

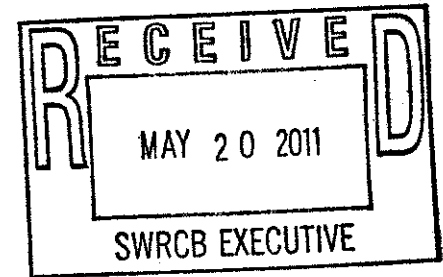
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May 20, 2011

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814
commentletters@waterboards.ca.gov



RE: Comments on the General Exception to the California Ocean Plan Waste Discharge Prohibition for Selected Discharges into Areas of Special Biological Significance, Including Special Protections for Beneficial Uses and the Associated Program Environmental Impact Report

Dear Ms. Townsend:

The California Department of Transportation (Caltrans) appreciates the opportunity to comment on the General Exception to the California Ocean Plan Waste Discharge Prohibition for Selected Discharges into Areas of Special Biological Significance (ASBS), the Special Protections for Beneficial Uses, and the Draft Program Environmental Impact Report (Draft EIR). Caltrans is the largest stakeholder in the ASBS program and has gratefully collaborated with State Water Resources Control Board staff on the development of the proposed Draft ASBS Special Protections approval process over the past several years. Caltrans discharges are adjacent to ten of the 34 ASBS sites along 60 miles of State Route 1 (SR-1) and State Route 101 (SR-101). SR-1 and SR-101 highways have been in place since the 1930s serving the public interest, by providing mobility across California for the traveling public, for movement of goods and services, and are the primary (or only available) access to many coastal communities.

Our comments outline Caltrans' major concerns related to the difficulty of complying with water quality requirements and the technical feasibility challenges towards implementation of the proposed Draft Special Protections. Our specific concerns include the following:

- Timing of the Caltrans NPDES Permit renewal, ASBS Program adoption, and the ASBS compliance schedule;
- The technical feasibility of implementing practices, which attain "natural" water quality in the ASBS;
- The compliance schedule in the proposed Draft Special Protections requires compliance in four years, which is not feasible, especially for Caltrans and nearly 200 outfalls discharging to ASBS;
- The end-of-pipe effluent limits based on Table B and the infeasibility of treatment and control practices which are capable of achieving reductions necessary to meet Table B levels;

- The extensive public resources needed to achieve compliance far outweigh the public and environmental benefits; and
- California Environmental Quality Act (CEQA) compliance, inadequate impacts analysis, and the need to address cumulative impacts assessed in the Draft EIR.

The proposed Draft Special Protections apply very restrictive performance standards to stormwater runoff. These standards will require either a very high level of treatment or diversion away from the ASBS. These options will be very costly and could have significant and non-mitigated impacts in the coastal zone, therefore creating increased economic and environmental impacts to the state. Significant public expenditures should result in public benefits, such as identifiable environmental improvements.

The attached comments are associated with comments previously submitted by Caltrans¹. We acknowledge that some modifications have been made that address our concerns. However, important issues remain unresolved and are described in more detail in the Attachment of this letter.

If you have any questions, please contact me at (916) 653-4446, or Keith Jones at (916) 653-4947.

Sincerely,



G. SCOTT MCGOWEN, P.E.
Chief Environmental Engineer

Attachment

CC: Vicky Whitney, Deputy Director, State Water Board
Bruce Fujimoto, Chief – Stormwater State Water Board
Keith Jones, Caltrans
Joyce Brenner, Caltrans

¹ Caltrans' previous comments were submitted March 15, 2010. Other Caltrans comment letters and testimony are on record. Caltrans Memorandum from CTC meeting of December 14-15, 2006, regarding "Regulation by the State Water Quality Control Board for Discharge in Areas of Special Biological Significance."

Attachment

Caltrans NPDES Permit Renewal and ASBS Requirements

1. *The Caltrans NPDES Permit*

Caltrans NPDES Permit Tentative Order No. 2011-XX-DWQ (NPDES NO. CAS000003) was recently released for public notice and the Permit General Discharge Prohibition A.2, states,

The Discharge to Areas of Special Biological Significance (ASBS) is prohibited unless an exception has been granted by the State Water Board. Implementation requirements for discharges to ASBS which have been approved by the State Water Board are enforceable under this Order.

Discharge to Areas of Special Biological Significance (ASBS) is prohibited unless an exception has been granted by the State Water Resources Control Board (State Board). The State Board has not approved the general exception for Caltrans or for any other MS4s. The Draft EIR for granting a general exception to MS4s was released January 20, 2011. It is not clear when the general exception will be approved by the State Board. Our concern is that, if we do not receive an exception by the time our tentative permit is approved (expected fall 2011), then Caltrans discharges (most of which have no alternative discharge location) will be in non-compliance and therefore will be at risk for agency or third party enforcement.

Caltrans requests careful coordination of the proposed Draft Special Protections and the tentative NPDES permit approval processes. The General Discharge Prohibition A.2 of the Tentative Order should be revised to indicate that the prohibition only applies if the State Board grants the general exception.

2. *Schedule viability (Compliance Schedule)*

The proposed Draft Special Protections require that Caltrans comply with the discharge limitations within four years of the effective date. It is not reasonable to expect Caltrans to acquire funding, complete the planning and design, public review process, obtain the necessary environmental permits, and complete construction in this short time frame. In particular, the necessary CEQA analysis, as well as the need for Coastal Plan and related approvals, is uncertain or may take years due to the sensitivity of construction activities within the coastal zone. In addition, the only means for achieving compliance is the substantial retrofit of drainage facilities (design and construction), which will exceed the period prescribed by the proposed Draft Special Protections compliance schedule.

Caltrans requests that the State Board modify the compliance schedule to allow adequate time (10 years) for the planning, permitting, and implementation of mitigation measures to meet the proposed Draft Special Protections requirements.

Technical Comments Related to the Proposed Draft Special Protections

3. *Prohibition of discharge*

Instead of the absolute prohibition on discharges, we recommend the approach proposed by State Board staff in the *Information Document for the Proposed Amendment of the Water Quality Control Plan for Ocean Waters of California* (December 2003). This proposal removes the absolute ban on storm water discharges and replaces it with a provision allowing continued discharges that are not adversely affecting the ASBS. (This is similar to Alternative S.5.2 in the *Draft Program Environmental Impact Report*.)

Caltrans requests the adoption of a straightforward approach for permitting ASBS discharges that would also facilitate the preparation of the proposed Draft Special Protections.

4. *Attainment of natural ocean water quality*

As defined in the proposed Draft Special Protections, natural water quality is "without apparent human influence." We believe that roadway runoff will inevitably fail this standard. Even with substantial treatment, some alterations in receiving water temperature, indicator bacteria count, or chemistry will occur and may be detectable. In order to attain natural water quality as the proposed Draft Special Protections require, retrofitting the existing facilities will be required. Since Caltrans' facilities were built in the 1930s and predated the ASBS designation in most cases, retrofitting such facilities is impractical (i.e., will require the redesign and reconstruction of all roadway drainage facilities).

Caltrans requests that an iterative approach be incorporated into the proposed Draft Special Protections that allows time to determine if there are discharges that do not meet the natural water quality standards, and identify appropriate measures to address these discharges.

5. *Attainment of target levels*

Discharges are required to provide for the attainment of natural water quality and to additionally achieve the target levels listed in Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan, or a 90% reduction in pollutant loading for the Table B parameters during storm events for the applicant's total discharges. Even if Caltrans were to divert 90% of the stormwater, the remaining 10% of the original flows would still need to meet this separate requirement and ensure that natural water quality (i.e., without apparent human influence) is maintained. We note that even if a discharge complies with Table B, the discharge could still be adversely impacting natural water quality, since the

Table B instantaneous maxima objectives are approximately an order of magnitude above background. Exceedances of the lower 6-month median values are described in the Draft EIR. The proposed Draft Special Protections end-of-pipe compliance is applied to Table B instantaneous maxima and 90% reduction. Assuming the treatment of all direct discharge points and full diversion of discharges outside of ASBS areas, complying with the proposed Draft Special Protections could cost Caltrans approximately \$673 million in construction costs alone (including system components, treatment BMP installation, right-of-way acquisition, permitting, traffic control, structures retrofitting, pump stations, and habitat mitigation). In addition, the parallel requirement of providing for attainment of natural water quality remains, which may entail additional control measures.

Caltrans requests that the proposed Draft Special Protections clearly state how the State Board expects the 90% reduction and compliance with Table B are to be achieved, as well as explain what the consequences would be if the objectives are not achieved.

6. *New Water Quality Standards*

The Regional Integrated Monitoring Program in IV.B.2 still describes the new water quality objective of achieving natural ocean water quality through monitoring of an ocean reference area. In the Glossary, under Natural Ocean Water Quality, when natural ocean water quality is not maintained, the discharge is presumed to not affect natural ocean water quality, only if the concentrations are equal to or less than those found in the ocean reference area, or the Regional Water Board makes that determination. This establishes a new water quality objective not found in the 2009 Ocean Plan.

Caltrans requests that the State Board follow the intent of California Water Code Section 13241 in establishing new water quality objectives, including identifying the water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in an area, and the associated economic considerations.

7. *Ban on new outfalls*

The ban on new outfalls and on new discharge locations imposes a major constraint. New outfalls and discharge locations are essential in some cases. For example:

- Caltrans may need to separate its flows from discharges that are currently commingled. In such cases, a new outfall is required.
- Solutions to meet the proposed Draft Special Protections may require modified or additional outfalls.
- During roadway reconstruction, maintaining the existing discharge location may require additional piping and pumping facilities.
- New treatment facilities will be required to meet the performance requirements. Adequate space may not be available at the location of the original outfall to construct a sand filter or other treatment device, because the only available space may be some distance away. Returning the treated flow to the original outfall location would waste

fiscal resources and provide no water quality benefit.

Caltrans requests that the proposed Draft Special Protections allow for new outfalls with the State Board and Regional Board's approval at discharge locations where other engineering solutions are unreasonable or are infeasible. See Comment 8(e) below.

Comments Related to CEQA and the Draft EIR

8. California Environmental Quality Act (CEQA) Draft EIR Improvements

- a. Since Subsection 1.3 (Purpose and Focus of the Draft EIR) emphasizes that the Draft EIR is program-level and that "subsequent project level CEQA compliance and environmental analysis at a regional or local level may be required," it is recommended that an additional reference and description consistent with the CEQA Guidelines (California Code of Regulations Title 14) be provided here. Section 15152 is the provision for Tiering and

...refers to using analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs or negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.

Caltrans requests that the Draft EIR incorporate tiering references and an appropriate description consistent with the CEQA Tiering Guidelines.

- b. The Section 2.0, Project Description is incomplete. The discussion is brief and is not clear as to the relationship with the Summary Chapter. Possibly it is intended for Sections 3.1 – 3.5 to be considered as part of the project description, as depicted in the Table of Contents. This discrepancy needs to be resolved. Section 15124 of the CEQA Guidelines describes the content of the Project Description, including (in summary):

- Location, boundaries and graphics.
- Project Objectives – Included in the Summary Subsection (5.3) but not mentioned in this chapter.
- Project characteristics.
- Intended use of the Draft EIR – Discussed in Section 1.0 but should be cross-referenced here.

Caltrans requests that the Draft EIR's Project Description discrepancies be resolved.

- c. This Draft EIR is difficult to understand because of the limited connection between the Project Description and the Environmental Analysis section, which comes much later in Section 6.0. The lack of clarity and detail in the Project Description (Section 2.0) makes it difficult to understand how Section 4.0 is presented regarding Alternatives.

Caltrans requests that the provisions of CEQA Guidelines Section 15126.6 are carefully considered regarding the Environmentally Superior Alternative and Alternative sites. In addition, the Project Description with the Environmental Analysis sections should be revised to clearly link how Section 4.0 is presented.

- d. Environmental Permits – The Draft EIR does not appear to address environmental permitting. For example, potential regulatory overlaps in the coastal zone can and will present many challenges, but ultimately, no construction will take place without a Coastal Development Permit issued by the Locally Certified Coastal Program or the California Coastal Commission. The proposed Draft Special Protection requirements will trigger construction projects in the coastal zone that will need Coastal Development Permits. As a part of the Coastal Development Permit process, environmental impacts are fully assessed prior to permit approval. As the Draft EIR is currently written, it is not clear whether these coastal zone environmental impacts have been fully considered.

Caltrans requests that the Draft EIR identify potential permit jurisdictions and consider any reasonably foreseeable regulatory hurdles to compliance, and identify a process to assure compliance with all regulatory requirements.

- e. Ban on new outfalls – The ban on new outfalls and on new discharge locations imposes a major constraint. New outfalls and discharge locations are essential in the cases previously stated.

Caltrans requests that the environmental analysis directly assess the reasonably foreseeable impacts of a ban on new outfalls and assess the benefits of allowing new outfalls when environmentally preferable.

- f. Hydrology and Water Quality – The Hydrology and Water Quality Impacts Section of the Draft EIR discusses project types that would satisfy the proposed Draft Special Protections. These types of projects underscore the feasibility question regarding Caltrans' implementation of the proposed Draft Special Protections. We believe it is highly probable that wet weather flow diversions to alternative discharge locations will also be necessary to comply with the Table B (90% reduction options), as well as the requirements for the preservation of natural water quality.

Caltrans requests that the Draft EIR identify reasonably foreseeable environmental impacts from diversion of these flows around the ASBS. The Project Description, as well as the Environmental Analysis, should also identify the water quality standards to be attained, and the reasonably foreseeable impacts of locating new treatment facilities in the coastal zone.

- g. Traffic Impacts Analysis – Caltrans does not agree with the determination that mitigation is available to reduce any potential impacts to transportation to less than significant levels based on the threshold listed as exceeding the capacity of the existing circulation system. Segments of SR-1 and SR-101 are narrow with limited rights-of-way and may require

partial or full closure intervals during construction to implement the requirements to comply with the proposed Draft Special Protections.

Caltrans requests that the Traffic Impacts Analysis take into consideration the impacts associated with limited rights-of-way along segments of SR-1 and SR-101, and the potential for road closures to construct measures to address the proposed Draft Special Protections.

- h. Economic Analysis – The Draft EIR’s Summary and Conclusions of Special Protections Cost section (Section 7.7) states,

Combined, the Northern, Central, and Southern California regional monitoring group start up costs are estimated at about \$2.5 million. Staff estimates the cost of BMPs on priority discharges would be about \$43 to \$54 million statewide.

We believe this statement greatly underestimates the efforts and resources needed to implement controls to comply with the proposed Draft Special Protections. Caltrans alone has several hundred outfalls along 70 miles of roadway. The cost to comply with the proposed Draft Special Protections requirements will far exceed this estimate, as stated previously in Comment 5.

Caltrans requests that the Draft EIR’s estimated cost reflect the reasonable estimated costs of constructed facilities that meet Table B and ambient receiving water requirements as the proposed Draft Special Protections require. In addition, the reasonable estimate should consider the costs associated with delays to the traveling public and movement services due to the disruption of traffic, which could require road closures along SR-1 and SR-101.

- i. The Draft Resolution in Appendix 1 of the Draft EIR notes that it authorizes the General Exception and approves the Mitigated Negative Declaration.

Caltrans requests that the State Board review the Draft Resolution to correct its inconsistencies with the Draft EIR.

Comments Related to ASBS Compliance and BMP Performance

9. The Draft EIR, Section 7.5 incorrectly lists Drain Inlet Inserts and Vortex Separation Systems as Caltrans-approved treatment BMPs. Caltrans has not approved and does *not* approve of the use of Drain Inlet Inserts and Vortex Separation Systems.

Caltrans requests that the Draft EIR is revised to accurately identify Caltrans-approved and/or non-approved treatment BMPs.

10. Of the 10 ASBS sites designated by the State Board as requiring Caltrans BMP implementation, five locations include direct discharges to the ocean:

- a. Redwood National and State Parks
- b. Kelp Beds at Saunders Reef
- c. Julia Pfeiffer Burns Underwater Park
- d. Ocean Area Surrounding the Mouth of Salmon Creek
- e. Mugu Lagoon to Latigo Point

Stormwater runoff from Caltrans roadways at Point Lobos Ecological Reserve ASBS and Carmel Bay ASBS either infiltrates or is treated through natural vegetation. Based on Caltrans' field and desktop evaluation of the State Board's discharge points list in the Año Nuevo Point and Island ASBS and James V. Fitzgerald Marine Reserve ASBS, the discharge points assigned to Caltrans at these ASBS locations either discharge to an inland stream or are naturally treated by existing vegetation. At the Irvine Coast Marine Life Refuge ASBS, Caltrans believes it has implemented projects which reach the requirements in the Santa Ana Regional Water Quality Control Board's Cease and Desist Order on the prohibited discharge of waste.

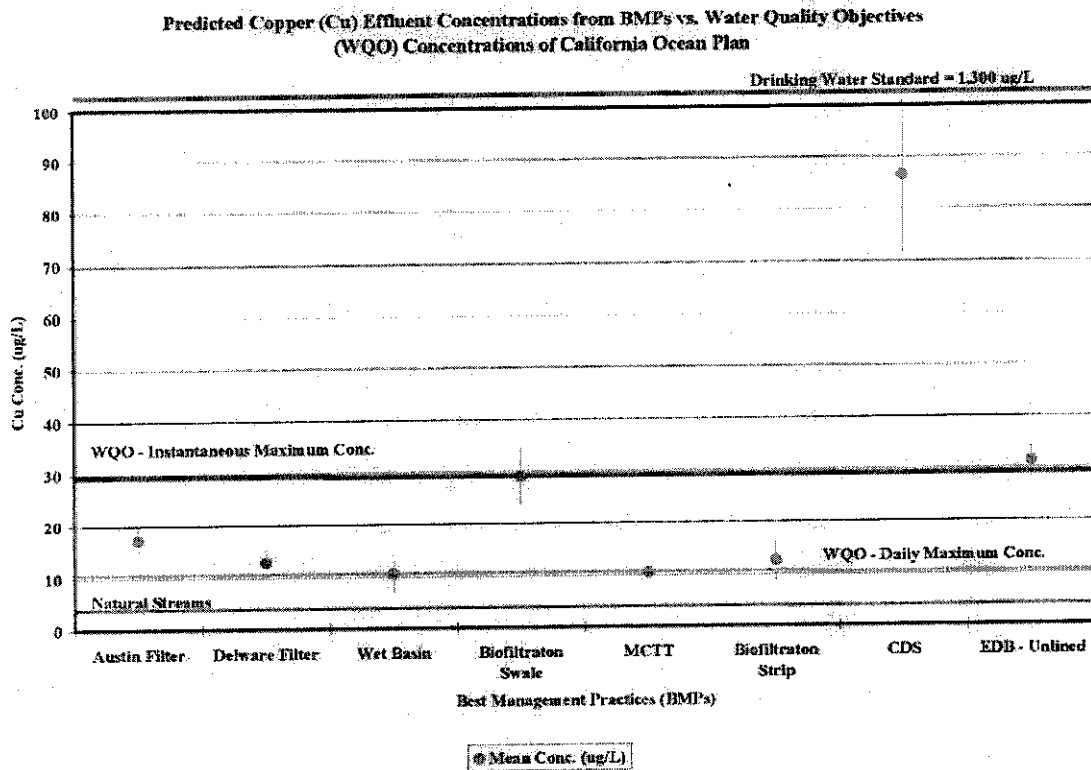
Caltrans requests that treatment BMP implementation be limited to ASBS sites where there is a direct discharge.

11. The data in Appendix 2 of the Draft EIR indicates that Caltrans discharges exceed the instantaneous maximum water quality objective for copper (Cu), lead (Pb), and zinc (Zn) in certain roadway segments along ASBS. While infiltration, standard filtration (e.g., sand), or other controls will likely be necessary for all Caltrans direct discharges, infiltration will not be technically feasible, due to the geology (i.e., soil conditions) and available rights-of-way. Media filtration will also be difficult to site in many constrained localities, such as steep gradient coastal roads and steep slopes adjacent to the coastal roads.

Caltrans requests that the State Board consider the feasibility of installing mitigation measures in constrained localities before approving the proposed Draft Special Protections as circulated. In addition, Caltrans requests that the State Board provide data that justifies the available BMPs (e.g., filtration) will consistently treat stormwater discharges to the levels compatible with Table B.

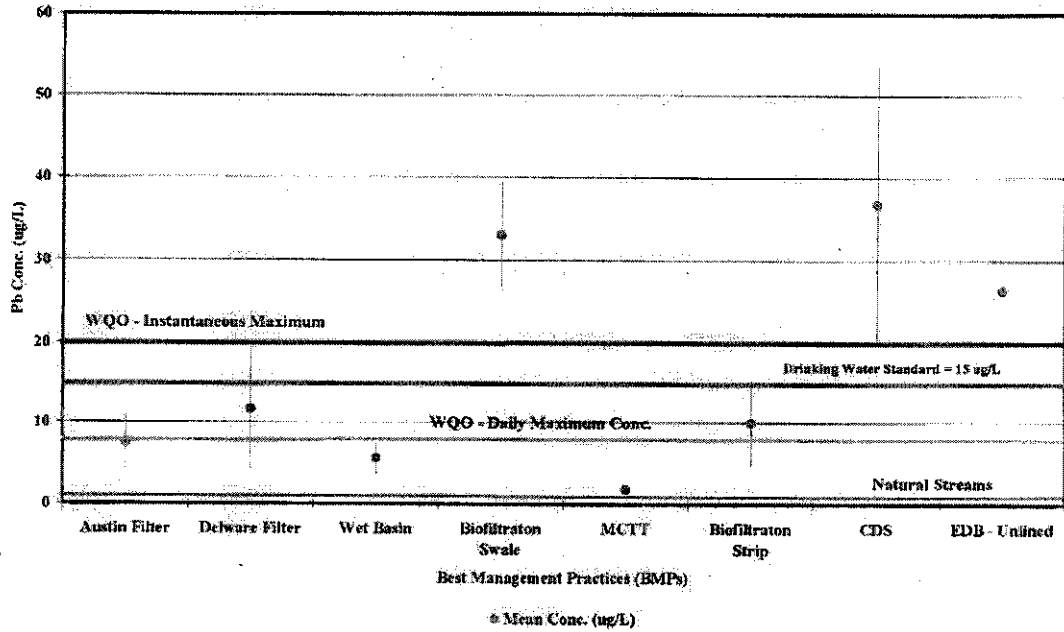
12. Some discharges may require more advanced treatment than filtration to ensure compliance with the copper objective. Typically, 45% or more of the copper is dissolved. Only the particulate fraction of the total copper will be addressed by filtration. Even if the filtration is highly effective in removing the particulate fraction, the dissolved portion will pass through untreated and will contribute to exceedances of the objective for total copper. Thus an influent concentration of 300 µg/L total copper filtered through a sand filter will likely exceed the objective based on only the dissolved fraction that passes through untreated. The expected effluent concentration from a sand filter treating water with an influent concentration of 300 µg/L would be 106 µg/L. For a sand filter to achieve compliance, the influent concentrations would have to be 77 µg/L to achieve an effluent concentration of 30 µg/L (instantaneous maximum). To achieve compliance in many urban areas, chemical addition and precipitation, or ion exchange, may be necessary to reduce the dissolved component. The implementation of these stormwater treatment controls would be technically

infeasible due to right-of-way constraints and will be cost-prohibitive for Caltrans. Caltrans tested treatment BMPs for their applicability in its facilities by monitoring² the copper, lead, and zinc effluent concentrations from eight BMP types, including infiltration devices (Austin and Delaware types), a wet basin, a biofiltration swale, a multi-chambered treatment train device, a biofiltration strip, a Continuous Deflective Separation (CDS) Unit, and an unlined extended detention basin. The following graphs illustrate the results of the monitoring compared to the Ocean Plan's Water Quality Objectives concentrations.

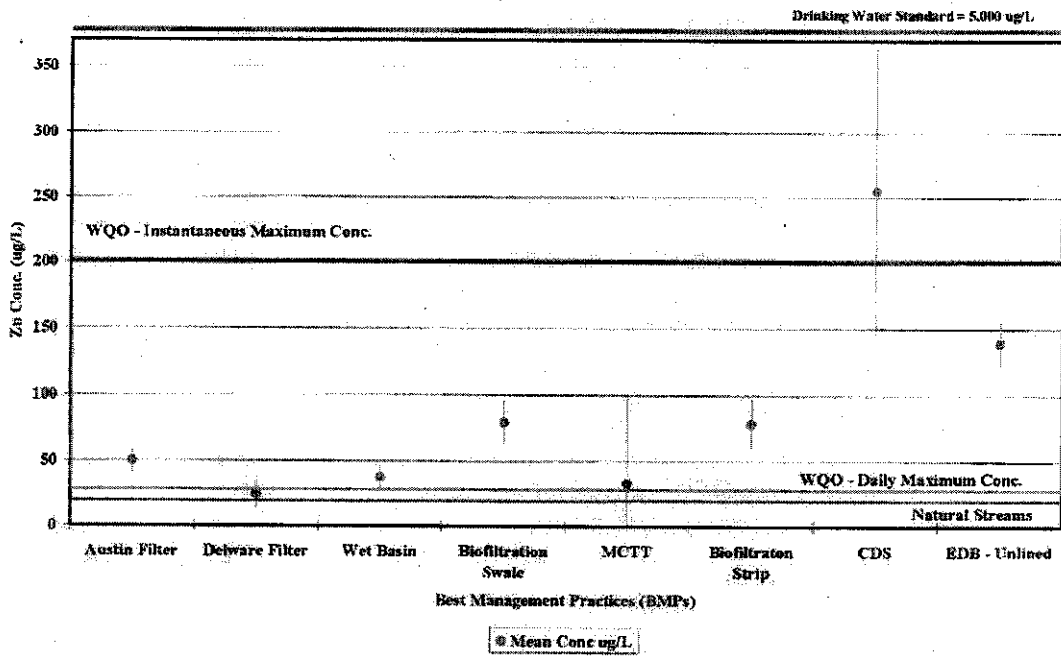


² California Department of Transportation, *BMP Retrofit Pilot Program, Final Report*, Report ID CTSW-RT-01-050, January 2004.

Predicted Lead (Pb) Effluent Concentrations from BMPs vs. Water Quality Objectives (WQO) Concentrations of California Ocean Plan



Predicted Zn Effluent Concentrations from BMPs vs. Water Quality Objectives (WQO) Concentrations of California Ocean Plan



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As the graphs indicate, the currently available technology (e.g., treatment BMPs) is not capable of treating discharges sufficiently to meet the proposed Draft Special Protections requirements and the Ocean Plan's Water Quality Objectives.

Caltrans requests that the State Board consider the infeasibility of complying with Ocean Plan requirements when the technology to meet those requirements does not exist.