

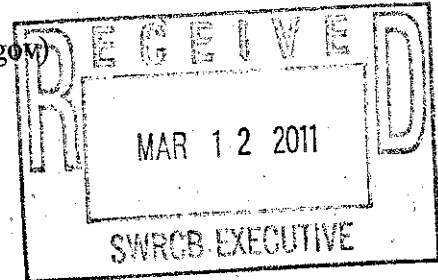


## MONTEREY BAY AQUARIUM

March 12, 2011

VIA ELECTRONIC MAIL ([commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov))

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814



Re: Exception to the California Ocean Plan Waste Discharge Prohibition for Monterey Bay Aquarium Discharges into the Pacific Grove Area of Special Biological Significance, Including Special Protections for Beneficial Uses and the Associated Mitigated Negative Declaration / Initial Study.

Dear Ms. Townsend:

The Monterey Bay Aquarium (MBA) supports the State Water Resources Control Board (State Board) in its efforts to protect ocean water quality and natural marine communities, especially in Areas of Special Biological Significance (ASBS). We appreciate the cooperative efforts of State Board staff, the California Environmental Protection Agency, California Coastkeeper Alliance, and other interested parties to preserve and protect the ASBS and, at the same time, recognize the important education, research and conservation functions performed at the Monterey Bay Aquarium. We also appreciate and support the staff recommendation that the State Board grant the exception requested by MBA to the California Ocean Plan prohibition on discharges into and adjacent to the Pacific Grove ASBS.

MBA has prepared two comment letters in response to the documents posted along with the Notice of Public Hearing. This letter addresses specific comments and concerns pertaining to the MBA Draft Mitigated Negative Declaration (DMND). Our second letter requests clarifications and corrections to the MBA Initial Study document.

MBA appreciates the opportunity to comment on the complex regulatory challenges facing the State Board and California's Areas of Special Biological Significance as we seek to implement a coherent, practical and scientifically sound program of monitoring and enforcement. The State Board and Aquarium share the goal of conserving the world's oceans, starting with California and Monterey Bay. The Monterey Bay Aquarium's mission is to inspire conservation of the oceans through education, research, and community outreach programs, and we are deeply dedicated to the goal of restoring our local coastal marine ecosystems. The many facets of our work to advance our mission have a direct positive impact on the future of ASBSs. The waters of Monterey Bay are the

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life blood of our live exhibits, and these exhibits are the foundation of our programs. Clearly it is in the Aquarium's best interest to see natural water quality maintained in Monterey Bay and all ASBSs.

As an aquarium with an open seawater system, it is important that MBA participate in this regulatory process. However, we also have a vested interest in insuring that the monitoring requirements are scientifically supported and actually contribute to the goal of maintaining and improving water quality. Our comments on the MBA DNMD recommend that the monitoring requirements be directed toward studies that will provide clear results and inform the process of discharge regulation. We hope that our analyses and feedback will be useful to the State Board in their ongoing efforts to protect ASBSs.

**Rocky Intertidal Marine Life Survey.** MBA recognizes that biological impact assessments are required under the California Environmental Quality Act (CEQA) and we recognize the urgent need to monitor California's marine communities. The goals of biological monitoring in this context should be to determine if discharges of seawater or storm water from MBA have any deleterious impacts on intertidal communities. Scientists working at MBA and Hopkins Marine Station of Stanford University have considerable experience and expertise monitoring intertidal and subtidal biological communities, with extensive research having been conducted in the rocky intertidal areas near Hopkins.

Based on our discussions with State Board staff, the intertidal surveys will likely be conducted by the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) using well-established expertise and methods. State Board staff also indicated that the MBA Intertidal Survey program will include a site or sites next to our discharges and a "Reference" site at some undetermined, geographically distant location.

With full respect to State Board staff and the PISCO intertidal monitoring program, based on our experience, we do not believe that this intertidal monitoring approach will succeed in identifying impacts from discharges, if indeed they exist. The variability inherent in this type of sampling program will not be able to detect impacts unless the study sites are focused at the end of pipe (which is logistically very difficult in many instances). In addition, the concept of a geographically distant "Reference" site for the intertidal areas adjacent the Aquarium and Hopkins is flawed; no such "Reference" site exists that can be compared in a scientifically defensible way to these unique intertidal habitats. Intertidal surveys are costly and this expense needs to be justifiable.

**Sediment Studies.** The MBA DMND requires subtidal sediments near the discharge and at a reference site to be collected annually and analyzed for Ocean Plan Table B metals and acute toxicity using the amphipod *Eohaustorius estuarius*. MBA questions the validity of sediment analyses in this region as an appropriate tool to inform the process of ocean discharge regulation.

The shallow subtidal sediments next to the Aquarium discharges consist of coarse-grained sand which is subject to both long-shore transport by currents, and significant inshore and offshore transport by waves. Unlike enclosed bays or harbors, this area is not a depositional environment characterized by silt and fine sediments, lack of scour or mixing, and high detrital or organic deposition (which can bind metals). In short, there is little or no opportunity for metals carried by seawater or storm water to accumulate in the coarse-grained sediments adjacent MBA discharges.

MBA is located at the northwest end of Cannery Row. From the early 1900s until the 1950s Cannery Row supported canneries and associated industries that processed catches of sardines nearing one quarter million tons per season during peak production. The area just northwest of MBA on Hopkins Marine Station property was a Boat Works for over 55 years, where boats were hauled-out and serviced, stripped and painted. Remnants of these historic industries, including steel piping, anchors and railroad ties, can still be found in the intertidal and subtidal areas adjacent MBA and Hopkins. Should Table B metals be found in marine sediments adjacent MBA or Hopkins, or these sediments show acute toxicity, how will we identify the source of contaminants and separate out possible historic contamination from current uses?

The DMND requires sediment metals analysis and acute toxicity testing at discharge and reference sites annually. Based on the results of sampling, the constituents tested can be negotiated with the Regional Board, but the acute toxicity testing must be performed every year. MBA believes that this requirement is misguided and inherently flawed, particularly since sediment analyses may not inform the process for which the monitoring requirements are designed – impacts of seawater and storm water discharge. In an effort to identify problems and focus on solutions related to our ocean discharges, MBA would rather focus on analyses of contaminants in our effluent or bioaccumulation studies. We respectfully suggest the State Board allow the Aquarium some flexibility for negotiation with the Regional Board based on the results and interpretation of metals analysis and toxicity testing.

**Storm Water Monitoring.** MBA is an active member of the Monterey Bay Regional ASBS Storm water Dischargers Monitoring Program and we are working with our Central Coast partners to develop an effective and affordable regional program. In these difficult economic times, MBA supports the regional storm water monitoring program approach as a less costly and more efficient alternative for cities, local agencies and tax payers.

The Draft Environmental Impact Report for Central Coast ASBS storm water dischargers is currently under review and the details of the regional monitoring program are not yet defined. In the MBA DNMD several of the monitoring requirements can be met by participation in a regional monitoring program approved by the State Board. However, MBA storm water runoff monitoring cannot be met by participation in the regional program. Instead MBA is directed to sample each storm drain annually for all Ocean Plan

Table A constituents, and indicator bacteria. Added to this requirement is "Once every permit cycle, during wet weather (storm event) on a rotating basis among discharge points, the storm water runoff effluent must be sampled and analyzed additionally for Table B constituents (for marine aquatic life except acute toxicity) , PAHs, pyrethroids, and OP pesticides."

Like many buildings along Cannery Row, MBA has roof drains that either discharge directly into the ocean or sheet-flow off decks into the ocean. Only a limited number of MBA roof drains discharge directly into the Pacific Grove ASBS. One major storm drain pipe passes through the Aquarium complex - the Hovden Way storm drain. This major storm drain is: 1) outside the ASBS boundary and 2) contains a mixture of flow from MBA facilities and street flow from the City of Monterey. On a runoff or land area basis, the Aquarium accounts for approximately 0.2% of the area encompassed by the Monterey Bay Regional ASBS Storm Water Dischargers Program.

MBA requests further definition and clarification from the State Board regarding storm water monitoring as follows:

1. Is MBA directed to focus on storm water discharges within the boundary of the Pacific Grove ASBS or all discharges?
2. Can MBA work with the State and Regional Boards to develop a sampling program to rotate a reasonable number of roof drains on an annual basis or to composite blocks of drains each year to reduce sampling intensity?
3. Is the Hovden Way storm drain to be included in our sampling regimen? If so, how can we separate and interpret results based on inputs from MBA and inputs from the City of Monterey?

The Monterey Bay Regional ASBS Storm Water Dischargers Monitoring Program may chose to include storm drain effluent sampling as a component of the regional program. If this occurs, MBA respectfully requests that the State Board allow MBA to meet the storm water runoff monitoring requirement by participation in the regional program.

**Natural Water Quality.** The DMND states that . . . "Natural water quality conditions in the receiving water must not be altered as a result of the discharge(s) . . ." "Natural Ocean Water Quality will be determined by a comparison to the range of constituent concentrations in reference areas agreed upon via the regional monitoring program(s) or in the absence of a Central Coast regional monitoring program by the State Water Board in consultation with the Central Coast Regional Water Quality Control Board . . ." The following comments on the Natural Water Quality criterion are focused on storm water discharge(s), not seawater discharge(s).

MBA has reviewed the Natural Water Quality Committee's (NWQC) Summation of Findings 2006-2009 (Technical Report 625). MBA finds the results of this study limited and of questionable value from a regulatory perspective. The concept of using water

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quality results from select "reference" sites to comparatively determine if "Natural Water Quality" has been altered incorporates many inherent risks in interpretation. Very little data has been collected to define what the Natural Water Quality standard is - state-wide, regionally, or locally. The findings of the NWQC were very unclear for practical monitoring and regulatory purposes. They do not address the difficulties associated with locating reference sites for regions as unique as Monterey Bay, or locations with many different point-source and non point-source inputs of urban and agricultural runoff. The NWQC study does not account for 20+-year storm events and associated inputs from inland basins. Monterey Bay has one of the richest data sets for ocean biogeochemistry in the world due to the active research community in our area; long term studies conducted by MBARI and others underscore a high degree of water quality variability influenced by both episodic oceanic conditions and land-based runoff events.

The data collected from this effort will provide valuable information on coastal water quality. Unfortunately, it may or may not provide data definitively attributable to the coastal communities of Southern Monterey Bay. Regardless, these dischargers will be paying for the costly ongoing analyses. The State Board is giving storm water dischargers the very sketchy mandate to monitor "natural water quality" that will likely vary despite their efforts to improve discharge water quality.

Monitoring requirements should reflect these uncertainties, and be focused on specific areas of local impairment determined through data gathered rather than the vague definition of Natural Water Quality that currently exists.

**General Monitoring.** We request that the State Board include provisions for MBA to work with the State and Regional Boards to adjust monitoring efforts if repeated testing shows no contamination and meets discharge regulations. Monitoring for monitoring's sake certainly has value when activities and infrastructure are constantly changing. However, the monitoring program currently outlined in the DMND lacks the flexibility essential to adjust efforts(s) based on historical results and changes or improvements to infrastructure. We strongly recommend that the State Board develop a mechanism for dischargers that avoids costly and unnecessary monitoring even as it fails to inform the process of discharge regulation.

In closing, please know that the Monterey Bay Aquarium truly recognizes the challenges that the State Board faces implementing the California ASBS discharge regulatory process and we stand ready to support all reasonable efforts to conserve ocean water quality. Given the strong scientific community in our area, the implementation of this process in Monterey Bay provides an opportunity to create a model program that is scientifically justified, understood and embraced by local stakeholders, and most importantly, tangibly contributes to our shared goal of maintaining the high level of water quality that will enable Monterey Bay's remarkable marine communities to survive and thrive.

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Please do not hesitate to contact me if you have any questions regarding these comments, or any aspect of the MBA ocean discharge exception application.

Sincerely,

*ROBERTO PHILLIPS*

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