Response to the "Notice of Disapproval for the Work Plan to Investigate the Source of Polychlorinated Biphenyls at LA-SMA-2" Dated March 4, 2008

INTRODUCTION

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. Los Alamos National Laboratory's (LANL's or the Laboratory's) responses follow each NMED comment.

GENERAL COMMENTS

NMED Comment

1. *The Permittees propose to collect the required information under the characterization activities approved in the Investigation Work Plan for Upper Los Alamos Canyon Aggregate Area (dated 2006 and referenced by LA-UR-06-2464 and ER-2006-0226). Although the Upper Los Alamos Canyon Aggregate Area Work Plan addresses characterization of specific solid waste management units (SWMUs), it does not address the NMED-required storm water monitoring component of the August 30, 2007 approval with direction. This is essential to ensure compliance with surface water regulations and Section VIII.C of the Consent Order as the total polychlorinated biphenyl (PCB) concentrations being transported from the site (24.8 µg/L) are over 38,000 times the human health compliance criteria listed in 20.6.4 NMAC.*

LANL Response

1. The New Mexico Environment Department's (NMED's) August 30, 2007, approval with direction letter directed the Laboratory "to determine the source of the PCBs detected at LA-SMA-2." The approval with direction contained no specific requirements for stormwater monitoring at this site. All stormwater-monitoring requirements in the approval with direction were associated with the sediment mitigation work plan due February 29, 2008. Further, stormwater monitoring is already conducted at this site under another program (see response to Comment 2). Because the objective of the investigation was source identification, it was proposed as part of the soil and sediment sampling campaign conducted under the Upper Los Alamos Canyon Aggregate Area investigation. The Laboratory's understanding of the intent of the approval with direction letter was supported in discussions with NMED staff before the Laboratory's submittal of the October 1, 2007, letter describing plans to investigate the source of polychlorinated biphenyls (PCBs) at LA-SMA-2.

NMED Comment

2. *If storm water monitoring is being conducted under a different program, the Permittees may provide the monitoring schedule, procedures, analyte list and identify any constituents that have been detected thus far in storm water samples, but details of the monitoring program must nonetheless be provided in the response. The samples proposed for collection in addition to those in the Investigation Work Plan for Upper Los Alamos Canyon Aggregate Area are not depicted on the figure provided. The Permittees must revise the figure to include all proposed sampling locations relative to LA-(storm water management area (SMA)-2. The revised figure must also clearly indicate the location of LA-SMA-2 and the location of the storm water monitoring location(s). In addition, a figure must be provided that illustrates the location of all under ground utilities, active outfalls, stormwater outfalls and former outfalls.*

LANL Response

2. Stormwater monitoring at LA-SMA-2 is currently being conducted under the Federal Facilities Compliance Agreement/Administrative Order (FFCA/AO) between the U.S. Environmental Protection Agency (EPA) and the Laboratory. The sampling schedule and procedures are included within the FFCA/AO, and the analyte list is included in the EPA-approved Storm Water Pollution Prevention Plan (SWPPP), a requirement of the FFCA. The details of the ongoing stormwater monitoring at this site are described in Attachment 1 in this response. The Laboratory will continue to conduct this monitoring under the FFCA pending transition to the National Pollutant Discharge Elimination System (NPDES) Individual Permit. This monitoring is being conducted in addition to the scope of work being implemented under the approved "Investigation Work Plan for Upper Los Alamos Canyon Aggregate Area."

   Attachment 2 is a figure of LA-SMA-2 that provides the details requested in NMED's Comment 2, including the location of the stormwater-runoff sampler, buried utilities, the drainage network ("stormwater outfall"), and the former outfall [e.g., the location of the septic tank, Solid Waste Management Unit (SWMU) 01-001(f), and its outfall].

NMED Comment

3. The revised work plan must follow the format and content requirements for investigation work plans as defined in Section XI.B of the Consent Order

LANL Response

3. No new work plan is provided as part of this response because stormwater monitoring is already being conducted under the FFCA/AO.

NMED Comment

4. The Permittees must include proposals for the collection and analysis of stormwater samples as part of the characterization efforts, as required by the August, 30 approval with direction. In addition to storm water samples, sediment and soil samples must be collected from the head of the drainage to below the fence at the LA-SMA-2 location. To ensure compliance with the Consent Order, the storm water samples must be analyzed for PCBs using method 1668A and include analyses for suspended sediment concentrations.

LANL Response

4. Collection and analysis of stormwater samples is being implemented under the FFCA (as described in LANL Response #2). The Aroclor method (EPA Method 608) is the approved method for PCB analysis under the FFCA and SWPPP. Historical concentrations at this site indicate that this method is appropriate for monitoring PCBs, and the Laboratory will continue to use Method 608 to maintain compliance with applicable regulations and requirements. Final issuance of the NPDES Individual Permit will establish the requirements for PCB monitoring. Further, the Compliance Order on Consent (the Consent Order) does not require the use of EPA Method 1668A for compliance.

NMED Comment

5. For soil samples and sediment samples, the Permittees must also conduct and report on particle-size analysis on all samples.

LANL Response

5. The Laboratory will add particle-size analysis to the NMED-approved analytical suite for soil and sediment samples collected to characterize SWMU 01-001(f), as specified in the "Investigation Work Plan for the Upper Los Alamos Canyon Aggregate Area."

NMED Comment

6. Any stormwater data collected at LA-SMA-2, or at other locations that may provide information on possible contaminant migration from this location and SWMU 01-001-(f), must also be included in the response to this NOD.

LANL Response

6. The attached compact disc contains all stormwater data collected to date (2004 to present) from LA-SMA-2.

NMED Comment

7. Because of the known PCB contamination at LA-SMA-2 and SWMU 01-001 (f), characterization of the alluvial fan and drainage located down gradient of the SWMU must be included in the plan so that any stabilization and/or remediation of contaminated sediments will be implemented prior to the upcoming monsoon season. Deferring characterization efforts to coincide with the Upper Los Alamos Canyon Aggregate work Plan only delays the characterization, remediation and stabilization of documented PCB contamination and migration and is not an acceptable approach.

LANL Response

7. To address PCB migration at LA-SMA-2, the Laboratory is already planning to enhance best management practices (BMPs) at the site with the goal of stabilizing the alluvial fan area and reducing sediment and contaminant transport before the onset of the next monsoon season.

   NMED's letter of March 4, 2008, appears to identify a direct path from these data to "remedy selection" and requires that characterization be "initiated as soon as weather conditions permit and any remediation and other corrective measures must be proposed within 30 days of receipt of the characterization data to ensure compliance with Section VII.C of the Consent Order." A presumption of a remedy at this site is premature, and remedy selection should follow from implementation of the approved "Investigation Work Plan for Upper Los Alamos Canyon Aggregate Area." Further, the next season of stormwater monitoring will not begin *until* the monsoon season (and after the enhancement of BMPs at the site). The pending stormwater data and the soil and sediment data will be fundamental to evaluations of potential remedies at the site.

   The requirements cited from the March 4 letter are inconsistent with the requirements of the FFCA and are not directed by Section VIII.C of the Consent Order. LA-SMA-2 is in full compliance with the current FFCA and is also on the list of sites contained in the permit application for the pending NPDES Individual Permit. The Laboratory will continue to implement stormwater monitoring, data evaluation, site inspections, and subsequent mitigations as required at LA-SMA-2 in the context of those regulations.

Attachment 1

Sampling at LA-SMA-2 Conducted under FFCA

Attachment 1
Sampling at LA-SMA-2 Conducted under FFCA

SMA ID	Station ID	Monitoring Year Start	Site ID	Station Type	Number of Samples per Monitoring Suite per Year												Number of Samples per Monitoring Suite					
					Inorganic Suites					Organic Suites							Radionuclide Suites					
					TAL[1] Metals	POC[2] Metals	Hg	SSC[3]	ClO4	Dioxin/ Furan	HE	PAH	PCB	Pest	SVOA	DRO	Gross AB	Alpha Rad	Gamma Spec	H-3	Sr-90	Field pH
					F	F	UF	UF		UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF
LA-SMA-2	SS0265	2004	01-001(f) 01-006(b)	ISCO	0	4	0	√					4				4	1	1	0	1	√

Notes:

F = Filtered.

√ = analyzed in every event that triggers sample collection

DRO = Diesel range organics.

HE = High explosives.

PAH = Polycyclic aromatic hydrocarbon.

PCB = Polychlorinated biphenyl [compounds].

Pest = Pesticides.

POC = Pollutant of concern.

SSC = Suspended sediment concentration.

SVOA = Semivolatile organic analysis.

TAL = Target analyte list.

UF = Unfiltered.

Gross AB = Gross alpha and gross beta.

Alpha Rad = Am-241, Pu isotopes, Th Isotopes, U isotopes, and R-226.

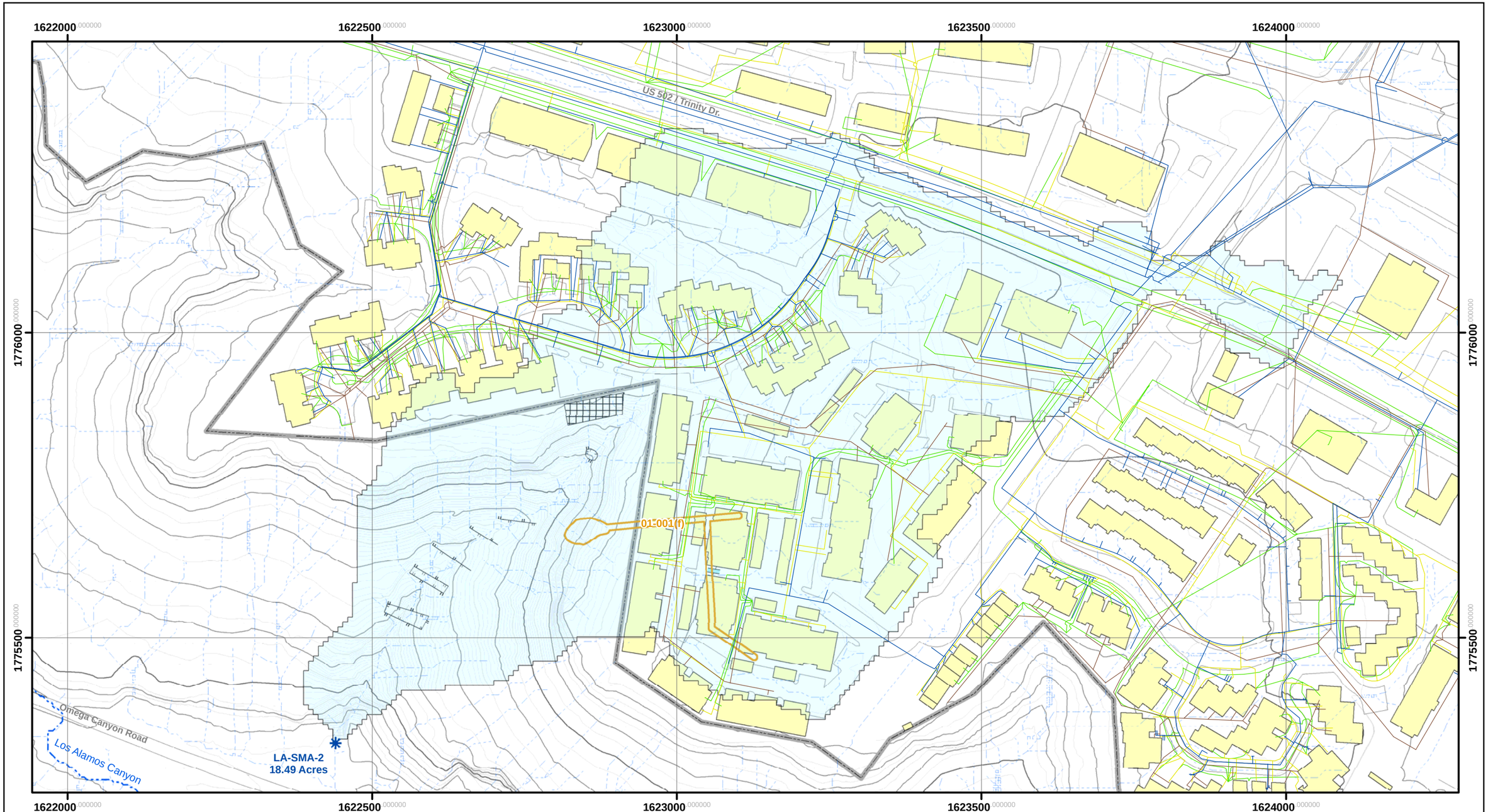
(1) TAL metal suite consists of 29 metals.

(2) POCs metal suite consists of Ag, As, Cr, Cu, Tl, Pb, V, and Zn.

(3) SSC will be analyzed for each sample submitted for analysis.

Attachment 2

Stormwater Monitoring Location
LA-SMA-2



- Industrial MSGP Outfall
- Monitor Station
- Site Drainage
- Gage Station
- Water Line
- Sewer Line
- Gas Line
- Electric Line
- Main Drainage
- Perennial Drainage
- Approx. Runoff Pathway
- Fence
- Paved Road/Parking
- Dirt Road
- RCRA Site
- Structure
- LANL Boundary
- 100ft Contour
- 20ft Contour
- 10ft Contour
- 2ft Contour

Monitored SWMU/AOC

- Erosion Potential Score <40
- Erosion Potential Score >40

Permanent BMP

- Curb/Berm/Swale
- Diversion Channel
- Mulch
- RipRap
- Sediment Basin
- Gabion
- Cover
- Vegetation

Temporary BMP

- Check Dam
- Silt Fence
- Wattle
- Mulch
- Check Dam
- Seeded Area

State Plane Coordinate System
New Mexico, Central Zone, US Feet
NAD 1983 Datum
Grid Interval = 500ft

N

Feet
0 50 100 150
0 20 40 60
Meters

Los Alamos NATIONAL LABORATORY EST.1943

This map was created for work processes associated with the Individual Permit Application.
All other uses for this map should be confirmed with LANL EP-ERSS staff.

Stormwater Monitoring Location LA-SMA-2

Los Alamos Canyon

Map Created By: Brad McKown, EP-WES-GS GIS Team, March 26, 2008, Map Reference #08-0030-02