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May 17, 2004

State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812-0100

Attention: Mr. Frank Roddy
E-mail: roddf@dwg.swrcb.ca.gov; FAX: (916) 341-5584

Subject: California Ocean Plan – Triennial Review

Dear Mr. Roddy:

I appreciate the opportunity to comment on issues regarding the Ocean Plan as part of the Triennial Review process. Our main comments are similar to those we submitted January 28, 2004, prior to the Informational (Scoping) meeting for the Functional Equivalent Document (FED) which was being prepared for the proposed Ocean Plan amendments. We have also addressed relevant high priority issues remaining from the 1999-2002 Triennial Review.

Our major concerns remain the same as stated in our earlier comments: it is very important to the California Department of Transportation (Department) that the Ocean Plan include a process for issuing NPDES permits for the conditional discharge of storm water to State Water Quality Protection Areas (SWQPAs). As currently interpreted by the Board, the Ocean Plan prohibits discharges to SWQPAs (formerly Areas of Special Biological Significance - ASBS). The recent survey by the Board identified approximately 2,500 such discharges into the 34 areas currently designated as SWQPAs. Our review of the Board survey indicates that many of these discharges include runoff from State highways or pass through State right-of-way. As shown on the survey, approximately 186 of these discharges have a relationship to the Department's facilities along 23 of the 34 SWQPAs. Our preliminary cost estimate for redirecting these discharges from the current SWQPAs is a minimum of \$190,000,000 (see Attachment B). This estimate does not include costs for treatment, outfall structures, or exceptional construction practices which may be required in some constrained coastal locations. The estimate also does not include mitigation costs for the construction of miles of pipeline in the coastal environment.

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The Marine Managed Areas Improvement Act (AB 2800) provides that permitted discharges to SWQPAs may continue where they do not have adverse impacts. We request that the provisions of the Act be implemented as a high priority to resolve the current problematic status of the ongoing discharges. We suggest that the Board formally acknowledge that the current statewide permits adequately address these discharges on an interim basis. The Triennial Review process can be used to assess and develop a permanent permitting approach.

As previously indicated, we disagree with the Board's interpretation that the Ocean Plan prohibits storm water discharges to SWQPAs. When the current ASBS were originally designated in 1974 and 1975, storm water and urban runoff was allowed if "controlled to the extent practicable." Decades after this original designation, the Board changed its regulatory approach to storm water and classified it as a waste, and therefore subject to the prohibition. It is our belief that this change in classification, and the new regulatory approach, are invalid since they have never been subject to the process specified by the Water Code for establishing water quality plans. Regardless, it is important that the issue be resolved as soon as possible through the process authorized by the Marine Managed Areas Improvement Act.

Our detailed comments for the Triennial Review are included as Attachment A to this letter. We hope these comments are helpful. If you have any questions, please call me at (916) 654-4327.

Sincerely,



JOHN VAN BERKEL
Acting Chief Environmental Engineer

Enclosures

ATTACHMENT A

Comments on the Ocean Plan Triennial Review

Prepared by the California Department of Transportation (Caltrans),
Division of Environmental Analysis
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Submitted to State Water Resources Control Board
Division of Water Quality
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Sacramento, CA 95812-0100:
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May 17, 2004

1. ***Previous Comments*** – For the following topics, please refer to our comments submitted January 28, 2004, regarding the issues to be considered in the Functional Equivalent Document (FED) that was to be prepared for the previously proposed Ocean Plan amendments.
 - FED Introduction:*
 - Numeric limits and storm water
 - Applicability to various discharges (upgradient discharges through Caltrans facilities)
 - Applicability of Basin Plan Table A effluent limits to construction site runoff
 - Issue 1* - Choice of Indicator Organisms for Water-Contact Bacterial Standards
 - Issue 2* - Establishing a Fecal Coliform Standard for Shellfish Harvesting Areas
 - Issue 3* - Reclassifying “Areas of Special Biological Significance (ASBS)” to “State Water Quality Protection Areas (SWQPAs)” and establishing implementation provisions for discharges into SWQPAs – *these key comments are restated and included below.*
 - Issue 4* - “Reasonable Potential” - Determining the likelihood that the concentration of a pollutant will cause or contribute to an exceedance of water quality standards
2. ***Importance of Ocean Plan modifications to the Department of Transportation*** - The Department operates coastal highways including facilities which convey roadway runoff, and

sometimes upstream runoff, near or into SWQPAs. These proposed requirements will have a significant financial and management impact on Department operations.

In as much as the Department operates a state highway that parallels the entire coastline of California, the Department anticipates the Department's discharges enter most of the 34 ASBS/SWQPAs. The Department has already spent approximately \$3.5 million to address discharges into the Crystal Cove portion of the Irvine Coast ASBS. An initial estimate of costs for removing ASBS/SWQPAs discharges statewide are included in Attachment B.

The proposed application of special conditions to storm water permits will establish new controls on these discharges. Previously, with only the one exception in Regional Board 8, stormwater and related flows from Department and other facilities were allowed to discharge into ASBS/SWQPAs. These discharges were and are regulated by the Department's statewide permit and Storm Water Management Plan. These proposed new controls will have statewide environmental effects and costs which need to be assessed as part of the new Triennial Review. These impacts and costs have not been assessed during previous rule-making, including during the original adoption and subsequent modifications of the Ocean Plan. This lack of any prior assessment of the impact of the ban is the result of changes in the regulatory classification of storm water runoff.

When the current ASBS were originally designated in 1974 and 1975, storm water and urban runoff were considered nonpoint sources:

c) Discharge of waste from nonpoint sources, including but not limited to storm water runoff, silt and urban runoff, will be controlled to the extent practicable. In control programs for waste from nonpoint sources, Regional Boards will give high priority to areas tributary to ASBS.

(See page 113, Draft Final Functional Equivalent Document, Amendment of the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan, September 1, 2000.)

Subsequently, EPA and the State have begun to regulate stormwater and related runoff as a "point source" subject to the NPDES permit program. As a consequence, the State has interpreted the Ocean Plan's prohibition on point sources as now applicable to storm water runoff. Nevertheless, with the exception of the discharge into Crystal Cove, the Regional Boards have not applied this new interpretation of the prohibition to storm water. The State's recent survey of SWQPA identified 2,500 discharge locations (*Final Report: Discharges into State Water Quality Protection Areas*, July 2003). Consequently, the application of special conditions to storm water permits described in the December 2003, Informational (Scoping) Document will represent the first programmatic controls for these discharges other than those associated with current MS4 permits and the Construction General Permit. These controls will potentially involve treatment, re-routing of discharges, alternative disposal, or other means of complying with the conditions. The aggregate effect of these controls, including costs and environmental effects and benefits should be assessed as part of the Triennial Review and any subsequent Functional Equivalent Document (FED).

As an interim solution, we propose that the Board rely on the current statewide permits to address these discharges. The Triennial Review process can then be used to develop a permanent permitting process.

3. ***Discharges in SWQPA/ASBS but not into surface waters*** – Many and perhaps most discharges from Caltrans coastal roadways are not directly to surface waters. Typically, the runoff is to bluffs above the beach or onto the shoreward side of beaches and sand dunes. These discharge locations also often appear to be located above the high water line. Our understanding is that the Board’s position is that any discharge within an SWQPA/ASBS, including the land portion, is a prohibited discharge. (This understanding is based on the Findings provided by the Board’s Office of Chief Council during the April 4, 2001 Board Workshop.) We question the basis for this position since many discharges are actually relatively far from the Ocean and it would be virtually impossible for any measurable pollutants to enter surface waters and interfere with beneficial uses. In addition, this position by the Board would appear to mean that current roadway BMPs such as infiltration could not be used to address roadway runoff in these areas. Similarly, wetland and other BMPs involving ponds would appear to be not usable since some infiltration invariably occurs.

Even if the SWQPA special permitting program is implemented as discussed in the December 2003 Informational (Scoping) Document, many discharges will still be prohibited. The interpretation discussed above would mean that all these remaining prohibited discharges would have to be physically diverted around the SWQPA/ASBS.

4. ***Definition of “discharge” within areas designated as State Water Quality Protection Areas*** – Coastal roadways sometimes pass through areas of unstable geology. Although the Department implements all measures practicable to prevent earth slides, these may occur at times and may be exacerbated by the presence of the roadway. The Department requests that as part of the Triennial Review, the definition of discharge within SWQPAs be clarified such that earth movements are not considered discharges subject to permit requirements and enforcement actions.
5. ***Other land-based environmental impacts from diversion facilities*** – If the permitting program is too restrictive (as discussed in the subsequent comments), the only option for the Department will be the physical diversion of storm water around the SWQPA/ASBS. In some cases, this will mean the construction of many miles of conveyance facilities. For the very large SWQPAs (some exceed 30 miles along the coastline), the conveyance facilities will need to be large diameter (48” to 72”) pipes, especially in the high rainfall coastal areas. In some areas, the location of the coastal highways does not present many opportunities for locating these conveyance facilities and extraordinary construction techniques may be needed. In any case, these facilities will have associated construction impacts. In addition, the concentrated runoff from miles of roadway, in some cases, will need special outfall provisions to prevent beach scouring. It is conceivable that constructed outfalls through the surf zone may be needed to prevent changes to beach morphology. The economic impact of temporary loss of traveled way, or interfering with traffic flow during long construction periods need to be considered. These associated impacts need to be addressed in the Triennial Review process.
6. ***Adverse water quality impacts of current and proposed policies*** – Even with the implementation of the special permitting program envisioned in the 2003 Informational (Scoping) Document, many discharges will need to be diverted around the SWQPAs (e.g., any new discharges and nonstorm water). We believe that in many cases this may result in worse potential impacts on marine water quality. The primary pollutants of concern in roadway runoff are associated with particulates (copper, dioxin) or bacteria. These pollutants are often effectively removed by filtration through the soil such as occurs when runoff is discharged at the side of the roadway. The result of the proposals Informational (Scoping)

Document will be piping which collects the runoff and conveys it, sometimes many miles, beyond the boundary SWQPA. These discharges will often be too large to infiltrate and will have to be discharged directly to the ocean. These discharges will not have the benefit of the natural filtration which takes place for many relatively small roadside discharges. Unless treatment is provided to the diverted flows, the impact on the ocean of the proposals may be worse overall. If treatment is going to be required for the diverted flows, it should be assessed as part of this Triennial Review. (Note that the costs presented in Attachment B do not include costs for treatment.)

7. **Scope of regulatory action** - The December 2003 Informational (Scoping) Document (Item 2, *Issue Description*, page 31, paragraph 2) tends to under-emphasize the effect of the policy change from the situation of previously allowing storm water discharges to currently prohibiting them. The *Issue Description* (page 31) states: "Even though polluted runoff can adversely impact marine communities, the prohibition on these discharges has not been uniformly enforced." This implies that many or possibly the majority of runoff discharges were effectively banned. The reality is that of the hundreds of discharge sites, regulatory enforcement has been taken against only one (Crystal Cove). This is because the dischargers, as well as the Regional Boards, interpreted the ban in the Ocean Plan as not applying to storm water, which is consistent with the original intent of the Ocean Plan. The issue to be addressed as part of the Triennial Review is not one of uniform enforcement but the new application of controls to a whole category of discharges that were not previous regulated.
8. **What is the problem being addressed** - Informational (Scoping) Document proposes a complex new regulatory program for protecting SWQPAs. We concur that these areas need to be protected, however, we have not seen any evidence that storm water runoff, as currently managed, has caused any general water quality problems in these areas. Before the State embarks on a major and costly new regulatory program it should be necessary to investigate the scope of the problem we are trying to address.
9. **Proposed ban on new discharges** – In the December 2003 Informational (Scoping) Document (Item 3, *Staff Recommendations*, page 32) the Board staff proposed a prohibition on new discharge points as part of the new special conditions for SWQPAs. Storm water outlets would only be allowed as long as they were constructed prior to the effective date of the Ocean Plan amendments. This ban would create a significant and potentially costly constraint to new roadway construction and major reconstruction. In the NPDES program, a change in location of a discharge point is considered a new discharge. Roadway construction or reconstruction which creates a new discharge location or moves a discharge location would then require the capture and alternative disposal of storm water runoff. Depending on location, this alternative disposal may require pumping and conveyance facilities to either a location significantly beyond the boundaries of the SWQPA or to the previous discharge point in the case of reconstruction.

This ban would also prevent discharges to a SWQPA from new maintenance projects which are needed to address rising or surfacing groundwater which must be removed to ensure roadway integrity. Similarly, new hillside drains to address seepage problems on existing coastal roadways would have to be conveyed outside ASBS/SWQPA at potentially excessive costs.

The *Staff Recommendations* in the Informational (Scoping) document suggest that new discharges would be allowed if the discharge complied with the exception provisions of the Ocean Plan Chapter III (subsection I). These exception provisions require compliance with

CEQA and a demonstration that (1) the discharge will not compromise the protection of ocean waters for beneficial uses, and (2) the public interest will be served. In addition to Board approval, U.S. EPA must approve the exception. This exception process is expensive, time-consuming, and problematic. The required demonstration that discharge will not compromise beneficial uses is difficult for storm water since runoff often contains bacteria levels which numerically exceed Ocean Plan standards for a least a portion of the duration of the discharge. While, these pollutant concentrations may result from natural sources such as birds or mammals in the watershed, they nevertheless appear to be in non-compliance with requirements. Storm water runoff, even with implementation standard BMPs, may also contain metals and organics (dioxins) at concentrations which numerically exceed standards. While these elevated pollutant concentrations may not be detectable after mixing with the receiving water, they nevertheless could be considered as causing or contributing to an exceedance which may then preclude the granting of an exception. (See later related discussion in these comments of the prohibition of discharges which contribute to an exceedance.)

It is the Department's position that new discharges which convey storm water and related runoff from new or modified roadways and related right-of-way facilities should be allowed without the requirement to of an exception to the Ocean Plan. The Triennial Review should assess the impact of this proposed requirement on new or modified roadways, on roadway maintenance (new drainage projects), as well as the potential for expeditious granting of exceptions taking into account the typical constituents of runoff. An option which should be considered during the Review is an alternative approval pathway for new discharges based on the submittal of an assessment to the Regional Board describing the discharge (volume, constituents), mixing characteristics, risk, and a summary of alternative disposal options and costs.

10. ***Proposed ban on non-storm water discharges*** (see 2003 Informational (Scoping) Document, Item 3, *Staff Recommendations*, page 33, paragraph 3) – For discharges currently authorized under an NPDES storm water permit, the Board staff is proposing a prohibition of non-storm water discharges with the exception of those associated with emergency fire-fighting. This prohibition would have to be implemented within three years of the amendment of the Ocean Plan. This proposal presents several significant problems:

- *Non-fire emergencies* – Some emergency situations other than fires result in runoff. The Department or other emergency responders control runoff from these situations to the extent practicable. However, in emergency situations where health and safety is involved, the emergency response may produce runoff that cannot be captured and conveyed outside the SWQPA. Compliance with this provision could compromise emergency response activities.
- *Other non-storm water discharges* – As discussed in the preceding comment, it would be impracticable, and in some cases prohibitively expensive to remove all non-storm water flows which are currently discharged or may be discharged into SWQPAs. These discharges include temporary construction site dewatering, ongoing dewatering needed to ensure roadway integrity or reduce the potential of landslides, occasional runoff from vegetation establishment projects, etc. Other non-storm water discharges may result from flushing of potable water lines which may be located in the right-of-way. These discharges are allowable under the municipal and construction storm water permits if the pollutants have been addressed through appropriate BMPs. For example, potable water discharges must be dechlorinated and drinking water utilities have standard operating

procedures to treat these discharges. If these discharges are controlled as required by the current MS4 and construction permits, the discharges should not present any risk to the receiving waters. The comprehensive ban will entail excessive costs without commensurate benefits. In addition, the conveyance of these flows to locations outside the SWQPAs will have environmental impacts as well as costs which need to be addressed during the Triennial Review.

11. ***Accelerated iterative process to address exceedances*** (Informational (Scoping) Document, Item 3, Staff Recommendations, page 33, paragraph 2) – To accomplish compliance with water quality objectives, the Board staff “propose an iterative process with an accelerated schedule (as compared to non-SWQPA permit areas).” This proposed provision is similar to requirements which have become standard in municipal and construction storm water permits except that apparently the process would be revisited for SWQPAs. The following bullets summarize the proposed procedure.

- *Plan revision* - SWMPs/SWPPPs would be revised within 6 months of approval of the amendments.
- *BMPs for protected areas* - The SWMPs/SWPPPs would specifically address discharges into ASBS/SWQPAs and would include an implementation schedule (this implies that the State expects that new or enhanced BMPs would be developed since the pre-existing SWMPs/SWPPPs already include BMPs).
- *Exceedances reported/corrective action* - Exceedances of standards detected by monitoring would be reported within 30 days together with proposed additional BMPs and an implementation schedule.
- *New BMP implementation* – Within 30 days after approval of the report by the Regional Board, the permittee would need to modify the SWMP/SWPPP to incorporate new BMPs, implementation schedule, and new additional monitoring if required.
- *Recurring exceedances* – Unless otherwise directed by the Regional Board, dischargers do not need to repeat the reporting/plan modification procedure for recurring exceedances.

It is unclear what changes to the status quo are introduced by these proposed provisions. As required by current storm water permits, the existing storm water plans already include BMPs meeting the MEP (MS4) or BCT/BAT (construction) requirements of the Clean Water Act. The Ocean Plan objectives are generally the same at SWQPAs as they are elsewhere along the coast. The existing permits already specify a nearly identical iterative process for discharges that do not comply with the objectives (standards). Although not clearly stated, there is a presumption in the proposed amendments that the new or enhanced BMPs required in the initial (6-months) revised storm water plans will represent more stringent controls. However, if more stringent controls are contemplated, the current document provides no direction or guidance as to what the Board expects in terms of enhanced BMPs.

The Triennial Review documents need to clearly explain how these proposed requirements for immediate revision of storm water plans, and the accelerated iterative process, differ from the storm water program that is currently in place. If the Board is assuming that the 6-month revisions will include more stringent BMPs, then some clarification is needed as to what the

goal of these BMPs is, as well as, examples and an assessment of the impacts. As currently stated, neither the dischargers nor the Regional Boards will know what is to be included in the revised storm water plans that must be submitted in 6 months. In addition, without an explanation of scope of this new requirement, the Triennial Review documents will not be able to assess impacts.

An alternative that should be discussed during the Triennial Review is relying on the existing permits, which already appear to provide the requirements outlined for the Ocean Plan amendments. It may be appropriate to have more in-depth Regional Board plan reviews where SWQPAs are involved and a greater frequency of inspections for SWQPAs as well as the enhanced monitoring specified in the proposed changes.

12. **Requirement that runoff not cause or contribute to an exceedance of the California Ocean Plan's water quality objectives** (2003 Informational (Scoping) Document, Item 3, Staff Recommendations, page 33, paragraph 3) – There are two issues related to this topic:

- How is “exceedance” defined,
- Depending on the definition, is it realistic to specify that “Storm water (wet weather) runoff would not be permitted to cause or contribute to an exceedance of the California Ocean Plan's water quality objectives?”

a) *Definition of exceedance*

As discussed in preceding comments, the proposed iterative process requires the reporting of exceedances. This responsibility is placed on the discharger. Storm water permits for discharges to inland waters have a similar requirement but “exceedance” for inland waters has not been defined with respect to storm water. Whether specific effluent or receiving water concentrations constitute an exceedance of standards depends on how the standards are applied and include consideration of the dilution factor and the appropriate standard (daily maximum, 6-month median, etc.). The Ocean Plan provides some guidance in that “initial dilution” is defined and the formula in section II.C.3 could be used to calculate a theoretical water quality-based effluent limit which could then be compared with discharge concentrations. The Triennial Review documents should clearly explain how exceedance is determined since this is a requirement placed on the discharger.

For discharges with limited or no dilution, such as shoreline discharges of storm water, mixing zones (and associated dilution factors) are not allowed by some Regional Boards. In these situations, exceedance is determined by an end-of-pipe comparison between the discharge concentration and the water quality objective. As discussed in the following comment, this approach would result in frequent exceedances. The following discussion includes other alternatives for assessing compliance which may be more appropriate for storm water.

b) *Depending on the definition, is it realistic to specify that “Storm water (wet weather) runoff would not be permitted to cause or contribute to an exceedance of the California Ocean Plan's water quality objectives?”*

The concentrations of several metals, bacteria, and some organics such as dioxin in roadway runoff are often numerically greater than the levels specified in Section II of the

Ocean Plan, including Table B. If a no mixing zone were allowed, then an end-of-pipe assessment would result in frequent exceedances. If a theoretical mixing zone were allowed, then a dilution factor would be used to assess compliance. For storm water runoff, the momentum and volume are generally relatively low (compared with POTWs) and the corresponding dilution factor would be small if a calculated dilution factor were used to determine compliance. In this case, exceedances would be expected to be common for several constituents.

Dioxin is primarily introduced into waterways by urban runoff and constitutes a difficult compliance problem. For example, the San Francisco Bay Area Regional Board completed a dioxin survey (1997) focused on Bay Area waterways that included both permanent waterways and storm water conveyances. The results of 32 samples ranged from 0.08 to 68 picograms per liter. The average was 10.7 pg/l which is in general agreement with other sampling for dioxins in runoff. The Ocean Plan Table B standard is 0.0039 pg/l. Even if a significant dilution factor is used, dioxin in urban area runoff will likely exceed the standard. The Triennial Review process should assess the full implication of the requirement that runoff would not be permitted to exceed water quality objectives.

We suggest that the Triennial Review examine several alternative compliance approaches, since end-of-pipe comparisons will likely indicate exceedances which are not indicative of the actual risk presented by storm water discharges. Storm water discharges are, of course, intermittent which means that the environmental significance of the pollutant load differs from permanent discharges and these following suggested alternatives may more appropriately address the environmental risk from the discharges.

The first alternative approach for intermittent discharges such as storm water would be to use the existing objectives as “trigger levels.” Exceedances would then obligate the discharger to initiate a subsequent action to determine if an adverse impact were actually resulting from the discharge. This trigger level approach is similar to that being proposed in the amendments for single sample exceedances of the bacteria standards. In the case of exceedances of Table B objectives, the discharger could complete an assessment based on the risk characteristic of the pollutant. Aquatic toxicants (e.g., copper, lead) would trigger monitoring of aquatic toxicity at a specified location in the receiving water. Exceedance of a human health-based standard (e.g., dioxin) would trigger an assessment of bioaccumulation. These second tier evaluations are similar to the monitoring provisions in the current proposal. An exceedance, by itself, would not be prohibited unless the second tier evaluation indicated a problem.

Another alternative is to assess compliance with water quality standards at some specified location in the receiving water, for example, at the edge of a 50 ft. mixing zone. This would be a relatively conservative approach: EPA’s *Ocean Discharge Criteria*, 40 CFR 125.121, specify a 100 meter mixing zone. Different mixing zones can be applied to acute and chronic criteria. The Triennial Review should include an assessment of both the trigger level approach and the fixed-distance mixing zone approach for addressing exceedances of the Table B standards when monitoring is required for these constituents.

13. **Monitoring** (2003 Informational (Scoping) Document, Item 3, Staff Recommendations, page 34, paragraph 3) – a) Effects monitoring, (chronic toxicity, bioaccumulation), as proposed, is more relevant from an environmental standpoint than simply measuring constituent concentrations.

b) The chronic toxicity monitoring for permitted discharges “shall take place within the surf zone at the point where the discharge meets the surface waters of the ocean” (see A.3, page 43). This appears to mean end-of-pipe monitoring rather than monitoring after some mixing has occurred. Because some mixing will take place within the surf zone, a discrete mixing zone should be allowed (see previous comments) and the chronic toxicity should be sampled at the edge of this mixing zone.

14. ***Nonpoint Source Discharges*** (2003 Informational (Scoping) Document, Item C.3, Staff Recommendations, page 37, paragraph 4) – a) These proposed amendments appear to address specific discharges including: 1) foundation and footing drains, 2) water from crawl space pumps, and 3) unpermitted wet weather runoff, in this section on nonpoint sources rather than in Section A (Discharges authorized under an NPDES Storm Water Permit). This is confusing since many of these discharges are authorized under the NPDES Storm Water Permits (non-prohibited, non-storm water discharges). This proposed approach would require MS4s to request separate WDRs or conditional waivers for these authorized flows if they discharge into SWQPAs. These authorized storm water discharges would then have dual permits or, perhaps, they would be removed from the current MS4 permits and permitted separately.

As noted in a previous comment, non-storm water discharges which are currently allowed in the MS4 permits should continue to be approved for discharge under the MS4 permits even if the discharge is to a SWQPA. As discussed earlier, the current MS4 permits require the use of BMPs to control pollutants in these discharges. The Informational (Scoping) document has not demonstrated that the current approach is inadequate and that a new regulatory approach would bring improvements. If the Board proposes to change the current regulatory practice, the Triennial Review will need to demonstrate why these particular non-storm water dischargers require an alternative and burdensome regulatory approach.

b) The stated intent of these recommendations is to allow (with a WDR or conditional waiver) nonpoint discharges essential for flood control or slope stability. However, the three listed categories do not include all instances of dewatering used to ensure highway integrity.

c) The discussion in the Informational (Scoping) Document on page 38 (paragraph 1) indicates that it is the intent of the Board that these controls “would be accomplished with a reasonable administrative burden focused only on the larger and more significant nonpoint sources.” It is not clear that this has been accomplished. The Department will apparently need to identify, and possibly sample, every hillside drain and seepage pipe within the jurisdiction of a SWQPA. Then the Department will need to apply for WDRs or waivers. The effort appears to be the same, regardless of the size of the individual discharges. A *de minimis* provision should be considered during the Triennial Review process for removing very minor discharges from regulation (unless they are identified as a significant source of pollutants).

15. ***Maintenance of natural water quality conditions*** (2003 Informational (Scoping) Document, Item 4, E., 1), page 39) - “Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.” While the intent is clear and appropriate, this statement needs to be made more precise. The reality is that some minute portion of discharges can be carried many miles with currents and can theoretically affect designated areas. Although there may be no identifiable adverse environmental impacts, the argument can be made that “natural water quality conditions”

have not been maintained. The issue of theoretical changes in water quality many miles from the point of discharge has been raised with San Francisco's Ocean Outfall. The term "assure maintenance of natural water quality conditions" needs to be numerically defined (by dilution factor) because an upstream (or up-current) discharge always has some calculable impact on downstream areas.

16. ***Monitoring applicability to construction site runoff*** (Informational (Scoping) Document, Item 7., page 42) – This monitoring program appears to target pollutants potentially present in roadway runoff but does not appear appropriate for runoff from permitted construction sites. Construction site runoff is not very likely to contain bioaccumulative toxicants, for example, and toxicity is also unlikely. The Triennial Review process should result in requirements for more appropriate monitoring when the runoff is from construction sites. The current Construction General Permit is being revised and may include enhanced monitoring. Unless justified during the Triennial Review, General Permit's monitoring requirements should be used for construction sites.
17. ***Monitoring in areas without water contact recreation*** (2003 Informational (Scoping) Document, Item 7.A.2) a), page 42) – Monitoring required for water contact recreation should be unnecessary in areas without water contact recreation. Some lesser frequency of monitoring would be appropriate.
18. ***Monitoring for bioaccumulatives*** (2003 Informational (Scoping) Document, Item 7.A.2) c), page 42) – Which bioaccumulative toxicants would be assessed as part of this monitoring? This has a significant impact on costs. Monitoring should focus only on those pollutants likely to be present.
19. ***Monitoring during the first storm*** (2003 Informational (Scoping) Document, Item 7.A.3), page 43) – Logistically, it will be extremely difficult for the Department to mobilize "first storm" monitoring for all the SWQPAs with Department discharges. A more feasible requirement would be that the initial annual sampling take place when preceded by at least 2 weeks of dry weather. This should serve to identify "first flush" pollutants. The Department has completed a comprehensive characterization of roadway runoff, It is not clear that this additional monitoring will produce useful results that warrant the costs involved.
20. ***Monitoring results*** – At a minimum, the storm water discharges will be monitored for trash (visual), other effluent monitoring specified by the Regional Board, and at the receiving water (bacteria, chronic toxicity, bioaccumulatives in tissue, etc.). The document does not state clearly how the results are to be used. For bacteria and chronic toxicity, the monitoring results can be compared with the objectives and exceedances would trigger the iterative process of improving the storm water management plan (see earlier comment on identifying exceedances). However, the response for visual trash observations and possible bioaccumulation is not specified. How are these results to be assessed?

Additional comments not related to SWQPAs

21. ***Other issues from the prior Triennial Review*** – The public notice suggested that commenters also address High Priority Issues from the 1999-2002 Triennial Review. These are briefly discussed below:

- a. *Review of the Water Quality Objectives for 2,3,7,8-TCDD and Related Compounds (Dioxins)*: - Should the water quality objective for Dioxin be reviewed to reflect new information received since the objective was adopted in 1990?

Response: Since dioxins appear to be an ubiquitous pollutant in urban runoff at concentrations much higher than water quality standards, the Department requests that they be addressed as part of the Triennial Review.

- b. *Incorporation of Site-Specific Water Quality Objectives into the Ocean Plan*: Should the Ocean Plan incorporate procedures for establishing site-specific water quality objectives in addition to current statewide water quality objectives?

Response: Site specific objectives may be needed in locations which differ in terms of impacted biota or pollutant effects.

- c. *Regulatory Control of Storm Water Discharge*: Should the Ocean Plan be amended to assist storm water dischargers and regulators in achieving the standards contained in the Plan?

Response: As discussed in earlier comments, storm water runoff, even with the application of BMPs, appears to exceed many water quality standards. This situation should be acknowledged and specifically addressed as part of the Triennial Review.

ATTACHMENT B

Preliminary Cost Estimate for Removing Discharges from State Water Quality Protection Areas

To eliminate the discharge from Caltrans facilities (roadway) to discharge directly to SWQPAs, flow collection and flow conveyance facilities would need to be constructed to redirect flows away from SWQPAs. The current assessment is based on the survey results and information documented in the *Final Report: Discharges into State Water Quality Protection Areas July 2003* as well as GIS information generated from the survey received from the SWRCB. Based on the survey, potentially 186 sites were identified by the SWRCB surveyors as possibly from Caltrans facilities. Note that no independent survey by Caltrans has been conducted to confirm these findings. Based on the stated information, it appears 23 of the 34 SWQPAs may receive runoff from Caltrans roadways. A preliminary construction cost estimate was prepared based on the available information.

The cost estimate for removing or redirecting discharges from SWQPAs were based on the following assumptions:

1. All roadway runoff along each of SWQPA would need to be collected and redirected along the entire reach of the SWQPAs and discharged away from the SWQPAs.
2. Gravity flow is assumed (although topography and site constraints may require costly pumping of flows and the construction of lift/pump stations).
3. As a minimum, construction items will consist of storm drains, catch basins/inlets, manholes, and energy dissipators.
4. An average storm drain pipe diameter of 48-inch pipe is assumed (can possibly increase to 72-inch diameter or greater as drainage area increases especially for SWQPAs extending as much as 30 miles).
5. Does not account for costs considering the possibility of the need for pumped flows, lift/pump stations to account for constraints on topography and large roadway dips.
6. Does not include permitting cost or mitigation costs for potential impact to habitat or coastal environment.
7. Does not include shoring costs.
8. Does not include traffic control costs.

The following table lists the preliminary cost estimate for required improvements at each SWQPA. Specific assumptions and unit costs are included in the table footnote.

Approximate Cost Estimate for Mitigation of Stormwater Runoff Reroute at each Storm Water Quality Protection Area (SWQPA)

SWQPA No.	SWQPA Name	SWQPAs Estimated Length (m)	Pipe cost	Number of Manholes	Manhole cost	Number of catch basins	Catch basin cost	Energy Dissipator Cost	Pipe Jacking Cost	Subtotal cost	30% Contingency	Total Reroute Cost for Caltrans Runoff near SWQPAs
1	Pygmy Forest Ecological Staircase ASBS	843	\$ 577,600	6	\$ 5,500	2	\$ 7,400	\$ 40,000	\$ 300,000	\$ 930,500	\$ 279,200	\$ 1,209,700
2	Del Mar Landing Ecological Reserve ASBS	649	\$ 444,800	4	\$ 4,300	1	\$ 5,700	\$ 40,000	\$ 300,000	\$ 794,800	\$ 238,400	\$ 1,033,200
3	Greslie Cove ASBS	418	\$ 286,700	3	\$ 2,700	1	\$ 3,700	\$ 40,000	\$ 300,000	\$ 633,100	\$ 189,900	\$ 823,000
5	Kelp Beds at Saunders Reef ASBS	1729	\$ 1,185,500	11	\$ 11,300	4	\$ 15,100	\$ 40,000	\$ 300,000	\$ 1,551,900	\$ 465,600	\$ 2,017,500
6	Kelp Beds at Trinidad Head ASBS	1089	\$ 746,700	7	\$ 7,100	2	\$ 9,500	\$ 40,000	\$ 300,000	\$ 1,103,300	\$ 331,000	\$ 1,434,300
7	Kings Range National Conservation Area ASBS	47660	\$ 32,672,000	313	\$ 312,700	104	\$ 416,900	\$ 40,000	\$ 300,000	\$ 33,741,600	\$ 10,122,500	\$ 43,864,100
8	Redwood National and State Parks ASBS	51342	\$ 35,195,600	337	\$ 336,800	112	\$ 449,100	\$ 40,000	\$ 300,000	\$ 36,321,500	\$ 10,896,500	\$ 47,218,000
9	James V Fitzgerald Marine Reserve ASBS	6522	\$ 4,471,300	43	\$ 42,800	14	\$ 57,000	\$ 40,000	\$ 300,000	\$ 4,911,100	\$ 1,473,300	\$ 6,384,400
11	Duxbury Reef Reserve and Extension ASBS	5479	\$ 3,755,700	36	\$ 35,900	12	\$ 47,900	\$ 40,000	\$ 300,000	\$ 4,179,500	\$ 1,253,900	\$ 5,433,400
12	Point Reyes Headlands Reserve and Extension ASBS	6412	\$ 4,395,700	42	\$ 42,100	14	\$ 56,100	\$ 40,000	\$ 300,000	\$ 4,833,900	\$ 1,450,200	\$ 6,284,100
13	Double Point ASBS	757	\$ 518,800	5	\$ 5,000	2	\$ 6,600	\$ 40,000	\$ 300,000	\$ 870,400	\$ 261,100	\$ 1,131,500
15	Ano Nuevo Point and Island ASBS	10983	\$ 7,528,800	72	\$ 72,000	24	\$ 96,100	\$ 40,000	\$ 300,000	\$ 8,036,900	\$ 2,411,100	\$ 10,448,000
16	Point Lobos Ecological Reserve ASBS	2135	\$ 1,463,400	14	\$ 14,000	5	\$ 18,700	\$ 40,000	\$ 300,000	\$ 1,836,100	\$ 550,800	\$ 2,386,900
18	Julia Phiffer Burns Underwater Park ASBS	3402	\$ 2,331,800	22	\$ 22,300	7	\$ 29,800	\$ 40,000	\$ 300,000	\$ 2,723,900	\$ 817,200	\$ 3,541,100
19	Pacific Grove Marine Gardens Fish Refuge and Hopkins Marine Life Refuge ASBS	3475	\$ 2,382,500	23	\$ 22,800	8	\$ 30,400	\$ 40,000	\$ 300,000	\$ 2,775,700	\$ 832,700	\$ 3,608,400
20	Ocean Area Surrounding the Mouth of Salmon Creek ASBS	4569	\$ 3,132,000	30	\$ 30,000	10	\$ 40,000	\$ 40,000	\$ 300,000	\$ 3,542,000	\$ 1,062,600	\$ 4,604,600
24	Mugu Lagoon to Latigo Point ASBS	36283	\$ 24,872,800	238	\$ 238,000	79	\$ 317,400	\$ 40,000	\$ 300,000	\$ 25,768,200	\$ 7,730,500	\$ 33,498,700
29	San Diego-La Jolla Ecological Reserve ASBS	1893	\$ 1,298,000	12	\$ 12,400	4	\$ 16,600	\$ 40,000	\$ 300,000	\$ 1,667,000	\$ 500,100	\$ 2,167,100
30	Heisler Park Ecological Reserve ASBS	715	\$ 490,200	5	\$ 4,700	2	\$ 6,300	\$ 40,000	\$ 300,000	\$ 841,200	\$ 252,400	\$ 1,093,600
31	San Diego Marine Life Refuge ASBS	912	\$ 625,300	6	\$ 6,000	2	\$ 8,000	\$ 40,000	\$ 300,000	\$ 979,300	\$ 293,800	\$ 1,273,100
32	Newport Beach Marine Life Refuge ASBS	1007	\$ 690,400	7	\$ 6,600	2	\$ 8,800	\$ 40,000	\$ 300,000	\$ 1,045,800	\$ 313,700	\$ 1,359,500
33	Irvine Coast Marine Life Refuge ASBS	4893	\$ 3,354,600	32	\$ 32,100	11	\$ 42,800	\$ 40,000	\$ 300,000	\$ 3,789,500	\$ 1,130,900	\$ 4,900,400
34	Carmel Bay ASBS	5186	\$ 3,554,900	34	\$ 34,000	11	\$ 45,400	\$ 40,000	\$ 300,000	\$ 3,974,300	\$ 1,192,300	\$ 5,166,600

Total	198,353 meters									Grand Total All SWQPAs		\$ 190,881,200
	37.6 miles											

Assumptions:

- 1 Flows will be rerouted away from SWQPAs via storm drain facilities
- 2 Two outfalls are assumed each with energy dissipator structure (assumed \$20,000 ea)
- 3 Pipe cost based on 48-in RCP @ \$190/LF
- 4 Manholes are spaced every 500 ft
- 5 Catchbasins are spaced every 1,500 ft
- 6 Pipe jacking across highway is assumed (two for each SWQPA area, assumed \$1000/ff)
- 7 Does not include permitting cost or mitigation costs for impact to habitat
- 8 Does not consider shoring costs
- 9 Excludes traffic control costs
- 10 30% Contingency assumed
- 11 treatment and outfall costs
- 12 No major flood control channel crossings assumed