Enclosure 1: Summary of Proposed Basin Plan Amendment
As revised on March 3, 2011

Problem

The Los Peñasquitos Lagoon (Lagoon) is currently listed on the Clean Water Act Section 303(d) Water Quality Limited Segments list for impairment due to sedimentation/siltation. The Lagoon is impaired due to sediment-associated impacts from urban development and urban runoff delivered by the storm drain system to the Lagoon from the surrounding watershed. The Lagoon is not meeting the narrative water quality objective (WQO) for sediment. As a result, numerous beneficial uses are impaired, primarily those associated with protection of aquatic life (e.g., Estuarine, Marine Life Habitat, and Preservation of Biological Habitats of Special Significance, etc.).

Purpose

The purpose of the proposed action is to restore the Lagoon to water quality conditions in which the WQO is once again met. This is done by establishing and implementing a Total Maximum Daily Load (TMDL) for sedimentation. When the TMDL and associated pollutant allocations are met, 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.

Proposed Action

The proposed action is the adoption of a Basin Plan amendment to incorporate the TMDL, associated waste load allocations, and required load reductions into the Basin Plan. The Basin Plan Amendment would include the following regulatory provisions:

1. *Numeric Target.* A numeric target is needed to evaluate attainment of the narrative water quality objective for sediment. Using a weight of evidence approach, the numeric target for sediment, as calculated based upon land use distribution, was set equal to the historical 1970s sedimentation rate, which was assumed to represent natural sedimentation conditions. <u>This historical sediment loading rate and numeric target is equal to 12,360 tons/year.</u>

2. *Sedimentation Rates.* The Loading Simulation Program in C++ (LSPC) was used to calculate both historic and existing conditions within the watershed. The LSPC watershed model was linked to the Environmental Fluid Dynamics Code (EFDC) to model hydrodynamics and sediment transport in the Lagoon. These models were used to establish sedimentation rates under both historic and existing conditions.

3. *Load Reduction Calculations.* Percent reductions were calculated based on the difference between the allowable sediment load (i.e., TMDL) and the sediment load that corresponds with existing conditions.

4. *Allocations.* The TMDL assigns a waste load allocation to point sources and a load allocation to non-point sources. A 67 percent sediment load reduction is required for the watershed contribution. The MS4 copermittees (County of San Diego, the City of San Diego, the City of Del Mar, and the City of Poway) and Caltrans will be responsible for making the required load reductions. No reduction is required for the identified non-point source which is the ocean boundary (sediment loads contributed by wave action, storm surge, and tidal flow) and is considered uncontrollable.

5. *Implementation Plan.* The Implementation Plan will include a range of regulatory alternatives available to the San Diego Water Board to require the responsible parties to meet the waste load reductions. Specifically, the San Diego Water Board plans to amend the San Diego Municipal Storm Water Permit[1] to include the requirements of the TMDL. In addition, the San Diego Water Board plans to request that the State Water Board amend the Caltrans Storm Water Permit[2] to include the requirements of the TMDL. The primary TMDL implementation action to be required of the responsible parties will include development and implementation of a Sediment Load Reduction Plan (SLRP). The SLRP may involve imposing requirements for low-impact development, installation of best management practices, implementation of hydromodification controls, installation of physical structures to catch sediment, removal of existing sediment, and/or restoration of the Lagoon. If needed, the San Diego Water Board may issue Water Code section 13267 investigative orders to direct responsible parties to complete required plans in the interim, while the amendments to the above NPDES Permits are completed.

   Phase II MS4s will be required to comply with existing requirements upon designation and enrollment under the Statewide Phase II MS4 general NPDES permit[3] or other individual Phase II MS4 permit issued by the San Diego Water Board. Industrial and construction storm water permittees will also be required to comply with existing requirements under their respective permits[4].

[1] Order No. R9-2007-0001, NPDES No. CAS0108758, *Waste Discharge Requirements (WDRs) for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority.*

[2] Order No. 99-06-DWQ, *National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from the State of California, Department of Transportation Properties, Facilities, and Activities*

[3] Order No. 2003-0005-DWQ, *National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004, Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems*

[4] Construction projects are covered under Order No. 2009-0009-DWQ, *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, CAS000002*. Industrial sites are covered under Order No. 97-03-DWQ, *National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*

6. *Monitoring Program.* Monitoring is required to gauge progress in achieving allocations and load reductions.

Background

The Los Peñasquitos Lagoon (Lagoon) and Los Peñasquitos watershed is located in the Los Peñasquitos Hydrologic Unit in central San Diego County. The Lagoon is a relatively small estuarine system that is part of the Torrey Pines State Natural Reserve; the Lagoon is one of the few remaining native salt marsh lagoons in southern California. The Lagoon is ecologically diverse, supporting a variety of plant species, and providing habitat for numerous bird, fish, and small mammal populations. The Lagoon also serves as a stopover for migratory birds and provides habitat for coastal marine and salt marsh species.

The Lagoon consists of approximately 510 acres of wetland habitats including coastal salt marsh (this includes salt panne, tidal channels, and mudflats), brackish marsh, riparian woodland and scrub, and freshwater marsh. The Lagoon's 510 acres include approximately 210 acres of tidal salt marsh and 120 acres of freshwater wetlands that are considered unimpaired. The remaining 180 acres of salt marsh and brackish marsh vegetation has been impaired by sedimentation, converting coastal salt marsh to freshwater or upland habitats. The 93 square mile Los Peñasquitos coastal watershed includes Carroll Canyon Creek, Carmel Creek, and Los Peñasquitos Creek. These creeks drain portions of the cities of San Diego, Poway, and Del Mar. In addition, a small portion of San Diego County is located in the eastern headwaters area. There are also several major road corridors that are maintained by Caltrans within the watershed.

The watershed is characterized by semi-arid, Mediterranean climate of coastal Southern California that has extended periods of drought with rainfalls concentrated in January to March. The climate is generally mild with annual temperatures averaging around 65°F near the coastal areas. Average annual rainfall ranges from nine to eleven inches along the coast.