

EXHIBIT 2

In Re: Los Alamos National Laboratory
NPDES Permit No. NM0030759

**Amigos Bravos • Concerned Citizens for Nuclear Safety • Embudo Valley Environmental
Monitoring • Honoring Our Pueblo Existence • New Mexico Acequia Association •
Partnership for Earth Spirituality • Tewa Women United • Marlene Perrotte • Corrine
Sanchez • Liana Sanchez • J. Gilbert Sanchez • Gilbert A. Sanchez**

April 25, 2008

Diane Smith
U.S. Environmental Protection Agency
Planning and Analysis Branch (6WQ-NP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
smith.diane@epa.gov

RE: *Los Alamos National Laboratory NPDES Permit No. NM0030759*

Dear Ms. Smith:

Please accept the following comments on the Draft National Pollutant Discharge Elimination System (NPDES) Permit No. NM0030759 (hereafter the “draft permit”) applied for by Los Alamos National Security and Department of Energy (collectively “LANL”) pursuant to the Clean Water Act (“CWA”) for stormwater discharges from Los Alamos National Laboratory (“the Lab” or “the Facility”) into Río Grande Tributaries in Los Alamos County. These tributaries include the tributaries and/or main channels of Mortandad Canyon, Cañada del Buey, Los Alamos Canyon, Sandia Canyon, Ten Site Canyon, Cañon de Valle, Pueblo Canyon, Water Canyon, DP Canyon, and Ancho Canyon. A 2002 study conducted by the United States Fish and Wildlife Service (USFWS) entitled *A Water Quality Assessment of Four Intermittent Streams in Los Alamos County, NM* (attached as exhibit 1) at six found that all stream segments studied (Pajarito, Cañon de Valle, and Sandia Canyons) had “cold flowing water and a community of aquatic life, plants and wildlife.” Intermittent streams, such as those proposed to be receiving waters in the draft permit, have vital ecological importance and are crucial to maintaining a diversity of wildlife species in New Mexico. The USFWS detailed the importance of New Mexico’s intermittent streams in their 2003 testimony before the New Mexico Water Quality

Control Commission hearing for the Triennial Review of Water Quality Standards. In this testimony, in which they cite animal species found in the intermittent streams at LANL, they state that “intermittent and ephemeral waters maintain New Mexico’s biological diversity and serve as vital fresh water oasis for wildlife.”¹ The undersigned organizations (hereinafter “Citizen Groups”) urge EPA to protect all streams at LANL by issuing a protective stormwater permit. Our specific comments on the draft permit follow.

I. THE EPA APPROPRIATELY INCLUDED THE ELIMINATION OF POLLUTION SOURCES AS A REQUIREMENT IN THE DRAFT PERMIT.

Requiring the complete elimination of pollution sources, pollution exposure, or pollution discharge from sites where monitoring demonstrates exceedances of the applicable maximum target level/average target level (“MTL”/“ATL”) is appropriate and necessary to ensure water quality is protected. This condition should be maintained in the final permit.

Historically and presently, LANL has failed and is continuing to fail to control discharges of contaminants into waters of the US. According to LANL, stormwater runoff “is the principal agent for moving Laboratory-derived constituents off-site and possibly into the Rio Grande.” Such runoff can “redistribute sediment in a streambed to locations far downstream from where [a] release or spill occurs.”² The New Mexico Environment Department (“NMED”) in an August 2007 letter (attached as exhibit 4) to LANL informs LANL that they “have failed to comply with surface water quality standards” and that “suspended sediments from Los Alamos and Pueblo Canyons reaches the Rio Grande during storm events with greater magnitude and frequency than before the Cerro Grande Fire.”³ A 2007 NMED Report found evidence of Lab derived contaminants in Rio Grande Bank sediments.⁴ The report shows that runoff events in Los Alamos and Pueblo Canyons “are the primary mechanisms for legacy radionuclide transport to the Rio Grande.”⁵ The report shows that flood events in 2000, 2001 and 2002 transported large amounts

¹ Direct Testimony before the New Mexico Water Quality Control Commission, Powerpoint Presentation USFWS, 2003 (attached as exhibit 2).

² Environmental Surveillance at Los Alamos during 2004, LA-14239-ENV (attached as exhibit 3).

³ Exhibit 4 at 2.

⁴ Englert, D., Dale, M., Granzow, K., Mayer, R., 2007. Distribution of Radionuclides in Northern Rio Grande Fluvial Deposits near Los Alamos National Laboratory, New Mexico: New Mexico Environment Department, DOE Oversight Bureau, (attached as exhibit 5).

⁵ *Id.* at 49.

of plutonium at levels not seen since the height of the Manhattan Project in the 1950s and 1960s.⁶ One of the sources of this plutonium is contaminated sediment deposits from three former outfalls.⁷ It is just these types of historic contaminated sediment sources that the draft permit should be addressing and controlling.

In 2005 EPA determined that the Department of Energy (“DOE”) and LANL were failing to comply with the terms and conditions of its previous permit, the Multi-Sector General Stormwater Permit (“MSGP”), in a number of significant respects. Specifically, EPA determined that LANL was failing to effectively monitor and control runoff from all of their stormwater sites. In response, on February 3, 2005, DOE, LANL and EPA entered into a Federal Facility Compliance Agreement (FFCA) to regulate stormwater discharges from Solid Waste Management Units (“SWMUs”) and Areas of Concern (“AOCs”). The establishment of the FFCA did not relieve LANL from complying with the MSGP and on February 7, 2008 a collection of citizens groups filed a lawsuit (attached as exhibit 6) against DOE for continued violations of the Clean Water Act at LANL, citing historic and continued failure to comply with the terms and conditions of their MSGP stormwater permit.

There is considerable evidence indicating that LANL’s stormwater discharges contain contaminants at extremely high concentrations. LANL’s own water quality database indicates that some of these contaminated sites are discharging contaminants such as Polychlorinated Biphenyls (“PCBs”) at levels that are over 38,000 times the New Mexico water quality standard that is protective of human health (see exhibits 7-8).⁸ These levels are considerably higher than PCB levels found elsewhere in the state. In a NMED/LANL cooperative study of PCB levels in regional runoff, the highest result was a sample from the Santa Fe River which showed concentrations of PCBs at approximately 1300 times over the standard that is protective of human health.⁹ Samples taken from other regional sites showed exceedances that typically ranged from 1.5 to 50 times over the standard.¹⁰ The levels of PCBs found at LANL as detailed above and below, are not found in any other place in the state. In addition, a February 5th, 1998 letter to

⁶ Id. at 43.

⁷ Id. at 44.

⁸ To get total PCBs at any given SMA you must add the arochlor 1260 data and the arochlor 1254 data together for each sampling date.

⁹ 2002-2003 NMED/LANL Regional PCB Cooperative Study. (attached as exhibit 9).

¹⁰ Id.

EPA, DOE lists over 160 documented PCB spills, 30 of which were not appropriately reported to the EPA (see exhibit 10). A March 15, 1999 letter from LANL to NMED (attached as exhibit 11) lists all Solid Waste Management Units (SWMUs) which contain PCBs. The high levels, not found elsewhere in the state combined with the documentation of PCB spills at LANL indicates that the PCB contamination found at LANL is LANL-derived.

These discharges have been occurring for many years and do not appear to be getting better. In fact, monitoring at site LA-SMA-2 shows that the two highest sample results are as recent as 2007.¹¹ We are not talking about small exceedances: one sample on 5/13/07 was 25,000 times over the water quality standard that is protective of human health; another sample on 8/18/07 was 38,000 times over the standard that is protective of human health.¹² The citizen clean water act lawsuit referred to above lists 47 separate instances where PCB levels were detected above water quality standards in Los Alamos and Pueblo Canyons alone.¹³ These samples were analyzed using method 608, which has a detection limit that is orders of magnitude greater than the water quality standard that is protective of human health, as well as the standard that is protective of wildlife habitat. If the more sensitive EPA method 1668A were used, there is no telling how many more exceedances would have been detected.

Samples collected by the New Mexico Environment Department also show extremely high concentrations of PCBs discharging from numerous LANL stormwater sites. One NMED sample result shows concentrations at levels that are 25,000 times over the standard protective of human health (see exhibit 13)¹⁴. It is interesting to note that this sample was collected in a different location than the LANL samples that were 25,000 and 38,000 times over the standard. A June 4, 2007 letter from NMED to DOE outlines more water quality standard exceedances in stormwater. Specifically the letter describes how the stormwater samples in Canada del Buey and Pueblo Canyon exceeded the State of New Mexico surface water quality criteria by 380 times and 2100 times respectively.¹⁵ The letter goes on to state that "total PCBs at all locations sampled exceeded the State of New Mexico surface water quality criteria of .64ng/L." The letter says that samples

¹¹ Table of PCB data, SMA-2, taken from LANL water quality database (attached as exhibit 12).

¹² Exhibit 12.

¹³ Exhibit 6 at 29-33.

¹⁴ Exhibit 13 includes printed tables and cd of NMED data.

¹⁵ Letter from Steve Yanicak, NMED, to Gene Turner, DOE, (June 4, 2007) (attached as exhibit 14).

of run on to SWMU 21-024(m) taken in 2006/2007 were 54 times lower than the runoff data from the same SWMU from 2003.¹⁶ The letter says this data “suggests that there maybe an uncharacterized PCB source at SWMU 21-024(m)” as the water above the SWMU has lower concentrations than below.¹⁷

NMED stormwater data from 2003-2006 also shows exceedances of metals in runoff at LANL (NMED Stormwater Data attached as exhibit 15). For example, runoff in Pueblo Canyon has shown levels of copper that are 27 times over the acute aquatic life standard and MTL (sample on 7/15/05 had copper concentrations of 370 ug/L).

There is evidence that this contamination is moving off of LANL’s property and reaching the Rio Grande. Sampling data collected by NMED in lower Los Alamos Canyon near the confluence with the Rio Grande in July and August of 2006, show 8 samples with PCB concentrations exceeding standards in a range of 50 to almost 5,000 times over the standard that is protective of human health¹⁸.

PCBs are not the only contaminant appearing at levels well above New Mexico Water Quality Standards. LANL’s 2004 Environmental Surveillance Report states that “nonradiological constituents detected at significant concentrations in the Los Alamos Canyon Watershed include PCBs, benzo(a)pyrene, mercury, copper, lead and zinc.”¹⁹ The USFWS in their 2002 study found that “[s]urface water toxicity to laboratory invertebrates was identified in Valle Canyon, probably from a runoff event, and reproductive toxicity was found in laboratory invertebrates using sediment porewater from Sandia Canyon” (see exhibit 1 at iii). This study also found that there was a 22-33 percent impairment of the three streams studied (Sandia, Pajarito, and Canon de Valle Canyons).²⁰ (Los Alamos Stream above LANL was the fourth stream and was used as a reference site.) The study also found elevated concentrations of aluminum, barium, chromium, molybdenum, explosives, and PCBs in either water, sediment, sediment porewater, caddisflies or in caged fish.²¹

¹⁶ Id. at 2.

¹⁷ Id. at 3.

¹⁸ NMED Water Quality Sampling Data, (attached as exhibit 16).

¹⁹ Exhibit 3 at 170.

²⁰ Exhibit 1 at xx.

²¹ Id. at iii.

NMED's DOE Oversight Bureau, in their 2006 Annual Report (attached as exhibit 17), demonstrates that there is a strong correlation between stormwater peak flow and suspended sediment transport and plutonium 239/240 transport.²² NMED also reports levels of dioxin above New Mexico Water Quality Standards were found in stormwater in both Canada del Buey and in Pueblo Canyon.²³ All eight of the stormwater samples that NMED collected downstream from LANL's eastern boundary in Los Alamos Canyon exceeded PCB and dioxin water quality standards.²⁴

Clearly, there is substantial evidence indicating that LANL does not have a good track record when it comes to controlling contaminated stormwater discharges. In addition, in some cases these discharges have concentrations of pollutants that are *tens of thousands* of times above water quality standards. Therefore, due to the extreme nature of the contamination and evidence of continued failure by LANL to control this contamination, the draft permit's clear-cut requirement to completely remove the pollution source, pollution exposure, or pollution discharge is appropriate. In fact, as detailed below under the comments on monitoring and BMP enhancement, for the more contaminated sites, this requirement should be enacted during years 1 or 2 of the permit rather than year 6 or 7.

II. THE EPA APPROPRIATELY REQUIRES EPA METHOD 1668A AS THE ANALYTICAL METHOD FOR PCBs IN THE DRAFT PERMIT.

Requiring EPA method 1668 Revision A for PCB analysis is essential for ensuring protection of New Mexico Water Quality Standards. Federal regulations state that no permit may be issued "when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states."²⁵ Without requiring method 1668 Revision A, EPA cannot ensure "compliance with the applicable water quality standards" in New Mexico. We urge EPA to maintain this requirement in the final permit.

The New Mexico Environment Department ("NMED") has determined that EPA method 1668 Revision A is necessary for ensuring that New Mexico Water Quality Standards are protected and

²² Exhibit 17 at 16.

²³ Id. at 17.

²⁴ Id.

²⁵ 40 C.F.R. § 122.4 (d)

has required the method in a 2006 CWA section 401 certification (attached as exhibit 18) of NPDES permit # NM0028355 for LANL. This certification states that EPA method 1668 Revision A is necessary because other methods of analyzing PCBS “do not provide the necessary sensitivity to identify exceedances of state water quality criteria for PCBs.” In November 2006, in a letter to EPA requesting 40 CFR Part 136 approval for EPA Method 1668 Revision A, NMED states that “analytical methods currently approved by EPA in 40 CFR Part 136 are outdated and inadequate (due to a lack of analytical sensitivity) to protect federally required and approved state water quality criteria.”²⁶ In this letter, NMED further states that EPA Method 1668 Revision A is needed “to protect New Mexico’s human health criteria adopted as part of the state’s water quality standards in accordance with EPA mandates to protect human health.”²⁷ EPA has indicated that EPA validation studies of the method were “favorable enough to consider inclusion of this method in Part 136.”²⁸ In addition, EPA states, in section 1.2 of the 1999 EPA official publication of Method 1668 Revision A, that the method “is for use in data gathering and monitoring associated with the Clean Water Act.”²⁹ Monitoring requirements in a NPDES permit such as the draft permit are “monitoring associated with the Clean Water Act.” As indicated on page 10 of the Statement of Basis for the draft permit, NMED has already stated, in its pre-certification letter to EPA, that EPA method 1668A is a condition of State certification. Section 401 of the Clean Water Act gives states the authority to veto or place conditions on federal licenses or permits.³⁰ In addition, section 510 of the Clean Water Act very clearly allows states to adopt or enforce any standard, limitation or requirement respecting control or abatement of pollution.³¹ In a December 2006 letter to EPA, NMED clearly outlines, step by step, why New Mexico has the legal authority, and in fact, duty, to require EPA method 1668A as a permit

²⁶ Letter from Ron Curry, Secretary, New Mexico Environment Department, to Benjamin Grumbles, Assistant Administrator, EPA, (November 3, 2006), (attached as exhibit 19).

²⁷ Id.

²⁸ Letter from Benjamin Grumbles, Assistant Administrator, EPA, to Richard S. Watkins, Associate Director for Environment, Safety, Health, and Quality, Los Alamos National Security, LLC, (May 15, 2007) (attached as exhibit 20)

²⁹ EPA Publication, EPA-821-R-00-002, EPA Method 1668, Revision A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS, (December 1999) (attached as exhibit 21).

³⁰ 33 U.S.C. § 1341; see, e.g., PUD No. 1 if Jefferson County v. Washington Dep’t of Ecology, 511 U.S. 700, 711-12 (1994); American Rivers, Inc. v. FERC, 129 F.3d 99, 107-112 (2nd Cir. 1997).

³¹ 33 U.S.C. § 1370; see, e.g., City of Klamath Falls v. Env’tl. Quality Com’n, 870 P.2d 825, 833 n.16 (Or. 1994).

condition.³² EPA, in compliance with New Mexico's certification requirement, has rightly included EPA method 1668A in the draft permit.

III. EPA SHOULD INCLUDE NUMERIC EFFLUENT LIMITATIONS IN THE FINAL PERMIT.

Numeric effluent limits are necessary to stop pollution from migrating from LANL SWMUs and AOCs into the regional aquifer and the Río Grande – both of which are sources for drinking water. In addition, numeric limits are essential for ensuring the protection of New Mexico State Water Quality Standards. In the 1999 opinion, Defenders of Wildlife v. Browner, the Ninth Circuit Court of Appeals held that discharges of storm water associated with industrial activities must be in strict compliance with water quality standards.³³ Numeric effluent limits are essential for ensuring strict compliance with water quality standards and for determining if the permittee is in compliance with its permit requirements.³⁴

A panel of eight experts convened by the California State Water Board determined in a 2006 report entitled *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities* at 19 (attached as exhibit 23), that “numeric limitations are feasible for some industrial categories.” The panel found that numeric limits are appropriate for existing facilities where there is water quality monitoring data available.³⁵ LANL is an existing facility and there is certainly a large amount of water quality monitoring data on hand. Therefore, it is appropriate, and in fact necessary for the protection of water quality standards, for numeric limits to be included as a permit requirement. In addition, the draft permit should require technology-based effluent limitations.³⁶

Specifically, the maximum target levels (MTL) and the average target levels (ATL) in the draft permit should be revised to incorporate a margin of safety and then be converted to numeric

³² Letter from Marcy Leavitt, Chief, Surface Water Quality Bureau, NMED, to Willie Lane, EPA, (December 1, 2006) (attached as exhibit 22).

³³ Defenders of Wildlife v. Browner, 191 F.3d 1159 (9th Cir. 1999).

³⁴ 33 U.S.C. § 1342(p)(3)(A); 33 U.S.C. § 1311; 40 C.F.R. § 122.44 (d) (numeric limits are necessary to achieve water quality standards and state requirements); 40 C.F.R. § 122.43 (a) (numeric limits are necessary to assure compliance with all applicable CWA requirements).

³⁵ Exhibit 23 at 20.

³⁶ 33 U.S.C. § 1316; 40 C.F.R. § 122.44(a)(1), (e).

permit limits. As demonstrated above (see discussion on pages 1-6 and exhibits 3-17), LANL has already shown an unwillingness to apply the appropriate resources to control storm water discharges, which is apparent by the fact that both EPA and NMED have had to create separate, site-specific enforcement documents (the FFCA and the NMED/LANL March 1, 2005 Consent Order) to force LANL to comply with existing permits, regulations, water quality standards and enforcement mechanisms.

Indeed, LANL has failed to meet several milestones under NMED's Consent Order. In a 2008 letter to DOE, NMED details the factors that they perceive to be at play in this noncompliance: "NMED recognizes that insufficient budget is an important factor in driving further noncompliance. It is, however, by no means the only factor, as disagreements over technical approach, inadequate project oversight, management breakdowns, and mistakes in execution have emerged as other important factors."³⁷ Just last week, the DOE Inspector General reported that DOE was experiencing delays in meeting deadlines outlined in the cleanup order with NMED for LANL.³⁸ Further, DOE did not certify the documents necessary to support its funding requests to Congress until last November, even though the Consent Order has been in place for over three years. And the projected cleanup costs do not include \$947 million for what is termed "unfunded" contingencies. The data outlined above (see pages 1-6 and exhibits 3-17), show that contaminants are consistently discharged at levels above water quality standards (in the case of PCBs, up to 38,000 times over water quality standards), despite numerous attempts, over many years, by both federal and state officials to bring LANL into compliance.

All of this leads to the conclusion that the time has come to require clear-cut conditions, such as numeric effluent limitations, with fines for noncompliance, to ensure that the more than 10 impacted streams at LANL and the Rio Grande downstream are protected from future discharges.

³⁷ Letter from Ron Curry, Secretary, New Mexico Environment Department, to Theodore Wyka, U.S. Department of Energy, March 27, 2008 (attached as exhibit 24)

³⁸ The Department's Progress in Meeting Los Alamos National Laboratory Consent Order Milestones, available at: <http://www.ig.energy.gov/documents/IG-0793.pdf>, and hereby incorporated by reference.

IV. THE WATER QUALITY STANDARDS OF NEARBY PUEBLOS MUST BE PROTECTED.

Several Pueblos are located near LANL. Approved and proposed Pueblo water quality standards must be taken into account in order to protect the Pueblo people's use of river and tributary water for ceremonial uses. Therefore, the Pueblo Nations should be consulted and offered tribal CWA section 401 certification authority for the permit.

Furthermore, because EPA has created a time and resource roadblock to additional federally approved tribal water quality standards – by not processing proposed standards and related paperwork in a timely manner – the permit should be protective of the water quality standards, whether they are federally approved or not, of Pueblos surrounding LANL. EPA must offer the opportunity for CWA section 401 certification to these Pueblo Nations.

V. MONITORING IS NOT REPRESENTATIVE IN THE DRAFT PERMIT.

Pursuant to 40 C.F.R. part 122.41 (j) and section 9.16.1 of the MSGP, all “[s]amples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.” The draft permit does not require adequate representative sampling: the monitoring schedule is inadequate; Site Monitoring Areas (“SMAs”) are too large; location and size of collection mechanisms need to be refined and site visits have shown that monitoring devices were not functioning properly. EPA should address the following concerns in the final permit to ensure that there is representative monitoring.

A. Monitoring Schedule and Frequency is Not Protective and Does Not Ensure Representative Monitoring

To ensure representative monitoring of the contaminated sites, the monitoring schedule needs to be improved:

- i. Under the draft permit, further sampling is not required for the rest of the permit period and presumably for the life of the next permit from sites where the analytical results from two samples are below applicable ATLS and MTLs. Continued sampling of these sites must be required. Originally, the permit application included approximately 1300 sites. LANL has gradually reduced that number to 411. Presumably, these sites are the worst of the worst of the 1300 sites. In order to protect public health and the environment, we request that these worst sites be monitored for

the life of the permit. After the initial two samples are collected during the first year of the permit, at least annual sampling should be required of the sites that do not show any exceedances during the first year. At least two samples a year should be required at the sites that have shown exceedances.

- ii. The draft permit states that “sampling is not required prior to the installation of BMPs” (page 6 of draft permit). Monitoring should be conducted at all sites during the first year of the permit, regardless of whether or not Best Management Practices (“BMPs”) have been installed. During the first year, to ensure representative monitoring, at least two samples should be collected at each site regardless of whether or not BMPs have been installed. Monitoring of all sites during the first year will help LANL to prioritize which sites should first receive BMP installation efforts as well as help determine what kind of BMP should be installed. In addition, BMPs should be installed at all sites during the first year. LANL can indicate in the sampling data whether or not the sampling occurred before or after the BMP installation. Ideally, in the first year, EPA would require one sample to be collected before BMP installation, and then a sample collected after BMP installation. Less ideally, but still better than the schedule set up in the draft permit, two samples should be taken either before or after BMP installation.
- iii. The draft permit exempts LANL from further sampling of sites with samples that were collected under the FFCA with results that were below the applicable MTL or ATL, whereas sites that had FFCA sample results that were above the applicable MTL or ATL are not treated any differently than new sites that have not been sampled before. Sites that have years and years of data showing exceedances of standards and/or WSALS have been placed in the same extended 6-7 year BMP schedule before complete elimination of the pollution source, pollution exposure, or pollution discharge is required. It does not make sense to count the FFCA sample results when they show no exceedances and then not take into account FFCA sampling when it has shown exceedances. To ensure the permit is protective of water quality standards, previous monitoring of sites under the FFCA should not exempt these sites from future monitoring under the proposed permit. In addition, sites where FFCA results show exceedances, the pollution source, pollution exposure, or pollution discharge should be removed during the first two years of the permit (see comment below under BMP Schedule). LANL has been given more than enough time already to bring these sites

into compliance. LANL has been in continual violation of the MSGP and has repeatedly failed to control problem sites under the FFCA with traditional BMPs. It is therefore necessary and appropriate to require the final pollution removal BMP during the first two years of the new permit.

- iv. Confirmation monitoring should be required at all sites where LANL has been required to totally eliminate either the source of pollution, the exposure of pollutants, or the discharge of pollutants - not just at sites where source elimination is the selected final BMP. Without this follow up monitoring, how are we to know if the final BMP has been successful? For example, if LANL chooses to eliminate the exposure of pollutants by installing a cap, there is no way to know if the cap was large enough or placed in the correct location unless there is follow up monitoring to confirm that no further discharges are occurring.
- v. The draft permit states (page 7, part 1) that if only one confirmation sample is collected during a 360 day period after the BMP installation or enhancement due to lack of storm runoff or snowmelt, then the compliance status should be determined on that single result. To best protect water quality, if only one sample is collected and the results show an exceedance of the ATL or the MTL, then either enhanced BMPs or elimination of pollution should be required within 360 days. As we have outlined above, giving sites an off ramp from further sampling, presumably forever, is not appropriate. At least one sample a year should be required of all sites for all years of the permit. Alternatively, if EPA proceeds with allowing sites to have an off ramp from future monitoring, in cases where only one sample is collected during a 360 day period and it is less than the applicable ATL or MTL, than at least one more sample should be required during the next 360 day period before no further sampling is required.
- vi. EPA should require that at least one of the two samples be from a large storm event. EPA should consult with NMED to determine how many inches within a 24 hour would constitute a "large storm event". In addition, EPA should require at least one sample from each site over the life of the permit that is from a 5-year storm event or larger. Large storm events transport the bulk of the contaminants and to ensure representative monitoring of the discharge, monitoring of these large storm events must be required.

B. Snowmelt samples should not be allowed.

Because snow often melts slowly and gradually, snowmelt often does not pick up the pollutants that larger storm events do. If LANL collects two samples, one from snowmelt and one from a small storm event, then the sampling results will not be representative as they will be missing the large storm events, during which the highest concentrations of pollutants are transported. To ensure that sampling is representative, snowmelt samples should be excluded in addition to requiring at least one of the two samples be from a large storm event.

C. SMAs Too Large/Not Representative.

In a number of cases, monitoring at the SMA level is not adequate for obtaining representative samples. Several of these SMAs are over 50 acres in size (R-SMA-2 covers 796.846 acres, ACID-SMA-2 covers 52.661 acres, LA-SMA-5.5 covers 76.088 acres, and LA-SMA-5.9 covers 49.953 acres), which could result in substantial dilution of the samples collected. SMAs should monitor only one site to ensure representative monitoring.³⁹ In addition, page 7 of part I of the permit states that *if* a SMA is used to collect representative samples of substantially identical sites then LANL must include, in its Site Discharge Pollution Prevention Plan ("SDPPP"), the location of the sites, why they are expected to discharge substantially identical effluents; and an estimate of the size of the drainage area for each of the sites and for the associated SMA. It is not clear whether the same SDPPP requirements apply if the SMA is used to collect representative samples of sites that are not substantially identical.

D. Collection Mechanisms Need to Be Refined.

The sample collection mechanism is not adequate.⁴⁰ We are not aware of a study or analysis that shows that the sample bottles are of adequate size and adequate distance from their corresponding contaminated site. Without such an analysis, any assertion that the bottles are collecting representative samples is speculative. If there is a large rain event, the sample bottle could be quickly filled with rain and be too full by the time the runoff from the contaminated sites reaches the sample location. For example, if the sample bottle is too far away from the contaminated site, and there is a large storm event, it is possible that the bottle will be filled prematurely with

³⁹ 40 C.F.R. § 122.41(j)(1) ("Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity."); 40 C.F.R. § 122.21(g)(7)(i) (outfalls must be "substantially identical before EPA may allow permittee to sample only one).

⁴⁰ 40 C.F.R. § 122.48.

uncontaminated runoff generated near the collection bottle. By the time the contaminated runoff reaches the collection bottle, the bottle is full and thus the contaminated runoff is not collected, making the sample not representative of the discharge from the contaminated site. There should be maximum distance limitation for sampling locations in relation to each contaminated site. In addition, the draft permit requires that "samples must be collected beginning within the first 30 minutes (or soon after as practical, but not to exceed 1 hour) of a measurable discharge of runoff." This time limitation should consider the particular site and how far away the SMA is from the contaminated site. For example, if a sample is collected within the first several minutes of runoff, before the potentially contaminated runoff from sites furthest away gets a chance to reach the sampling location, the sample will not be representative; conversely, if the SMA is very close to the contaminated site, a short time period is appropriate.

Despite these issues, the draft permit does not require any particular collection mechanism for monitoring in the permit. Furthermore, there is no analysis included in the draft permit that demonstrates that LANL's sampling equipment is functioning adequately. Thus, Citizen Groups have the following questions about LANL's monitoring:

1. What specific methods and equipment does LANL use to conduct its monitoring?
2. Has this equipment been tested, and if so, does it meet EPA or other scientifically accepted standards?
3. Are there other methods and/or equipment that would produce more accurate results?
4. If so, why does the draft permit not require such methods and/or equipment?

Citizen Groups are particularly concerned about these issues because they have observed monitoring devices that are not functioning properly. On the October 10, 2007 citizen tour of Los Alamos National Laboratory stormwater sites, several of the monitoring devices did not appear to be functioning. For example, at Solid Waste Management Unit ("SWMU") 21-001(k), the tube attached to the collection bottle looped upwards so that the level of the tube between the opening of the tube/collection point and the collection bottle was higher than the opening, making it unlikely that a sample would be collected, as the runoff would have to run uphill to the upwards tilting tube (photo attached as Exhibit 25). At the Los Alamos Gauge, one of the collection tubes, which LANL employees indicated led to the LANL sample collection device, was broken. See Exhibit 26 (picture).

These examples illustrate how imperative it is that the permit include strict requirements for monitoring as presently, LANL does not appear to be taking the time to ensure that required monitoring is being conducted properly.

VI. THE BMP SCHEDULE IS INADEQUATE AND NEEDS TO BE IMPROVED.

Sites that have shown continual water quality standard violations or water screening action levels (“wSALs”) violations under previous monitoring should be cleaned up during year one, instead of going through the 6 or 7 year BMP enhancement schedule in the draft permit. LANL has consistently failed to meet wSALs under the FFCA. For example, during the first two quarters of 2007, there were 31 SMAs that had wSAL exceedances.⁴¹ Many of these SMAs had multiple exceedances for multiple constituents. In 2006, wSAL exceedances occurred in one or more samples at 98 separate SMAs.⁴² Many of these sites have already gone through years of BMP installations that are clearly not working, as demonstrated by the continual discharge of pollutants. For example, at SWMU 01-001(f), for the years 2004 and 2005 there were 7 separate BMPs installed,⁴³ yet this site still shows the highest levels of PCBs at LANL. In 2005, eight separate BMP enhancements were installed at SWMU 03-014(b2), yet all the samples collected at the associated SMA (S-SMA-3.5) in 2006 show wSAL for cadmium, arsenic, copper, lead, and zinc.⁴⁴ To require only one BMP enhancement a year for the next 6 years before requiring complete cleanup is not adequate. It is irresponsible to allow these sites up to 7 more years of discharges when LANL has already shown an inability to control the discharges through traditional BMP enhancements. There is already sufficient information as documented by reports and documents associated with the FFCA, the Consent Order, and LANL’s own extensive water quality database to warrant immediate elimination/removal of contamination. For the sites that have continually shown exceedances of water quality standards or wSALs, we do not need 6-7 more years of sampling before cleanup is required. Rather, complete elimination of the pollution should be required during year one.

⁴¹ FFCA Quarterly Status Report, August 29, 2007, submitted to EPA by LANL (attached as exhibit 27)

⁴² FFCA Quarterly Status Report, March 1, 2007, submitted to EPA by LANL (attached as exhibit 28)

⁴³ FFCA Quarterly Status Report, May 30, 2006, submitted to EPA by LANL (attached as exhibit 29)

⁴⁴ (Exhibit 28 at 3-121)

The draft permit should require enhanced BMPs to be completed sooner than one year from the knowledge of an exceedance of water quality standards. LANL has demonstrated the ability to install multiple BMPs at multiple sites over a year period as demonstrated by 7 BMPs being installed at one SWMU (01-001(f)) during a 2 year period (see exhibit 29 at Enclosure II). Given some of the already known levels of contaminants being transported in stormwater, a more appropriate compliance schedule would be 60 days. The current compliance schedule of one year for BMP installation is too long.

VII. ADDITIONAL SITES MUST BE INCLUDED IN THE PERMIT.

All sites where LANL has had historic spills of PCBs (see exhibits 10 and 11) should be included in the permit and monitored for PCBs unless previous sampling using the congener method has indicated that the site has been cleaned up and no further PCB exceedances are occurring. EPA should cross reference the attached list of sites where there have been historic PCB spills, with the sites included in the permit to ensure that these sites are covered by the permit and that PCB monitoring is required. As detailed above on page 5 of these comments, SWMU 21-024(m) has been identified by NMED as a PCB source,⁴⁵ yet this site is neither included in the draft permit nor is it included in the list and corresponding justification of sites proposed to not receive coverage under the permit. This PCB contaminated site should be included in the final permit and monitoring for PCBs should be required.

VIII. EPA MUST REQUIRE MONITORING AT 42 ADDITIONAL SMAS.

The current draft permit is incomplete in that 42 SMAs do not have any monitoring requirements. Appendix A of the permit (February 2008 version) has 221 SMAs, while appendix C, which details the permit monitoring requirements, only lists 179 SMAs and their corresponding monitoring requirements. Monitoring requirements must be required of these 42 additional SMAs.

IX. SITE-SPECIFIC MONITORING REQUIREMENTS ARE INADEQUATE AND SHOULD BE EXPANDED.

The site specific monitoring requirements outlined in Appendix C of the draft permit are not adequate. When referenced against the FFCA fourth quarter monitoring report for 2006 (attached

⁴⁵ Exhibit 14.

as exhibit 28)—the most recent data we have that summarizes a full year of data—Appendix C of the draft permit is lacking critical sampling requirements. For example, at B-SMA-1, there are no water quality monitoring requirements in the draft permit, yet the 2006 FFCA report shows that out of the four samples taken in 2006, copper and lead exceeded the wSAL in all four samples, and arsenic, vanadium and zinc exceeded the wSALs in three of the four samples.⁴⁶ This example is not an isolated incident. Six of the nine SMAs in Chaquehui Canyon do not have adequate monitoring requirements. At CHQ-SMA-1, during 2006, there are multiple wSAL exceedances of cadmium, arsenic, and zinc in addition to copper,⁴⁷ yet the draft permit only requires monitoring of copper. At CHQ-SMA-3, all four of the four monitoring results showed exceedances of the copper wSAL,⁴⁸ yet there are no metal monitoring requirements included in the draft permit. At CHQ-SMA-4, both of the two samples taken during 2006 show copper exceedances and one of the two had an exceedance of the zinc wSAL,⁴⁹ yet the draft permit only requires copper monitoring. At CHQ-SMA-5, all three of the samples taken during 2006 show exceedances of the copper wSAL, and two of the three samples show Zinc wSAL exceedances,⁵⁰ yet there are no metal sample requirements in the draft permit. At CHQ-SMA-6, three of the five samples collected in 2006 show wSAL exceedances of copper, three of the five have zinc exceedances, two of the five have arsenic exceedances, and one of the five has a vanadium exceedance,⁵¹ yet only copper has a monitoring requirement in the draft permit. At CHQ-SMA-7 (same as CHQ-SMA-7.1), all four of the four samples have copper wSAL exceedances, three of the four samples have zinc wSAL exceedances, two of the four have arsenic and cadmium exceedances, and one of the four has a lead exceedance,⁵² yet there are no metal monitoring requirements in the draft permit. Another example can be found in SMA sites in Pajarito Canyon. FFCA monitoring results for 2006 at PJ-SMA-15 show 37 separate wSAL exceedances⁵³ in metals yet none of the three new SMAs in the draft permit (PJ-SMA-248, PJ-SMA-248.5, and PJ-SMA-249) that include the SWMUs that made up PJ-SMA-15, require metal monitoring requirements. These are only provided as examples and are not meant to be comprehensive, over half of the SMA monitoring requirements reviewed in the draft permit and then compared against FFCA monitoring results for

⁴⁶ Exhibit 28 at 3-18.

⁴⁷ Id. at 3-3

⁴⁸ Id. at 3-7

⁴⁹ Id. at 3-8

⁵⁰ Id. at 3-10

⁵¹ Id. at 3-11

⁵² Id. at 3-14

⁵³ Id. at 3-105

2006 show similar inconsistencies. The limited sampling results that we do have for 2007 show similar problems, at PJ-SMA-15, two of the three samples reported showed copper and zinc exceedances at levels well above the wSALS, zinc was detected as high as 338 ug/L (the wSAL is 120 ug/L and the MTL is 117 ug/L), and copper was detected at levels as high as 36 ug/L (the wSAL is 14 ug/L and the MTL is 13.4 ug/L).⁵⁴ Yet, as mentioned above, none of the three SMAs that include the SWMUs that made up PJ-SMA-15 require monitoring for any metals. Another example can be found at LA-SMA-5.5; 2007 data through July 17 shows multiple wSAL exceedances of copper, lead, and zinc⁵⁵ yet the draft permit does not require metal monitoring from LA-SMA-5.5.

X. COMPLIANCE WITH WATER QUALITY STANDARDS SHOULD BE REQUIREMENT OF NEW PERMIT.

The MSGP part 3.3 states that discharges under the permit “must not be causing or have the reasonable potential to cause or contribute to a violation of a water quality standards” (see exhibit 31 at 64811).⁵⁶ The draft permit does not explicitly include this requirement in the permit. While it is assumed that it is a requirement of the permit because otherwise the permit would not be legal, it should be explicitly stated in the final permit as it is in the MSGP to avoid any confusion or misunderstanding.

XI. THE SCHEDULE OF COMPLIANCE IS INAPPROPRIATE.

The current schedule of compliance is unnecessary and illegal. As mentioned above, NPDES permits must include requirements that insure that a permittee complies with water quality standards.⁵⁷ Specifically, industrial discharges, such as LANL’s, must comply with CWA section 301(b), 33 U.S.C. §1311, which requires that “there shall be achieved . . . not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards . . .⁵⁸ Numerous courts have held that neither the EPA nor the states have the authority to extend the deadlines for compliance established by Congress in CWA section 301(b)(1).⁵⁹

⁵⁴ Water Screen Action Level Exceedance Report, July 27, 2007, (attached as exhibit 30)

⁵⁵ Exhibit 30 at page 8

⁵⁶ 33 U.S.C. § 1342(p)(3)(A); 33 U.S.C. § 1311(b); 40 C.F.R. § 122.44(d).

⁵⁷ Id.

⁵⁸ 33 U.S.C. § 1342(p)(3)(A).

⁵⁹ See State Water Control Board v. Train, 559 F.2d 921, 924-25 (4th Cir. 1977) (“Section 301(b)(1)’s effluent limitations are, on their face, unconditional.”); Bethlehem Steel Corp. v.

Furthermore, a schedule of compliance is allowed only “when necessary to allow a reasonable opportunity to attain compliance with requirements,” and any such schedules “shall require compliance as soon as possible.”⁶⁰ A compliance schedule must result in attainment of the water quality standard.⁶¹

The compliance schedules included in the draft permit is illegal. As an initial matter, it is not “necessary” to allow attainment with CWA requirements. As discussed above, LANL has had years to comply with requirements set forth in previous permits and the FFCA and has failed to do so. LANL’s failure, again as documented above, is not due to an inability, but rather failings on the part of LANL itself. EPA should not condone such incompetency in LANL’s permit by allowing them 6 to 7 more years to comply; more importantly, the CWA does not allow EPA to do so. LANL can comply in a much shorter timeframe, and as such, a compliance schedule is not appropriate. Furthermore, although the compliance schedule in this permit has interim requirements, it fails to require numeric effluent limitations in order to insure compliance with water quality standards.⁶² Finally, the compliance schedule extends beyond the life of the permit without including final effluent limitations, or any mechanism to ensure enforceability as required by CWA section 502(17). Thus, the draft permit’s allowance of 6 to 7 years for compliance with water quality standards is illegal.⁶³

XII. THE EFFLUENT LIMITATIONS GUIDELINES FOR CONTAMINATED STORMWATER DISCHARGES INCLUDED IN THE MSGP SHOULD BE INCLUDED IN THE PERMIT.

There are a number of effluent limitation guidelines (“ELGs”) that are included in the MSGP that are not included in the draft permit (see exhibit 31 at 64775). These ELGs should be included in

Train, 544 F.2d 657, 661 (3d Cir. 1976), cert denied sub nom. Bethlehem Steel Corp. v. Quarles, 430 U.S. 975 (1977) (“Although we are sympathetic to the plight of Bethlehem and similarly situated dischargers, examination of the terms of the statute, the legislative history of [the Clean Water Act] and the case law has convinced us that July 1, 1977 was intended by Congress to be a rigid guidepost).

⁶⁰ Id. at (a)(2).

⁶¹ 33 U.S.C. § 502(17); 40 C.F.R. § 122.2.

⁶² U.S. Environmental Protection Agency, Region IX, California Permit Quality Review Report on Compliance Schedules (Oct. 31, 2007) (see exhibit 32).

⁶³ 40 C.F.R. § 122.47(a)(1) (“Any schedules of compliance . . . shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA.”).

the final permit in the ATL/MTL list. For constituents that are included in both, the lower value should be adopted as the ATL or MTL in the final permit. Constituents with ELGs in the MSGP that are not in draft permit include: BOD5, ammonia, alpha terpineol, aniline, benzoic acid, naphthalen, p-cresol, phenol, pyridine, and pH.

XIII. IMPAIRED WATERS ARE NOT ADEQUATELY ADDRESSED IN THE PERMIT.

Los Alamos Canyon within LANL boundaries was assessed in the 2006-2008 303d list, and was listed as impaired for aluminum, gross alpha, mercury, PCBs and selenium. Inappropriate waste disposal and Industrial/Commercial Stormwater discharges are listed as two probable sources of impairment.⁶⁴ Sandia Canyon is listed as impaired for aluminum, gross alpha, mercury, and PCBs.⁶⁵ Pueblo Canyon is listed as impaired for aluminum, gross alpha, mercury, PCBs, radium 226, radium 228 and selenium.⁶⁶ Cañada del Buey within LANL property is listed as impaired for aluminum, gross alpha, radium 226, and radium 228.⁶⁷ Pajarito Canyon within LANL above Starmers Gulch is listed as impaired for aluminum, gross alpha, radium 226, radium 228, and selenium.⁶⁸ Pajarito Canyon within LANL below Arroyo de La Delfe is listed as impaired for aluminum, gross alpha, radium 226, radium 228 and selenium.⁶⁹ Water Canyon within LANL below Areas-A is listed as impaired for aluminum, arsenic, cadmium, copper, gross alpha, selenium, vanadium, and zinc.⁷⁰

Most of these impairments are not listed in the statement of basis and therefore presumably not taken into account in the draft permit. All SMAs within these canyons should be required to monitor for the associated impaired contaminants. In the draft permit, this is not currently the case; for example, in Water Canyon there are many SMAs that are not required to sample for metals and there are numerous metals listed on the 303d list for Water Canyon within LANL boundaries.

⁶⁴ 2006-2008 State of New Mexico Integrated 303d List, pg.99, (relevant sections attached as exhibit 33).

⁶⁵ Id. at 221

⁶⁶ Id. at 108

⁶⁷ Id. at 201

⁶⁸ Id. at 213

⁶⁹ Id. at 214

⁷⁰ Id. at 227

NMED is currently preparing several TMDLs for the waters at LANL. In a 2003 letter to the Vermont Agency of Natural Resources (attached as exhibit 34), EPA details under which circumstances it is appropriate to reissue a permit for an existing discharge when water quality standards are not being met and a TMDL has not been drafted or approved. The three situations that EPA identifies as appropriate for discharges into impaired waters prior to TMDL development are “first where the discharge does not contain the pollutant for which the water is impaired; second, in circumstances involving non-bioaccumulative and non-persistent pollutants where the permit contains effluent limits that are at or below either the numeric criteria or a quantification of the a narrative water quality criterion such that the effluent will not increase the pollutant concentration in the waterway; and third, where the increased load is offset by load reductions from other sources discharging to the impaired segment.” The draft permit authorizes discharges of bioaccumulative and persistent pollutants into canyons which are listed as impaired for those pollutants and for which there is no demonstrated load reduction from other sources. As such, does not meet any of the three scenarios identified by EPA above as appropriate for discharging into impaired waters.

XIV. THE PERMIT NEEDS TO TAKE INTO ACCOUNT CLIMATE CHANGE AND THE RESULTING IMPACT ON THE NEW MEXICO’S HYDROLOGICAL SYSTEM.

New Mexico is already seeing the impacts of climate change on its hydrological system. In 2006, the New Mexico Office of the State Engineer and the Interstate Stream Commission published a report entitled *The Impact of Climate Change on New Mexico’s Water Supply and Ability to Manage Water Resources* (attached as exhibit 35). This report outlines the impacts that we can expect to see on New Mexico’s water resources including an increase in the intensity of flood events *Id at 5-16*. The DOE Oversight Bureau in their 2006 Annual Report (attached as exhibit 17), report that the LANL canyons “experienced the highest storm water flows ever recorded.”⁷¹ The draft permit should take into the predicted increase in intensity of storm events by making sure that monitoring requirements ensure that large storm events are monitored as detailed above at V.(A)(vi).

⁷¹ Exhibit 17 at 16.

XV. THE DRAFT PERMIT IS CONFUSING IN THAT MULTIPLE SMAS ARE LISTED AS MONITORING LOCATIONS FOR THE SAME SITE.

There are numerous instances where multiple SMAs are listed as monitoring locations for the same SWMU. Is this a typo or are all of these SMAs collecting representative samples from the same site? For example SMA LA-SMA-5.9, LA-SMA-6.25, LA-SMA-6.27, LA-SMA-6.3, LA-SMA-6.32, LA-SMA-6.34, LA-SMA-6.36, LA-SMA-6.38, LA-SMA-6.39, LA-SMA-6.5, DP-SMA-0.3, DP-SMA-0.6, DP-SMA-1, DP-SMA-2, DP-SMA-2.3, DP-SMA-3, and DP-SMA-4 all monitor site 21-021. LA-SMA-0.9 and LA-SMA-1 both monitor the same two sites (00-017 and C-00-044). EPA should clarify this situation. What happens if there are ATL/MTL exceedances at all of the SMAs listed above, can LANL install only one BMP at site 21-021 and not at the other sites located at those SMAs and still be in compliance with the BMP enhancement permit requirement?

XVI. ANCHO CANYON SHOULD BE INCLUDED IN THE PERMIT.

Ancho Canyon should be included in the list of receiving waters that the permit is addressing on page one of the permit. There are 9 SMAs located in Ancho Canyon in the draft permit and therefore Ancho Canyon should be listed as one of the receiving waters in the permit. In addition, because Ancho is a perennial water body and it is not included in section 20.6.4.126 of the New Mexico Water Quality standards, the permit should also list section 20.6.4.99 of the water quality standards as applying to discharges. Ancho Canyon is fed by springs and has a perennial flow both on LANL property and downstream to the confluence of the Rio Grande.

Sincerely,

Rachel Conn
Amigos Bravos
P.O. Box 238
Taos, NM 87571
rconn@amigosbravos.org

Joni Arends
Concerned Citizens for Nuclear Safety
Santa Fe, NM

Sheri Kotowski
Embudo Valley Environmental Monitoring
Dixon, NM

Marian Naranjo
Honoring Our Pueblo Existence
Santa Clara Pueblo, NM

Harold Trujillo
New Mexico Acequia Association
Santa Fe, NM

Joan Brown
Partnership for Earth Spirituality
Albuquerque, NM

Kathy Sanchez
Tewa Women United
San Ildefonso Pueblo, NM

Marlene Perrotte
Albuquerque, NM

Corrine Sanchez
San Ildefonso Pueblo, NM

Liana Sanchez
San Ildefonso Pueblo, NM

Gilbert A. Sanchez
San Ildefonso Pueblo, NM

J. Gilbert Sanchez
San Ildefonso Pueblo, NM