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Title: **Site Monitoring and Management, Poster, Individual Permit for Storm Water, NPDES Permit No. NM0030759**

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Intended for: Public

Purpose: This poster was prepared for the May 2011 Individual Permit for Storm Water (IP) public meeting. The purpose of the meeting was to update the public on implementation of the permit as required under Part 1.I (7) of the IP (National Pollutant Discharge Elimination System Permit No. NM0030759). The poster will be available on Los Alamos National Laboratory's (LANL's) public website.



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Site Monitoring and Management

What is a Site?

In compliance with the provisions of the Clean Water Act, as amended, Los Alamos National Laboratory, managed and owned by co-Permittees Los Alamos National Security, LLC, and the U.S. Department of Energy, is authorized to discharge storm water associated with industrial activities from specified solid waste management units (SWMUs) and areas of concern (AOCs) (as identified in Appendix A and referred to herein as "Sites") from the facility located at Los Alamos, New Mexico.

Examples of Sites at LANL:

- Former sump outfalls
- Former building outfalls
- Former landfills
- Former material storage areas
- Former wastewater treatment plants
- Former stack emissions
- Surface disposal areas
- Potentially contaminated soils
- Firing sites
- Material Disposal Areas (MDAs)
- Former septic system outfalls

What is an SMA?

A Site Monitoring Area (SMA) is the area used to collect a representative stormwater sample from one or more Sites. The SMA is a watershed defined by the location of the sampler. SMA sizes range from a fraction of an acre to hundreds of acres (see Figures).

SMA Location Guidance from IP:

SMA locations are based on reasonable site accessibility for sampling purposes and the Permittees' best judgment to ensure that samples taken at a particular point will be representative of discharges from Sites in the drainage area.

LANL Representative Sampling Strategy:

Sampler locations were determined based on a series of considerations:

- Optimize sampling of stormwater coming from a Site or Sites (Site Capture) while minimizing contributions from off-Site stormwater.
- Position sampler as close to Site or Sites as possible.
- Optimize sampling efficiency (include multiple Sites where appropriate).
- Safety and accessibility issues

Program Status:

We are currently using 250 SMAs to monitor stormwater from 405 Sites.



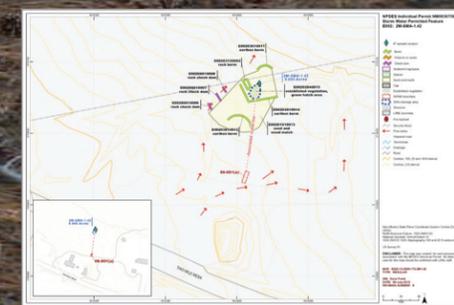
Battery-powered automated samplers are used to collect stormwater samples during runoff events. Sensors turn on the sampler when flow is detected and pump water into bottles located inside the sampler housing. The samplers record the date and time the sample was collected.



B-SMA-0.5 is an example of a large SMA (>1,000 acres) with multiple (8) Sites. This SMA is located in Bayo Canyon, mostly on Los Alamos County property. Because the Sites are clustered in the canyon bottom, the only sampler location representative of all Sites is in the main drainage.



LA-SMA-4.1 is located on the north side of Los Alamos Canyon, on both LANL and Los Alamos County property. It is a moderately sized SMA (approx 5 acres) with two Sites and a substantial amount of stormwater coming from the developed area in the upper 2/3 of the watershed.



2M-SMA-1.42 is located in 2 Mile Canyon, on LANL property. This is a small SMA (<0.01 acres) with only one Site, an abandoned septic tank with an outfall pipe. The sampler is located below the outfall.