UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MEMORANDUM

SUBJECT: Request for Preliminary Designation of Certain Commercial, Industrial, and Institutional Stormwater Discharges in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed in Los Angeles County

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TO: Martha Guzman, Regional Administrator

This memorandum recommends that you exercise your discretionary authority to designate stormwater discharges from certain privately owned commercial, industrial, and institutional (CII) sites in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed in Los Angeles County for National Pollutant Discharge Elimination System (NPDES) permitting.

Pursuant to section 402(p)(2)(E) and (6) of the Clean Water Act (CWA), and 40 C.F.R. § 122.26(a)(9)(i)(D), the EPA Regional Administrator may designate additional stormwater discharges as requiring NPDES permits where the Regional Administrator determines that "the discharge, or category of discharges within a geographic area, contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States."[1]

[1] This authority is commonly known as "residual designation" authority. Because the statute uses the term "violation" at CWA section 402(p)(2)(E), this memorandum uses that term and EPA understands it to refer to an exceedance of water quality standards as evidenced, for example, in an impairment listing.

For the reasons outlined below, the record indicates that stormwater discharges from the specific CII sources described below contribute to violations of water quality standards. We therefore recommend preliminary designation of these stormwater discharges.

Basis for Preliminary Designation of Certain Currently Unpermitted Stormwater Discharges from Privately Owned Commercial, Industrial, and Institutional (CII) Sites in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed in Los Angeles County

Overview

On September 17, 2015, American Rivers, the Natural Resources Defense Council (NRDC), and the Los Angeles Waterkeeper (Petitioners) petitioned the Regional Administrator of EPA Region 9 to make "a determination that currently unpermitted stormwater discharges from privately owned commercial, industrial, and institutional (CII) sites are contributing to violations of water quality standards" in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed, and therefore require NPDES permits pursuant to section 402(p) of the CWA (the Petitions).[2]

On October 17, 2016, the Regional Administrator responded to the Petitions declining to designate the CII sites, concluding "that effective programs are already in place to address the water quality impairments in the watershed." EPA Region 9 Response to Petitions dated October 17, 2016 (2016 Response). The Petitioners challenged the Region's decision in 2017, and a U.S. District Court in 2018 found Region 9's denial inconsistent with the CWA and remanded the decision to the Region for further action consistent with the Court's order. *Los Angeles Waterkeeper v. Pruitt*, 320 F. Supp.3d 1115 (C.D. CA 2018).

In light of the District Court's instruction, EPA Region 9 has reconsidered the 2015 Petitions and is preliminarily designating for NPDES permitting stormwater discharges in the above watersheds from the following:

- Any privately owned and unpermitted CII parcel with five or more acres of impervious surface,[3,4]
- Any unpermitted portion of a privately owned facility for which the total facility acreage is five or more acres, and the facility is either subject to NPDES permitting under 40

[2] Natural Resources Defense Council, American Rivers, and Los Angeles Waterkeeper. Petitions for a Determination That Stormwater Discharges from Commercial, Industrial and Institutional Sites Contribute to Water Quality Standards Violations in the Alamitos Bay/Los Cerritos Channel Watershed, Dominguez Channel and the Los Angeles/Long Beach Inner Harbor (Los Angeles County, California) and Require Clean Water Act Permits. September 17, 2015.

[3] Impervious surface means surfaces that are impermeable to infiltration of precipitation (here, rainfall) into underlying soils/groundwater and includes rooftops, parking lots, sidewalks, and driveways.

[4] EPA is proposing to designate all CII facilities with five or more acres total area at the Ports of Los Angeles and Long Beach, given the high degree of imperviousness at the Ports. For example, the Port of Long Beach is "3,200 acres of mostly paved surfaces constructed on top of fill material where the ocean has been converted to land." *Adapting LID to a Port Environment*, Stormwater Report, Water Environment Federation, October 17, 2015 at 1. See also *Port of Long Beach and Port of Los Angeles, Water Resources Action Plan, Final Report* August 2009, where the Port of Long Beach is described as "largely impervious and highly industrialized" at 21.

C.F.R. § 122.26(b)(14) or has submitted a no exposure certification[5] under California's Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (NPDES permit No. CAS000001)[6] (Industrial Stormwater General Permit), and

- Any privately owned facility for which the total facility acreage is five or more acres, and the facility has submitted a notice of non-applicability (NONA)[7] under the Industrial Stormwater General Permit due to containment of all stormwater associated with industrial activity. Only the portion (if any) of such facilities not covered by the NONA would be designated if that portion is five acres or greater.

Statutory and Regulatory Background

In 1987, Congress amended section 402 of the CWA and established a phased approach to regulating discharges "composed entirely of stormwater," requiring some, but not all, point source discharges of stormwater to be regulated. Water Quality Act § 405, codified as CWA § 402(p). In the first phase, Congress required NPDES permits for discharges from municipal separate storm sewer systems (MS4s) serving a population greater than 100,000, and stormwater discharges associated with industrial activity. CWA § 402(p)(1), (2), 33 U.S.C. § 1342(p)(1), (2). In 1990, EPA promulgated permit application regulations for these discharges pursuant to § 402(p)(4), 33 U.S.C. § 1342(p)(4). 55 Fed. Reg. 47990 (Nov. 16, 1990) (Phase I rule). Additionally, the CWA authorizes EPA to designate for regulation by NPDES permits any stormwater discharge determined by EPA or an authorized state to contribute to a violation of water quality standards (WQSs) or to be a significant contributor of pollutants to waters of the United States.[8] CWA § 402(p)(2)(E), 33 U.S.C. § 1342(p)(2)(E).[9] The Phase I rule also included a provision allowing any person to petition EPA to require an NPDES permit for a stormwater discharge that contributes to a violation of a WQS or is a significant contributor of pollutants to waters of the United States. 40 C.F.R. § 122.26(f)(2).

In the second phase, Congress required EPA, after conducting studies and reporting on the results to Congress, to issue regulations designating additional stormwater discharges to be regulated "to protect water quality." CWA § 402(p)(5), (6), 33 U.S.C. § 1342(p)(5), (6). Stormwater discharges designated for regulation under § 402(p)(6) were not necessarily required

[5] As authorized at 40 CFR 122.26(g); see Industrial Stormwater General Permit, Appendix 2 for more information concerning no exposure certifications.

[6] EPA is proposing to designate Industrial Stormwater General Permit facilities (including no exposure and NONA) with five or more total acres given the high degree of imperviousness at such facilities. See page 10 for more information. The preliminary designation does not include facilities at airports in these watersheds. Most impervious surfaces at the airports are not controlled by private entities, but rather by municipal departments and as such, are already regulated under Regional Municipal Separate Sewer System NPDES Permit Order No R4-2021-0105. See https://www.lawa.org/, https://www.torranceca.gov/our-city/general-services/airpor, https://dpw.lacounty.gov/avi/airports/ComptonWoodley.aspx, and https://www.cityofhawthorne.org/departments/public-works/airport.

[7] See Industrial Stormwater General Permit at section XX.C for more information concerning requirements for facilities claiming that they do not discharge stormwater associated with industrial activity and the NONA process.

[8] Relevant to this Preliminary Designation, the State of California has been authorized by EPA to administer the NPDES permit program, including the issuance of NPDES stormwater permits, except on Indian Country lands.

[9] EPA has codified this case-by-case authority to designate stormwater discharges for NPDES permits at 40 C.F.R. § 122.26(a)(1)(v). 54 Fed. Reg. 255 (Jan. 4, 1989). *See also* 55 Fed. Reg. 47990, 47993 (Nov. 16, 1990).

to be regulated through NPDES permits. Rather, Congress required that EPA "establish a comprehensive program to regulate such designated sources." *Id.* In 1995, EPA completed studies and submitted a report to Congress describing additional stormwater discharges under consideration for regulation. Based on this report, EPA promulgated regulations in 1999 (Phase II rule) designating two additional categories of stormwater discharges for regulation, certain small MS4s[10] and small construction sites (1-5 acres) and requiring NPDES permit coverage for these discharges. 64 Fed. Reg. 68722 (Dec. 8, 1999).

The Phase II rule also carried forward regulatory authority for designating additional stormwater discharges for NPDES permit coverage (residual designation authority or RDA) to allow designation of a discharge or category of discharges within a geographic area if determined to contribute to a violation of a WQS or to significantly contribute pollutants to waters of the United States. 64 Fed. Reg. at 68781; 40 C.F.R. § 122.26(a)(9)(i)(D).[11] These residual designation provisions are based on the authority of both §§ 402(p)(2)(E) and 402(p)(6), recognizing the permitting authority's potential need to regulate individual unregulated stormwater discharges on a case-by-case basis, as well as the potential need to regulate stormwater discharges on a geographic categorical basis to address local concerns or to make progress in complying with WQSs. *See* 64 Fed. Reg. at 68781. Any discharge or category of discharges designated under the RDA regulation is subject to NPDES permitting. 40 C.F.R. § 122.26(a)(9)(ii), (iii).

History of the Petitions

1. Summary of the Petitions

The Petitions, incorporated by reference, state that: (1) portions of the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel, its tributaries, and the Los Angeles/Long Beach Inner Harbor Watershed are impaired by copper, zinc, and/or other pollutants, (2) stormwater discharges from CII sites contain these pollutants, contributing to water quality impairments in the watersheds, and (3) existing programs are not adequately addressing the contributions from CII sites to impairments in the watersheds.

In support, the Petitioners cite EPA guidance and reports in which EPA has concluded that urban stormwater discharges are sources of pollutants. Petitioners also point to various reports and studies, including the National Stormwater Quality Database (NSQD), to illustrate typical pollutant loads in stormwater from different land uses, including CII sites. Finally, the Petitioners cite to Total Maximum Daily Loads (TMDLs) established by EPA and the State of California to

[10] Regulated small MS4s are primarily separate storm sewer systems serving municipal populations within "urbanized areas" as defined by the Census Bureau based on the latest decennial census. 40 C.F.R. §122.32(a). This term also includes other publicly owned separate storm sewer systems similar to MS4s (e.g., military bases, large hospital or prison complexes, highways) and small MS4s outside "urbanized areas" based on criteria developed by the State; at minimum, municipal entities outside "urbanized areas" with a population greater than 10,000 should be considered for permitting. 40 C.F.R. §§ 122.26(b)(16); 40 C.F.R. § 123.35(b).

[11] The Phase II rule also allows for designating stormwater discharges for NPDES permit coverage if stormwater controls are needed for such discharges based on wasteload allocations in a TMDL. 40 C.F.R. § 122.26(a)(9)(i)(C). This basis for designating stormwater discharges was not raised in the Petitions.

describe the specific sources of pollutants leading to impairments in the watersheds. Specifically, each Petition states at page 2:

For the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Petition:

- CII sites occupy 36.6% of the land area that flows into Dominguez Channel and the Los Angeles/Long Beach Inner Harbor.
- 71.1 % of this CII area is located within a half-mile of a receiving water.
- Modeled results indicate that, out of all urban stormwater sources, CII sites contribute at least 88% of zinc loadings and 84% of copper loadings in the watershed.
- CII sites likely cover 25.6% of the watershed with impervious surface.

For the Alamitos Bay/Los Cerritos Channel Watershed:

- CII sites occupy 30.6% of the land area that flows into Alamitos Bay/Los Cerritos watershed Dominguez Channel and the Los Angeles/Long Beach Inner Harbor.
- 93% of this CII area is located within a half-mile of a receiving water.
- Modeled results indicate that, out of all urban stormwater sources, CII sites contribute at least 30% of zinc loadings, 18% of copper loadings, and 26% of nitrogen loadings in the watershed.
- CII sites likely cover 21.4% of the watershed with impervious surface.

2. Region 9's 2016 Petition Denial, Court Challenge, and Decision

As noted above, in its 2016 Response, Region 9 agreed that CII sources were contributing to water quality impairments in the watersheds but denied the Petitions because Region 9 concluded that other environmental programs, such as the existing municipal separate storm sewer system NPDES permits, would adequately address water quality impairments in the watersheds. However, the U.S. District Court determined that consideration of such programs is not authorized by the CWA and directed EPA to reconsider the Petitions in a manner consistent with the ruling.[12] The District Court observed that the CWA provides EPA with only two options when EPA has determined that discharges are contributing to water quality impairments – engage in NPDES permitting of the discharges or prohibit the discharges.[13]

EPA has identified several factors to consider in exercising its individual and categorical residual designation authority. For a case-by-case determination, under section 402(p)(2)(E), EPA has described as relevant factors the available water quality and sampling data as well as "the location of the discharge with respect to waters of the United States; the size of the discharge, the quantity and nature of the pollutants reaching waters of the United States; and any other relevant factors." 55 Fed. Reg. 47990, 47993 (Nov. 16, 1990). As noted in early guidance with respect to

[12] *Los Angeles Waterkeeper v. Pruitt*, 320 F. Supp.3d 1115 (C.D. CA 2018).

[13] On October 17, 2018, the court issued a clarification and minute order remanding the matter to the Region, stating "The EPA is directed to reconsider Plaintiffs' petitions using the correct standards as set forth in the Court's Order on summary judgment." No. 2:17-CV-03454-SVW-KS, 2018 WL 6071084 (C.D. Cal. Oct. 17, 2018).

designations under CWA § 402(p)(2)(E), State reports generated under CWA section 305(b) can be critical sources of information for making designation determinations.[14]

EPA discussed designation of additional categories of stormwater sources for regulation under the NPDES permit program, based on three factors in the preamble to the Phase II rule. 64 Fed. Reg. 68722, 68780 (December 8, 1999). EPA considered: 1) the likelihood for exposure of pollutants to precipitation at sources included in that category, 2) whether sufficient data were available on which to make a determination of potential adverse water quality impacts for the category of sources, and 3) whether such sources were adequately addressed by other environmental programs.[15] *Id.* Region 9 considered these same three factors in its 2016 denial of the Petitions.

In the 2016 Response, the Region found factors (1) and (2) had been met, 2016 Response at pages 5-7, and argued that factor (3) had been satisfied and described existing programs that addressed the pollutants of concern in the watersheds at issue, id. at 7-15. As stated above, Petitioners challenged the Region's decision in U.S. District Court and prevailed. The Court found that it was improper for the Region to rely on the third factor because the relevant CWA text is unambiguous and does not allow for this consideration. *Los Angeles Waterkeeper v. Pruitt*, 320 F. Supp.3d 1115 (C.D. CA 2018). In light of *Los Angeles Waterkeeper v. Pruitt*, EPA is not considering the third factor in reconsideration of these Petitions.

In sum, the factors considered by the Region in reconsideration of the Petitions are:

1. Likelihood of exposure of pollutants to precipitation at sites in the categories identified in the Petitions; and
2. Sufficiency of available data to evaluate the contribution of stormwater discharges to water quality impairment from the targeted categories of sites.
   a. Data with respect to determining causes of impairment in receiving water quality.
   b. Data available from establishment of TMDLs.

Region 9 has reconsidered the Petitions and the data submitted with the Petitions based on the factors discussed above. The Region also reviewed additional reports and data to aid in its evaluation of the Petitions. While not a factor in the preliminary designation, the Region also consulted both the California State Water Resources Control Board and the Los Angeles Regional Water Quality Control Board, since California is authorized to implement the NPDES program.

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[14] *Designation of Stormwater Discharges for Immediate Permitting*, August 8, 1990, available at http://www.epa.gov/npdes/pubs/owm0220.pdf at 12.

[15] In a letter dated September 16, 2003, from EPA Assistant Administrator for Water to the Vermont Agency of Natural Resources (Mehan Letter), EPA elaborated on these factors. EPA stated that while it has not defined a threshold level of pollutant contribution that would trigger a finding that a source is contributing to a violation of a WQS or is a significant contributor of pollutants to waters of the U.S., "it would be reasonable to require permits for discharges that contribute more than de minimis amounts of pollutants identified as the cause of impairment to a water body." Mehan Letter at 2.

3. Analysis of the Petitions

a. Likelihood of exposure of pollutants to precipitation at sites in the categories identified in the Petitions

As described by Petitioners and in various studies, impervious surfaces are a source of pollutants. Impervious surfaces include rooftops, walkways, patios, driveways, and storage areas that prevent the land's natural ability to infiltrate stormwater. Pollutants from wear of automotive parts (e.g., tires and brake pads), spills and leaks of automotive fluids (e.g., motor oil and coolant), and airborne materials (e.g., atmospheric deposition and wind-transported pollutants) are deposited on impervious surfaces.[16] Because of the limited or nonexistent infiltration capacity of these surfaces, pollutants can build up and are not easily degraded, leaving them available to be picked up and discharged in stormwater during the next precipitation event. In the preamble of the Phase I rule, EPA noted that "large parking facilities, due to their impervious nature[,] may generate large amounts of runoff which may contain significant amounts of oil and grease and heavy metals which may have adverse impacts on receiving waters[,]" and stated that while it was not requiring regulation at this time, such sources could be designated if they were contributing to a violation of a WQS. 55 Fed. Reg. 47990, 48010 (November 16, 1990).

In the 2016 Response (incorporated by reference here), EPA demonstrated that CII sources have many areas (such as automobile parking lots) with substantial likelihood of exposure of pollutants such as copper and zinc (e.g., from tire and brake pad wear) to precipitation. For this re-evaluation, the record continues to indicate that CII sites have significant amounts of impervious surfaces that are exposed to a variety of pollutants, including metals such as copper and zinc, that can discharge during rain events. Further, as described below, Region 9 analyzed data regarding the acreage of impervious surfaces at CII sources. Based on this, EPA estimates that there are approximately 20,000 CII facilities located in these two heavily urbanized watersheds.

The California Office of Environmental Health Hazard Assessment (OEHHA) has issued a guide providing information concerning the degree of imperviousness of CII sources, as well as other land use categories in California (hereinafter, OEHHA Surface Coefficients User Guide).[17] The guide notes that CII sources such as industrial sites, office parks, and retail areas, typically have impervious surfaces ranging from 70%-90% of the total site. OEHAA Surface Coefficients User Guide at 27. They estimate institutional sources such as schools and hospitals to have 50% impervious cover. *Id*. Natural and agricultural lands, on the other hand, may only have 2%-4% impervious cover. *Id*. As noted in the Petitions and in relevant literature, the high level of

[16] Tiefenthaler, L., Schiff, K., and Bay, S. 2001. *Characteristics of Parking Lot Runoff Produced by Simulated Rainfall*. Southern California Coastal Water Research Project Technical Report No. 340. *See also*, EPA, 2007, *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*. EPA 841-F-07-006, Office of Water, Washington, D.C. *See also*, Van Metre, P. C., & Mahler, B. J. (2003). *The contribution of particles washed from rooftops to contaminant loading to urban streams*. Chemosphere, 52, 1727–1741.

[17] California Office of Environmental Health Hazard Assessment. 2008. Impervious Surface Coefficients, A Tool for Environmental Analysis and Management, July 2008.

imperviousness at CII sites leads to increases in the volume of stormwater discharged from the sites as well as increased pollutant loadings from the sites.[18]

In sum, the record indicates that the CII sites at issue have significant amounts of impervious surfaces that contain large amounts of pollutants, such as zinc and copper, which are exposed to precipitation.

b. Sufficiency of available data to evaluate the contribution of stormwater discharges to water quality impairments from the targeted categories of sites.

Waterbodies in the Dominguez Channel watershed, including the Long Beach/Los Angeles Inner Harbor, are impaired for metals (zinc, copper, lead, cadmium, mercury, and chromium), indicator bacteria, toxic organics such as benzo(a)pyrene, phenanthrene, and PCBs, legacy pesticides such as DDT and dieldrin, toxicity, nutrients, and trash. Alamitos Bay/Los Cerritos Channel are impaired for metals (zinc, copper, and lead), ammonia, indicator bacteria, pH, chlordane, toxicity, and trash.[19]

In the 2016 Response, Region 9 described in detail the available data showing that stormwater discharges from CII sites contribute to water quality impairments in the targeted receiving waters. The information EPA reviewed included data submitted by the Petitioners themselves, analyses found in the several relevant TMDL documents for waterbodies in the watersheds, and a special source analysis study conducted by Paradigm Environmental.[20] In particular, the 2016 Response noted documentation for the Dominguez Channel Toxics TMDL[21] that show that a substantial reduction of both zinc and copper in stormwater discharges (over 70% in the upper freshwater portion of the watershed) would be needed in order to meet the applicable WQSs. Documentation for the Los Cerritos Channel Metals TMDL[22] also show that a roughly 70% reduction for both zinc and copper in stormwater discharges would be needed to meet the applicable WQSs compliance in the Los Cerritos Channel Watershed.

The load reduction estimates for zinc and copper in the TMDL documentation noted above were for municipal runoff overall in which CII sources were included the larger category. However, the Petitions included loading data for various land use categories showing high pollutant loadings from sources such as commercial sites and somewhat lower loads for institutional sources. In 2015, to gather additional information on CII sources specifically, Region 9 funded a

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[18] *See* National Research Council 2009. *Urban Stormwater Management in the United States*. Washington, DC: The National Academies Press. https://doi.org/10.17226/12465 and Arnold, C. L., & Gibbons, C. J. *Impervious Surface Coverage: The Emergence of a Key Environmental Indicator.* Journal of the American Planning Association. 1996, 62(2), pp. 243-258. *See also* EPA Report No. EPA 841-B-09-001. 2009. Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, December 2009.

[19] See 2020/2022 California Integrated Report: https://www.waterboards.ca.gov/water_issues/programs/water_quality_asssessment/2020_2022_integrated_report.html.

[20] Paradigm Environmental, Analytical Support for Stormwater Source Analysis, April 24, 2015.

[21] California Regional Water Quality Control Board, Los Angeles Region. 2011. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Loads, May 5, 2011.

[22] U.S. Environmental Protection Agency, Region 9. 2010. Los Cerritos Channel Total Maximum Daily Loads for Metals, March 2010

stormwater source analysis study of the loadings of common pollutants (including zinc and copper) in stormwater discharges from CII sources in two Southern California watersheds, including the upper portion of the Dominguez Channel Watershed. This study found that reductions in zinc and copper discharges in stormwater would be needed from all three CII categories for the receiving waters to attain WQS. Although the study only covered the upper portion of the Dominguez Channel Watershed, land use information submitted by the Petitioners showed that land use in the larger Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed, as well as the Alamitos Bay/Los Cerritos Channel Watershed, is similar to the land use in the area that was covered by the study. See Los Cerritos Channel RDA Petition Final, Appendix A Los Cerritos GIS Analysis and Dominguez Channel RDA Petition Final, Appendix A Dominguez Channel GIS Analysis. Accordingly, Region 9 reasonably extended the results of the study to the entire Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed as well as the Alamitos Bay/Los Cerritos Channel Watershed to indicate that discharges from CII sources are contributing to exceedances of WQSs for zinc and copper in receiving waters within these watersheds.

In addition, to inform EPA's reconsideration of the Petitions, EPA conducted stormwater modeling in the watersheds to gather updated information concerning pollutant loads in stormwater discharges from different types and sizes of CII sources in the watersheds.[23] EPA used the Watershed Management Modeling System (WMMS) 2.0 model developed by the Los Angeles County Flood Control District, which uses the Los Angeles County Tax Assessor's parcel database.[24] EPA used the County property use classification codes to "tag" the land use categories of all parcels within each watershed and to determine whether they would be considered CII parcels and thereby within the scope of the Petitions. The modeling considered the total land area of CII parcels as well as the amount of impervious surface in a parcel; as noted above, a higher level of impervious surface generally leads to a higher pollutant load in stormwater discharges.

The modeling focused on zinc and copper, which are the two main constituents of concern in the Petitions and the subject of impairment listings and subsequent TMDLs.[25] The analysis summarized in Appendix 1 focused on zinc, which is the principal constituent of concern in the watersheds and the "limiting pollutant," meaning it is the pollutant requiring the greatest load reduction and that controls implemented to achieve zinc reductions will lead to other pollutant reductions via sediment or volume reductions (e.g., copper and bacteria).[26] Other constituents of

[23] Paradigm Environmental. 2021. Dominguez Channel and Los Cerritos Channel CII Metals Load Analysis, memorandum from Steve Carter and Eric Wineteer of Paradigm Environmental to EPA Region 9, February 16, 2021.

[24] The database available for the modelling contains parcel information, not facility information. As a result, the loading data is based on parcels, not facilities. Further, the WMMS model does not cover the harbor area in the Dominguez Channel Watershed for the Ports of Long Beach and Los Angeles. Region 9 contacted the Ports separately to obtain information concerning the specific facilities located at the Ports. Region 9 then used that information to generate new estimates of the loading from CII facilities at the Ports.

[25] Dominguez Channel and Great Los Angeles and Long Beach Waters Toxic Pollutants TMDL (March 23, 2012), Los Cerritos Channel TMDL for Metals (March 2010).

[26] This is a common approach in these two watersheds. *See* City of Long Beach Near Shore Watershed Management Program:
https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/Long_Beach/index.html

concern in the watersheds include bacteria, metals other than copper and zinc such as lead, trash, PCBs, polycyclic aromatic hydrocarbons (PAHs), toxics, nutrients, and legacy pesticides such as DDT. As shown in Watershed Management Plans developed by municipalities, focusing on zinc is consistent with pollution reduction efforts occurring in the two watersheds.[27] The modeling results are summarized in Appendix 1 and pollutant loading data are provided for various sizes of CII parcels.[28] As shown in Appendix 1, there are roughly 20,000 CII sources in the watersheds, contributing 12,200 kg/yr of zinc loading. The preliminary designation would focus on the largest sources within this group (those with five or more acres of impervious surface) that contribute an estimated zinc load of 4,700 kg/yr.

The Petitions included a request to designate for permitting stormwater discharges from any non-industrial portions of an industrial facility even if stormwater discharges from the industrial portion of that facility are already required to be permitted. NPDES regulations at 40 C.F.R. § 122.26(b)(14) only require permitting of stormwater discharges from certain industrial activities at an industrial facility and exclude non-industrial portions (e.g., employee parking lots and administrative buildings). In addition, for facilities with standard industrial classification (SIC) codes in the transportation sector (40 C.F.R. § 122.26(b)(14)(viii)), only stormwater discharges from those portions of a facility that are involved in activities such as maintenance, fueling, cleaning, or deicing are required to be permitted as industrial stormwater.

There are approximately 190 industrial facilities (as defined by 40 C.F.R. § 122.26(b)(14)) over five acres in the two watersheds that have submitted a notice of intent for coverage under the industrial general permit, a no exposure certification, or a notice of non-applicability. Examples of these facilities include light and heavy industry, warehouses, trucking, scrap material handlers, and marine terminal operations. While some facilities may have moved industrial activities under cover to eliminate exposure to stormwater or collect and contain stormwater discharges associated with industrial activity, these facilities also have large areas of impervious surfaces, such as parking lots or rooftops. Such industrial sites are approximately 80% to 90% impervious, consisting of industrial areas, parking lots, interior roadways, and roofed buildings, much of which is not currently subject to NPDES permitting.[29] As discussed above, discharges from impervious areas contain pollutants of concern (pollutants impairing receiving waters) such as zinc and copper. As such, it is reasonable to assume that stormwater discharges from the unpermitted portions of such facilities contribute to exceedances of WQS. Given the high amount of impervious cover at such facilities, Region 9 is reasonably including larger facilities within this category – those with a total acreage of five or more acres – in the preliminary designation which contribute an estimated zinc load of approximately 6,300 kg/yr.

In sum, after considering the additional data gathered for this re-evaluation, plus the original data EPA possessed at the time of its initial response to the Petitions, the record indicates that

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[27] See: https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/

[28] The loading data in Appendix 1 are a composite estimate that combines data from both the watersheds. The modeling results included loadings from parcels classified as "government" and "public education," but since the Petitions were only for privately owned CII facilities, Region 9 subtracted the loadings from the government and public education parcels to get an estimate of the loading from the privately owned CII parcels that were the subject of the Petitions.

[29] See FN 17.

sufficient data are available to show that the CII sites at issue contribute of water quality standards violations, i.e., impairments, to waterbodies in the watersheds.

4. Preliminary Designation

Given the above discussion and information in the record, there is a high likelihood of exposure of pollutants of concern at CII sites to stormwater and sufficient data to demonstrate that discharges from such sites contribute to existing water quality impairments, i.e., water quality standards violations, in the watersheds. Therefore, Region 9 is preliminarily designating certain CII sites for NPDES permitting. In recognition of the large number and varying sizes of CII sources in the watersheds, Region 9 finds that a phased approach is appropriate, focusing initially on the largest sources while also ensuring reasonable progress in addressing the water quality impairments in the watersheds. With this overall goal in mind, Region 9 is preliminarily designating stormwater discharges in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed in Los Angeles County from the following:

- Any privately owned and unpermitted CII parcel with five or more acres of impervious surface,[30,31]
- Any unpermitted portion of a privately owned facility for which the total facility acreage is five or more acres, and the facility is either subject to NPDES permitting under 40 C.F.R. § 122.26(b)(14) or has submitted a no exposure certification[32] under California's Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (NPDES permit No. CAS000001)[33] (Industrial Stormwater General Permit), and
- Any privately owned facility for which the total facility acreage is five or more acres, and the facility has submitted a notice of non-applicability (NONA)[34] under the Industrial Stormwater General Permit due to containment of all stormwater associated with

[30] Impervious surface means surfaces that are impermeable to infiltration of rainfall into underlying soils/groundwater and includes rooftops, parking lots, sidewalks, and driveways.

[31] EPA is proposing to designate all CII facilities with five or more acres total area at the Ports of Los Angeles and Long Beach, given the high degree of imperviousness at the Ports. For example, the Port of Long Beach is "3,200 acres of mostly paved surfaces constructed on top of fill material where the ocean has been converted to land." *Adapting LID to a Port Environment*, Stormwater Report, Water Environment Federation, October 17, 2015 at 1. See also *Port of Long Beach and Port of Los Angeles, Water Resources Action Plan, Final Report* August 2009, where the Port of Long Beach is described as "largely impervious and highly industrialized" at 21.

[32] As authorized at 40 CFR 122.26(g); see Industrial Stormwater General Permit, Appendix 2 for more information concerning no exposure certifications.

[33] EPA is proposing to designate Industrial Stormwater General Permit facilities (including no exposure and NONA) with five or more total acres given the high degree of imperviousness at such facilities. See page 10 for more information. The proposal does not include facilities permitted under the Industrial Stormwater General Permit at airports in these watersheds. Most impervious surfaces at the airports are not controlled by private entities, but rather by municipal departments and as such, are already regulated under Regional Municipal Separate Sewer System NPDES Permit Order No R4-2021-0105. See https://www.lawa.org/, https://www.torranceca.gov/our-city/general-services/airpor, https://dpw.lacounty.gov/avi/airports/ComptonWoodley.aspx, and https://www.cityofhawthorne.org/departments/public-works/airport.

[34] See Industrial Stormwater General Permit at section XX.C for more information concerning requirements for facilities claiming that they do not discharge stormwater associated with industrial activity and the NONA process.

industrial activity. Only the portion (if any) of such facilities not covered by the NONA would be designated if that portion is five acres or greater.

Region 9 estimates that the sources that would be included in the preliminary designation are responsible for approximately 32% (11,000 kg/yr) of the total zinc load (34,300 kg/yr) from all sources to waterbodies in the watersheds (see Appendix 1). The modeling estimates that zinc load reductions of 80.9% and 85.4% would be needed, respectively, in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed to meet applicable water quality standards. Across both watersheds, EPA estimates a total zinc load reduction of 9,300 kg/yr would result from the designation given the numbers of CII sources and load reduction percentages in each watershed. Given that the preliminary designation would address a significant fraction of the total load, it would also make a meaningful contribution to the total needed reduction.

EPA estimates that approximately 640 parcels would be included in this preliminary designation, which is a manageable first step in addressing the contribution from CII sources to the impairments. The initial designation would also provide Region 9 with additional insights concerning CII sources that will inform future decisions.

While not a factor in EPA's decision, this preliminary designation would result in CII sites and MS4s sharing responsibility for controlling pollutants in urban stormwater than the MS4s bearing the responsibility alone. The Petitioners had expressed concern that the MS4 permittees may lack adequate resources to address the impairments and that permitting of discharges from CII sources would more equitably distribute the load reduction responsibility while also improving the chances of addressing water quality impairments in a timely manner. EPA estimates that the preliminary designation would shift approximately 41.5% of the load reduction responsibility to privately owned CII sources in the watersheds (see Appendix 1 and 2).

Designation Procedure and Permit Issuance Next Steps

The Region plans to provide public notice and take comment on a "preliminary designation" (this document), while California will simultaneously provide public notice and take comment on a draft NPDES general permit that would authorize stormwater discharges from designated sources.

Region 9 intends to continue to evaluate sites not currently proposed for designation (such as those below the size thresholds noted above) to evaluate impacts to water quality and whether designation of additional sites would be appropriate in the future.

Authorizing Signature

Based on the analysis set forth in this memorandum, it is my preliminary determination that stormwater discharges from the CII facilities described above in the Alamitos Bay/Los Cerritos Channel Watershed and the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed in Los Angeles County contribute to violations of water quality standards. I am therefore exercising my discretionary authority to issue a preliminary designation of these discharges for NPDES permitting pursuant to CWA §§ 402(p)(2)(E) and (6) and 40 C.F.R. §§ 122.26(a)(1)(v) and 122.26(a)(9)(i)(D).

KERRY DRAKE Digitally signed by KERRY DRAKE
Date: 2022.07.18 16:20:26 -07'00'

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Date Martha Guzman, Regional Administrator

Appendix 1 – Estimated Zinc Loads Addressed from Designation and Permitting of Certain CII Sources in Alamitos Bay/Los Cerritos Channel and Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watersheds in Los Angeles County (Composite for Both Watersheds)

A. Zinc Loads from Privately owned and Unpermitted CII parcels

Parcel Size – Acres of Impervious Surface	**Approximate # of Parcels**	**Zinc Load (kg/yr)**
>10	135	2,700
>5	450	4,700
>1	3,100	9,200
All parcels	20,000	12,200

Preliminary Designation: CII parcels with five or more acres of impervious surface.

B. Zinc Loads from unpermitted portions of facilities required to be regulated pursuant to 40 C.F.R. § 122.26(b)(14) with five or more acres total area

IGP Facility Category	**Approximate Number of Facilities**	**Zinc Load (kg/yr)**
Unpermitted portions of IGP permitted facilities	160	5,100
No exposure certifications	30	1,200
Notices of non-applicability (containment of all industrial stormwater)	2	16.5
Total IGP	≈190	≈6,300

C. Total Zinc Load from Sources Preliminarily Designated

Combining the zinc loads from sections A and B above leads to the following estimate for the zinc load from sources preliminarily designated. Total load is 11,000 kg/yr (6,300 kg/yr plus 4,700 kg/yr); total number of sources is approximately 640 (450 plus 190)

D. Approximate Zinc Load Reductions Addressed by Preliminary Designation

Total zinc load discharged in the watersheds - 34,300 kg/yr
Load addressed by designation (11,000 kg/yr) as percentage of total load - 32%

Total MS4 zinc load reduction responsibility with no CII designation - 26,500 kg/yr
Load reduction addressed by designation (11,000 kg/yr) as percentage of MS4 load responsibility - 41.5%

Based on a needed load reduction of 80.9% for sources in the Alamitos Bay/Los Cerritos Channel Watershed and 85.4% for sources in the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed, preliminarily designated CII sources across both watersheds would need to reduce zinc loading by approximately 9,300 kg/yr.

Appendix 2 – MS4s in the Two Watersheds

A. MS4s in the Alamitos Bay/Los Cerritos Channel Watershed

Bellflower
Cerritos
Downey
Lakewood
Long Beach
Los Angeles (County of)
Los Angeles County Flood Control District
Paramount
Signal Hill

B. MS4s in the Dominguez Channel and Los Angeles/Long Beach Inner Harbor Watershed

Carson
Compton
El Segundo
Gardena
Hawthorne
Inglewood
Lawndale
Lomita
Long Beach
Los Angeles (City of)
Los Angeles (County of)
Los Angeles County Flood Control District
Manhattan Beach
Palos Verdes Estates
Rancho Palos Verdes
Redondo Beach
Rolling Hills
Rolling Hills Estates
Torrance