Designation Decision and Record of Decision in Response to Petition by Amigos Bravos for a Determination that Stormwater Discharges in Los Alamos County Contribute to Water Quality Standards Violations and Require Clean Water Act Permits

I. SUMMARY OF PETITION AND REGION 6 DETERMINATION

On June 30, 2014, Amigos Bravos, a river conservation organization in New Mexico, submitted to the Regional Administrator of EPA Region 6 (EPA) "A Petition by Amigos Bravos for a Determination that Stormwater Discharges in Los Alamos County Contribute to Water Quality Standards Violations and Require a Clean Water Act Permit" (the Petition). The Petition calls for a "determination, pursuant to 40 CFR § 122.26(a)(9)(i)(D), that non-de minimis, currently non-NPDES permitted stormwater discharges in Los Alamos County are contributing to violations[1] of water quality standards in certain impaired waters throughout the area, and therefore require National Pollutant Discharge Elimination System (NPDES) permits pursuant to section 402(p) of the Clean Water Act and/or designation as a municipal separate storm sewer system."

The Petition alleges that urban stormwater from Los Alamos County sites, particularly urban stormwater from developed areas at Los Alamos National Laboratory (LANL), the Los Alamos Townsite, and the community of White Rock Canyon (White Rock), is contributing to violations of New Mexico state water quality standards (NM WQS), including state WQS for polychlorinated biphenyls (PCBs), copper, zinc, and nickel, and that as a result, these sites should be subject to NPDES permitting requirements. CWA § 402(p)(2)(E) and EPA's stormwater regulations at 40 CFR § 122.26(a)(9)(i)(D) provide that the Director may designate stormwater discharges as requiring NPDES permit coverage if he or she determines that the discharge, or category of discharges within a geographic area, contributes to a violation of a WQS or is a significant contributor of pollutants to waters of the U.S. Pursuant to 40 C.F.R. § 122.2, "[w]hen there is no 'approved State program,' and there is an EPA administered program, 'Director' means the Regional Administrator." Because the State of New Mexico is not authorized to implement a state NPDES program, EPA Region 6 administers the NPDES program in the State. In response to the Petition, Los Alamos County and LANL submitted to EPA additional information and data related to stormwater discharges in Los Alamos County on November 4, 2014 and November 24, 2014, respectively.

After careful review of the Petition and the additional information provided by LANL and Los Alamos County, as well as review of the State of New Mexico's assessment of water quality in the area, on March 17, 2015, EPA Region 6 published notice in the Federal Register (80 FR 13852) of a preliminary determination that discharges of stormwater from small municipal separate storm sewer systems (MS4s) on LANL property and urban portions of Los Alamos County contribute to violations of one or more NM WQS. The notice opened a 30-day public comment period ending April 16, 2015, on the preliminary designation decision, which EPA later extended an additional 60 days to June 15, 2015. Copies of all comments received are included in Appendix 3, and EPA's responses to those comments are included as Appendix 4.

[1] The Clean Water Act uses the term "violation" but here EPA acknowledges that under the Clean Water Act, water quality standards are not directly enforceable and means that term to refer to an exceedance of water quality standards.

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Based on comments received on the preliminary designation decision from interested parties, EPA re-analyzed the data and re-examined its initial determination that the discharges of urban stormwater from the preliminarily designated areas (the discharges) contribute to violations of WQS. In addition, New Mexico Environment Department (NMED) submitted to EPA a letter dated October 18, 2019 stating that NMED supports the proposed MS4 designations for the discharges at issue.[2] The State's letter explains that it conducted a study and confirmed that elevated levels of metals and PCBs are contained in urban stormwater leaving the impervious areas of LANL and the County. In addition, NMED's October 18, 2019 letter raises concerns about the impacts of stormwater from the Los Alamos area on water quality in the Rio Grande, a river that leads to what later becomes a drinking water source for both the City of Santa Fe and the City of Albuquerque and is used for irrigation.

In EPA's reanalysis of the data after the public comment period, EPA considered two basic factors:

1) Evidence of Water Quality Impairment: EPA asked the question, "Were the receiving waters for stormwater discharges from the Los Alamos Urban Cluster, the White Rock Urban Cluster, and LANL listed as impaired on the State of New Mexico's latest CWA section 303(d) list of impaired waters (available online at https://www.env.nm.gov/swqb/303d-305b/)" Being listed on the state's 303(d) list would indicate that New Mexico already determined that waterbody to be water quality-impaired for one or more pollutants and thus there was no assimilative capacity remaining for those pollutants. As a result, discharges of stormwater containing those pollutants would contribute to the impairment if the discharge contained levels above NM's WQS.

   Conclusion: As described below, at least some of the discharges from LANL and the Los Alamos Urban Cluster are to waters listed as impaired on the State of New Mexico's CWA section 303(d) list. While there are impairments listed for the Rio Grande River, which stormwater discharges from the White Rock Urban Cluster ultimately reach, the immediate receiving waters at White Rock are not listed as impaired.

2) Evidence that the Level of the Pollutants of Concern in the Stormwater Discharges from Los Alamos County Are Contributing to the CWA § 303(d) Impairments: EPA asked the question, "Did at least some of the stormwater discharges from the Los Alamos Urban Cluster, the White Rock Urban Cluster, and/or LANL have maximum or median sampling results exceeding one or more of the NM's WQS for a parameter that was listed as a cause of impairment on the state's CWA section 303(d) list?" Because waterbodies listed as impaired for a pollutant or pollutants have no remaining assimilative capacity for those pollutants, maximum or median sampling results exceeding the state's WQS for one or more of those pollutants would indicate that the discharges containing the pollutant or pollutants at levels above the WQS contribute to a violation of that WQS.

   Conclusion: Available discharge data indicate that some of the stormwater discharges from the Los Alamos Urban Cluster and LANL show maximum and/or median values that exceed state WQS. No discharge data was available for stormwater discharges from the White Rock Urban Cluster. See Appendix 4.

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[2] Letter from NMED Secretary James C. Kenney to EPA Region 6 Regional Administrator Ken McQueen dated October 18, 2019, superseding NMED letter dated June 15, 2015, which had not supported designation.

Final Designation Decision:

After re-analyzing the available data with an emphasis on the above two factors, EPA determined that the stormwater discharges from the Los Alamos Urban Cluster and LANL are contributing to violations of NM WQS. However, upon reassessment of the data, EPA has determined that there is insufficient data about the stormwater discharges from the White Rock Urban Cluster to establish that stormwater discharges from White Rock are contributing to WQS violations. A more detailed discussion of EPA's analysis and the basis for its conclusions is found below and in EPA's responses to comments in Appendix 4.

After careful analysis of the Petition, comments on the Preliminary Designation, and all available information, EPA hereby designates for NPDES permitting as regulated small MS4s the following: MS4s located in the portion of Los Alamos County, New Mexico within the Los Alamos Urban Cluster as defined by the latest Decennial Census, and MS4s located on Los Alamos National Laboratory property located within Los Alamos County and Santa Fe County, New Mexico.

EPA's designation covers MS4s owned or operated by the following entities on LANL property and in the Los Alamos Urban Cluster as stormwater discharges requiring NPDES permit coverage pursuant to 40 CFR § 122.26(a)(9)(i)(D):

1. LANL, including Triad National Security, LLC (Triad) and the U.S. Department of Energy's National Nuclear Security Administration (NNSA) located within Los Alamos County and Santa Fe County, New Mexico,
2. Los Alamos County, New Mexico, located within the Los Alamos Urban Cluster as defined by the latest decennial Census,
3. New Mexico Department of Transportation (NMDOT) located within the Los Alamos Urban Cluster as defined by the latest decennial Census, and
4. NMDOT located within and interconnected with regulated LANL (Triad and NNSA) storm sewer systems in Los Alamos and Santa Fe Counties, New Mexico.

Under an NPDES permit, dischargers will be required to reduce pollutants in stormwater discharges to the Maximum Extent Practicable, effectively prohibit non-stormwater discharges into municipal separate storm sewers, and address water quality impacts as appropriate, thereby addressing concerns that these discharges are contributing to violations of NM WQS. See CWA section 402(p)(3)(B)(2)-(3) and 40 CFR § 122.34. NPDES MS4 permit(s) issued pursuant to this designation will cover only stormwater discharges from the covered MS4s. Stormwater discharges from undeveloped areas within the footprint of the designation that are not discharges from a MS4 will not be subject to permitting requirements under this designation. For example, LANL has large undeveloped areas within its property that do not appear to be served by a MS4.

II. BACKGROUND

As part of the Water Quality Act of 1987 (WQA), P.L. 100-4 (Feb. 4, 1987), Congress required EPA to establish permitting requirements for certain stormwater discharges, including discharges from large and medium MS4s. (WQA § 405, codified as CWA § 402(p), 33 U.S.C. § 1342(p)). Congress also gave EPA authority to designate additional stormwater discharges for permitting on a case-by-case basis (often referred to as EPA's residual determination authority). EPA Region 6, responding to a petition under 40 CFR § 122.26(f)(2) and (4), has determined to designate certain small MS4s in Los Alamos County pursuant to 40 CFR § 122.26(a)(9)(i)(D).

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A. Current Status of Stormwater Discharges in Los Alamos County Regulated under the NPDES Stormwater Program

There are currently no regulated MS4s[3] in Los Alamos County. EPA's Phase I stormwater regulations (55 FR 47990, November 16, 1990) required NPDES permits for large and medium MS4s, as defined at 40 CFR § 122.26(b)(4) and (7). The regulations included a list of incorporated places (cities) and counties that qualified as large or medium MS4s and required an NPDES permit. (40 CFR § Part 122, Appendices F through I). No areas of Los Alamos County qualified as medium or large MS4s under the Phase I regulations.

Phase I also regulated stormwater discharges associated with industrial activity. LANL has an individual stormwater permit (NM0030759) that covers certain stormwater discharges from "industrial activity" (40 CFR § 122.26(b)(14)). However, the majority of LANL activities are not regulated as "stormwater discharge associated with industrial activity," and stormwater discharges from these activities are not currently regulated under the NPDES program.

EPA's Phase II stormwater regulations (64 FR 68722, December 8, 1999) included a requirement to permit small MS4s that are either located in an "urbanized area" under the latest Decennial Census or are otherwise designated by the NPDES permitting authority (40 CFR § 122.32(a)). Los Alamos County does not include any "urbanized areas" as defined by the Census Bureau in the 2010 Decennial Census and thus small MS4s in the County have not already been designated by rule. Nor have there been any designations of small MS4 discharges in the County on a case-by-case basis before today.

B. The Petition to Designate Stormwater Discharges from Los Alamos County

The Petition alleges that the currently non-regulated stormwater discharges from Los Alamos County are contributing to violations of NM WQS and asks EPA to use its residual designation authority to determine that these stormwater discharges "require National Pollutant Discharge Elimination System (NPDES) permits pursuant to section 402(p) of the Clean Water Act and/or designation as a municipal separate storm sewer system."

In support, the Petition cites the following information:

- White Rock is located in eastern Los Alamos County, above and within approximately 0.75 miles of the Rio Grande River. Pajarito Canyon goes through White Rock on its way towards the Rio Grande. Canada del Buey goes along the northern part of White Rock.

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[3] "Small MS4" is defined at 40 CFR § 122.26(b)(16) as "all separate storm sewers that are:
(i) Owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
(ii) Not defined as "large" or "medium" municipal separate storm sewer systems pursuant to paragraphs (b)(4) and (b)(7) of this section or designated under paragraph (a)(1)(v) of this section.
(iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings."

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- LANL property contains all or parts of seven primary watersheds that drain directly into the Rio Grande. Listed from north to south, these watersheds are: Los Alamos, Sandia, Mortandad, Pajarito, Water, Ancho, and Chaquehui Canyons. The Los Alamos Townsite and the urbanized areas of LANL drain into five canyons: Los Alamos, Pueblo, Sandia, Bayo and Mortandad Canyons. White Rock drains into Rio Grande.[4 5]

- The Petition alleges that urban stormwater pollution from Los Alamos County sites, particularly urban stormwater runoff from developed areas at LANL, the Los Alamos Urban Clusters, and the community of White Rock Canyon, is contributing to violations of NM WQS, including state WQS for PCBs, copper, zinc and nickel, and that as a result, these sites should be covered by an NPDES permit.

Although small MS4s in Los Alamos County are not automatically required to obtain NPDES permit coverage under EPA's stormwater regulations because the County does not include any "urbanized areas" as defined by the Census Bureau in the 2010 Decennial Census, Los Alamos County does have two "urban clusters" based on the results of the 2010 census.[6] According to the 2010 Census, the county has a population of 17,950. A Census-designated urban cluster contains a population of between 2,500 and 50,000. The main population center for Los Alamos County is called the Los Alamos Townsite. The Townsite is a Census-Designated Place (CDP) and according to the 2010 Census, the population of the CDP was 12,019. [7]According to the 2010 Census, the density of the Los Alamos Townsite CDP is 1,078.7 persons per square mile. A portion, but not all, of Los Alamos Townsite has been designated an "urban cluster" based on the results of the 2010 Census. That portion of Los Alamos Townsite designated as an "urban cluster" has a population of 10,893. The other densely inhabited place in the County is the community of White Rock, which is also a CDP. According to the 2010 Census, the population of White Rock is 5,725 and the density is 811.8 persons per square mile. A portion of the community of White Rock has also been designated as an 'urban cluster," based on the results of the 2010 Census.[8] The White Rock Urban Cluster has a population of 5,039.

C. Standards for Designation

CWA §§ 402(p)(2)(E) and 402(p)(6) provide the statutory authority for case-by-case designations of discharges composed entirely of stormwater. Under EPA's stormwater regulations promulgated pursuant to those statutory sections, small MS4s may be designated for NPDES permits pursuant to the following provisions:

- 40 CFR § 122.26(a)(9)(i)(C) -The Director determines that stormwater controls are needed for the discharge based on wasteload allocations (WLAs) that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) of concern. Because there are no approved TMDLs with WLAs in the area, EPA is not relying on this authority.

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[4]A Petition by Amigos Bravos for a Determination that Stormwater Water Discharges in Los Alamos County Contribute to Water Quality Standards Violations and Require a Clean Water Act Permit

[5] Los Alamos National Laboratory Environmental Report 2012, 1-1 and 1-2 (2012) (LA-UR-13-27065)(2012 Environmental Report)

[6]https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html. *Accessed <11-21-2019>*

[7] https://www.census.gov/quickfacts/losalamoscdpnewmexico. *Accessed <11-21-2019>.*

[8] https://www.census.gov/quickfacts/whiterockcdpnewmexico *Accessed <11-21-2019>*

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- 40 CFR § 122.26(a)(9)(i)(D) – The Director (here the RA) determines that the discharge, or category of discharges within a geographic area, contributes to a violation of a WQS or is a significant contributor of pollutants to waters of the United States.

- As explained above and below, EPA is relying on the first part of 40 CFR § 122.26(a)(9)(i)(D) for this designation.

III. Basis for and Scope of EPA's Residual Designation Determination

Based on the authority of CWA § 402(p)(2)(E) and 40 C.F.R. §122.26(a)(9)(i)(D), and after review of available information, EPA has determined that stormwater discharges from MS4s located in the portion of Los Alamos County within the Los Alamos Urban Cluster and on LANL property within Los Alamos County and Santa Fe County are contributing to violations of NM WQS. As noted above, EPA examined the available data based on two factors: 1) evidence of water quality impairment; and 2) evidence that pollutant levels in the stormwater discharges are contributing to those impairments.

A. Review Criteria

1. Evidence of Water Quality Impairment

EPA first looked to see if the receiving waters for stormwater discharges from the Los Alamos Urban Cluster, the White Rock Urban Cluster, and LANL are listed as impaired on the State of New Mexico's latest CWA section 303(d) list of impaired waters. Because a waterbody listed as impaired for a pollutant or pollutants has no remaining assimilative capacity for that pollutant(s), a discharge of stormwater containing that pollutant(s) would contribute to the impairment if the discharge contained levels of the pollutant(s) above NM's WQS.

EPA reviewed water quality impairment information contained in the 2012-2014 State of New Mexico Clean Water Act §303(d)/305(b) Integrated Report [hereinafter "2012-2014 303(d)/305(b) Report"], with updates from the 2014-2016, 2016-2018 and 2018-2020, State of New Mexico Clean Water Act §303(d)/305(b) Integrated Reports [hereinafter 2012-2014 303(d)/305(b) Report, 2014-2016 303(d)/305(b) Report 2016-2018 303(d)/305(b) Report and 2018-2020 303(d)/305(b) Report, respectively]. After consideration of the information in the state's Integrated Reports, as well as additional information provided by LANL and Los Alamos County, EPA finds the following:

- The 2012-2014 303(d)/305(b) Report shows Los Alamos Canyon within LANL property to be impaired for gross alpha, adjusted (a measurement of overall radioactivity and hereinafter referred to simply as "gross alpha")[9], PCBs, aluminum, and copper.[10] The 2014-2016 303(d)/305(d) Report removed copper as a cause of impairment.[11] Mercury was

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[9] *20.6.4.114.A NMAC defined at (5) as "Adjusted gross alpha" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding*

[10] *State of New Mexico Water Quality Control Commission, 2012-2014 State of New Mexico Clean Water Act 303d/305b Integrated Report, Appendix A (303d/305b Report). Available at: https://www.env.nm.gov/wp-content/uploads/sites/25/2019/10/AppendixA-USEPA-Approved303dList.pdf*

[11] *State of New Mexico Water Quality Control Commission, 2014-2016 State of New Mexico Clean*

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added as a cause of impairment in the 2016-2018 303(d)/305(b) Report. In addition, as stated in the Petition, NMED data show levels of PCBs in Los Alamos Canyon downgradient from most of the urbanized areas at LANL to be over 11,000 times greater than the New Mexico Human Health water quality criteria and 51 times greater than the New Mexico Wildlife Habitat water quality criteria. The 2018-2020 303(d)/305(b) Report shows this canyon is impaired for gross alpha, PCBs, cyanide, selenium, and mercury.

- The 2012-2014 303(d)/305(b) Report shows Sandia Canyon to be impaired for PCBs, aluminum, copper, gross alpha, and mercury. In the 2014-2016 303(d)/305(b) Report and the 2016-2018 303(d)/305(b) Report,[12] thallium was added as a new cause of impairment. The 2018-2020 303(d)/305(b) Report[13] shows this canyon is impaired with Polychlorinated Biphenyls (PCBs), aluminum, gross alpha, and mercury.

- The 2012-2014 303(d)/305(b) Report shows Mortandad Canyon to be impaired for aluminum, copper, and gross alpha. In the 2014-2016 303(d)/305(b) Report, PCBs were added as a new cause of impairment. The 2016- 2018 303(d)/305(b) Report has the same list of impairments as the 2014-2016 303d/305 Report. The 2018-2020 303(d)/305(b) Report shows this canyon is impaired with PCBs, copper, gross alpha, and mercury.

- The 2012-2014 303(d)/305(b) Report shows Pajarito Canyon to be impaired for gross alpha, aluminum, PCBs, and copper. For the 2014-2016 303(d)/305(b) Report, arsenic and selenium were added as new impairment parameters. The 2016-2018 303(d)/305(b) Report has the same list of impairments as the 2014-2016 303d/305 Report. The 2018-2020 303(d)/305(b) Report shows this canyon is impaired for gross alpha, aluminum, PCBs, mercury, and cyanide. Note that the portion of Pajarito Canyon from the Rio Grande to the LANL boundary (which goes through White Rock) is not listed as impaired by NMED.

- The 2012-2014 303(d)/305(b) Report shows Canada del Buey to be impaired for PCBs, aluminum, and gross alpha for at least the portion within LANL property. The 2014-2016 303(d)/305(b) Report removed aluminum as a cause of impairment. However, aluminum was added back to the list in the 2016-2018 303(d)/305(b) Report. Note that the section from the LANL boundary to San Ildefonso Pueblo has not been assessed. Based on the 2018-2020 303(d)/305(b) Report, this canyon is impaired for PCBs, gross alpha and, aluminum.

- The 2012-2014 303d/305b, 2014-2016 303(d)/305(b) Report, the 2016-2018 303(d)/305(b)Report and the 2018-2020 303(d)/305(b) Report show Pueblo Canyon (Acid Canyon to headwaters) to be impaired for gross alpha, PCBs, and aluminum. NMED data show levels of PCBs in Pueblo Canyon right in the middle of the Los Alamos urbanized area to be over 35,000 times greater than New Mexico's Human Health water quality criteria and 16 times greater than New Mexico's Wildlife Habitat water quality criteria.[14] The Rio Grande (Cochiti Reservoir to San Ildefonso boundary)

Water Act 303d/305b Integrated Report, Appendix A (303d/305b Report). Available at: https://www.env.nm.gov/wp-content/uploads/sites/25/2019/10/2014-2016NMList.pdf

[12] *State of New Mexico Water Quality Control Commission, 2016-2018 State of New Mexico Clean Water Act 303d/305b Integrated Report, Appendix A (303d/305b Report). Available at:*

[13] *State of New Mexico Water Quality Control Commission, 2018-2020 State of New Mexico Clean Water Act 303d/305b Integrated Report, Appendix A (303d/305b Report). Available at: https://www.env.nm.gov/wp-content/uploads/sites/25/2018/03/Appendix-A-Integrated-List.pdf*

[14] *NMED, Pajarito Plateau Assessment for the 2010-2012 Integrated Report data set with PCBs and map of sampling stations http://www.nmenv.state.nm.us/swq b/303d-305b/20 10-20*

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is listed as impaired for PCBs, turbidity, E. coli, and gross alpha. This is the downstream segment of the Rio Grande receiving most of the flows from the canyons in Los Alamos County, but also flows from the entire watershed above the Los Alamos area draining north central New Mexico and parts of Colorado. Impairments to waterbodies directly receiving stormwater discharges from Los Alamos County before that stormwater flows to the Rio Grande River provide a strong case for concluding that those discharges are contributing to impairments in the Rio Grande.

- None of the state's Integrated Reports dating back to 2012 show the receiving streams within the White Rock Urban Cluster to be impaired.

Note: Atmospheric deposition - toxics, inappropriate waste disposal, natural sources, watershed runoff following forest fire, post-development erosion and sedimentation and source unknown were listed as probable sources of impairment in the 2012-2014 303(d)/305(b) Report. However, starting with the 2014-2016 303(d)/305(b) Report, the NMED Surface Water Quality Bureau (SWQB) changed how probable sources were treated state-wide and removed previously reported probable source lists from the 2014-2016 303(d)/305(b) Report. Instead the State began using "Source Unknown" for all impairments unless the probable source(s) have been established as part of the Total Maximum Daily Load (TMDL) process.

Based on the above findings, EPA determined that the receiving waters for at least some of the stormwater discharges from LANL and the Los Alamos Urban Cluster are listed as impaired on the NM CWA § 303(d) list. That said, EPA found that none of the immediate receiving waters for stormwater discharges from the White Rock Urban Cluster are listed as impaired on the NM CWA § 303(d) list, although there are impairments listed for the Rio Grande River, which the White Rock receiving waters ultimately reach.

2. Evidence that Pollutants of Concern in the Stormwater Discharges from Los Alamos County Are Contributing to the CWA § 303(d) Impairments

EPA next examined the available data to determine whether at least some of the stormwater discharges from Los Alamos, White Rock, and LANL have maximum or median sampling results exceeding one or more of the NM's WQS for a parameter that was listed as a cause of impairment on the state's CWA section 303(d) list. Because waterbodies listed as impaired for a pollutant or pollutants have no remaining assimilative capacity for those pollutants, maximum or median sampling results exceeding the state's WQS for one or more of those pollutants indicates that those discharges contribute to a violation of that WQS.

The Petition alleges that available data and studies link the water quality impairment downgradient from the Pajarito Plateau to stormwater runoff from urban areas in Los Alamos County. In support, the Petition states as follows:

> LANL conducted two detailed studies of stormwater runoff from the Pajarito Plateau. One study was on PCB contamination and the second was on metals contamination. In these studies, LANL collected samples from non-urban, non-laboratory influenced reference sites as well as from sites representing runoff from the urbanized areas of the Los Alamos Townsite. Neither the reference nor the urban sites were influenced by point source discharges covered by LANL's individual stormwater permit. These studies show a significant contribution of both PCBs and metals from urban runoff on the Pajarito Plateau.

12/Pajarito/index.html (Pajarito Plateau Study).

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The LANL PCB study found 40 of the 41 Los Alamos urban stormwater samples were above the New Mexico human health water quality criteria for PCBs and 19 of the 41 Los Alamos urban stormwater samples were above the New Mexico wildlife habitat water quality criteria for PCBs. ("PCB Report [15] at 62).

Based on review of the data from the LANL PCB report, EPA also confirmed that heightened PCB concentrations above100 ng/L were measured in Los Alamos County urban runoff (PCB report, pp 61-64). The higher concentrations are associated with the urban stormwater from the contribution of additional diffuse local sources in the urban environment

Based on an independent review of the data included in the LANL Metals Report,[16] as opposed to the conclusions reached by LANL within the report, EPA determined that storm water discharges from MS4s located in the portion of Los Alamos County within the Los Alamos Urban Cluster and on LANL property within Los Alamos County and Santa Fe County are contributing to exceedances of one or more NM WQS and therefore meet the criteria for designation.

After doing further analysis, EPA notes that the mean of the urban runoff samples exceeded at least one NM WQS for aluminum, cadmium, copper, or zinc. Also, the maximum urban runoff sample value exceeded at least one NMWQS for aluminum, cadmium, copper, and zinc. The mean of the urban runoff samples exceeded the mean of the background reference site samples for aluminum, cadmium, copper, and zinc (see appendix 4 for further analysis). The LANL studies of PCB and metal contaminated runoff tie these contaminants to the urban areas of the Pajarito Plateau. In LANL's 2013 request to EPA for alternative compliance with its NPDES discharge permit for industrial stormwater, the Laboratory argues that the cause of its exceedances of New Mexico water quality criteria for zinc and copper is urban runoff from sources such as motor oil accumulation on parking lots, brake pad and tire material released on pavement, galvanized fencing, culverts and other building materials.[17]

In their comments on the Petition, LANL and Los Alamos County dispute certain aspects of Petitioner's characterization of the information from the various LANL reports and the possible sources of pollutants. For instance, both LANL and Los Alamos County state that although the PCB report identifies baseline values, it does not state that urban development in Los Alamos County is contributing large amounts of PCBs to receiving waters. Further, both LANL and Los Alamos County point out, as noted by EPA in Section II1.B above, that in the 2014-2016 303(d)/305(b) Report NMED has removed the probable source lists and replaced them with "Source Unknown."

As noted above, in the 2012-2014 303(d)/305(b) Report, the State of New Mexico found that water quality in Sandia, Mortandad, Pajarito, and Pueblo Canyons is impaired by urban stormwater-related causes with impervious surfaces, parking lots, and construction and development listed as probable sources of the impairment. While the 2014-2016 Report now lists the probable sources as "unknown," this does not necessarily indicate that any particular potential source has been ruled out. According to NMED, "The approach for identifying Probable Sources of Impairment" was modified by the SWQB starting with the 2012 listing cycle. Any new impairment listings are assigned a probable source of "Source

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[15] *Los Alamos National Laboratory, Polychlorinated Biphenyls in Precipitation and Stormwater within the Upper Rio Grande Watershed 2 (May 2012) (LA-UR-12-1081) (PCB Report). Available at:* https://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ERID-219767

[16] Los Alamos National Laboratory, Background Metals Concentrations and Radioactivity in Stormwater on the Pajarito Plateau Northern New Mexico 2 (April 2013) (LA-UR-13-22841) (Metals Report). Available at: https://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ERID-239557

[17] Alternative Compliance Request 2 at 31-2; Los Alamos National Laboratory, Alternative Compliance Request for S-SMA-.25 28 (April 2013) (Alternative Compliance Request .25)

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Unknown." For the 2014 listing cycle, SWQB removed previously reported non-TMDL Probable Source listings from the Report and replaced them with "Source Unknown" for consistency. Therefore, all reported probable source listings on the state's Integrated Lists have now been established through the TMDL process."[18]As such, in making its final designation determination, EPA relied on independent analysis of stormwater quality data and receiving water impairment lists rather than on the probable source listings in the older NMED 303(d)/305(b) Reports.

Based on the Agency's independent review of all available information, EPA finds that pollutants associated with impairment are present at levels above WQS in stormwater discharges from MS4s located in the portion of Los Alamos County, New Mexico within the Los Alamos Urban Cluster as defined by the latest Decennial Census and on Los Alamos National Laboratory property located within Los Alamos County and Santa Fe County, New Mexico. As such, EPA determines that these discharges contribute to the impairments listed by the State. Again, no sampling data was available for stormwater discharges from the White Rock Urban Cluster.

A. Scope of Designation

40 CFR § 122.26(a)(9)(i)(D) allows for designation of a category of discharges within a geographic area, based upon a determination that the category "contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States."

After careful analysis of available information as discussed above, the Regional Administrator of EPA Region 6 is designating for NPDES permitting as regulated small MS4s the following:

- MS4s located in the portion of Los Alamos County, New Mexico within the Los Alamos Urban Cluster as defined by the latest Decennial Census, and
- MS4s located on Los Alamos National Laboratory property located within Los Alamos County and Santa Fe County, New Mexico.

This designation of regulated small MS4s requiring NPDES permit coverage applies to MS4s owned or operated by:

1. LANL including Triad National Security, LLC (Triad) and the U.S. Department of Energy's National Nuclear Security Administration (NNSA) located within Los Alamos County;
2. Los Alamos County located within the Los Alamos Urban Cluster as defined by the latest decennial Census;
3. New Mexico Department of Transportation (NMDOT) located within the Los Alamos Urban Cluster and as defined by the latest decennial Census; and
4. NMDOT located within and interconnected with regulated LANL (Triad and NNSA) storm sewer systems.

IV. Final Designation Decision

Based on its analysis of available information as discussed above, EPA has determined that stormwater discharges from MS4s located in the Los Alamos Urban Cluster and the LANL property are contributing to violations of NM WQS. Therefore, under the authority of CWA § 402(p)(2)(E) and 40 C.F.R. § 122.26(a)(9)(i)(D), EPA hereby designates MS4s located in the

[18] 2014 – 2016 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report FINAL November 18, 2014. Pg 56. Available at: *https://www.env.nm.gov/swqb/303d-305b/2014-2016/2014-2016NMReport.pdf*

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portion of Los Alamos County, New Mexico within the Los Alamos Urban Cluster as defined by the latest Decennial Census, and MS4s located on Los Alamos National Laboratory property located within Los Alamos County and Santa Fe County, New Mexico as small MS4s requiring NPDES permit coverage.

EPA finds there is insufficient data to determine that discharges of stormwater from the White Rock Urban Cluster are contributing to a violation of NM WQS. Therefore, EPA is not designating those discharges as requiring NPDES permits.

Region 6 will be in touch with operators of the designated MS4s to set up a call to discuss permitting options under 40 CFR § 122.33.

Dated: DEC 1 0 2019

Ken McQueen
Regional Administrator, Region 6

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2. LETTER FROM NMED SECRETARY JAMES C. KENNEY TO EPA REGION 6 REGIONAL ADMINISTRATOR KEN MCQUEEN DATED OCTOBER 18, 2019

3. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html. *Accessed <11-21-2019>.*

4. https://www.census.gov/quickfacts/losalamoscdpnewmexico. *Accessed <11-21-2019>.*

5. https://www.census.gov/quickfacts/whiterockcdpnewmexico *Accessed <11-21-2019>.*

6. http://VW\v.census.gov/geo/reference/ua/urban-rnral-2010.html. The Census Bureau identifies two types of urban areas: 1) Urbanized Areas (UAs) of 50,000 or more people; 2) Urban Clusters (UCs) of at least 2,500 and less than 50,000 people.

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9. STATE OF NEW MEXICO WATER QUALITY CONTROL COMMISSION, *2016-2018 STATE OF NEW MEXICO CLEAN WATER ACT 303D/305B 2014 INTEGRATED REPORT.* APPENDIX A (303(D)/305(B) REPORT).

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11. STATE OF NEW MEXICO WATER QUALITY CONTROL COMMISSION, *2012-2014 STATE OF NEW MEXICO CLEAN WATER ACT 303D/305B 2014 INTEGRATED REPORT.* APPENDIX A (303(D)/305(B) REPORT).

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18. 20.6.4.114.A NMAC.

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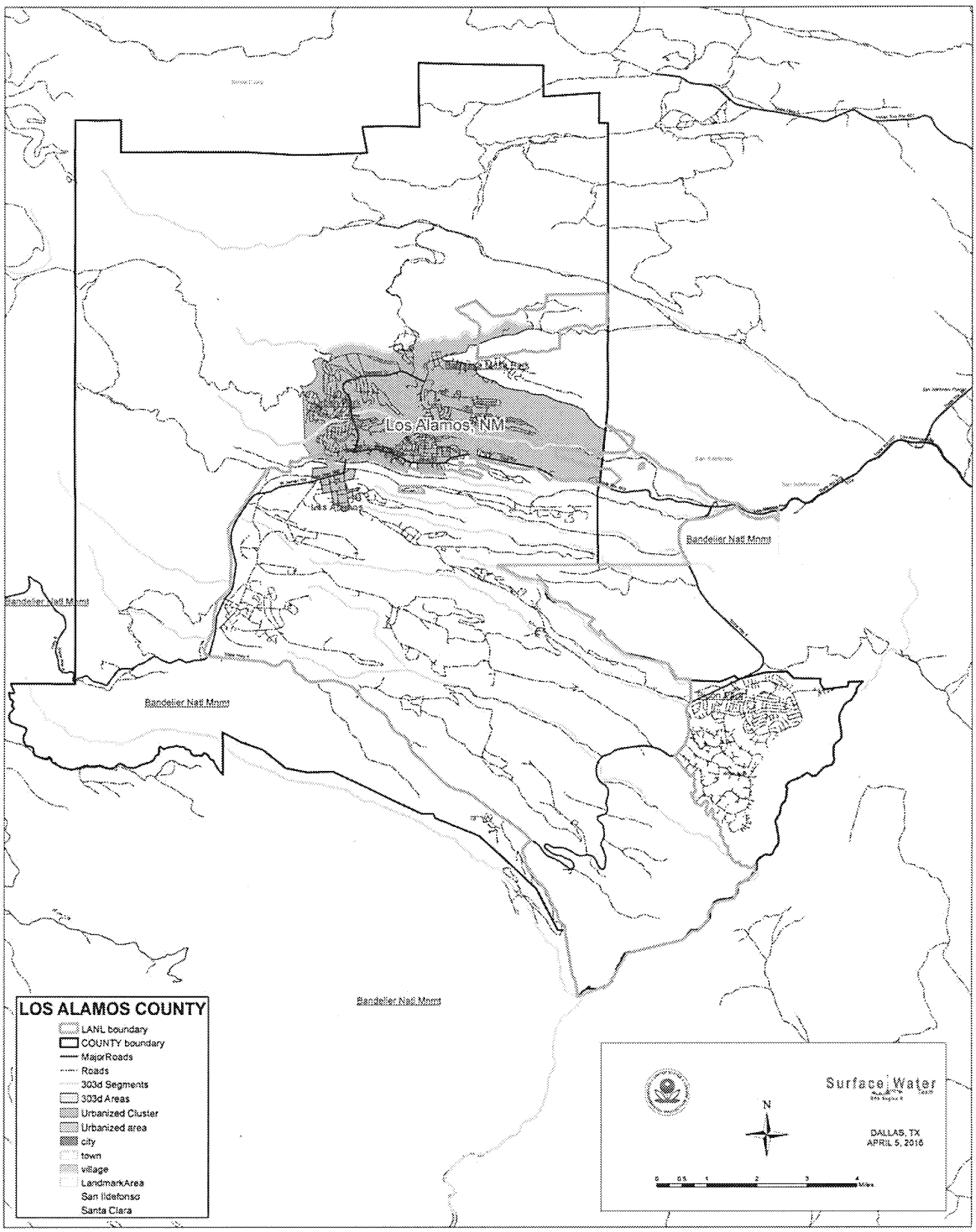
Appendix 1: Los Alamos, LANL and NMDOT (State Hwy) Map


Los Alamos, NM
Bandelier Natl Mnmt
Bandelier Natl Mnmt
Bandelier Natl Mnmt
Bandelier Natl Mnmt
LOS ALAMOS COUNTY
LANL boundary
COUNTY boundary
MajorRoads
Roads
303d Segments
303d Areas
Urbanized Cluster
Urbanized area
city
town
village
LandmarkArea
San Ildefonso
Santa Clara
Surface Water
N
DALLAS, TX
APRIL 5, 2016
0 0.5 1 2 3 4 Miles