

Central Valley Regional Water Quality Control Board
February 3, 2011 Board Meeting

Response to Comments
for the Stockton Port District
Facility-Wide Storm Water Discharges from
Municipal Separate Storm Sewer System and Non-Storm Water Discharges from the
Port of Stockton, San Joaquin County
Tentative Waste Discharge Requirements

The following are Regional Water Quality Control Board, Central Valley Region (“Central Valley Water Board” or “Board”) staff responses to comments submitted by the Stockton Port District and the United States Environmental Protection Agency (the “US EPA”) regarding the tentative Waste Discharge Requirements (NPDES Permit No. CAS0084077)(the “NPDES Permit”) renewal for the Stockton Port District (the “Port”), San Joaquin County.

The Port operates a municipal separate storm sewer system (“MS4”), which serves a facility that is home to a variety of businesses, which include commercial, light industrial, heavy industrial, agricultural, warehousing, transportation, educational, and office space leases. There are approximately 150 industrial and commercial tenants.

The beneficial uses of the San Joaquin River and Delta downstream of the discharge, as identified in Table II-1 of the Basin Plan, are municipal and domestic supply; industrial service and process supply; agricultural supply; contact and non-contact recreation; warm and cold freshwater habitat and migration; warm water spawning habitat; wildlife habitat; and navigation.

The tentative NPDES Permit was issued for public comment on 23 November 2010 with comments due by 22 December 2010. The Central Valley Water Board received public comments regarding the tentative NPDES Permit by the due date from the Port and from the US EPA. Changes were made to the tentative NPDES Permit based on public comments received.

The submitted comments were accepted into the record, and are summarized below, followed by Central Valley Water Board staff responses.

US EPA COMMENTS

US EPA Comment No. 1. Low Impact Development (“LID”)

The Port of Stockton is near sea level, and shallow groundwater or groundwater contamination may restrict the use of certain LID techniques in some areas. However, the issue of technical infeasibility for LID can be addressed through the inclusion of requirements for alternative or in-lieu programs in the permit. The tentative NPDES Permit should include clear, measurable LID requirements similar to other recently-issued MS4 permits in California.

RESPONSE: The tentative NPDES Permit now includes a requirement that the Port utilize LID best management practices (“BMPs”) where feasible, based on whether a site has soil and/or groundwater contamination from past Navy activities.

For clarification, Provision D.18.c. has been changed to include the following:

Where LID BMPs are not feasible at the project site, more traditional, but equally effective, control measures shall be implemented (e.g., vaults). This restriction applies only to sites that are known to have soil and/or groundwater contamination.

For clarification, Provision D.18.d. has also been changed to include the following:

To protect groundwater resources, any structural infiltration BMPs shall meet the following minimum requirements:

- a) Use of structural infiltration treatment BMPs shall not cause or contribute to an exceedance of groundwater water quality objectives.
- b) Source control and pollution prevention control BMPs shall be implemented in conjunction with structural infiltration BMPs to protect groundwater quality. The need for sedimentation or filtration should be evaluated prior to infiltration.
- c) Structural infiltration treatment BMPs shall not cause a nuisance or pollution, as defined in Water Code section 13050.
- d) The vertical distance from the bottom of the infiltration system to the seasonal high groundwater must be at least 10 feet. Where the groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained.

The permit requires performance measures to be established by the Permittee in the Storm Water Management Plan (“SWMP”) and adequate monitoring and assessment by the Port to ensure program effectiveness can be evaluated.

US EPA Comment No. 2. Water Column Toxicity Monitoring

The Water Column Toxicity Monitoring section of the Monitoring and Reporting Program was the main focus of US EPA’s Administrative Order on Consent (“AOC”) with the Port. The TIE and TRE section should cite US EPA guidance. All three species for toxicity testing should be listed. The permittee should be required to determine the statistically significant chronic toxicity as described in the AOC.

RESPONSE: The Permit has been changed to include the AOC language with some minor changes for clarification in section H. Water Column Toxicity Monitoring. It includes (1) Toxicity Sampling Locations and Procedures with frequency of monitoring during two non-consecutive years during the permit term;

(2) Toxicity Testing Protocols; (3) Toxicity Identification Evaluation (TIE) Protocols; (4) Toxicity Reduction Evaluation (TRE) Protocols; (5) Toxicity Testing Notification and Reporting Requirements; and (6) effectiveness assessment, proposed BMPs and implementation schedule to be included in the SWMP and subsequent analysis provided in Annual Reports.

The Port's monitoring obligations under the AOC ended in July of 2010, however, many of the monitoring deficiencies that led to issuance of the AOC will be corrected by including many of the terms of the AOC in the Monitoring and Reporting Program ("MRP").

STOCKTON PORT DISTRICT COMMENTS

Stockton Port District Comment No. 1. Justification Needed for Phase I Permit

The Port requests justification for maintaining a Phase I storm water permit since it has no permanent residents, and a daily transient work force population of only approximately 3,500. The Port believes that coverage under a Phase II MS4 permit is more appropriately suited to the Port than a Phase I Permit. Alternatively, the Port could be covered under the general industrial storm water permit or covered under the Stockton/San Joaquin County Phase I MS4 permit. The storm water data collected by the Port does not provide justification for special treatment and does not qualify the Port as a Phase I MS4 permittee.

RESPONSE: The Port is a special district that owns and operates the Port and its storm sewer system. The Port is located within the City of Stockton, which is the largest city in San Joaquin County, with a population of about 287,000. While the Port is correct that it is not a typical Phase I permittee, it may be operating under the mistaken assumption that the substantive requirements of its permit would be different if a Phase II permit were chosen over a Phase I permit. Under federal law, both Phase I and Phase II permits require permittees to effectively prohibit non-stormwater discharges into their sewers, and to implement controls that reduce the discharge of pollutants to the maximum extent practicable ("MEP").

The Port agreed to apply for a Phase I MS4 permit as part of a settlement. In February 1992, the Port filed a Notice of Intent with the State Water Board to obtain coverage for the East Complex under the State Water Board's General Permit for Storm Water Discharges Associated with Industrial Activities (the "Industrial General Permit"; Order 91-13-DWQ, as amended by Order 92-12-DWQ). In February 1997, the Central Valley Water Board issued an Administrative Civil Liability ("ACL") Complaint to the Port for numerous violations of the Industrial General Permit. These violations included the Port's failure to implement a facility-wide Storm Water Pollution Prevention Plan; its failure to implement adequate BMPs to control pollution discharges; its failure to document dry- and wet-weather visual inspections; and its failure to control the discharge of pollutants (pH and

suspended solids) that caused or contributed to the exceedance of applicable water quality standards. The Port, at that time it settled the violations charged in the ACL Complaint, chose not to be associated with the City of Stockton, which has its own MS4 Permit, and instead opted to apply for its own Phase I MS4 Permit.

The Port suggests three alternative permitting schemes. Board staff will respond to each proposal in turn. First, the Port implies that its discharges would should be regulated under the State Water Board's Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (the "Small MS4 General Permit"; Order 2003-0005-DWQ). The Small MS4 General Permit, like the tentative NPDES Permit, requires Permittees to reduce pollutants to the MEP standard, and to "conform to other monitoring requirements that may be imposed by the RWQCB." In addition, the Small MS4 General Permit states that, "In certain situations a storm water discharge may be more appropriately and effectively regulated by an individual permit..." Here, where an individual permit has already been developed to implement the MEP standard, it does not make sense to enroll the Port in the General Permit and then to tailor additional requirements; this process would result in a permit that would have nearly-identical requirements to the tentative NPDES Permit now under consideration. In addition, the Small MS4 General Permit gives the Regional Water Boards' Executive Officers the discretion to direct dischargers to apply for different permits. It is speculation to assume that the Executive Officer wouldn't exercise this option if the issue was presented.

The Port then requests that it be regulated under the Industrial General Permit. As stated above, the Port was previously regulated under this permit, but was unable to fulfill the obligations imposed by that permit. This led to the issuance of the ACL Complaint and the subsequent settlement. In addition, the Industrial General Permit would impose BAT/BCT requirements that are similar to those required in the tentative NPDES Permit.

Lastly, the Port proposes that it be regulated under the City of Stockton's Phase I MS4 Permit. While this could have been an option for the Port, it was the Port's own decision to apply for a separate permit after it failed to comply with the Industrial General Permit. If the Port wishes to be regulated under the City of Stockton's permit, it would require that the City of Stockton participate in discussions regarding the Port's inclusion in its Permit. The Board has not been provided with any evidence that these discussions are underway, or that the City has agreed to include the Port in its MS4 Permit.

Stockton Port District Comment No. 2. Removal of Best Available Technology Economically Achievable for non-conventional and toxic pollutants (BAT), and Best Conventional Technology Economically Achievable for conventional pollutants (BCT)

The Port requests that the references to BAT/BCT requirements be removed from the NPDES Permit (e.g., Finding 6 and Provision A.3) and that the references in the MRP to benchmarks associated with these requirements also be removed, as these requirements are not applicable to MS4 discharges.

RESPONSE: The Port, as an MS4 Permittee, must effectively prohibit non-stormwater discharges into their sewers, and must implement controls that reduce the discharge of pollutants to the MEP standard. However, the federal MEP standard is a flexible standard that gives the Board the discretion to impose controls including, "...management practices, control techniques and system, design and engineering methods, and such other provisions as the [permitting authority] determines appropriate for the control of such pollutants." (33 U.S.C. § 1342(p)(3)(B)(iii).) Because activities at the Port are primarily industrial (a conclusion reinforced by the fact that the Port once held a General Industrial Permit), it is reasonable for the Board to determine that the MEP standard, as applied to the Port's discharges, should be equivalent to BAT/BCT standard that has been established for other industrial storm water discharges. However, Board staff have tailored the monitoring program in the tentative NPDES Permit to more adequately address the site-specific characteristics of the Port's discharges.

Stockton Port District Comment No. 3. Removal of Duplicative Requirements

The current Tentative Permit includes no less than three separate requirements regarding not causing or contributing to violations of water quality standards and objectives (e.g., Provisions A.2., B.7., C.1.n. and C.2.). The Tentative Permit also includes many other provisions requiring no adverse affect on beneficial uses (e.g., Provisions A.2., B.7., C.1.c., C.1.h., C.1.i., C.1.l.). There only needs to be one provision regarding applicable water quality standards (which also encompasses beneficial uses). The Port requests that Provisions Section A, B, and C be revised to avoid duplication that could subject the Port to duplicative enforcement actions for a single event.

RESPONSE: The Port is correct that there are duplicate requirements in the tentative NPDES Permit. In most cases, these requirements have been included because they re-iterate language contained in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised September 2009 (the "Basin Plan"). These duplicative requirements, in many cases, specifically refer to a particular situation/constituent in order to clarify what would be considered a violation under the Permit. For example, Provision A.2 prohibits "Discharges from MS4s, which cause or contribute to exceedances of receiving water quality standards..." while Provision B.7 specifically refers to, "... runoff and leachate from sulfur, coal, petroleum coke, cement, raw sugar, copper concentrate, and fertilizers that have constituents that exceed water quality objectives or affect beneficial uses."

Although the Port could potentially be subject to duplicative enforcement actions for a single event, it is worth noting that the State Water Board's [Water Quality](#)

[Enforcement Policy](#) states that, "... a single base liability amount can also be assessed for multiple violations at the discretion of the Water Boards, under the following circumstances: ... d. When violations are not independent of one another or are not substantially distinguishable." The violations that the Port is concerned with fall within the scope of this provision.

Stockton Port District Comment No. 4. Clarification of Receiving Water limitations (RWL) Section.

Findings 36 and 44 and the RWL section of the Tentative Permit must be revised to make clear that immediate and strict compliance with water quality standards is not being required. MS4 discharges are not required to comply with the CWA section 301(b)(1)(C) (See *Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159, 1165.) The Port suggests modifying permit language in Provision C.3. to make the RWL section more clear since recent citizen suits against MS4s around the State have brought the meaning of this language into question.

RESPONSE: The language in the Receiving Water Limits section of the Tentative Permit is the language that the State Water Board, in Order WQ 99-05, mandated that the Regional Water Boards include in all municipal storm water permits. This language reflects the State Water Board's intent that compliance with water quality standards is to be achieved through an iterative process. The tentative Findings reflect the fact that although strict compliance with water quality standards is not being required, it is the goal of the iterative, BMP-based approach that the discharges will ultimately meet water quality standards.

Board staff have also added language to the RWL Section that make it clear that immediate and strict compliance is not being required in the tentative NPDES Permit.

Stockton Port District Comment No. 5. Removal of Legal Conclusions.

The Port request that legal conclusions be removed, as such conclusions are inappropriate as well as inaccurate. Any mandates contained in this tentative NPDES Permit not required by and more stringent than federal law arguably constitute objectionable unfunded mandates. (See e.g., Case Nos.: 03-TC-04, 03-TC-19, 03-TC-20, 03-TC021, *Municipal Stormwater and Urban Runoff Discharges*). Many of the tentative NPDES Permit's requirements are new, constituting a "new program," or creating a "higher level of service" over the previously required level of service, that impose additional costs, thereby implicating an unfunded state mandate. The new requirements that are more stringent than required by federal law include sediment requirements, CEQA requirements, requirements for lease document language, post-development and construction requirements, increased inspection requirements, BMP effectiveness assessments, and retention basin monitoring. As such, these requirements could be considered to be unfunded mandates on the Port, which is a public entity.

RESPONSE: The Central Valley Water Board has removed requirements in the Tentative Permit that are more stringent than federal law, and therefore, the Board considers the legal recitations accurate. The Board understands the Port's concerns, as compliance with the federal MEP standard necessarily means that the Board will include increasingly more stringent requirements over time (whether in the NPDES Permit or in the SWMP) until water quality standards are met. This is a consequence of the fact that the State Water Board allows municipal dischargers to gradually attain water quality standards by implementing an iterative approach. *Defenders of Wildlife v. Browner*, 191 F.3d 1159, previously cited in the Port's comments, gives the State Water Board broad discretion as to the type and timing of requirements that may be included in MS4 Permits. Rather than requiring "strict" compliance with water quality standards, which is an option within the State Water Board's discretion, the State Water Board has instead chosen to allow an iterative approach in MS4 Permits. By so doing, the State Water Board has given MS4 Permittees a significant degree of flexibility to tailor their responses to water quality concerns specific to their jurisdiction.

However, when a Regional Water Board implements the iterative process envisioned by the State Water Board, it may appear that a Regional Water Board is changing its expectations each permitting cycle. This is not the case; the tentative NPDES Permit, like the permit that it is intended to replace, specifies requirements necessary for the Port to reduce the discharge of pollutants in urban runoff to the MEP using BAT/BCT. Since compliance with the MEP standard is an iterative process, the Port's storm water programs must continually be assessed and modified as urban runoff management knowledge increases, to incorporate improved programs, control measures, BMPs, to study the effectiveness of BMPs, etc., all of which are designed to achieve the federal MEP standard. This continual assessment, revision, and improvement of storm water management program implementation is expected to achieve compliance with water quality standards. The proposed requirements are consistent with other Phase I MS4 permits in the area (e.g., Stockton, Sacramento).

The Port's antidegradation analysis supports this process, and states, "...the Port believes that, based on the performance and effectiveness evaluation of the existing program BMPs and with the addition of the proposed new BMPs, the MEP standard will be met for the Storm Water Management Plan (SWMP). Throughout the term of the renewed permit, the Port will continue the iterative approach to assess compliance with the MEP standards by means of the annual performance and effectiveness evaluations." The requirements in the tentative NPDES Permit are being imposed to implement federal requirements, and do not constitute an unfunded state mandate.

Stockton Port District Comment No. 6. Remove New Requirements on Port Leases

The Tentative Permit contains prescriptive requirements on the Port's tenant lease agreements (e.g., Findings 32, 68, 81, and Provisions D.6., D.7.a.-d., D.17.c.). This exceeds the boundaries of the Central Valley Water Board's authority and constitutes interference with private contracting, which may have economic or other impacts on the Port. References should be removed.

RESPONSE: The requested changes to the Tentative Permit have been made. The purpose of including the "lease agreement" requirements in the initial draft was to ensure that the Port possessed adequate legal authority to regulate discharges into its MS4 system; the general import of this requirement remains intact.

Stockton Port District Comment No. 7. Justify New Total Maximum Daily Load (TMDL) Requirements

There are no specific findings in the Tentative Permit with supporting evidence to conclude that the Port's storm water discharges contain the pollutants in the TMDLs at levels high enough to warrant the new requirements (e.g., Provisions C.1.o. and p., D.28.) The permit frontloads all of the possible requirements when there may be no need for the Port to take any or all of these measures. The Port requests that a more logical step-wise approach be taken, particularly for the mercury requirements where an adaptive management approach has been proposed, since the timeline for compliance spans several decades.

RESPONSE: Central Valley Water Board staff have modified several of the implementation requirements when the pollutants of concern are not detected in the Port's discharges.

The tentative NPDES Permit now requires the Port to continue or initiate implementation of specific TMDL-related control programs when the Port's data show that pollutants in its discharge are causing or contributing to water quality impairments, and where these water quality impairments have been addressed via a TMDL. The tentative NPDES Permit requires the Port to submit a Mercury/Methylmercury Control Program, Low Dissolved Oxygen Plan, and an updated Pesticide Plan to demonstrate that its discharge is not causing or contributing to water quality impairment for the respective pollutants.

Stockton Port District Comment No. 8. Impose only BMPs for TMDL-Imposed Water Quality Based Effluent Limits

The Tentative Permit contains several wasteload allocations that read like effluent limitations. Since MS4s are not required to strictly comply with water quality standards, the Port requests that only non-numeric effluent limitations (e.g., BMPs, source control) be imposed for all TMDL-related requirements under the authority of 40 C.F.R.

§122.44(k) and *Citizens for a Better Environment v. SWRCB* (2003) 109 Cal. App.4th 1089, 1102-1108.

RESPONSE: Where a TMDL has been approved, NPDES permits must contain effluent limitations and conditions consistent with the requirements and assumptions in the TMDL. Effluent limitations are generally expressed in numerical form. However, US EPA recommends that for NPDES-regulated municipal and small construction storm water discharges, effluent limitations should be expressed as BMPs or other similar requirements rather than as numeric effluent limitations.¹ Consistent with US EPA's recommendation, this section implements Water Quality Based Effluent Limits (WQBELs) expressed as an iterative BMP approach capable of meeting the WLAs in accordance with the associated compliance schedule.

The Permit's WQBELs include the numeric WLA as a performance standard and not as an effluent limitation. The WLA can be used to assess if additional BMPs are needed to achieve the TMDL Numeric Target in the waterbody.

Stockton Port District Comment No. 9. Modify New Monitoring Requirements

The Tentative Permit's MRP is almost twice as large as the previous permit and includes many more monitoring events and new monitoring programs (sediment toxicity, dry weather monitoring, more frequent toxicity monitoring, and the water quality based programs for pesticides, dissolved oxygen (DO) and methylmercury). The Port, in the attached comments at Exhibit C and the Port's markups to the MRP, has suggested a more tailored approach to monitoring that should be adopted for the final draft of the Permit.

RESPONSE: Board staff concurs with the Port's request to eliminate Sediment Toxicity based upon the Port's justification in the Report of Waste Discharge ("ROWD"). Section 5, page 91, of the ROWD, discusses the efforts of the Port, US Army Corps of Engineers and California Department of Water Resources, who perform maintenance dredging and monitoring in the Stockton Deep Water Ship Channel. These entities are regulated under Waste Discharge Requirements General Order R5-2004-0061, which includes requirements for sediment toxicity monitoring and reporting.

Polluted storm water runoff is a leading cause of water quality impairment in the area of the Port's discharge. Storm water and urban runoff (during dry and wet weather) are often polluted with pesticides, fertilizers, animal droppings, trash, food wastes, automotive byproducts, and many other toxic substances generated by urban environments including industrial activities. Water that flows over

¹ US EPA, 2002. Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs. p.4.

streets, parking lots, construction sites, and industrial and commercial areas carries these pollutants through the storm drain systems directly into receiving waters.

The water quality impacts and increased public health risks from MS4 discharges are well-documented. According to receiving water monitoring data collected since the early 1990s, the pollutants of greatest concern that are discharged by the Port are biological oxygen demand (“BOD”), chemical oxygen demand (“COD”), total dissolved solids (“TDS”), aluminum, specific conductivity, nitrate as N, zinc, sulfate, and possibly pesticides and mercury. These are the pollutants that are most likely to periodically cause or contribute to an exceedance of applicable water quality standards in receiving waters.

The tentative NPDES Permit requires further analysis of several additional constituents, including those identified by the Permittees as pollutants of concern in the Report of Waste Discharge, constituents for which the Central Valley Water Board is developing TMDLs, and constituents considered particularly relevant to the water quality of the Sacramento-San Joaquin Delta.

Industrial complexes change over time. As an example, the Alco Iron and Metal industrial facility is moving out the Port’s jurisdiction. The facility has recently illegally discharged an oil substance in the Port’s South Ditch (email from Jason Cashman, Port staff, on 27 December 2010). This is indicative of how the sources of pollutants may change over time.

The Port’s antidegradation analysis states their industrial facilities have exceeded US EPA’s Multi-Sector General Permit (MSGP) benchmarks. In summary, they have stated that during the 2006/2007 storm season, there were 19 benchmark exceedances reported on the tenant annual reports. The number of tenant benchmark exceedances hit a permit-term high of 24 during the 2008/2009 season. A cement handling tenant had benchmark exceedances for pH (10 ph units), aluminum (960-3,800 µg/L), and iron (1,300-5,000 µg/L). A metal recycling tenant’s facility was observed to have an oil sheen caused by transmission fluid being transported off-site by storm water into the Port drainage system.

The US EPA Audit (audit dates March 18-20, 2008, see attached) questioned the viability of the data and found the Port could not substantiate whether the “first flush” of 2005-2006 was monitored. The Audit also showed that detection limits were not as low as they should be with regards to current methodologies. The updated limits are identified in Table G of the tentative NPDES Permit. The Audit recommended at least three (3) wet weather sampling events be conducted each year, including the “first flush.” In this regard, the Central Valley Water Board has incorporated most of US EPA’s recommendations to incorporate a more robust monitoring and reporting program during this permit term. Based on the Central Valley Water Board staff’s review of US EPA’s Audit results and data collected prior to 2008, we concur with the US EPA Audit results that question the validity

of data. In order to clearly interpret results of data collection and substantiate the Port's analysis, the tentative NPDES Permit requires a monitoring database to include, at a minimum: (1) Date of Sample; (2) Constituent; (3) Unit of Measure; (4) Minimum Detection Level (SIP)²; (5) Test Method; (6) US EPA's MSGP Benchmark Values; (7) Water Quality Objective Limit/Criterion; (8) Specific Water Quality Source and Reference (e.g. CA Title 22 Maximum Contaminant Levels); (9) MSGP Benchmark Exceedance (Y/N); (10) Water Quality Objective Exceedance (Y/N); and (11) Sampling Results by Outfall, using data collected since 2008.

Exhibit C: Exhibit C describes the Port's rationale for eliminating specific constituents from the monitoring program. After review of the data submitted in the 2009-2010 Annual Report, Board staff are proposing to eliminate testing for some constituents that have not been detected in the Port's effluent. Those constituents that are 303(d) listed, a toxic hot spot, or have an approved TMDL, have been retained. Table G remains the same, but the frequency of monitoring has been changed to verification monitoring in year 3 of the permit term. The following provides the Central Valley Water Board's rationale for keeping specific constituents.

Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD)

Since the Port has various tenants with different industrial chemical uses, it is logical to ask for COD and BOD testing. COD and BOD do not necessarily measure the same types of oxygen consumption.

Chemical Oxygen Demand (COD) is a rapid indicator of organic pollutants in water. COD is a measure of oxygen consumed to decompose organic matter and oxidize inorganic matter. Therefore, both organic and inorganic sources of oxygen demand are measured in a COD assay. The test only takes a few hours to complete and the results are inherently more reproducible and used to account for rapid, daily changes.

Biochemical Oxygen Demand is considered a more "natural" test in determining the amount of oxygen required by aerobic microorganisms to oxidize the biologically available organic matter. BOD only measures the amount of oxygen consumed by microbial oxidation. BOD testing can take up to 5 days to 30 days for results depending on which method you run. This type of testing is usually performed in eutrophic waters to assess the amount of biological oxygen demand.

² *State Board Policy for Implementation of Toxics Standards for Inland Surface Water, Enclosed Bays, and Estuaries of California, 2000* (SIP)

The Port's historical data shows exceedances of the benchmark for COD; therefore Board staff proposes to keep BOD and COD in the monitoring requirements.

Turbidity versus Total Suspended Solids (TSS)

Turbidity and TSS are not the same, but they are related. Turbidity is an expression of the optical properties of water that cause light to scatter. It is usually a description of how much the water is clear or cloudy. It refers to the optical properties of water and not a measure of a concentration of any particular pollutant.

Total Suspended Solids (TSS) is a measurement of the concentration of suspended sediments (including both organic and inorganic materials). TSS is both a significant part of physical and aesthetic degradation and a good indicator of other pollutants, particularly nutrients and metals carried on surfaces of sediment in suspension. In some cases, it has been shown that there is a correlation between TSS and turbidity and, in some cases turbidity can be used as a suitable monitoring parameter where TSS sampling is impractical.

Board staff do not propose to eliminate TSS or TDS.

Specific Conductivity versus Total Dissolved Solids

Total Dissolved Solids (TDS) is a measure of the amount of dissolved ions (cations and anions) in the water. Specific Conductivity is a measure of the water's ability to conduct electricity. TDS can be related to the conductivity of the water but the relationship between the two is a function of the type and nature of the dissolved ions in the water. Once the relationship between the two has been established for a particular waterbody, SC has been found to be a good measure of the concentration of total dissolved solids.

Board staff propose that the Port review its data and demonstrate the correlation between the SC and TDS in the SWMP to verify there is a direct correlation.

Total Kjeldahl Nitrogen

Total Kjeldahl Nitrogen (TKN) is the sum of organic nitrogen, ammonia (NH₃) and ammonium (NH₄). Total Nitrogen can be calculated by determining the concentrations of nitrate-N and nitrite-N and adding those values to TKN. The value in performing TKN sampling is to determine the organic nitrogen component. Since nitrogen loading can be detrimental to an already eutrophic system, it would be helpful to have an understanding of all the nitrogen components. The San Joaquin River is a eutrophic system so it is important to have a good understanding of the nitrogen loading; therefore we recommend keeping TKN as a monitoring parameter.

The robust monitoring and reporting program is designed to capture all potential pollutants from this industrial complex.

Stockton Port District Comment No. 10. Remove Requirements Unrelated to Storm Water.

The Tentative Permit contains requirements for the Port to police direct discharges from ships visiting the Port (e.g., Finding 11 and Provision B.2, D.10.d.), which is unrelated to storm water and does not belong in this permit. Similarly, the Tentative Permit requires outreach to ship owners about ballast water (e.g., Finding 13 and Provision D.10.d.i.), which is also unrelated to stormwater discharges. The Tentative Permit also wrongfully and unnecessarily incorporates the requirements of the Port's waste discharge requirements (WDR) for dredging (*R5-2006-0078*) (see Provision D.28.b.ii.), which is independently enforceable by the Central Valley Regional Water Board and does not implicate storm water. By incorporating these requirements (and others related to sediment removal, e.g., Provision D.28.c.ii) into this NPDES permit, those requirements now become federally enforceable by US EPA and citizens, subjecting the Port to additional liability unintended by the WDR. For these reasons, all of the requirements unrelated to storm water must be removed from this storm water permit.

RESPONSE: The Permit language has been changed in response to the Port's recommendations.

Stockton Port District Comment No. 11. Explain Deficiencies in Port's Current Development Standards.

In November 2005, the Port submitted a Development Standards Plan ("DSP") to the Central Valley Water Board. It was determined that this Plan met the requirements of the Permit and approved that plan on November 17, 2005 (See Provision D.19). The Central Valley Water Board has failed to explain why numerous additional requirements are being placed on the Port related to Development Standards when its workplan was approved. Without evidence supporting the need for additional requirements, these requirements should be removed (e.g., Provision D.14-18, 20-23, 26).

RESPONSE: Since November 2005, the Port has updated their DSP (now dated 1 June 2009). There are changes in the updated DSP that have not been reviewed and approved by the Central Valley Water Board. The Port's Proposed Storm Water Management Plan and Report of Waste Discharge, dated 31 August 2009, did not include a revised DSP. The Port's Annual Report, dated 31 August 2009, did not contain a DSP. On page 43, Section 2.7.2 Development Standards, of the Port's Annual Report, it states, "Revise the Port's DSP to require a written, site-specific storm water development standards plan and written BMP maintenance plan for each applicable development/redevelopment project." Section 2.7.2 of the Port's Annual Report, also includes four (4) other activities the Port proposes to develop or implement in the revised DSP.

The West Complex has soil and groundwater contamination from past Naval activities; therefore, alternative LID design details for BMPs that infiltrate storm water to groundwater must be described in the DSP. Provision D.18.c. BMP Requirements includes new descriptive language stating that, "Where LID BMPs are not feasible at the project site, more traditional, but equally effective control measures shall be implemented (e.g., vaults). This restriction applies on to sites that are known to have soil and/or groundwater contamination." Provision D.18.h. Infiltration and Groundwater Protection has been changed to reflect the need to protect groundwater, which was recommended by the US EPA as discussed in US EPA Comment No. 1 above.

The Central Valley Water Board is asking for a revised DSP as part of the SWMP in order to ensure that the requirements of the tentative NPDES Permit find their way into the development standards adopted by the Port.

Stockton Port District Comment No. 12. Remove New LID and California Environmental Quality Act (CEQA) Requirements

The Tentative Permit includes new Low Impact Development (LID) and California Environmental Quality Act (CEQA) document requirements that are not required by federal law, and which may not be appropriate for the Port. While LID may be appropriate in residential and commercial situations, these practices (Provision D.16-17) may not be practical or effective in the more industrial complexes located at the Port, where there are issues related to past contamination from previous Naval activities and where discharges to groundwater may not be recommended (see Provision D.24). Further, CEQA already requires checklists that deal with storm water and infrastructure. It is beyond the authority of the Central Valley Regional Water Board to mandate additional CEQA review (see Provision D.21) not required in the Natural Resources Code or the CEQA guidelines.

RESPONSE: See the response to Comment No. 11 above in response to the inclusion of new LID requirements.

Board staff have worked to delete those portions of the tentative NPDES Permit that are inapplicable to a predominantly commercial and industrial complex. Provisions D.22. Mitigation Funding, D.23 CEQA Document Update, and D.24. General Plan Update have been deleted because they are poorly suited to the Port.
