

Individual Permit Technical Meeting

Thursday, September 15, 2011

Northern New Mexico College

	Agenda	
10:00 – 10:15	Introductions <ul style="list-style-type: none"> • Plaintiffs, technical experts, LANL staff, others 	Bruce MacAllister
10:15 – 10:40	What are the goals and objectives of this and future joint technical meetings? <ul style="list-style-type: none"> • Discussion 	Denny Hjeresen
10:40 – 10:45	Agenda setting and attendees	Bruce MacAllister
10:45– 11:15	Baseline control measures <ul style="list-style-type: none"> • Discussion 	Terrill Lemke
11:15 – 11:45	SDPPP <ul style="list-style-type: none"> • Monitoring • Corrective Actions • Discussion 	Steve Veenis
11:45 – 12:00	Break	
12:00 – 12:20	Website Content <ul style="list-style-type: none"> • Input and questions • Communications between parties for technical input 	Jackie Little
12:20 – 12:30	<ul style="list-style-type: none"> • Next public meeting date after monsoon data analyzed: November 2011 • Next technical meeting date after SDPPP issued: April 2012 	Bruce MacAllister
12:30 – 1:00	<ul style="list-style-type: none"> • Follow up technical discussions at posters 	

LANL Goals and Objectives

- **Meet the legal requirements of the settlement agreement**
- **Demonstrate effective management of surface water entering and leaving site**
 - Provide defense in depth to minimize off-site contamination
- **Describe mechanism for plaintiffs experts to access data**
- **Maximize technical and financial resources on the implementation of permit requirements**
- **Communicate progress to a range of stakeholders**
 - Accurate communication of risk and risk reduction

Baseline Controls Overview

Permit Requirements

The Permittees must implement baseline control measures to meet the following non-numeric technology-based effluent limits as necessary to minimize pollutants in its storm water discharges.

Permit Requirements

1. **Erosion and Sediment Controls**
2. **Management of Run-on and Runoff**
3. **Employee Training**
4. **Unauthorized Discharges**
5. **Other Controls**

Permit Requirements

- **Baseline control measures must be installed within 6 months of effective date of Permit (May 1, 2011).**
- **Baseline control measures will be certified within 30 days of completion or 30 days after the effective date of the Permit (December 1, 2011).**

Planning

Project Area Description

- All 250 SMAs reviewed
- Run-on sources
- Drainage patterns
- On-site erosion
- Representative sampling
- Existing FFCA controls
- Identification of controls

Implementation

- Retained some existing FFCA controls
- 1814 controls certified by May 1

Verification and Certification

- Completed SMAs verified and photographed by LANL personnel
- Independent DOE verification
- Certified by DOE and LANL
- Submitted to EPA

Example Baseline Controls

Earth Berm

Riprap Spillway

Compost Mulch and Seed

Straw Wattle



Baseline and Beyond

- **Planning for Corrective Actions**
- **Installation of “Augmented” Controls**
 - After May 1, resources available to augment baseline controls
 - Improved longevity of some controls

NPDES Storm Water Individual Permit SDPPP Implementation

Steve Veenis – Project Manager
September 2011

Pajarito Plateau Watershed



Individual Permit Implementation

- Site Discharge Pollution Prevention Plan – SDPPP
- Confirmation sampling
- Corrective Action required if Target Action Levels (TAL) exceeded
- Rain event inspections
- Public Involvement

SDPPP Organization

Organized by Watershed

- Volume 1 - Los Alamos/Pueblo with 64 SMAs
- Volume 2 - Sandia/Mortandad with 64 SMAs
- Volume 3 – Pajarito with 51 SMAs
- Volume 4 – Water/Canon de Valle with 50 SMAs
- Volume 5 – Ancho/Chaquehui with 21 SMAs

SDPPP Organization Within Each Volume

- Sections 100 – 900: General Plan Requirements
- Section 1000: SMA-Specific Information
 - Area Description
 - Site Map
 - Potential Pollutant Sources
 - Control Measures
 - Monitoring
 - Corrective Action Status

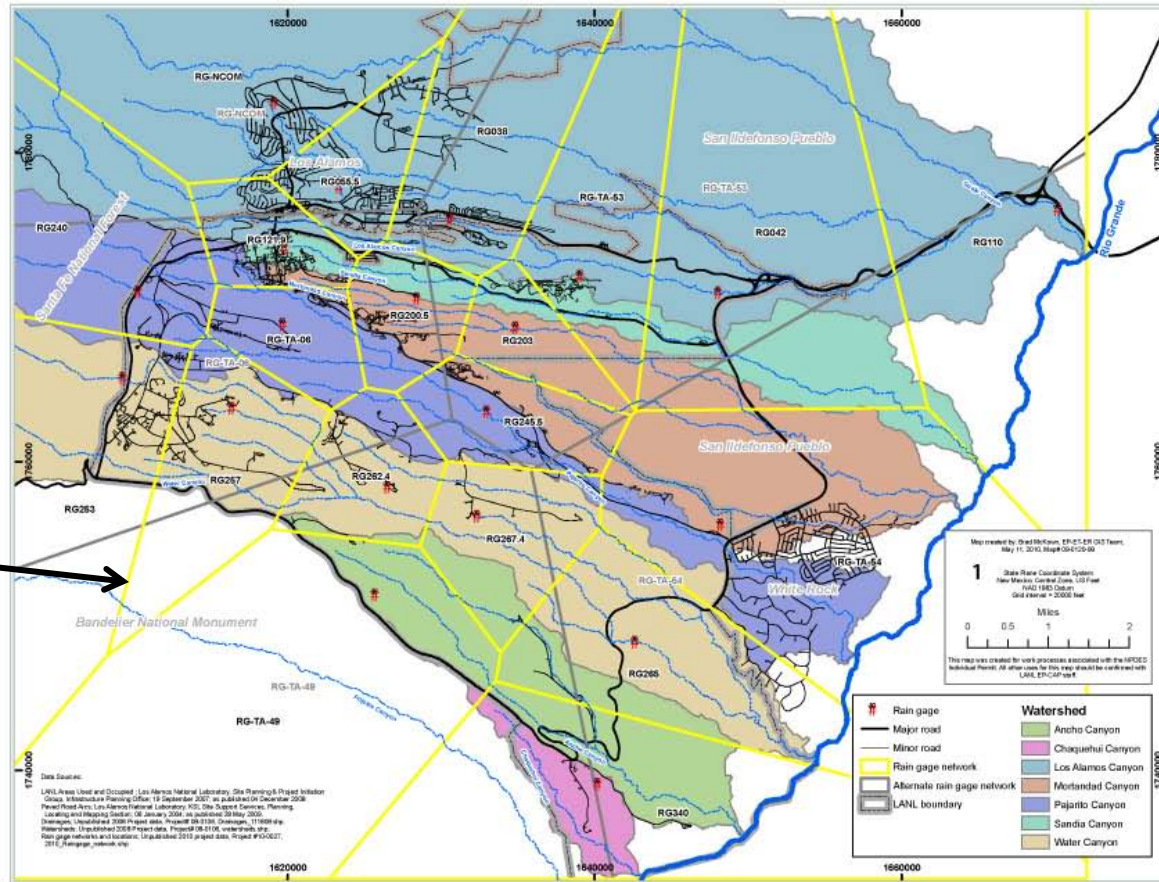
IP Monitoring

Sample collection and site inspections are triggered by precipitation threshold exceedances of $\frac{1}{4}$ inch within 30 minutes in respective theissen polygons

Vol 1: LOS ALAMOS | PUEBLO WATERSHED
Los Alamos National Laboratory, NPDES Permit No. NM00030759
EP-DIR-PLAN-10003, R.0 April 18, 2011

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ATTACHMENT C
PRECIPITATION NETWORK (Continued)

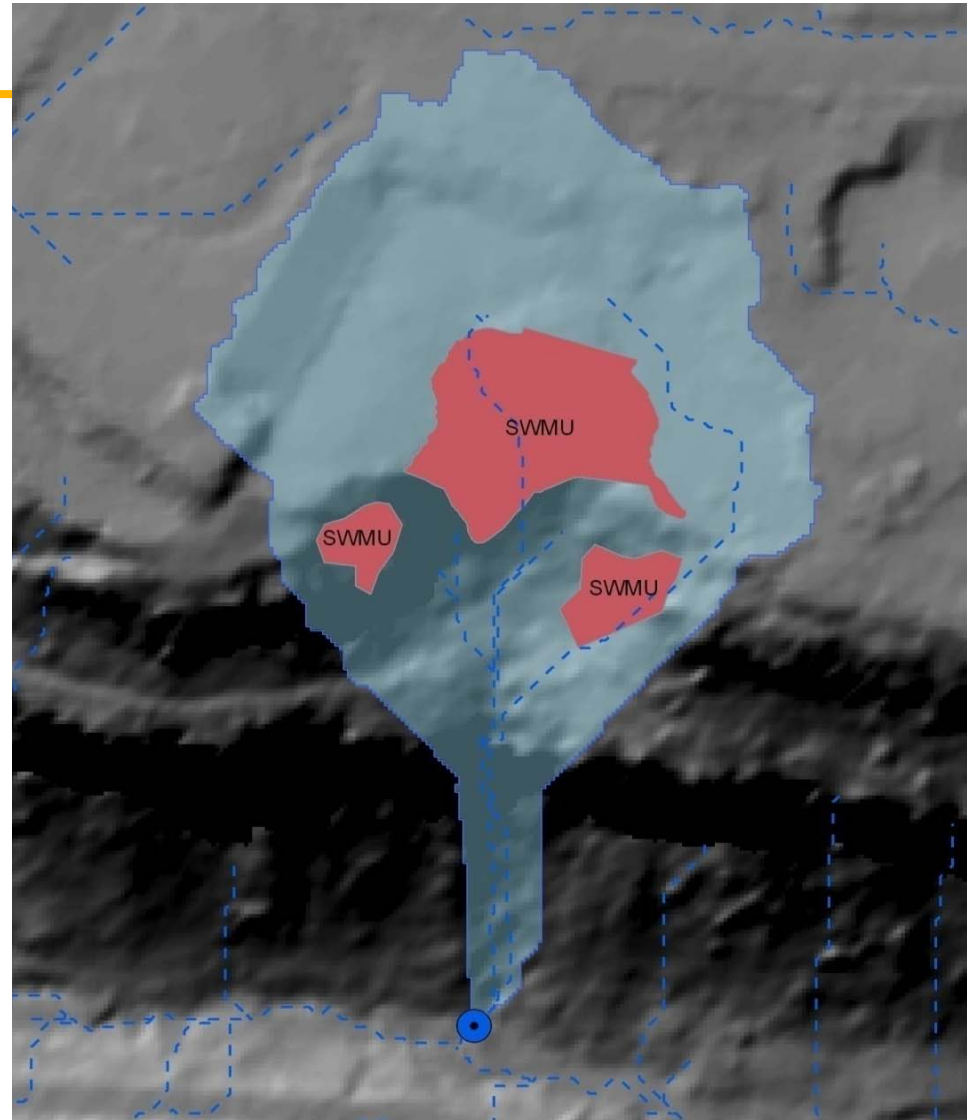


Thiessen Polygons



Monitoring: Site Monitoring Areas (SMA)

- Monitoring Location
- - - Site Hydrology
- SMA Boundary
- SWMU



Conceptual Map Example

SMA Monitoring Location - Automated



SMA Monitoring Location – Single Stage



FFCA Monitoring 2004-2009

Site-Specific Monitoring

- Metals, Radioactivity, Organics, SSC
- 147 SMA locations sampled
- Hundreds of samples collected
- Samples > comparison value
- Al, Cu, Zn, Gross Alpha, PCB Aroclor

IP Monitoring

Summary of 2011 sample collection as of September 12

Watersheds	SMA's Sampled	Number of Samples
•Los Alamos/Pueblo	19	24
•Sandia/Mortandad	15	22
•Pajarito	17	21
•Water/Canyon de Valle	19	21
•Ancho/Chaquehui	2	3
Total	72	91

1st 2011 sample collected 7/24/11

28% of SMA's sampled

2 samples collected @ 19 SMA's

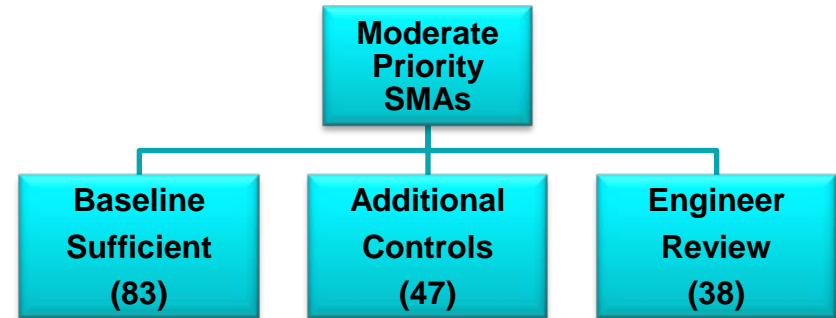
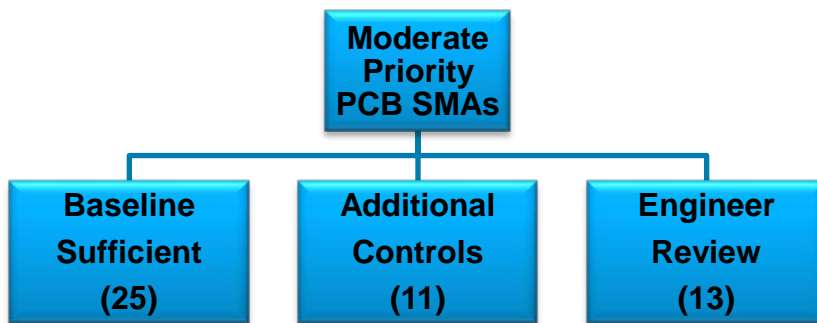
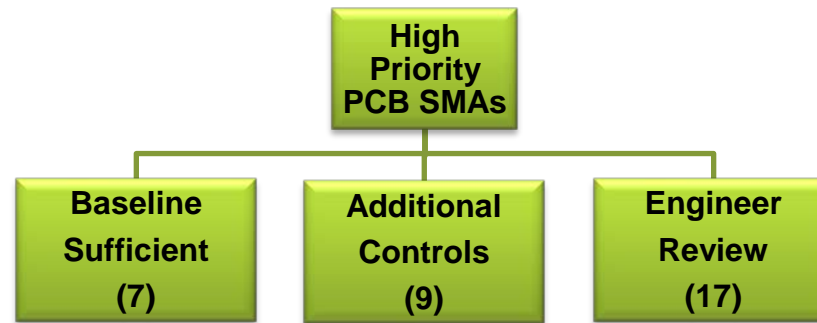
Validated data will be available on RACER

Corrective Action Management Planning

SMA Binning – 2 Step Process

1. High Priority SMAs – 3 year schedule
Moderate Priority SMAs – 5 year schedule
2. Technical Feasibility (Enhanced or Design)
 - Project Planning
 - Project Definition
 - Design or Specifications
 - Procure/Build
 - Inspection/Hand off

FY 11 Planning & Implementation



Flow Dissipation

- Rock Check Dams
- Surface Roughening
- Water Bars
- Weirs



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Run-on Diversion



Run-on Diversion & Sediment Retention



The combination of earthen and asphalt berms installed to direct channel run-on to the west and sheet flow to the east of the site. The combination of hydroseed, erosion control blankets, and angular rock have helped stabilize the berms and bare areas adjacent to the SMA.

Sediment Retention – Earthen Berms



Sediment Retention – Grade Control



Sediment Control - Detention Basins



Individual Permit Website: <http://www.lanl.gov/environment/h2o/ip>



» or search scientific literature at the Research Library



ENVIRONMENT at LANL WATER MONITORING, COMPLIANCE, AND RISK REDUCTION



Environment

- Air
- Biological Resources
- Clean-up
- Compliance & Monitoring
- Cultural Resources
- Environmental Risk Reduction
- Fire
- Waste
- Water
 - Drinking Water
 - Groundwater
 - Monitoring
 - Permits
 - Regulations
 - Reports
 - Surface Water
 - Water Studies

Environment » Water » Storm Water

Recent EPRR Updates » Questions »

NPDES Storm Water Individual Permit

Storm Water Individual Permit - NPDES Permit No. NM0030759

- General Information
- Permit
- Site Discharge Pollution Prevention Plan
- Maps
- Regulatory Documents

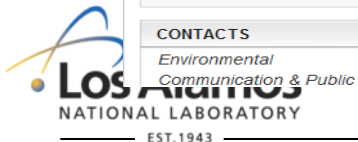
The U.S. Environmental Protection Agency (EPA), Region 6, issued the National Pollutant Discharge Elimination System (NPDES) Individual Permit - NPDES No. NM0030759 (Permit or IP) on September 30, 2010 to Los Alamos National Security, LLC (LANS) and the U.S. Department of Energy (DOE) (the Permittees). The Individual Permit authorizes the discharge of storm water associated with industrial activities at the Los Alamos National Laboratory (LANL) from specified Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs), collectively referred to as Sites. The Individual Permit incorporating the latest modifications, became effective on November 1, 2010.

The Permit uses non-numeric technology-based effluent limitations, coupled with a comprehensive monitoring program, to minimize pollutants in LANL's storm water discharges. LANL is required to implement site-specific control measures to address the non-numeric technology-based effluent limits. EPA believes compliance with these technology-based effluent limitations and with other terms and conditions of the Permit will control discharges as necessary to meet the applicable water quality standards. As used in the Individual Permit, "minimize" means to reduce and/or eliminate discharges of pollutants in storm water to the extent achievable using site-specific control measures (including best management practices) that reflect best industry practice considering their technological availability, economic achievability and practicability.

Register to Receive Updates

Email notifications will provide notice of completion of installation of baseline control measures, updates on Permit compliance, any requests for time extensions, spill information, and notification of any modification to the Permit or Site Discharge Pollution Prevention Plan (SDPPP), including: changing Site Monitoring Area (SMA) locations; removing, deleting, or adding sites; and completions of corrective action. Anyone registering will also receive email notifications about public meetings held to discuss implementation of and compliance with the IP.

- Register to receive updates.



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