CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE RESOLUTION NO. R9-2011-0021

A RESOLUTION AMENDING *THE WATER QUALITY CONTROL PLAN FOR THE SAN DIEGO BASIN (9)* TO INCORPORATE THE TOTAL MAXIMUM DAILY LOAD FOR SEDIMENTATION IN LOS PEÑASQUITOS LAGOON

WHEREAS, The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), finds that:

1. **Water Quality Control Plan:** The federal Clean Water Act[1] and state Porter-Cologne Water Quality Control Act[2] requires the San Diego Water Board to establish water quality standards for each waterbody within its region. The water quality standards for coastal waters in the San Diego Region are established in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan) and in the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan). Water quality standards include beneficial uses, water quality objectives (WQOs), and the antidegradation policy. The Basin Plan contains programs of implementation to achieve water quality standards.[3] Waterbodies that do not meet water quality standards are considered impaired.

2. **Clean Water Act Section 303(d) List of Water Quality Limited Segments:** Pursuant to Section 303(d) of the Clean Water Act, each state is required to identify impaired waters and establish a total maximum daily load (TMDL) at a level necessary to implement the applicable water quality standards.[4] Each state is required to develop a list that identifies and establishes a priority ranking for those waters requiring TMDLs.[5] The list is known as the Clean Water Act (CWA) section 303(d) List of Water Quality Limited Segments or more commonly, the 303(d) List. For the specific purpose of developing information, states are also required to estimate TMDLs for all other waters that are not identified on the 303(d) List.[6]

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[1] Clean Water Act section 303; U.S. Code section 1313

[2] California Water Code section 13240

[3] See Water Code section 13050(j). A "Water Quality Control Plan" or "Basin Plan" consists of a designation or establishment for the waters within a specified area of all of the following: (1) Beneficial uses to be protected, (2) Water quality objectives and (3) A program of implementation needed for achieving water quality objectives.

[4] Clean Water Act section 303(d)(1)(C); U.S. Code section 1313(d)(1)(C)

[5] Code of Federal Regulations Title 40 section 130.7(b)(1)

[6] Clean Water Act section 303(d)(3) states that "For the specific purpose of developing information, each State shall identify all waters within its boundaries, which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margin of safety…"

3. **Purpose and Definition of Total Maximum Daily Load (TMDL):** The purpose of a TMDL is to restore an impaired waterbody to water quality conditions under which applicable water quality standards can once again be attained. This is done by establishing and implementing a Total Maximum Daily Load (TMDL) for the impairing pollutant. Generally, when the TMDL, numeric targets and associated pollutant allocations are attained, water quality standards in the waterbody should be restored. A TMDL is both (1) a calculation of the maximum loading capacity of the impaired waterbody for each impairing pollutant; and (2) an implementation plan to guide actions necessary to cleanup the waterbodies and restore water quality standards.

4. **TMDL Basin Plan Amendment:** Upon establishment and approval of TMDLs, the state is required to incorporate TMDLs into the state water quality management plan.[7] Along with various applicable statewide water quality control plans, the Basin Plan for the San Diego Region serves as the water quality management plan for the watersheds under the jurisdiction of the San Diego Water Board. Incorporating TMDLs into the Basin Plan requires an amendment to the Basin Plan and the development of an Implementation Plan. The Implementation Plan must include a description of the actions necessary to achieve the applicable water quality objectives, a time schedule for the actions to be taken, and a description of the monitoring to be undertaken to determine compliance with the objectives.[8]

5. **Water Quality Impairment of Los Peñasqutios Lagoon:** As required by section 303(d) of the Clean Water Act, the Los Peñasqutios Lagoon (Lagoon) was placed on the 1996 List of Water Quality Limited Segments due to sedimentation and siltation loads that exceeded water quality objectives. The beneficial use that is most sensitive to increased sedimentation is estuarine habitat. Estuarine uses may include preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (such as marine mammals or shorebirds). Other beneficial uses listed in the Basin Plan for the Lagoon include contact water recreation; non-contact water recreation; preservation of biological habitats of special significance; wildlife habitat; rare, threatened or endangered species; marine habitat; migration of aquatic organisms; spawning, reproduction and/or early development; and shellfish harvesting.

   Impacts associated with increased and rapid sedimentation include: reduced tidal mixing within Lagoon channels, degraded and (in some cases) net loss of riparian and salt marsh vegetation, increased vulnerability to flooding for surrounding urban and industrial developments, increased turbidity associated with siltation in Lagoon channels, and constricted wildlife corridor.

[7] Code of Federal Regulations Title 40 section 130.6(c)(1)

[8] Pursuant to the requirements of Article 3, commencing with section 13240, of Chapter 4 of the Porter-Cologne Water Quality Control Act, as amended, codified in Division 7, commencing with section 13000, of the Water Code

6. **Water Quality Objective:** The water quality objective for sediment is contained in the Basin Plan. The Basin Plan states, *"The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses."*

7. **Numeric Targets:** One or more quantitative numeric targets must be selected to calculate a TMDL for an impaired waterbody. Numeric targets are derived from and must be able to interpret and implement water quality standards (beneficial uses, water quality objectives, and the antidegradation policy). This means that attainment of the selected numeric targets in the impaired waterbody represents attainment of applicable water quality standards in the waterbody; i.e., when the numeric targets are met, the TMDL should be met, WQOs should be met and the beneficial uses should be restored. While numeric targets and TMDLs are derived from, represent, interpret, and implement water quality standards, they are not water quality standards.

   In the case of Los Peñasquitos Lagoon, because the applicable water quality objective for sediment is narrative, a number of potential numeric targets were considered. Ultimately a reference system approach was selected in which the "reference condition" was defined as the historic sediment loading rate at a time when the water quality standard was believed to have been met in the Lagoon. Using of weight of evidence approach, it was concluded that the Lagoon was likely achieving the water quality standard for sediment before the early 1970s. A historic coverage for the Los Peñasquitos watershed was developed for this period using US Geological Survey topographic maps from the 1970s (primarily the La Jolla quadrangle-dated 1975). This historic land use distribution was used to calculate the numeric target using the LSPC watershed model. This historic sediment load of 12,360 tons per critical wet period (58.6 tons per day) represents the sediment TMDL numeric target.

8. **Sources of Sediment:** Sources of sediment include erosion of canyon banks, bluffs, scouring stream banks, and tidal influx. Some of these processes are exacerbated by anthropogenic disturbances, such as urban development within the watershed. Urban development transforms the natural landscape by converting pervious surfaces to impervious surfaces, which increases the volume and velocity of runoff resulting in scouring of sediment, primarily below storm water outfalls that discharge into canyon areas. Sediment loads are transported downstream to the Lagoon during storm events causing deposits on the salt flats and in Lagoon channels. These sediment deposits have gradually built-up over the years due to increased sediment loading and inadequate flushing, which directly and indirectly affects lagoon functions and salt marsh characteristics.

9. **Watershed Point and Non-point Sediment Sources:** There are two broad categories of sediment sources to the Lagoon: 1) "collective watershed sources"; and 2) the Pacific Ocean. The "collective watershed sources" consist of all of point

and non-point sources of sediment in the watershed tributary to Los Peñasquitos Lagoon.

Point sources: The primary point sources in the watershed include the four National Pollutant Discharge Elimination System "Phase I" MS4 copermittees, namely the San Diego County, City of San Diego, City of Del Mar, and City of Poway. Other point sources include Caltrans infrastructure, all Phase II MS4s, and all individual industrial facilities and construction sites located within the watershed. All point sources are considered "controllable" anthropogenic sources.

Non-point sources: In this project, the "collective watershed sources" also include all the *non-point sources located in the watershed* such as agriculture (1 percent of current land use area) and open space (43 percent of current land use area). This is the case because virtually the entire Los Peñasquitos watershed is drained through the Phase I MS4 collection systems and therefore these sources, although nonpoint in origin, are considered by the San Diego Water Board to be "controllable" point sources. For this reason the Phase I MS4s can be thought of as the primary and ultimate point sources of sediment to the Lagoon.

10. **Ocean Non-point Sediment Sources:** The Pacific Ocean is a significant non-point source of sediment to the Lagoon that the San Diego Water Board considers to be an uncontrollable natural background source. Sediment loads from the ocean are primarily a function of littoral forces and other factors that are largely separate from the sedimentation problem originating from the watershed. Although important to understanding the entire picture for management purposes, the ocean sources are outside the scope of this initial project.

11. **Responsible Parties Identification:** The responsible parties must undertake actions that will reduce watershed sediment loads in accordance with the appropriate compliance schedule. In this TMDL project, the term "responsible parties" is defined as the owners and operators of the collective watershed sources. The term "collective watershed sources" is defined as any point or non-point source of sediment discharging from the watershed to Los Peñasquitos Lagoon. Responsible parties include: Phase I MS4s copermittees (the County of San Diego, City of San Diego, City of Del Mar, and City of Poway), Phase II MS4s permittees, Caltrans, and the General Construction and General Industrial Storm Water permittees.

12. **TMDL Allocations:**
Waste Load Allocations to Watershed = 2,580 tons/year: As the primary controllable point source to the Lagoon, a waste load allocation (WLA) of 2,580 tons/year was assigned to the "collective watershed sources." Load reductions are required of the watershed sources collectively.

Load Allocations to Ocean = 9,780 tons/year: The ocean was the most significant nonpoint source of sediment to the Lagoon and was assigned at load allocation (LA)

of 9,780 tons/year (LA equal to full historic load). Because the ocean is considered an "uncontrollable" natural background source, load reductions are not required of the ocean.

13. **Historic and Current Sediment Loads:** Modeling of early 1970s land use conditions indicates that of the total 12,360 tons of sediment entering the Lagoon on an annual basis, approximately 2,580 tons was contributed by the "collective watershed sources", while the remaining 9,780 tons originated from the ocean.

    Modeling of current land use conditions indicates that of the total 13,663 tons of sediment entering the Lagoon on an annual basis, approximately 7,719 tons is contributed by the "collective watershed sources", while the remaining 5,944 tons originate from the ocean.

14. **Watershed Sources Must Reduce Current Loads by 67 percent:** In order to return to the early 1970's sediment loading rate, and hence to attain the sediment water quality objective in the Los Peñasquitos Lagoon, the "collective watershed sources" must jointly reduce their current sediment loading by 67 percent. No load reductions are assigned to the Pacific Ocean.

15. **TMDL Implementation, Monitoring, and Compliance:** Per the Basin Plan Amendment, the responsible parties will be required to develop, submit, and most importantly, implement a Sediment Load Reduction Plan (SLRP). The purpose of the plan is to describe each of the measures and specific best management practices they intend to implement to achieve the sediment load reductions required under this TMDL. The Basin Plan Amendment also requires a compliance monitoring program and specifies a load reduction compliance schedule. Monitoring must be conducted to demonstrate compliance with the interim milestone and final sediment load reductions. Final compliance with this TMDL must be achieved, as soon as possible, but no later than ten years from the effective date of the Basin Plan Amendment.

16. **TMDL Project Objective and Waterbody Goal:** The objective of this TMDL project is to attain the sediment water quality objective in the Los Peñasquitos Lagoon. This is considered an essential first step towards achievement of the ultimate waterbody goal. The final goal for the Los Peñasquitos Lagoon is full attainment of all water quality objectives, protection of all beneficial uses, and restoration to a functional healthy estuarine ecosystem.

17. **Scientific Peer Review:** The scientific basis for this TMDL has undergone external peer review pursuant to Health and Safety Code section 57004. The San Diego Water Board has considered and responded to all comments submitted by the peer review panel and has enhanced the Staff Report appropriately. No change to the fundamental approach to TMDL calculation was necessary as a result of the peer review process.

18. **California Environmental Quality Act Requirements:** Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the San Diego Water Board's basin planning process as a "certified regulatory program" that adequately satisfies the California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 et seq.) requirements for preparing environmental documents [14 CCR 15251(g); 23 CCR 3782]. As such, the "substitute environmental documents" that support the San Diego Water Board's proposed basin planning action contain the required environmental documentation under CEQA [23 CCR 3777]. The substitute environmental documents include the environmental checklist, the detailed Staff Report, responses to comments submitted during the peer review and public participation phases of the TMDL, the Basin Plan Amendment, and this resolution. For CEQA purposes, the "project" is both the adoption of a Basin Plan amendment establishing a TMDL for sediment in the Lagoon and all of the implementation activities undertaken by the responsible parties to comply with the TMDL.

19. **Project Impacts:** The accompanying substitute environmental documents satisfy the requirements of for a program level environmental review under CEQA, pursuant to Public Resources Code section 21159 and CCR Title 14, section 15187. Nearly all of the compliance obligations anticipated to be necessary to implement the TMDL for sediment will be undertaken by public agencies that will have their own obligations under CEQA for implementation projects that could have significant environmental impacts (*e.g.*, installation and operation of structural best management practices). Project level impacts will need to be considered in any subsequent environmental analysis performed by other public agencies pursuant to Public Resources Code section 21159.2.

    If not properly mitigated at the project level, implementation and compliance measures undertaken could have significant adverse environmental impacts. The environmental analysis for this TMDL, and in particular the environmental checklist and responses to comments, identify broad mitigation approaches that should be considered at the project level. The San Diego Water Board does not engage in speculation or conjecture regarding the projects that may be used to implement the TMDL rather the San Diego Water Board takes a broad general perspective consistent with the uncertainty regarding how the TMDL will ultimately be implemented. The San Diego Water Board only considers the reasonably foreseeable alternative methods of compliance, the reasonably foreseeable feasible environmental impacts of those methods of compliance, and the reasonably foreseeable mitigation measures which would avoid or eliminate the identified impacts. The lengthy implementation period allowed by the TMDL allows persons responsible for compliance with wasteload allocations or load allocations to develop and pursue many compliance approaches and mitigation measures.

20. **Project Mitigation:** The proposed amendment to the Basin Plan to establish a TMDL for sediment in the Lagoon could have a significant adverse effect on the environment. However, there are feasible alternatives, feasible mitigation measures,

or both that would substantially lessen any significant adverse impact. The public agencies responsible for implementation measures and for complying with the TMDL can and should incorporate such alternatives and mitigation into any projects or project approvals that they undertake for the Lagoon. Possible alternatives and mitigation are described in the CEQA environmental analysis, specifically the Staff Report and the environmental checklist.

21. **Statement of Overriding Considerations:** To the extent significant adverse environmental effects could occur, the San Diego Water Board has balanced the economic, legal, social, technological, and other benefits of the TMDL against the unavoidable environmental risks and finds that specific economic, legal, social, technological, and other benefits of the TMDL outweigh the unavoidable adverse environmental effects, such that those effects are considered acceptable. The basis for this finding is more fully set forth in the substitute environmental documents. (14 Cal. Code Regs. § 15093.)

22. **Economic Analysis:** The San Diego Water Board has considered the costs of the reasonably foreseeable methods of compliance with the load and wasteload allocations specified in this TMDL. The most reasonably foreseeable methods of compliance involve implementation of structural and non-structural controls. Surface water monitoring will be necessary to evaluate the effectiveness of these controls.

23. **Necessity Standard [Government Code section 11353(b)]:** Amendment of the Basin Plan to establish and implement the sediment TMDL for the Lagoon is necessary because the existing water quality in the Lagoon does not meet applicable water quality objectives for sediment. Clean Water Act section 303(d) requires the establishment and implementation of a TMDL under the water quality conditions that exist at the Lagoon. The TMDL for sedimentation is necessary to promote attainment of applicable water quality objectives and restoration of water quality needed to support the beneficial uses designated for the Lagoon.

24. **Stakeholder & Public Participation:** Interested persons and the public have had reasonable opportunity to participate in review of the proposed TMDL. Efforts to solicit public review and comment included a public workshop and CEQA scoping meeting in February 2011, multiple meetings with the Stakeholder Advisory Group, a public review and comment period consisting of 47 days, and a public hearing on June 8, 2011. Notices for all meetings were sent to interested parties including cities and counties with jurisdiction in the watershed draining to the Lagoon. All of the written comments submitted to the San Diego Water Board during the review and comment periods have been considered.

25. **Public Notice:** The San Diego Water Board has notified all known interested parties and the public of its intent to consider adoption of this Basin Plan amendment in accordance with Water Code section 13244.

NOW, THEREFORE, BE IT RESOLVED THAT

1. **Environmental Documents Certification:** The substitute environmental documents prepared pursuant to Public Resources Code section 21080.5 is hereby certified, and the Executive Officer is directed to file a Notice of Decision with the Resources Agency after State Water Resources Control Board (State Water Board), Board and Office of Administrative Law (OAL) approval of the Basin Plan Amendment, in accordance with section 21080.5(d)(2)(E) of the Public Resources Code and the California Code of Regulations, Title 23, section 3781.

2. **Amendment Adoption:** The San Diego Water Board hereby adopts the attached Basin Plan amendment as set forth in Attachment A hereto to establish a sediment TMDL for the Lagoon.

3. **Agency Approvals:** The Executive Officer is directed to submit this Basin Plan amendment to the State Water Board in accordance with Water Code section 13245.

4. **Non-Substantive Corrections:** If, during the approval process for this amendment, the San Diego Water Board, the State Water Board, or the OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the San Diego Water Board of any such changes.

I, David W. Gibson, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, San Diego Region, on June 8, 2011.

TENTATIVE
David W. Gibson
Executive Officer