NPDES PERMIT NO. NM0030759
LOS ALAMOS NATIONAL LAB. (LANL)
STORMWATER INDIVIDUAL PERMIT
COMMENTS ON SAMPLING IMPLEMENTATION PLAN (SIP)

PERMIT: Los Alamos National Laboratory (LANL)
Stormwater Individual Permit
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ISSUING OFFICE: U.S. Environmental Protection Agency (EPA)
Region 6
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PREPARED BY: NPDES Permitting and Wetlands Section
Water Division

PERMIT ACTION: EPA comments on the initial SIP received on April 3, 2023.

DATE PREPARED: May 2, 2023

INTRODUCTION

The LANL Stormwater Individual NPDES permit regulates stormwater discharges associated with LANL historical industrial activities from solid waste management units (SWMUs) and/or areas of concern (AOCs). As part of the final LANL Stormwater permit issued on June 29, 2022, and effective on August 1, 2022, the Permittees (N3B & EM-LA) shall develop and submit to EPA for review and approval the SIP, and annually thereafter updates to the approved SIP, that includes: the monitoring location list and the monitoring requirements list as established in Part I.E.2.

The Permittees have prepared a draft SIP and provided the New Mexico Environment Department (NMED) the opportunity to comment on October 14, 2022. NMED provided comments on the initial SIP on December 1, 2022. NMED comments were revised and addressed by the Permittees on December 29, 2022. A 45-day public comment period for the draft SIP was publicly noticed on January 4, 2023, in the LANL Individual Permit Website and formally ended on February 18, 2023. On March 30, 2023, the Permittees mailed the initial SIP to the EPA, and it was formally received by the EPA on April 3, 2023.

The EPA has reviewed the initial SIP and is requiring the following revisions as necessary. Once the final revisions have been made in the SIP, the EPA will approve the SIP and make a minor modification to add the SIP into the final NPDES Permit.

Overview/General Comments

1. The Final SIP shall be uploaded in the Individual Permit Public Website as required by Part II.C(1) under the Sampling Implementation Plan tab. If the SIP is stored elsewhere in the webpage (e.g., Electronic Public Reading Room), please provide an easy link under the SIP tab to redirect to the Reading Room.

2. In annual SIP updates, EPA requests a Section under the Overview summarizing substantial changes from the previous SIP.

3. Per Part I.C.2.b.(i) – *SW Tier 3; When the confirmation sample result for one or more POCs exceeds the TAL and 90th percentile composite BTV, the SMA shall enter corrective action per Part I.D.* As last resort, Permittees may also seek to place a Site into Alternative Compliance per Part I.D.2; *whereby corrective action shall be accomplished on a case-by-case basis pursuant to an individually tailored control measure approved by the EPA.* The SIP must clearly indicate that Corrective Action procedures required by Part I.C.2.b.(i) will commence upon sampling results indicate that at least one POC has exceeded TAL and BTV regardless of whether sampling has not been completed for all Site POCs.

   The Site status list should clearly indicate whether they are in Corrective Action (i.e., have completed all Confirmation Monitoring and one or more POCs have exceeded TALs and BTVs), Active Monitoring (i.e., have not completed Confirmation Monitoring for all POCs and for those completed non exceeded TALs and BTVs) or in a combination of the two (i.e., Corrective Action for some POCs and in Active Monitoring for POCs that have not yet completed Confirmation Sampling).

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4. ACID-SMA-2 – Active Monitoring status but exceeds TAL and BTV for PCBs in stormwater samples. ACID-SMA-2 drains to South Fork Acid Canyon (Pueblo Canyon to headwaters), which has impairments for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

5. ACID – SMA-2.1 – Active Monitoring status but exceeds TAL and BTV for PCBs in stormwater samples. ACID-SMA-2.1 drains to South Fork Acid Canyon (Pueblo Canyon to headwaters), which has impairment for PBCs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

6. LA-SMA-0.85 – Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. LA-SMA-0.85 drains to Los Alamos Canyon (DP to upper LANL boundary). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #*3.*

7. LA-SMA-4.1 – Active Monitoring but exceeds TAL and BTV for Copper and PCBs in stormwater samples. LA-SMA-4.1 drains to Los Alamos Canyon (DP Canyon to upper LANL boundary), which has impairment for PCBs. This Site should be in Corrective Action for Copper and PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

8. LA-SMA-5.02 - Active Monitoring but exceeds TAL and BTV for PCBs in stormwater samples. LA-SMA-5.02 drains to Los Alamos Canyon (DP Canyon to upper LANL boundary), which has impairment for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

9. LA-SMA-5.361 - Active Monitoring but exceeds TAL and BTV for Selenium in stormwater samples. LA-SMA-5.361 drains to Los Alamos Canyon (DP Canyon to upper LANL boundary), which has impairment for Total Recoverable Selenium. This Site should be in Corrective Action for Selenium and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

10. DP-SMA-0.4 - Active Monitoring but exceeds TAL and BTV for Aluminum and Copper in stormwater samples. DP-SMA-0.4 drains to DP Canyon (400m upstream of grade control to upper LANL boundary), which has impairments for total recoverable aluminum and dissolved copper. This Site should be in Corrective Action for Aluminum and Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

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11. S-SMA-0.25 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. S-SMA-0.25 drains to Sandia Canyon (Sigma Canyon to NPDES Outfall 001), which has impairments for dissolved copper. This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

12. S-SMA-1.1 - Active Monitoring but exceeds TAL and BTV for PCBs in stormwater samples. S-SMA-1.1 drains to Sandia Canyon (Sigma Canyon to NPDES Outfall 001), which has impairments for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

13. S-SMA-2 - Active Monitoring but exceeds TAL and BTV for PCBs in stormwater samples. S-SMA-2 drains to Sandia Canyon (Sigma Canyon to NPDES Outfall 001), which has impairments for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

14. S-SMA-3.53 - Active Monitoring but exceeds TAL and BTV for Copper and PCBs in stormwater samples. S-SMA-3.53 drains to Sandia Canyon (Sigma Canyon to NPDES Outfall 001), which has impairments for dissolved copper and PCBs. This Site should be in Corrective Action for Copper and PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

15. S-SMA-3.6 - Active Monitoring but exceeds TAL and BTV for Copper and Zinc in stormwater samples. S-SMA-3.6 drains to Sandia Canyon (Sigma Canyon to NPDES Outfall 001), which has impairment for Dissolved Copper. This Site should be in Corrective Action for Copper and Zinc and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

16. S-SMA-3.72 - Active Monitoring but exceeds TAL and BTV for PCBs in stormwater samples. S-SMA-3.72 drains to Sandia Canyon (within LANL below Sigma), which has impairments for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

17. CDB-SMA-0.25 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. CDB-SMA-0.25 drains to Cañada del Buey (within LANL). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

18. CDB-SMA-0.55 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. CDB-SMA-0.55 drains to Cañada del Buey (within LANL). This Site should be in

Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

19. CDB-SMA-1 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. CDB-SMA-1 drains to Cañada del Buey (within LANL). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

20. M-SMA-1 - Active Monitoring but exceeds TAL and BTV for Copper and Zinc in stormwater samples. M-SMA-1 drains to Mortandad Canyon (within LANL), which has impairment for Dissolved Copper. This Site should be in Corrective Action for Copper and Zinc and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

21. M-SMA-1.2 - Active Monitoring but exceeds TAL and BTV for Copper and Zinc in stormwater samples. M-SMA-1.2 drains to Mortandad Canyon (within LANL), which has impairment for Dissolved Copper. This Site should be in Corrective Action for Copper and Zinc and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

22. M-SMA-4 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. M-SMA-4 drains to Effluent Canyon (Mortandad Canyon to headwaters), which has not been assessed for impairments. This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

23. M-SMA-6 - Active Monitoring but exceeds TAL and BTV for Copper and PCBs in stormwater samples. M-SMA-6 drains to Effluent Canyon (Mortandad Canyon to headwaters), which has not been assessed for impairments. This Site should be in Corrective Action for Copper and PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

24. M-SMA-10.3 – 2022 Permit Status (Table 99.0) should be Corrective Action and not Active Monitoring. Corrective Action was initiated per 99.5.3.

25. M-SMA-12 – 2022 Permit Status (Table 101.0) should be Corrective Action and not Active Monitoring. Corrective Action was initiated per 101.5.3.

26. T-SMA-1 - Active Monitoring but exceeds TAL and BTV for Copper, PCBs and Zinc in stormwater samples. T-SMA-1 drains to Ten Site Canyon (Mortandad Canyon to headwaters), which has impairments for PCBs. This Site should be in Corrective Action for Copper, PCBs and Zinc and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

27. T-SMA-6.8 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. T-SMA-6.8 drains to Ten Site Canyon (Mortandad Canyon to headwaters). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

28. T-SMA-7.1 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. T-SMA-7.1 drains to Ten Site Canyon (Mortandad Canyon to headwaters). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

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29. 2M-SMA-1.8 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. 2M-SMA-1.8 drains to Two Mile Canyon (Pajarito to headwaters), which has impairments for Copper. This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

30. 2M-SMA-1.9 - Active Monitoring but exceeds TAL and BTV for Copper and Zinc in stormwater samples. 2M-SMA-1.9 drains to Two Mile Canyon (Pajarito to headwaters), which has impairments for Copper. This Site should be in Corrective Action for Copper and Zinc and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

31. 3M-SMA-4 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. 3M-SMA-4 drains to Three Mile Canyon (Pajarito to headwaters). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

32. PJ-SMA-5 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. PJ-SMA-5 drains to Pajarito Canyon (Arroyo de la Delfe to Starmers Gulch). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

33. PJ-SMA-9 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. PJ-SMA-9 drains to Pajarito Canyon (Two mile Canyon to 500 m ds of Arroyo de la Delfe), which has impairments for Copper. This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

34. PJ-SMA-20 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. PJ-SMA-20 drains to Pajarito Canyon (lower LANL boundary to Two Mile Canyon), which has impairments for Copper. This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

35. STRM-SMA-1.05 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. STRM-SMA-1.05 drains to Starmers Gulch (Pajarito Canyon to headwaters). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

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36. CDV-SMA-2.41 - Active Monitoring but exceeds TAL and BTV for PCBs in stormwater samples. CDV-SMA-2.41 drains to Cañon de Valle (LANL gage E256 to Burning Ground Spring), which has impairments for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

37. W-SMA-9.7 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. W-SMA-9.7 drains to S-Site Canyon (Water Canyon to headwaters). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

38. W-SMA-11.7 – Check 215.5.2 and 215.5.3, unclear if Stormwater samples were collected at this monitoring stage.

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39. A-SMA-6 - Active Monitoring but exceeds TAL and BTV for Copper in stormwater samples. A-SMA-6 drains to Rio Grande (Cochiti reservoir to boundary of Pueblo de San Ildefonso). This Site should be in Corrective Action for Copper and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

40. CHQ-SMA-0.5 - Active Monitoring but exceeds TAL and BTV for Copper and PCBs in stormwater samples. CHQ-SMA-0.5 drains to Chaquehui Canyon (within LANL), which has impairments for PCBs. This Site should be in Corrective Action for PCBs and continue Active Monitoring for POCs that have yet completed the Confirmation Sampling. Please refer to EPA Comment #3.

Comments from Communities for Clean Water (CCW)

General Comments

CCW Comment
1a. SIP Process and Formatting:
Please show the location and number of soil sample locations on the Site Monitoring Maps. With the heavy emphasis on soil sampling, it is difficult to adequately review the SIP without this critical information.

DOE Response

1a. Maps developed and approved by the New Mexico Environment Department (NMED) during the initial 2016–2018 SIP exercise, as discussed in Section 1.3 of the SIP Overview, are included in the Individual Stormwater Permit Renewal application, dated July 15, 2019, which is available on the Individual Permit (IP) public website. These maps contain soil sampling locations available at that time. It is infeasible to add the soil sampling locations to the site monitoring area (SMA) maps, due to scale and resource availability. Additionally, Section X.2 in each site-specific chapter includes the most recent soil investigation report, with citation. These reports are available on the Electronic Public Reading Room (EPRR) and contain maps with soil sample locations.

EPA Response
1a: Site Monitoring Maps and location and number of soil sample locations can be found in the LANL Individual Permit public webpage. The requirements of the Sampling Implementation Plan can be found in Permit Part I.E.2.a & b.

CCW Comment
1b. SIP Process and Formatting:
The document does not appear to contain a definition (or easy way of locating) what pollutants of concern (POCs) are specifically included in sampling for constituents such as SVOCs, DOC, SSC, etc.

DOE Response
1b. Pollutants of concern (POCs) with target action levels (TALs) and/or water quality standards (WQS), including metals, organic chemicals, and pesticides, have been added to Table 1.4-1 in the SIP Overview. The dissolved organic carbon (DOC) definition has been added to Appendix A, Acronyms and Glossary. The semivolatile organic compound (SVOC) and suspended sediment concentration (SSC) definitions are present in Appendix A. DOC and SSC are not included in Table 1.4-1 because they are not POCs.

EPA Response
1.b: Permittees added additional information on pollutants of concern in Table 1.4-1 in the Overview. Other definitions have been added in Appendix A.

CCW Comment
1c. SIP Process and Formatting:
CCW requests that the annual IP public meeting as required under PART II.C.3 of the 2022 IP be held annually between January 15th and March 15th to coincide with the annual SIP update process. We request that the intention to hold the public meeting during this time to review the previous year's sampling results and proposed changes to the SIP be written into the SIP itself.

DOE Response
1c. The IP public meeting schedule is determined based on many factors, and the Permittees cannot provide set schedules at this time. Beginning in 2024, the Permittees will attempt to hold the meeting between January 15 and March 15th.

EPA Response
1.c: The Permittees will attempt to hold the meeting between January 15 and March 15 beginning in 2024. EPA encourages Permittees to hold these meetings before the Sampling begins for each year.

CCW Comment
1d. SIP Process and Formatting:
It would make the SIP review process transparent to have the acronym list up front or the very least provide a link to acronyms in PDF instead of as an appendix.

DOE Response
1d. An acronym list is provided as Appendix A in the SIP Overview.

EPA Response
1.d: The acronym list is provided as Appendix A in the Overview.

CCW Comment
1e. SIP Process and Formatting:
Throughout the SIP there is language that states "corrective action was initiated" at sites but omits any summary of what type of corrective action or whether this corrective action was complete or is still in process. It is therefore unclear if we are awaiting confirmation sampling to determine if the corrective action was effective or if we are still waiting for the corrective action to be implemented. It is essential to have more details about the corrective action status of each site.

DOE Response
1e. In the initial SIP, the Permittees presented a summary of more than 12 years of activities that occurred under the 2010 IP for the convenience of the reader. Specific details of each corrective action, and the current status, can be found in the corresponding Site Discharge Pollution Prevention Plan Updates and/or author report(s) that are available on the public website.

EPA Response
1.e: See EPA comment #3 above, regarding clarification of the Sampling and Corrective Action status for each Site. The details of the Corrective Actions can be found in the SDPPP updates and/or author reports available on the public website.

CCW Comment
1f. SIP Process and Formatting:
Figure 1.5-1 – Site Specific Demonstration Process Flowchart. The flowchart inaccurately depicts that decisions about removing POCs and ultimately deleting whole sites can be made solely on soil data without collecting or reviewing stormwater data. The flowchart should be edited to show that stormwater data must be considered, especially when making decisions about deleting sites. In addition, please revise the flowchart to clarify that soil sample results can also lead to POCs being identified for corrective action.

DOE Response

1f. The flowchart reflects the site-specific demonstration process and is part of the Permit per the NMED State Certification dated February 22, 2022. No Site will be requested for deletion without stormwater data.

EPA Response
1.f: NMED Surface Water Quality Bureau and NMED Hazardous Waste Bureau worked with the Permittees to develop a sediment removal decision tree that accounted for both hazardous waste and surface water regulatory requirements for removal of sediments accumulated in stormwater retention facilities. NMED included this decision tree as supplemental information to this certification to assist in decision making regarding maintenance of BMPs required under this permit. The Permit requirements for Site Deletions are found at Part I.C.4 and do not rely solely on the flowchart.

CCW Comment
1g. SIP Process and Formatting:
Table 3.3-1 has a confusing footnote labeled "a". CCW believes that this footnote should be labeled " * " instead. Also, this table inaccurately identifies sites that are RCRA deferred as eligible for long-term stewardship (LTS) solely on RCRA deferral status. See comment number #3 below for more details.

DOE Response
1g. The footnote in Table 3.3-1 has been corrected to '*' Per the U.S. Environmental Protection Agency's (EPA's) June 24, 2022 Response to Draft IP Public Comment #13, "Resource Conservation and Recovery Act (RCRA) deferred sites with best management practices (BMPs) required under Part I.A have been added to Part I.C.3. Maintenance of these controls is required under Part I.A.1.b." The Permittees have adhered to this BMP requirement and will continue to do so. Therefore, the RCRA-deferred SMAs listed in Table 3.3-1 of the SIP Overview are eligible for long-term stewardship (LTS).

EPA Response
1.g: Footnote corrected. RCRA-deferred SMAs listed in Table 3.3-1 are eligible for Long-Term Stewardship (LTS) Category per Part I.C.3.

CCW Comment
1h. SIP Process and Formatting:
Table 4.1-1 needs more explanation about why there are "1s" and "2s" under each POC.

DOE Response
1h. A footnote has been added to the table and the reference in the text for Table 4.1-1 (Section 4.0) has been modified to read:
Table 4.1-1 shows the Master SAP for the project, with 1s and 2s indicating the number of samples required. By default, two samples are planned for each POC. One sample is planned when the POC was analyzed for in a previous sample in the same stage at the SMA.

EPA Response
1.h: A footnote has been added to explain what are "1s" and "2s".

CCW Comment
1i. SIP Process and Formatting:
It would be helpful to have clickable bookmarks in the pdf to be able to click to different sections of the SIP, including to the acronym list and specific tables.

DOE Response
1i. The document format is developed using the Newport News Nuclear BWXT-Los Alamos, LLC (N3B) Regulatory Documentation template.

EPA Response
1.i: Comment noted. LANL may consider adding this feature to future SIPs.

CCW Comment
1j. SIP Process and Formatting:
Analytical plots should consider using a symbol other than an open circle. In some cases, when sampling results overlap it is not possible to discern an open circle from a closed one.

DOE Response
1j. The Permittees went through many iterations of symbols when developing the analytical plots and decided to use circles. When results overlap, the reader is encouraged to review the tabular data provided below the analytical plot.

EPA Response
1j: EPA notes that detected sample results from Soil and Water Data are tabulated in Tables for each SMA.

CCW Comment
1k. SIP Process and Formatting:
For some sites either the SIP is inaccurate in stating that all pollutants that showed exceedances in soil did not show TAL exceedances in stormwater or not all the data has been included in the SIP (for example: W-SMA-9.9, W-SMA-10, W-SMA-14.1, A-SMA-2, among others).

DOE Response
1k. Per Section 2.2 of the SIP Overview, “For the purposes of the SSD, only the most recent monitoring stage of stormwater data is used. For example, if an SMA had progressed from Baseline Monitoring to Corrective Action, only data from the Corrective Action stage would be screened.” The dates and years of previous-stage sampling, which are not presented in the SIP but included as part of the SSD, are provided in Section X.1 in the five SIP volumes, 2010 Administratively Continued Permit Summary, as applicable. The analytical results from these samples can be found in the corresponding IP Annual Report(s) for those year(s), which are available on the IP public website. Additionally, all analytical data for confirmation-monitoring samples collected for the IP are available on Intellus.

EPA Response

1k: To be representative of the current Site conditions and controls, the most recent monitoring stage of stormwater data is used and shall be used in the SIP. Sampling for each pollutant will depend on site history, impairment, and stormwater data for each SMA.

CCW Comment
1l. SIP Process and Formatting:
In annual updates CCW requests to have changes to the SIP clearly identified – either through underline/bold, redline strikeout (RLSO) or some other form of highlighting.

DOE Response
1l. Future annual updates of the SIP will include only the changes for the monitoring year and should be viewed as a new document.

EPA Response
1l: Please refer to EPA comment #2.

CCW Comment
1m. SIP Process and Formatting:
CCW requests that the SIP requirements outlined in the 2022 IP PART I.E.2 of the permit be included the SIP Introduction. It would be helpful to have the exact permit language to reference when reviewing the SIP.

DOE Response
1m. Due to the size of the document, verbatim Permit language will not be introduced. All documentation related to the Permit is available on EPA's website, https://www.epa.gov/nm/lanlstorm-water-individual-permit-npdes-permit-no-nm0030759 .

EPA Response
1m: The Final Permit can be found at the EPA Region 6 NPDES webpage. The requirements of the Sampling Implementation Plan can be found in Permit Part I.E.2.a & b.

CCW Comment
2. Sites with TAL and BTV Exceedances: CCW is concerned that many sites with TAL and BTV exceedances are not being put into corrective action as per the permit requirement at PART I.D.1. For example, many sites including, but not limited to, P-SMA-3.05, LA-SMA-.85, LA-SMA- 4.1, M-SMA-3, M-SMA-4, S-SMA-3.53, S-SMA-3.6, S-SMA-3.72, have TAL and BTV exceedances but instead of being placed into corrective they have been left in the active monitoring category. For some of these sites, such as for LA-SMA-4.1, the POCs (PCBs and copper) that have TAL and BTV exceedances are no longer being monitored at the site, indicating that the current TAL/BTV results are not going to change with additional monitoring. In addition, many of the sites have stormwater data dating back more than 2 years that show TAL and BTV exceedances, meaning that even if only one sample was collected during this time, this one sample should be considered representative as per PART I.B of the 2022 IP and the site should be put into corrective action. Throughout the SIP the following language is used: "the permit uses current-stage monitoring data for the SSD". It is unclear what this language means and if it means that a sample that was taken in

previous years such as in 2013 or 2016 is no longer being considered adequate. It does appear that if one sample was collected in previous years and it did not exceed TALs, then that data is considered adequate, and no further sampling or action is being required - see LA -SMA-9 as an example. CCW is concerned that the Permittees are using this double standard.

Required Action: All sites that have a BTV and TAL exceedance must be put immediately into the corrective action category as required by the permit.

DOE Response
2. Corrective actions are based on TAL exceedances per Part 1.B.1. SMAs are screened to active monitoring when not all site-related POCs have yet been analyzed, as stated in Permit Part I.E.2.b. If the SIP requires the addition of one or more POCs for monitoring and the Site has previously entered corrective action, the Permittees are required to complete all applicable requirements of Part I.B.1 and initiate confirmation monitoring for all added POCs.
With regard to the use of "current-stage monitoring data for the SSD," Section 2.2 of the SIP Overview has been updated as follows: For the purposes of the SSD, only the most recent monitoring stage stormwater data is used. For example, if an SMA had progressed from Baseline Monitoring to Corrective Action with no sampler move, only data from the Corrective Action stage would be screened.

EPA Response
2. Please see EPA Comment #3.

CCW Comment
3. Long Term Stewardship (LTS): CCW is concerned that that sites that have either TAL or BTV exceedances (or both) and in some cases have TAL and BTV exceedances for POCs that are both site-related and impaired in the receiving waterbody, such as is the case for S-SMA-6, are being put into the LTS category instead of into corrective action based on the following poorly worded and poorly placed permit language: "The LTS Category includes Sites that do not meet the requirements for Site deletion under Part I.C.4 and RCRA deferred sites with BMPs required, but do not currently require additional corrective action." PART I.C.3 of the 2022 IP. CCW's interpretation of this sentence is that LTS category includes sites that do not meet requirements for site deletion, do not meet the requirements for RCRA deferral, and do not require corrective action. Taking S-SMA-6 as example to apply this sentence:

- ***S-SMA-6 does not meet requirements for site deletion (therefore could potentially be a LTS site)***
- ***S-SMA-6 is a RCRA deferred site, (therefore, LTS is not appropriate)***
- ***corrective action is required at this site because both BTVs and TALs are exceeded. (therefore, LTS is not appropriate).***

As per PART 3.3 of the SIP, it appears that LANL is interpreting this sentence differently to mean that the LTS category does include RCRA deferred sites. Regardless of which interpretation is followed, at least for S-SMA-6 ,this question should be moot given the last clause of the sentence "but do not currently require additional corrective action", because corrective action is indeed required at S-SMA-6 due to the exceedance of TALs and BTVs. In addition, while this confusing sentence provides guidance, it does not stand alone in

determining whether sites can be put in the LTS category. For a site to be put in LTS is must also meet one of the fourcriteria listed in PART I.C.3 of the 2022 IP. Finally, on a practical note, CCW points out that RCRA status does not necessarily tell us whether the site is currently discharging pollutants in stormwater, as is demonstrated by the high levels of gross alpha, copper, and lead being detected in stormwater samples at S-SMA-6.

Required Action: All 16 sites that have been proposed for LTS based on RCRA deferral status must be reevaluated before the final SIP is issued for the 2023 season.

DOE Response
3. Per EPA's June 24, 2022 Response to Draft IP Public Comment #13, "RCRA deferred sites with BMPs required under Part I.A have been added to Part I.C.3. Maintenance of these controls is required under Part I.A.1.b." The Permittees have adhered to this BMP requirement and will continue to do so. Therefore, the RCRA-deferred SMAs listed in Table 3.3-1 of the SIP Overview are eligible for LTS.

EPA Response
3. Long Term Stewardship (LTS) Category includes Sites that do not meet the requirements for Site Deletion under Part I.C.4 and RCRA deferred sites with BMPs required, but do not currently require additional corrective action per I.C.3. Deferred site means the SWMU or AOCs for which full investigation and/or remediation is deferred until such time as the SWMU or AOC is taken out of service or otherwise becomes accessible (e.g., firing sites and active facilities). The Permittees are eligible to include the RCRA deferred sites in Table 3.3-1 for LTS Category.

CCW Comment
4. Site Related POCs and Impaired Waterbodies: The permit requires sampling of site related POCs that are impaired in the receiving water body:
"For Sites discharging to impaired and water quality-limited waters (see table below), if the pollutants for which the water body is impaired are determined to be Site-related, as demonstrated under Part I.C.2 of the permit (Site Specific Demonstration), the Permittees shall include the Site-related pollutants of impairment on the priority list for each Site in the SIP and shall prioritize these pollutants for analysis in the event a partial sample is collected." PART I.B.4 of the 2022 IP
Unfortunately, there are many sites where sampling for pollutants for which the water body is impaired is not occurring, including at sites where the impaired pollutant has been determined to be site related. Four examples:

- ***LA-SMA-6.395: At this site mercury is impaired in the receiving waterbody, is considered site related (48.4.2 of the SIP) and exceeded the BTV in stormwater (Figure 48-4.1) yet mercury is omitted in the SAP.***
- ***LA-SMA-9: It appears that while one sample from previous years has not been deemed adequate to trigger corrective action, one sample is being used to eliminate further sampling for impaired, site related pollutants. Cyanide is impaired in the receiving water body, may be site-related (50.4.2 of the SIP), was exceeded in soil samples (Figure 50-3.1 of the SIP) and was only sampled once in stormwater, yet cyanide monitoring is omitted in the SAP.***

- ***PJ-SMA-3.05: Aluminum is impaired in the receiving water body, may be site related, and there isn't any stormwater or soil data, yet aluminum monitoring is omitted in the SAP.***
- ***W-SMA-14.1: Mercury is impaired for the receiving water body and exceeded in the BTV is stormwater, indicating that mercury is being discharged from the site. (Unless the SMA is not representative, in which case the there is a larger problem of the permit not including representative monitoring for the sites covered by W-SMA-14.1.) Mercury monitoring is omitted in the SAP.***

The first and last examples above are especially problematic because the BTV for the impaired pollutant (mercury) was exceeded indicating that the site is discharging mercury and could be causing or contributing to the exceedance of water quality standards. This points to the larger issue of BTVs being used to get out of sampling and corrective action, but not being used to trigger corrective action when they are exceeded. See comment number #5 below for more on this topic.

Required Action: Sites must be reevaluated to ensure that pollutants for which the receiving water body is impaired are being adequately monitored, especially where other indicators such as BTV exceedances, soil exceedances, and identification that impairments may be site related are present.

DOE Response

4. Per the SSD process, as depicted in Figure 1.5-1 of the SIP Overview, impairment(s) not listed on the proposed sampling analysis plan (SAP) in Table X.5-1 in the five SIP volumes do not require continued monitoring under the current stage because either:

- Impairment is or is not a Site-related POC, but the applicable screening value was not exceeded in soil data and the TAL was not exceeded in stormwater data; or,
- The Permit does not require stormwater monitoring for Site-related POCs that are below TAL, even in the event the composite background threshold value (BTV) was exceeded.

For LA-SMA-6.395, the following text was added: "Although there is an impairment for mercury, the applicable screening value was not exceeded in soil data and the TAL was not exceeded in stormwater data. Therefore, it will not be added to the SAP."

For LA-SMA-9, because the SMA remains in active monitoring, one additional sample for cyanide has been added to the SAP.

For PJ-SMA-3.05, the following text was added: "Aluminum was measured below TAL in the previous monitoring stage; therefore it will not be added to the SAP."

For W-SMA-14.1, the following text was added: "Although there is an impairment for mercury, it is not a Site-related POC, the applicable screening value was not exceeded in soil data, and the TAL was not exceeded in stormwater data. Therefore, it will not be added to the SAP."

EPA Response

4. EPA concurs with the changes in LANL response to CCW #4.

CCW Comment

5. BTVs and Representative Sampling: As per federal regulations monitoring in NPDES permit must be representative of the monitored activity (40 CFR 122.41(j)(1)). In addition, the permit itself specifies that monitoring in the permit must be representative:
"SMA locations are based on reasonable site accessibility for sampling purposes and samples taken must be representative of discharges of storm water from Site-affected media (soil, sediment, or bedrock) as determined by the SIP" (PART I.B.2 of the 2022 IP). Therefore, as per federal regulations and permit language, SMA sampling is considered representative of the discharges from the sites and any exceedance of background levels for pollutants in SMA sampling is an indication that the site is discharging those pollutants. While this concerning for all sites where this occurring, and there are many sites and many pollutants where this happens (including but not limited to 2M-SMA-3, B-SMA-.5, B-SMA-1, Acid-SMA-2, Acid-SMA-2.1, LA-SMA-.85, LA-SMA-3.05, LA-SMA-4.1, LA-SMA-6.395, LA-SMA-9, PJ-SMA-5.1, 3M-SMA-4, 3M-SMA-.4, to name a few), it is especially concerning where the receiving water body is impaired for a pollutant that has a BTV exceedance (including but not limited to LA-SMA-6.395, PJ-SMA-4.05, 2M-SMA-3).

Required Action: BTV exceedances, even when a TAL has not been exceeded, is an indication that the pollutant is site related and is being discharged from the site. Pollutants that have BTV exceedances should be added to the SAP and further analysis must be done, especially in cases where the pollutant is impaired in the receiving water body, to determine if the levels being discharged from the site may be causing or contributing to the violation of a water quality standard.

DOE Response

5. Monitoring is based on TALs and WQS, not BTVs, per Permit Parts I.1 and I.C.1. Per Permit Part I.C.2.b(i), site-specific SSD stormwater tiers are based on exceedance of TAL(s) or TAL and 90th percentile composite BTVs. The Permit does not require stormwater monitoring for Site-related POCs that are below TAL, even if the composite BTV was exceeded.

EPA Response

5. Per Part I.C.2, the Permittees may use the Site-specific information to perform a site-specific demonstration (SSD) showing that a Site or Sites are not reasonably expected to be the source for POCs that have exceeded applicable TALs and/or composite BTVs. If the BTV was exceeded and the TAL was not exceeded, the SMA is not required to add that pollutant to the SAP.

CCW Comment

6. Site Deletion: Sites that have soil and BTV exceedances should not be eligible for site deletion. For example, R-SMA-2.3 shows soil exceedances for beryllium, chromium, lead, mercury, and thallium (Figure 3.3-1 in the SIP), and BTV exceedances for cobalt, zinc, nickel yet it is being proposed for site deletion. Site CDV-SMA-6.02 has soil exceedances for cadmium, lead, selenium, and zinc and a BTV exceedance for cobalt and is also being proposed for site deletion.

Required Action: Sites, such as R-SMA-2.3 and CDV-SMA-6.02 that have soil and BTV exceedances should not be eligible for site deletion.

DOE Response
6. These sites are eligible for deletion per Part I.C.4.e of the Permit, which states that deletion can be requested if components (i) and (ii) of Part I.2.b are satisfied. Where soil exceedances are presented with Sites eligible for deletion, the constituents are either not Site-related POCs or were also measured in stormwater data and did not exceed TALs. Where exceedances of BTVs in stormwater data are presented with Sites eligible for deletion, the TAL was not exceeded. The Permit requires monitoring based on exceedances of TALs, or TAL and composite BTVs, not exceedances of only composite BTVs.

With respect to R-SMA-2.3, chromium, lead, mercury, and thallium were also measured in stormwater data and did not exceed TALs. Cobalt is not a Site-related POC, did not exceed in soil data, and did not exceed the TAL but did exceed BTV in stormwater data. Beryllium is not a Site related POC and has no TAL. The Permit requires monitoring based on exceedances of TALs or TAL and composite BTVs, not exceedances of only composite BTVs. Therefore, stormwater Tier 1 and soil data Tier 1 criteria have been met, and this Site is eligible for deletion.

With respect to CDV-SMA-6.02, cadmium, lead, selenium, and zinc were monitored for in stormwater and did not exceed TALs. They are also not Site-related POCs. Cobalt, zinc, and nickel are not Site-related POCs, did not exceed in soil data, and did not exceed the TAL but did exceed BTV in stormwater data. The Permit requires monitoring based on exceedances of TALs or TAL and composite BTVs, not exceedances of only composite BTVs. Therefore, SW Tier 1 and SD Tier 1 criteria have been met, and this Site is eligible for deletion.

EPA Response
6. Sites eligible for deletion:

- R-SMA-2.3 – Stormwater Tier 1 and soil data Tier 1 criteria have been met and the Site would be eligible for deletion per Part I.C.4.e.

- CDV-SMA-6.02 – Stormwater Tier 1 and soil data Tier 1 criteria have been met and the Site would be eligible for deletion per Part I.C.4.e.

CCW Comment
7a. Additional Site-Specific Comments:
S-SMA-0.25: This site shows the following:

- ***soil sample exceedances including for the following pollutants: cadmium, copper, zinc, lead, chromium, PCBs and cyanide among other pollutants,***
- ***BTVs exceedances for lead, copper, nickel, zinc, vanadium and colbalt,***
- ***TAL exceedances for copper, zinc, PCBs, and gross alpha, and***
- ***metals, PAHs, organic chemicals, beryllium, chromium, lead, nickel, inorganic chemicals, and PCBs, are all identified as known or suspected to be used historically at the site.***

The SIP only mentions the copper TAL and BTV exceedance and does not mention the zinc TAL and BTV exceedance. In addition, since SMA stormwater sampling is required to be representative and if the Permittees are going to rely heavily on soil data, both soil and BTV

exceedances need to be used to make determinations about monitoring and ideally (zinc and copper), this site should be immediately put into corrective action.
Required Action: Due to TAL and BTV exceedances for copper and zinc this site should be put immediately into corrective action. This is especially critical since the receiving water body is impaired for copper. In addition, any future monitoring should include the POCs that exceeded BTVs, as BTV exceedances are indicators that the site is contributing those pollutants to stormwater concentrations.

DOE Response
7a. Corrective actions are based on TAL exceedances per Part 1.B.1. S-SMA-0.25 remains in active monitoring because not all Site-related POCs have been measured yet, per Permit Part I.E.2.b.

EPA Response
7.a: S-SMA-0.25 – Please refer to EPA Comment #3 and #10.

CCW Comment
7b. Additional Site-Specific Comments:
W-SMA-9.9: This site shows the following:

- ***Soil exceedances for antimony, copper, cyanide, nickel, and zinc.***
- ***Gross alpha TAL exceedance***
- ***The site has been placed into LTS because it is RCRA deferred***

The SIP says "All Site-related POCs that exceeded the applicable screening values in soil data were previously measured in stormwater data and did not exceed TALs, therefore, they will not be added to the SAP", (PART213.5.1 of the SIP), yet stormwater data is only included for aluminum, cyanide, and gross alpha.

Required Action(s): This site should be reevaluated for LTS because as mentioned previously in the comments, RCRA deferral by itself is not an adequate reason for placing sites in LTS, and is especially not adequate as per PART I.C.3 for sites with TAL or BTV exceedances, such as this site. This site should be placed in active monitoring for copper, antimony, nickel, zinc, gross alpha, and other gross alpha related pollutants. If further sampling shows that gross alpha exceeds the composite BTV or any of the other pollutants exceed TAL and BTVs the site should be placed immediately into corrective action.

DOE Response
7b. The Permittees did not place W-SMA-9.9 into LTS per Part I.C.3 (e.g., RCRA deferred). Gross alpha is the only Site-related TAL exceedance, and accordingly, the SMA is eligible for LTS pursuant to Permit Part I.C.3.c.

As specified in Part 2.5.1 of the SIP Overview, the plots include all data from the current monitoring stage; data from previous stages are not included. As noted in Section 213.1 of the SIP, the previous stage of stormwater collection occurred in August 2011. Results from that sample can be found in that year's corresponding Annual Report, available on the IP website. Antimony, copper, nickel, and zinc are not Site-related POCs.

EPA Response
7.b: W-SMA-9.9 – SMA was placed into LTS Category per Part I.C.3.c criterion, since only gross alpha is the site related TAL exceedance. Note that the New Mexico WQS is for Adjusted Gross Alpha.

CCW Comment
7c. Additional Site-Specific Comments:
ACID-SMA-2 This SMA shows the following:

- ***TAL exceedances for adjusted gross alpha, aluminum, and PCBs***
- ***BTV exceedances for PCBs, mercury, lead***
- ***Soil exceedances for antimony, cadmium, copper, chromium, lead, mercury, manganese, silver, nickel, zinc, PCBs, strontium-90 and others.***

Required Action: The SMA should be put into corrective action immediately because the TAL and BTV were exceeded for PCBs. After corrective action sampling for all pollutants currently in the SAP, plus PCBs, and at a minimum also lead and mercury as they are currently showing both BTV and soil level exceedances, must be conducted.

DOE Response
7c. Corrective actions are based on TAL exceedances per Part 1.B.1. ACID-SMA-2 remains in active monitoring because not all Site-related POCs have yet been measured, per Permit Part I.E.2.b.

EPA Response
7.c: ACID-SMA-2 – Please refer to EPA Comment #3 and #4.