Max	.08	Min	0	Acre-Ft	.58	

*Estimated

E2674 TA-36 Minie Site

Location. Lat 35° 49' 38", long 106° 16' 36", Sec. 35, T. 19 N., R. 6 E., Ramon Vigil Grant, Los Alamos County.

Drainage Area. 0.061 mi².

Period of Record. October 1, 2006 to September 30, 2007.

Gage. Data logger with cellular telemetry and 9" Parshall flume. Elevation of gage is 6,858 ft above NGVD.

Remarks. Records are good. Records for this site existed before published period but are not reliable. Legal location approximate via projection.

Extremes for Period of Record. Maximum discharge, 0.44 ft³/s, September 23, 2007, gage height 0.28 ft. No flow most of time.

Extremes for Current Year. Maximum discharge, 0.44 ft³/s, at 1810 h, September 23, gage height 0.28 ft. No peak above base of 1.0 ft³/s. No flow most of time.



E2674 TA-36 Minie Site

Station Analysis

2007 Water Year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) and milltronics sonic probe mounted on a 9" Parshall flume. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3' x 4' metal box. Sampler is triggered by stage through the data logger. The staff in the 9" Parshall flume is the reference gage. No provision for discharge measurements above wading stage.

Field Work. This station was visited twenty-three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record, except for November 15 to January 14, June 8 to July 13 when data logger lost power.

Rating. Rating No. 1 was developed based on the computation of 9" Parshall flume. Point of zero flow is 0.00 gage height.

Twenty-three inspections of no flow were made this year.

Discharge. Discharge was computed using 9" Parshall flume computations. Those days estimated at zero flow were based on precipitation and nearby gage stations for verification.

Remarks. Records are good.

E2674 TA-36 Minie Site

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0*	0*	0	0	0	0	0	0*	0	0*
2	0	0	0*	0*	0	0	0	0	0	0*	0	0*
3	0	0	0*	0*	0	0	0	0	0	0*	0	0*
4	0	0	0*	0*	0	0	0	0	0	0*	0	0*
5	0	0	0*	0*	0	0	0	0	0	0*	0	0*
6	0	0	0*	0*	0	0	0	0	0	0*	0	0*
7	0	0	0*	0*	0	0	0	0	0	0*	0	0*
8	0	0	0*	0*	0	0	0	0	0*	0*	0	0*
9	0	0	0*	0*	0	0	0	0	0*	0*	0	0*
10	0	0	0*	0*	0	0	0	0	0*	0*	0	0*
11	0	0	0*	0*	0	0	0	0	0*	0*	0	0*
12	0	0	0*	0*	0	0	0	0	0*	0*	0	0*
13	0	0	0*	0*	0	0	0	0	0*	0*	0	0*
14	0	0	0*	0*	0	0	0	0	0*	0	0	0*
15	0	0*	0*	0	0	0	0	0	0*	0	0	0*
16	0	0*	0*	0	0	0	0	0	0*	0	0	0*
17	0	0*	0*	0	0	0	0	0	0*	0	0	0*
18	0	0*	0*	0	0	0	0	0	0*	0	0	0*
19	0	0*	0*	0	0	0	0	0	0*	0	0	0*
20	0	0*	0*	0	0	0	0	0	0*	0	0	.02*
21	0	0*	0*	0	0	0	0	0	0*	0	0	0*
22	0	0*	0*	0	0	0	0	0	0*	0	0*	0*
23	0	0*	0*	0	0	0	0	0	0*	0	0*	.02*
24	0	0*	0*	0	0	0	0	0	0*	0	0*	0*
25	0	0*	0*	0	0	0	0	0	0*	0	0*	0*
26	0	0*	0*	0	0	0	0	0	0*	0	0*	0*
27	0	0*	0*	0	0	0	0	0	0*	0	0*	0*
28	0	0*	0*	0	0	0	0	0	0*	0	0*	0*
29	0	0*	0*	0	-----	0	0	0	0*	0	0*	0*
30	0	0*	0*	0	-----	0	0	0	0*	.01*	0*	0*
31	0	-----	0*	0	-----	0	-----	0	-----	0	0*	-----
Total	0	0	0	0	0	0	0	0	0	0.01	0	0.04
Mean	0	0	0	0	0	0	0	0	0	0	0	.001
Max	0	0	0	0	0	0	0	0	0	.01	0	.02
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	0	0	.02	0	.08
Wtr Year	2007	Total	0.05	Mean	0	Max	.02	Min	0	Acre-Ft	.10	
Cal Year	2006	Total	0	Mean	0	Max	0	Min	0	Acre-Ft	0	

*Estimated

E275 Ancho Canyon below SR 4

Location. Lat 35° 46' 54", long 106° 14' 42", Sec. 19, T. 18 N., R. 7 E., Ramon Vigil Grant, Los Alamos County, 0.3 mi downstream from SR 4, and 5.5 mi southwest of White Rock, NM.

Drainage Area. 4.75 mi².

Period of Record. December 1993 to September 30, 2007.

Revised Record. Drainage Area (2006)

Gage. Data logger with cellular telemetry and concrete stabilized natural control. Elevation of gage is 6,190 ft above NGVD from GPS survey.

Remarks. Water discharge records are good. Legal location approximate via projection.

Average Discharge. 12 yr, 0.012 ft³/s, 8.45 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 534 ft³/s, gage height 2.74 ft, May 26, 2003. No flow most of time.

Extremes for Current Year. Peak discharge above base of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
July 26	1310	25*	1.57*

No flow most of time.



E275 Ancho Canyon below SR 4

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 data logger (5-min. interval) with cellular speech modem driven by float tape on a quadrature encoder. The system is powered by a solar panel battery system housed in a NEMA shelter. Station is equipped with an ISCO pump sampler for water quality sample collection. ISCO is housed in a separate shelter, a 3'× 4' metal box. Sampler is triggered by stage through the data logger. Outside staff is available for reference. No provision for measurements above wading stage.

Field Work. The station was visited twelve times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Corrections. None from levels.

Gage-Height Record. The data logger referenced to the outside gage gave a complete and satisfactory record for the year.

Rating. Streambed is a series of outcrops and sand pockets with moderate sand movement on flow events. High water channel is straight for 200' upstream. Flow below gage goes into super critical flow as fall increases radically below station. One-fourth mile upstream the channel has very low banks and may spread out to large widths. It contracts markedly from there to the gage. The control is natural rock outcrop stabilized by concrete.

Rating No. 1 was developed from PZF and measurement 1, 2 on recession of event in 1995 and No. 3, which is a slope area measurement made on the event in 1996. Rating No. 1 was extended from 1.85 ft to 2.75 ft from logarithmic plotting.

No discharge measurements were made. Twelve inspections of no flow were made this year. Rating No. 1 continued in use through the water year.

Discharge. Computed from Rating No. 1 using variable diagram (-.10 at lower end).

Remarks. Records are good.

E275 Ancho Canyon below SR 4

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	.04	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	.43	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	.01	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	.32	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0.43	0	0	0	0	0	0	0	0	0.37	0	0
Mean	.014	0	0	0	0	0	0	0	0	.012	0	0
Max	.43	0	0	0	0	0	0	0	0	.32	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	.85	0	0	0	0	0	0	0	0	.73	0	0
Wtr Year	2007	Total	0.80	Mean	.002	Max	.43	Min	0	Acre-Ft	1.6	
Cal Year	2006	Total	12.05	Mean	.033	Max	8.8	Min	0	Acre-Ft	24	

E350 Rito de Los Frijoles at Bandelier

Location. Lat 35° 46' 37", long 106° 16' 09", Sec. 23, T. 18 N., R. 6 E., Ramon Vigil Grant, Sandoval County, in Bandelier National Monument, on right bank 800 ft downstream from Monument Headquarters, 6.5 mi south of Los Alamos, 18.5 mi northwest of Santa Fe, and at river mile 2.

Drainage Area. 18.35 mi².

Period of Record. July 1963 to September 1969; July 1977 to September 1982; May 1993 to September 1996; and October 1998 to September 30, 2006.

Revised Record. Drainage Area (2006).

Gage. Data logger and concrete control. Elevation of gage is 6,046 ft above NGVD from GPS survey.

Remarks. Water discharge records are good, except winter period, which are poor. One small diversion from left bank about 1.0 mi upstream for irrigation of small orchard. The La Mesa fire, which occurred during mid June 1977, burned about 40% of the forest covering of this watershed. Legal location based on projected values.

Average Discharge. 9 yr (1999–2007) 1.13 ft³/s, 819 acre-ft/yr.

Extremes for Period of Record. Maximum discharge, 3,030 ft³/s, July 21, 1978, gage height 6.34 ft site and datum then in use. Minimum daily discharge, 0 ft³/s, July 16–19 and 26, 2003.

Extremes for Current Year. Peak discharge above base of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
August 29	1600	722*	4.68*

No flow most of time.



E350 Rito de Los Frijoles at Bandelier

Station Analysis

2007 Water year

Equipment. Station is equipped with Sutron 8210 (5-min. interval) with shaft encoder float system (5-min. interval) housed in a 4'× 4' metal shelter over a 24" CMP stilling well on right bank. An outside staff is available for reference. Station is equipped with 110 volt AC. Wading measurement are made 30'–40' upstream from gage. High flow measurement can be made up from bridge upstream from gage 200' above gage.

Field Work. The station was visited twenty-three times for the purpose of making a discharge measurement and/or servicing the instrumentation. Field inspections for the gage are listed under site history files on the Hydstra database. Discharge measurements for the gage are listed under site gauging files on the Hydstra database.

Datum Correction. None from levels.

Gage-Height Record. The data logger referenced to the outside staff gave a complete and satisfactory record for the year except for the following periods, December 20 to January 16, and February 1–3, 16 when gage height was affected by ice.

Rating. The channel is about 10' wide and straight for about 150' upstream and downstream of gage. Low water control is a concrete tapered notch with low point on right bank. The channel bed through this reach is composed of gravel and cobbles and should be stable. Vegetation is grasses and fairly sparse.

Eighteen discharge measurements (Nos. 168–186) and twenty-six visits were made during the year. Measurement No. 185, being a slope conveyance measurement.

Rating No. 5 was developed based on the measurements and the slope conveyance measurement made from peak of year. The shifts were distributed based on time. Rating No. 5 is considered good.

Discharge. Discharge was computed by applying gage height to Rating No. 5 through a shift based on time. Records estimated because gage heights were based on field notes and weather record.

Remarks. Records are good, except for estimated daily discharges which are poor.

E350 Rito De Los Frijoles at Bandalier

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.86	.59	.98*	.92*	.80	3.3	1.6	.74	.58	.33	.92
2	.54	.86	.50	1.1*	.80*	.95	3.1	2.2	.72	.57	.30	.77
3	.55	.86	.47	.88*	.73*	.96	3.0	1.8	.76	.55	.27	.58
4	.54	.86	.42	.80*	1.0	1.1	2.8	1.6	.78	.54	.31	.51
5	.55	.86	.38	.80*	1.0	1.3	2.8	1.6	.73	.54	.37	.69
6	.59	.86	.30	.98*	.98	1.3	2.7	1.6	.67	.53	.29	1.2
7	.60	.86	.33	.69*	.99	1.2	2.7	1.6	.73	.31	.37	.86
8	.75	.86	.55	.92	.98	1.2	2.7	1.7	.73	.32	.28	.75
9	1.2	.85	.88	.94*	.99	1.3	2.7	1.7	.72	.30	.21	.77
10	1.4	.82	.90	.98*	1.0	1.3	2.5	1.5	.71	.29	.19	.85
11	1.0	.85	.93	1.0*	1.1	1.3	2.5	1.5	.72	.39	.18	.88
12	.95	.86	.92	.98*	1.3	1.3	2.5	1.5	1.0	.41	.16	.74
13	.90	.87	.91	1.0*	1.2	1.3	2.8	1.4	.80	.37	.18	.64
14	.88	.90	.93	.94*	1.2	1.3	2.4	1.4	.73	.40	.18	.57
15	1.1	.86	.93	.98*	.99	1.4	2.3	1.4	.70	.50	.13	.56
16	.99	.86	.93	.92*	.95*	1.5	2.1	1.4	.69	.38	.12	.52
17	.97	.86	.87	.87	1.2	1.7	2.1	1.4	.69	.29	.11	.65
18	.94	.86	.80	1.1	1.2	2.0	2.1	1.4	.68	.24	.46	.74
19	.94	.84	.77	1.2	1.2	2.4	2.1	1.3	.65	.31	.40	.59
20	.96	.85	.76*	1.2	1.2	2.9	2.0	1.2	.63	.34	.27	.97
21	.93	.86	.98*	1.1	1.1	3.1	2.0	1.1	.63	.36	.20	.94
22	.93	.86	.75*	1.1	1.2	3.4	2.0	1.0	.65	.43	.16	.73
23	.93	.86	.73*	1.0	1.2	4.2	1.9	1.0	.68	.33	.15	.96
24	.93	.86	.73*	1.0	1.2	4.9	2.0	1.0	.63	.32	.28	1.2
25	.93	.86	.71*	1.0	1.1	5.3	1.9	1.1	.61	.30	.21	.93
26	.95	.86	.72*	1.0	1.3	5.4	1.8	1.0	.60	.32	.23	.85
27	.93	.86	.90*	.98	1.2	5.2	1.8	1.0	.58	.44	.28	.83
28	.92	.86	.97*	.97	1.3	4.9	1.7	.95	.60	.37	.24	.88
29	.91	.86	.98*	.97	-----	4.6	1.7	.83	.64	.31	17	1.1
30	.88	.61	.92	.95	-----	4.3	1.7	.79	.61	.35	1.3	1.1
31	.86	-----	.90*	1.0	-----	3.8	-----	.77	-----	.33	1.3	-----
Total	27.03	25.51	23.36	30.33	30.53	77.61	69.7	41.34	20.81	12.02	26.46	24.28
Mean	.87	.85	.75	.98	1.09	2.50	2.32	1.33	.69	.39	.85	.81
Max	1.4	.90	.98	1.2	1.3	5.4	3.3	2.2	1.0	.58	17	1.2
Min	.54	.61	.30	.69	.73	.80	1.7	.77	.58	.24	.11	.51
Acre-Ft	54	51	46	60	61	154	138	82	41	24	52	48
Wtr Year	2007	Total	408.98	Mean	1.12	Max	17	Min	.11	Acre-Ft	811	
Cal Year	2006	Total	740.78	Mean	2.03	Max	18	Min	.08	Acre-Ft	1470	

*Estimated

S001 SWSC Line Spring at TA-16

Location. Lat 35° 51' 1", long 106° 20' 23", 30 ft. upstream from the SWSC line crossing of Cañon de Valle in LANL TA-16.

Gage. Data logger with 90° weir. Elevation of gage is 7,437 ft. above NGVD from survey.

Period of Record. October 1, 1996, to September 30, 2007.

Remarks. Water discharge records are good. This spring is in the Cañon de Valle drainage.



S001 SWSC Line Spring at TA-16

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.08	0	0	0	0	1.4	0	0
2	0	0	0	0	.06	0	0	0	0	1.3	0	0
3	0	0	0	0	.08	0	0	0	0	1.3	0	0
4	0	0	0	0	.05	0	0	0	0	1.5	0	0
5	0	0	0	0	.03	0	0	0	0	1.5	0	0
6	0	0	0	0	.01	0	0	0	0	1.5	0	0
7	0	0	0	0	0	0	0	0	0	1.4	0	0
8	0	0	0	0	0	0	0	0	0	1.3	0	0
9	0	0	0	0	0	0	0	0	0	1.3	0	0
10	0	0	0	0	0	0	0	0	.06	1.5	0	0
11	0	0	0	0	0	0	0	0	.10	.46	0	0
12	0	0	0	0	0	0	0	0	.30	0	0	0
13	0	0	0	0	0	0	0	0	.57	0	0	0
14	0	0	0	0	0	0	0	0	.69	0	0	0
15	0	0	0	0	0	0	0	0	.73	0	0	0
16	0	0	0	0	0	0	0	0	1.0	0	0	0
17	0	0	0	0	0	0	0	0	.91	0	0	0
18	0	0	0	0	0	0	0	0	1.1	0	0	0
19	0	0	0	0	0	0	0	0	1.2	0	0	0
20	0	0	0	0	0	0	0	0	1.0	0	0	0
21	0	0	0	0	0	0	0	0	1.2	0	0	0
22	0	0	0	0	0	0	0	0	1.3	0	0	0
23	0	0	0	0	0	0	0	0	1.3	0	0	0
24	0	0	0	0	0	0	0	0	1.4	0	0	0
25	0	0	0	0	0	0	0	0	1.3	0	0	0
26	0	0	0	0	0	0	0	0	1.1	0	0	.16
27	0	0	0	0	0	0	0	0	1.3	0	0	.35
28	0	0	0	0	0	0	0	0	1.5	0	0	.35
29	0	0	.01	0	-----	0	0	0	1.4	0	0	.35
30	0	0	.02	.01	-----	0	0	0	1.4	0	0	.35
31	0	-----	0	.09	-----	0	-----	0	-----	0	0	-----
Total	0	0	0.03	0.10	0.31	0	0	0	20.86	14.46	0	1.56
Mean	0	0	.001	.003	.011	0	0	0	.70	.47	0	.052
Max	0	0	.02	.09	.08	0	0	0	1.5	1.5	0	.35
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	.06	.20	.61	0	0	0	41	29	0	3.1
Wtr Year	2007	Total	37.32	Mean	.10	Max	1.5	Min	0	Acre-Ft	74	
Cal Year	2006	Total	0.03	Mean	0	Max	.02	Min	0	Acre-Ft	.06	

S002 Burn Ground Spring at TA-16

Location. Lat 35° 50' 58", long 106° 20' 17", 450 ft. downstream from the SWSC line crossing of Cañon de Valle in LANL TA-16.

Gage. Data logger with 90° weir. Elevation of gage is 7,420 ft. above NGVD from survey.

Period of Record. October 1, 1996, to September 30, 2007.

Remarks. Water discharge records fair. This spring is in the Cañon de Valle drainage.



S002 Burn Ground Spring at TA-16

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0*	0	.01	0	0	.01	.02	.01	0*	.01	0	0*
2	0*	0	.01	0	0	.01	.02	.01	0*	0	0	0*
3	0*	0	.01	0	0	.01	.02	.01	0*	0	0	0*
4	0*	0	.01	0	0	.01	.03	.01	0*	0	0	0*
5	0*	0	.01	0	0	.01	.03	.01	.01	0	0	0*
6	0*	0	0	0	0	.01	.03	.01	.01	.01	0	0*
7	0*	0	0	0	0	.01	.03	0*	.01	.01	0	0*
8	0*	0	0	0	0	.01	.03	0*	.01	.01	0	0*
9	0*	.01	0	0	0	.01	.03	0*	.01	.01	0	0*
10	0*	.01	0	0	0	.01	.03	0*	.01	.01	0	0*
11	0*	.01	0	0	0	.01	.02	0*	.01	0	0	0*
12	0*	.01	0	0	0	.01	.02	0*	.01	0	0	0*
13	0	.01	0	0	0	.01	.02	0*	.01	0	0	0*
14	0	.01	0	0	0	.01	.02	0*	.01	0	0	0*
15	0	.01	0	0	0	.01	.02	0*	.01	0	0	0*
16	0	.01*	0	0	0	.01	.02	0*	.01	0	0	0*
17	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
18	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
19	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
20	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
21	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
22	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
23	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
24	0	0	0	0	.01	.01	.02	0*	.01	0	0*	0*
25	0	0	0	0	0	.01	.02	0*	.01	0	0*	0*
26	0	0	0	0	0	.02	.01	0*	.01	0	0*	0*
27	0	0	0	0	0	.02	.01	0*	.01	0	0*	0*
28	0	0	0	0	.01	.02	.01	0*	.01	0	0*	0*
29	0	0	0	0	-----	.02	.01	0*	.01	0	0*	0*
30	0	.01	0	0	-----	.02	.01	0*	.01	0	0*	0*
31	0	-----	0	0	-----	.02	-----	0*	-----	0	0*	-----
Total	0	0.09	0.05	0	0.02	0.37	0.62	0.06	0.26	0.06	0	0
Mean	0	.003	.002	0	.001	.012	.021	.002	.009	.002	0	0
Max	0	.01	.01	0	.01	.02	.03	.01	.01	.01	0	0
Min	0	0	0	0	0	.01	.01	0	0	0	0	0
Acre-Ft	0	.18	.10	0	.04	.73	1.2	.12	.52	.12	0	0
Wtr Year	2007	Total	1.53	Mean	.004	Max	.03	Min	0	Acre-Ft	3.0	
Cal Year	2006	Total	3.67	Mean	.012	Max	.20	Min	0	Acre-Ft	7.3	

*Estimated

S003 Martin Spring at TA-16

Location. Lat 35°50'32", long 106°20'11", 0.25 mi south of Building 344 in LANL TA-16.

Gage. Data logger with 90° weir. Elevation of gage is 7,429 ft above NGVD from survey.

Period of Record. October 1, 1996 to September 30, 2007.

Remarks. Water discharge records good. This spring is in the Water Canyon drainage.



S003 Martin Spring at TA-16

Daily Mean Discharge in Cubic Feet per Second

Water Year October 2006 to September 2007

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	.01	0	0	0	0
15	0	0	0	0	0	0	0	.01	0	0	0	0
16	0	0	0	0	0	0	0	.01	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	.01	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	.01	0	0	0	0
27	0	0	0	0	0	0	0	.02	0	0	0	0
28	0	0	0	0	0	0	0	.02	0	0	0	0
29	0	0	0	0	-----	0	0	.02	0	0	0	0
30	0	0	0	0	-----	0	0	.01	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
Total	0	0	0	0	0	0	0	0.12	0	0	0	0
Mean	0	0	0	0	0	0	0	.004	0	0	0	0
Max	0	0	0	0	0	0	0	.02	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Ft	0	0	0	0	0	0	0	.24	0	0	0	0
Wtr Year	2007	Total	0.12	Mean	0	Max	.02	Min	0	Acre-Ft	.24	
Cal Year	2006	Total	0.05	Mean	0	Max	.01	Min	0	Acre-Ft	.10	

Gage Stations Omitted from this Publication

For existing stations, omitted from this publication, information was extracted from existing raw and or partially reduced data files using the following procedure.

All field collected electronic data is transferred into a commercial program referred to as "HYDSTRA". This data was accessed via "Hydstra Data Manager's Workbench". "Raw Level" and, where available, discharge files were evaluated for relative change to the recorded stage. If visually obvious, then it was considered to be a day where some stream flow was recorded. The highest relative change was assumed to be the peak for the water year.

Documented missing data or gaps in the Station's electronic record were tallied to estimate the days without available data. A number of these Stations have been recently upgraded with equipment that should reduce the gaps in station data and provide a better record for future publication.

Station	Estimated days with flow	Estimated date of peak flow	Gap in record (days)	Comments
E049 (LA Weir)	(level >2.5') 29	9/06	0	Raw Stage, (i.e. water level behind low head weir)
E089 (Guaje Canyon above Mouth of Rendija Canyon)	83	9/2	0	Will publish in WY 200? to include previous water years 2005 and 2006
E090 (Rendija Canyon at Mouth)	0	0		No rating curve
E099 (Guaje Canyon below SR 502)	60	8/24	0	No rating curve
E124 (Sandia Canyon Truck Route)	135	6/16	0	Station damaged 08/25/2006, relocated downstream 03/23/2007 No rating curve
E245.5 Pajarito above Three Mile)	19	9/02	6	Rating curve in development
E252.5 (Water above S-Site Canyon)	20	8/29	106	Rating curve in development
E256.5 (TA-14 Q-Site)	3	8/29	1.6	Rating curve in development
E266 (Portrillo Canyon above Discharge Sink)	1	11/29	106	Limited record. Rating curve in development.
E273.7 (TA-39-6)	1	6/29	35	No rating curve
E274	0	0	0	Rating curve in development
E338 (Chaquehui Canyon South Site)	4	10/15	240	Rating curve in development
E340 (Chaquehui Canyon Main Site)	1	10/15	13	Rating curve in development

Monthly Precipitation (inches)
Los Alamos National Laboratory Meteorological Stations
Water Year 2007 (October 2006 - September 2007)

Data Source, LANL Weather Machine, for further documentation and information,
<http://weather.lanl.gov>

Month	TA-6	TA-49	TA-53	TA-54	NCOM¹	PJMT²
October	1.73	1.7	1.57	1.65	2.38	1.64
November	0.47	0.44	0.27	0.42	0.45	0.25
December	1.62	1.22	1.44	1.31	1.92	2.07
January	1.06	0.68	0.71	0.5	1.4	1.14
February	0.54	0.59	0.51	0.52	0.7	0.05
March	1.23	1.02	1.08	0.95	1.56	0.97
April	0.62	0.3	0.69	0.61	0.87	1.05
May	1.7	1.24	2.2	1.49	3.49	1.98
June	1.34	0.75	0.87	1.05	1.07	0.88
July	1.93	1.21	0.84	2.42	2.04	2.46
August	2.93	1.76	1.65	1.15	2.82	2.52
September	4.35	2.33	2.96	2.38	3.97	2.83
Total	19.52	13.24	14.79	14.45	22.67	17.84

¹North Community

²Pajarito Mountain

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