

V. SUMMARY AND RATIONALE OF PROPOSED CHANGES TO PERMIT REQUIREMENTS

This Order is consistent with the Statewide Standard California Ocean Plan NPDES Permit template (most recent template is dated on July 23, 2007). Therefore, changes in this Order are consistent with the 2005 California Ocean Plan. The following table indicates specific changes from Existing Order No. 98-15 to Proposed Order No. R3-2008-0065.

Change	Section	Reason
1. The following prohibition is added: "The discharge of chlorine or any other toxic substance used for disinfection and cleanup of sewage overflows, to any surface water body is prohibited. This prohibition does not apply to the chlorine in the potable water used for final wash down and clean up of overflows."	Permit, Section III.D	To minimize impacts to water quality resulting from cleanup of sewage spills.
2. Effluent limitations for the following constituents are lower than the existing Permit: thallium, chlorodibromomethane, 1,2-dichloroethane, 1,1-dichloroethylene, dichlorobromomethane, isophorone, N-nitrosodi-N-propylamine, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,1,2-trichloroethane, 2,4,6-trichlorophenol.	Permit, Section IV.C	Water Quality Objectives for these constituents have decreased in the 2005 Ocean Plan.
3. The existing Acute Toxicity limitations (1.5 TUa 30-Day Average, 2.0 TUa 7-Day Average, and TUa 2.5 Daily Maximum) are replaced with a 4.3 TUa Daily Maximum.	Permit, Section IV.C	The 2005 Ocean Plan specifies a Daily Maximum Acute Toxicity Water Quality Objective of 0.3 TUa, to which a dilution credit of 10% of the minimum initial dilution ration is applied.
4. Biosolids requirements are added.	Permit, Section VI.C.2	40 CFR 122.44(b)(2) requires each NPDES permit to include standards for sewage sludge use or disposal. Biosolids requirements language was provided by USEPA Region IX's Biosolids Coordinator.
5. Cat Litter Public Outreach Program	Permit, Section VI.C.5	In accordance with USEPA's proposed conservation

Change	Section	Reason
		measures, the Discharger will be required to develop and implement a outreach program to address cat litter disposal to facilitate source reductions of <i>T. gondii</i>
6. Influent flow metering is required, rather than effluent flow metering.	Monitoring and Reporting Program, Section III	Due to the configuration of the treatment plant equipment, the existing effluent flow meter is not sufficiently accurate for compliance purposes. A comparison of actual effluent flow data to influent flow data suggests the effluent flow meter overestimates actual flow by approximately 25%. The newer influent flow meter is more accurate and reliable than the effluent flow meter, therefore is more appropriate for compliance purposes.
7. Effluent Acute Toxicity monitoring is removed.	Monitoring and Reporting Program, Section IV	In accordance with the 2005 California Ocean Plan, "The RWQCBs may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters." Staff will retain the effluent limitation of 4.3 TUa.
8. Effluent monitoring frequency for several priority pollutants is decreased from semiannually to annually.	Monitoring and Reporting Program, Section IV	Quantitative statistical analysis of a large number of historical contaminant measurements demonstrates that there is a low potential for non-compliance, and that the proposed effluent-monitoring reductions are warranted. This historical performance, and the cost of the monitoring justify the monitoring frequency reductions.
9. Surf zone samples are now required to be analyzed for Enterococcus in addition to Total and Fecal Coliform.	Monitoring and Reporting Program,	The 2005 Ocean Plan specifies that Enterococcus shall be monitored at all

Change	Section	Reason
	Section VI.A	stations where Total and Fecal Coliform is required for repeat sampling.
<p>10. Vertical profiling of receiving water for light transmissivity, dissolved oxygen, pH, salinity, and temperature is reduced from 17 individual stations to 6 stations along an along-shore transect. A tow survey is now required. More specifically:</p> <p style="padding-left: 40px;">"In addition to the vertical profiling conducted at the six fixed stations, a receiving-water survey shall be conducted by continuously towing an electronic instrumentation package at two depths around and across the zone of initial dilution. One survey shall be conducted in the upper water column, near the base of the shallow thermocline. Another survey shall be conducted immediately above the benthic boundary layer, approximately 5 meters above the bottom. The towed instrumentation package shall pass over the zone of initial dilution at least five times during the survey. Vessel speed and sampling rates shall be sufficient to collect at least one sample for every meter traversed."</p>	Monitoring and Reporting Program, Section VI.A	Vertical profiles are not capable of defining the limited lateral extent of the effluent plume. Surveys with towed instrumentation will better assess compliance and effectiveness of the diffuser structure.
<p>11. The Discharger is given the option to monitor dissolved sulfides in sediment pore water, rather than dissolved sulfides in an acid/heat digested sample. The pore water extraction technique is difficult and expensive, so this monitoring requirement may be discontinued by written approval of the Executive Officer if dissolved sulfides are not detected in any pore water sample from any benthic sediment monitoring station for one additional monitoring event (in addition to the October 2003 event). The proposed Order does not require sulfide sampling.</p>	Monitoring and Reporting Program, Section VII	Please see "Sulfides in Sediment" above.
<p>12. Benthic Monitoring Station Nos. 2 and 7</p>	Monitoring and	Please see "Marine Life"

Change	Section	Reason
replace Station No. 1 as the reference station.	Reporting Program, Section VII	above.
13.The frequency of benthic sediment monitoring for Nonchlorinated Phenolics, Chlorinated Phenolics, Aldrin, Dieldrin, Chlordane, DDT, DDE, DDD, Endrin, PAHs, PCBs, and Toxaphene is reduced from annually to once in the life of the Permit (2006).	Monitoring and Reporting Program, Section VII:A	These compounds have never been detected in benthic sediment samples and are rarely if ever detected in effluent samples. When detected in effluent samples, they are detected at extremely low concentrations, which are not likely to accumulate in benthic sediments.
14. Annual monitoring reports are required to be submitted by April 1 st of each year, rather than March 1 st .	Monitoring and Reporting Program, Section X.B	The Discharger is currently required to submit several different monitoring reports simultaneously by March 1, therefore have requested an additional month to prepare and submit the annual report.
15. Cat litter Public Outreach Program annual reporting	Monitoring and Reporting Program, Section XI.D.1	As noted above, the Discharger is responsible for developing and implementing a cat litter disposal program. This reporting requirement obligates the Discharger to report activities conducted within the reporting year as well and propose changes to the program on an annual basis.
16. Sanitary Sewer Overflows Reporting and Notification	Monitoring and Reporting Program, Section XI.D.2	The Discharger is responsible for notifying and reporting sanitary sewer overflows in accordance with General Waste Discharge Requirements for Sanitary Sewer System, Order No. 2006-0003-DWQ.

Note that staff may propose additional changes as a result of public comments. Such changes will be discussed in the Comments and Responses section of the Staff Report for this item.

VI. PUBLIC PARTICIPATION

The Central Coast Water Board and USEPA are considering reissuance of a National Pollutant Discharge Elimination System (NPDES) permit for Morro Bay/Cayucos Wastewater Treatment Plant. As a step in the NPDES permit reissuance process, the Central Coast Water Board staff has developed a Draft NPDES Permit. The Central Coast Water Board and USEPA encourage public participation in the NPDES Permit reissuance process.

A. Notification of Interested Parties

The Central Coast Water Board and USEPA notified the Discharger and interested parties of its intent to reissue this NPDES Permit and provided them with an opportunity to submit their written comments and recommendations. Notification was provided through publication in the San Luis Obispo County Tribune on December 19, 2005, and through direct mailing of the Draft NPDES permit to the following known interested parties. Written comments were due February 3, 2006.

- Bruce Keogh and Bruce Ambo, City of Morro Bay
- Bill Callahan, Cayucos Sanitary District
- Mark Delaplaine, California Coastal Commission
- Doug Coats, Marine Research Specialists
- Anjali Jaiswal, Natural Resources Defense Council
- ECOSLO
- Babak Naficy, Coastal Alliance
- Joshua Borger, Environmental Law Foundation
- Hillary Hauser, Heal the Ocean
- Peter Hernandez
- Rebecca Barclay

B. Written Comments and Responses

The following comments and responses are taken verbatim from the 2006 draft Permit staff report. The Central Coast Water Board considered these comments and responses at its hearing on May 11, 2006. Since the continued hearing on December 4-5, 2008, will be to discuss new evidence only, the Central Coast Water Board is not required to again review these comments and responses. They are included here to maintain a record of the 2006 proceedings.

Comment 1: Erin Stetzer of Pacific Grove, Stephanie Sayler of Salinas, Glenn Wolfson of Pacific Grove, Lynn Harkins of Cambria, and Elissa Wagner of Aptos, each sent the following identical email to Central Coast Water Board staff on January 5, 2006:

"I am writing to express my dissatisfaction with the proposed timeline and the lack of protective measures for marine life in the Morro Bay/Cayucos Wastewater Treatment Plant upgrade plan. While I am encouraged by the plan to upgrade the

plant to full secondary treatment standards, the proposed timeline of nine and a half years is unnecessarily long. The plan should also contain innovative disinfection measures to protect the marine life in Morro Bay.

"These upgrades are long overdue. The Clean Water Act was passed back in 1972, and this sewage treatment plant is one of the last in California to be upgraded to national standards. Additionally, since the plant discharges wastewater less than a mile from shore and directly in the habitat of sea otters, it is critical that these upgrades occur as quickly as possible.

"Wastewater treatment plants across California, and of varying sizes, have been able to upgrade their facilities on shorter timelines. I urge you to reject the proposed timeline and demand the upgrades be done as fast as possible. The plan should also promote human health and a healthy marine environment by including technologies to eliminate harmful bacteria and pathogens from the wastewater. While secondary treatment is a step above current operations, I urge you to adopt a plan that includes advanced technology to prevent pollutants from entering the ocean.

"Thank you for considering my comments."

Staff Response 1: For several reasons discussed under *Settlement Agreement* above, staff disagrees that the proposed timeline is unnecessarily long. The facts that the Facility discharges less than a mile from shore and into the habitat of sea otters, and that other plants have upgraded faster, standing alone, do not necessitate that the Facility be upgraded "as quickly as possible." Rather, we must consider applicable law and the effects of the discharge on the marine environment and specific regulations. As discussed above and in staff's Evaluation of Compliance with Permit Requirements, there is no evidence that the discharge has adversely affected marine life or impaired beach water quality. There is little justification to require the Facility to be upgraded any faster than proposed.

Disinfection technologies will be determined through facilities planning, environmental review and permitting, and design, which are required tasks of the Settlement Agreement. Disinfection technologies must be carefully considered in conjunction with other treatment processes, which is not possible at this time, because those treatment processes are not known. If bacteria and pathogens are ever found to be harming marine life, the Central Coast Water Board will require appropriate treatment. Specification of disinfection technology in the Settlement Agreement is inappropriate. Staff recommends adoption of the Permit as proposed.

Comment 2: Central Coast Water Board staff received the following identical email from 2200+ people from across the nation throughout January 2006, in response to a Natural Resource Defense Council (NRDC) Action Alert:

"Dear Water Quality Board Members:

"I urge you to improve the 9.5-year upgrade timeline now proposed by the Morro Bay/Cayucos sewage treatment plant. The Clean Water Act and state law require that this sewage plant shorten the proposed upgrade timeline so that it is as rapid as possible. Moreover, it is critical that specific measures be included in the sewage plant's permit assuring that it will protect the California sea otter.

~~"There is no reason that the Morro Bay community cannot meet the standard established by many similar small cities around California that have accomplished a similar upgrade in a fraction of the time. Adopting a shorter timeframe for the plant upgrade and requiring measures to protect the sea otter and other marine life are the only ways to preserve local waters, including Morro Bay's extraordinary estuary, for future generations. I am counting on you to take the necessary steps to protect these valuable coastal resources."~~

Staff Response 2: The Clean Water Act and state law do not require the upgrade timeline to be as "rapid as possible," as this email suggests. The Clean Water Act requires that the discharge meet the requirements for a 301(h) modification, and upgrade to full secondary treatment as quickly as possible if the discharge fails to meet the 301(h) requirements. USEPA has tentatively decided that the discharge meets those requirements. State and federal law require the discharge to comply with the Permit. As discussed in staff's Evaluation of Compliance with Permit Requirements, the discharge complies with the Permit.

There is no evidence that the discharge has adversely impacted the California sea otter. The existing Permit already includes multiple requirements to protect marine life. Staff disagrees that it is "critical that specific measures be included in the sewage plant's permit assuring that it will protect the California sea otter."

Simply comparing the Conversion Schedule of the proposed Settlement Agreement to upgrades of other small cities' facilities around California (or elsewhere) is inappropriate. No upgrade is the same. The circumstances and prior planning leading to those upgrades are different. In this case, the Discharger agreed to upgrade in order to avoid litigation regarding the 301(h) waiver and permit delays. Considering the time required to retain engineering consultants, plan the facilities, go through environmental review and permitting, obtain financing, design, and construct the project, the proposed Conversion Schedule is reasonable. The City of Morro Bay is interested in upgrading to tertiary treatment in order to institute water recycling. City representatives have indicated that they expect environmental review of tertiary treatment and recycling options will delay the environmental review. Staff agrees. Although some consideration of tertiary treatment as a project alternative will be required in any case, more extensive review will be necessary if tertiary treatment will be included in the proposed project. It is important to note that the proposed Conversion Schedule is the maximum time allowed to upgrade, and that any delay by the Discharger's results in stipulated penalties. There is plenty of incentive for the Discharger to complete the upgrade in less than 9.5 years. We understand that the Discharger is currently a year ahead of the schedule in the settlement agreement, so a shorter completion time is possible.

Comment 3: Central Coast Water Board staff received the following identical email from **110+ people from across the nation** throughout January and February 2006, in response to a **Defenders of Wildlife** member action alert:

"As a supporter of Defenders of Wildlife and the California sea otter, I urge you to shorten the proposed Morro Bay sewage treatment plant upgrade timeline so that it is as rapid as possible. ~~The proposed 9.5 years to upgrade this plant is too long.~~ Moreover, it is critical that specific measures be included in the sewage plant's permit assuring that it will protect the nearshore marine ecosystem, one of whose key inhabitants is the California sea otter.

"There is no reason that the Morro Bay community cannot meet the standard established by many similar small cities around California that have completed a similar upgrade in a fraction of the time. Adopting a shorter timeframe for the plant upgrade and requiring measures to protect the sea otter and other marine life is the only way to preserve local waters, including Morro Bay's extraordinary estuary, for future generations. I am counting on you to take the necessary steps to protect these valuable coastal resources."

Staff Response 3: Please see staff's previous responses.

Comment 4: Ruth Boysen of San Pedro, California, submitted the following email on January 9, 2006:

"As the owner of property in Pismo Beach and a frequent visitor to the Central Coast I want to urge you to lessen the requested 9.5 year timeline by the Morro Bay/Cayucos sewage treatment plant. It is my understanding that state law and The Clean Water Act require that this sewage plant be upgraded as rapidly as possible!

"There is no reason that the community of Morro Bay cannot meet the standard established by other small cities around California that have managed to complete a similar upgrade in a fraction of the time.

"Specific measures should also be included in the sewage plant's permit specifically protecting the California sea otter. Completing the upgrade in a much shorter time and requiring measures to protect the sea otter and other marine life will preserve local waters for our grandchildren and all future generations.

"If you don't want to do this for the future generations then consider that tourism is one of the major industries on the Central Coast. Tourists come to see the creatures they aren't able to see near their homes. It was [sic] seem economically unwise to put off the upgrade and therefore protecting the wildlife thereby destroying one of the major attractions to the beautiful Central Coast.

"I hope I can count on you to take the necessary steps to protect these valuable coastal resources."

Staff Response 4: Please see staff's previous responses.

Comment 5: Matthew Haskett of Turlock, California, submitted the following email on January 9, 2005:

"Please do not allow the sewage plan that threatens the sea otters to take 10 years to upgrade its facilities. Water quality needs to be improved as soon as possible; 10 years is too long."

Staff Response 5: Please see staff's previous responses.

The **City of Morro Bay** submitted extensive written comments on behalf of the Discharger on January 11, 2006. These comments are included here verbatim (without footnotes, for the sake of readability). Staff responses follow each specific comment.

Introductory (General) Comments:

"Despite our extensive detailed comments on the permit itself, we are immensely gratified by the cooperative effort between the staffs of Morro Bay, Cayucos, RWQCB, and the EPA throughout the permit process. Because of our mutual interest in a future upgrade of the treatment plant, development of the permit was an unusually long and involved process. The staffs of the four agencies should be applauded for promptly and effectively negotiating a mutually acceptable settlement agreement that identifies a reasonable conversion schedule for plant upgrades capable of meeting full secondary treatment requirements. All agency staffs worked cooperatively to establish the conversion schedule based on facility needs identification and analysis for the two respective communities, extensive public input and dialogue, as well as the best professional judgment of a respected environmental engineering firm. MBCSD is strongly committed to the schedule outlined in the settlement agreement and feels that it accurately reflects a continued commitment to protecting the receiving waters and local ecology. MBCSD looks forward to working with RWQCB and EPA staff during the implementation of the settlement agreement, and to RWQCB assistance in procuring funding for the upgrade project that will be the largest expenditure in the history of either Cayucos or Morro Bay. It is our hope that we can continue to work cooperatively by redirecting much of the monitoring and reporting costs toward our mutually agreed upon solution. MBCSD thanks both RWQCB and EPA staff for their cooperation and patience during this process.

"During the upgrade process, re-issuing a 301(h)-modified discharge permits to MBCSD is an environmentally sound decision supported by two decades of intensive monitoring. During that time, there have been no perceptible impacts from the MBCSD discharge. There are four major aspects of the MBCSD discharge that account for the lack of impacts.

- 1) Discharge volumes are small, only about 1 MGD;
- 2) Effluent solids concentrations are low, and close to secondary treatment standards;
- 3) The discharge is far removed (2700 ft) from the shoreline where the high-energy open-ocean environment rapidly disperses effluent beyond recognition within 50 ft of the diffuser structure; and
- 4) Effluent contaminant levels are low because domestic wastewater sources dominate in a service area devoid of heavy industry.

"During the upgrade of the MBCSD plant, the Regional Board and EPA decisionmakers can take comfort in the fact that there will be no tangible impact on the marine environment, or its beneficial uses, by allowing the MBCSD to continue operating under a 301(h)-modified permit. The principal reason for this is that this partial-secondary treatment plant is far below capacity, so nearly all of the effluent is already treated to secondary levels. In addition, the discharge will not materially change during the upgrade period because population growth in the service area is restricted by legislation. Consequently, the discharge volume will remain far below plant capacity and nearly all of the wastewater will continue to be treated to secondary levels. In addition, the intensive monitoring required as part of the 301(h) section of the Clean Water Act is "...among the most comprehensive of all municipal ocean discharges of less than 5 MGD in California." Consequently, the monitoring program will continue to be capable of quickly identifying any potential future impacts so that corrective action can be implemented in a timely fashion. Because of all these considerations, the Regional Board and EPA can rest assured that their decision to re-issue the 301(h)-modified permit to the MBCSD is based on sound reasoning and solid scientific data.

"Your consideration and reasoned response to the MBCSD's concerns [below] are greatly appreciated."

Staff Response: Comment noted.

Note: Dr. Douglas Coats or Marine Research Specialists, consultant to the Discharger, provides the following recommended technical revisions (Comments 6-25).

Comment 6: "...recommended revisions are listed in order of importance, with the highest priority changes listed first. References to pertinent page numbers and sections in the proposed NPDES permit are italicized.

"Remove the requirement for Acute Toxicity Testing [Page E-10, Section E.A]. There is no technical or regulatory justification for requiring acute toxicity testing of MBCSD effluent. As stated in the fact sheet [Page F-22, Section F.V.7], the California Ocean Plan (COP) does not require acute toxicity tests for dischargers that achieve the dilutions achieved by the MBCSD discharge. The COP cites the need for acute toxicity testing only "...as necessary for the protection of beneficial uses of ocean waters." There is no nexus between the

protection of beneficial uses and the requirement for acute bioassays on MBCSD effluent samples. There are four reasons for this:

a) Acute testing is unnecessarily redundant with the chronic testing that is already required as part of the NPDES Permit. Chronic tests provide far more accurate and sensitive measures of effluent toxicity.

~~b) Acute tests conducted on MBCSD effluent result in erroneous measures of toxicity that provide no insight into the actual toxicity of the discharge. Over two decades of acute testing have demonstrated that the presence of ammonia in the MBCSD effluent samples severely compromises the accurate determination of acute toxicity.~~

c) Although ammonia interference causes the measurements to be significantly inflated, the acute toxicity levels of the MBCSD discharge reported over the last two decades have been less than half of the effluent limitation cited in the NPDES Permit. Consequently, even based on artificially inflated bioassay results, the discharge cannot be considered an acutely toxic threat to beneficial uses of receiving waters.

d) The acute toxicity limit is intended to prevent lethality to organisms passing through the acute mixing zone. For the MBCSD discharge, the prescribed mixing zone is highly localized around the outfall, extending only 1.5 m (4.9 ft) from the point of discharge. At that location, the effluent is diluted more than 100-fold, and is 25 times more dilute than the effluent tested in the bioassays. The only conceivable beneficial use that could be impacted would be fishing. However, finfish are likely to avoid the turbulent discharge jet. Additionally, acute bioassays continuously expose organisms to high effluent concentrations over a four-day period. Clearly, they do not reflect the brief duration of any potential finfish exposure to dilute concentrations of MBCSD effluent."

Staff Response 6: Staff agrees that chronic toxicity testing is a more sensitive and accurate measure of whole effluent toxicity than acute toxicity. Acute toxicity testing is fraught with problems, including interference by ammonia. The 2001 California Ocean Plan recognizes this, in stating:

"Dischargers shall conduct chronic toxicity testing for ocean waste discharges with minimum initial dilution factors ranging from 100:1 to 350:1. The RWQCBs may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters."

In this case, with an initial dilution of 133:1, chronic toxicity testing provides adequate protection of beneficial uses. Acute toxicity testing is unnecessary. Staff recommends removal of the acute toxicity-testing requirement from the Monitoring and Reporting Program. The daily maximum Acute Toxicity effluent limitation of 3.9 TUa remains in the Permit.

Comment 7: "Require surfzone sampling only when effluent coliform densities are elevated [Page E-13, Section E.VI.A]. The proposed NPDES Permit requires the collection and analysis of surfzone samples on a periodic basis. Instead, surfzone sampling should only be required when effluent total coliform bacteria tests exceed 2,400 MPN/100 mL. Once triggered, surfzone sampling should continue on a daily basis until the effluent total coliform concentration returns to compliance. The rationale often proposed for periodic surfzone sampling in other NPDES permits is that "~~Surf-zone monitoring provides a public service.~~" However, this rationale does not apply to the MBCSD discharge because it is in direct conflict with the Clean Water Act (40 CFR 125.63a), which requires that the scope of 301(h) monitoring programs be "...limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge." Triggered surfzone monitoring satisfies this requirement; regular periodic monitoring, as currently specified in the proposed NPDES Permit, does not. Two decades of monitoring data demonstrate that periodic surfzone monitoring does not lend insight into the MBCSD discharge for the following reasons:

- a) Disinfection of effluent prior to discharge is highly effective at reducing bacterial densities to levels below the limits established for beneficial use. Thus, at the end of the treatment process, the effluent already typically meets the bacterial standards for ocean waters. Because of this, the EPA Tentative Decision Document states that "...shoreline contamination by way of the applicant's discharge is not of reasonable concern."
- b) Rapid dilution of effluent by more than 133-fold shortly after discharge reduces even moderately high bacterial densities to non-detectable levels within a few meters of the discharge point. Clearly, surfzone samples are too distant from the discharge to lend any insight into potential discharge-related impacts from anything but the very highest bacterial densities in the effluent.
- c) In contrast to bacterial densities in effluent samples, surfzone samples are often elevated due to onshore runoff. This and other non-point source contamination severely compromises any determination of the potential influence from the effluent discharge.
- d) The periodic surfzone monitoring effort specified in the NPDES Permit duplicates sampling already conducted by the San Luis Obispo County Department of Health."

Staff Response 7: The Discharger's reasons for reducing surfzone monitoring are valid. The Discharger consistently complies with its effluent and receiving water bacteria requirements. The Permit specifies that the discharge shall not cause the following bacterial limits to be exceeded in the water column:

Parameter Applicable to any 30-day period	Total Coliform Organisms (MPN/100 mL)
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Median	70
90% of samples	230

Staff analyzed all surf zone total coliform monitoring data collected since 1993. The data set consisted of 385 to 390 samples at each monitoring station. With the exception of the monitoring station at the mouth of Morro Creek, the annual median at each monitoring station was well below 70 MPN/100 mL. The greatest median value was 17 MPN at Station F (nearest to Morro Rock) in 1995. With the exception of the Morro Creek monitoring station, no less than 98% of samples from each monitoring station were below 230 MPN/100 mL. County of San Luis Obispo Environmental Health Services has been monitoring this beach at stations 75 feet north of the Morro Rock parking lot (near Station F), and at the projection of Atascadero Road (near Station E) weekly during summer months since November 2001, and weekly during winter months since February 2002. Heal the Bay's Beach Report Card (see www.healthebay.org/brc/annual/2003/counties/slo/grades.asp), which is based on EHS' monitoring results, gave both locations an A grade for Summer 2002, an A+ for Winter 2002-2003, and an A+ for Summer 2003. The Discharger's periodic surfzone monitoring is redundant with EHS' beach monitoring program. Reductions in surfzone monitoring are justified.

Since the original purpose of the surfzone monitoring requirement is to ensure that the discharge is not causing exceedances of receiving water bacteria requirements, and periodic monitoring demonstrates that the normal discharge is not causing exceedances, staff believes that triggered surf-zone monitoring, based on exceedances of the Total Coliform effluent limitation, is appropriate. Staff proposes the following change to the surfzone monitoring section of the Monitoring and Reporting Program:

"Grab samples shall be taken at all surf-zone monitoring stations weekly during summer months (May-October) and at least monthly during winter months (November-April) whenever effluent Total Coliform bacteria in effluent exceeds 2400 MPN/100 mL. Such monitoring shall continue daily for four consecutive days or until effluent returns to compliance with the 30-day median of 23 MPN/100 mL, whichever is longer. The Executive Officer or USEPA may require daily surf-zone monitoring to continue beyond 4 days if deemed necessary to determine compliance with receiving water limitations."

This triggered surfzone monitoring requirement is more protective of beneficial uses than periodic monitoring because it is more focused on determining compliance when receiving water exceedances are likely to occur. This triggered monitoring requirement is consistent with other similar discharges in the Central Coast Region (e.g., Carmel Area Wastewater District). San Luis Obispo County Environmental Health Department will fulfill the role of periodic monitoring by monitoring this beach weekly during summer months and monthly during winter months.

Comment 8: "Remove all statements that imply past exceedances of permit limits are somehow related to less-than-secondary treatment standards. [Page

F-11 and F-12, Section F.IV.A.4]. None of the specious relationships between treatment levels and violations outlined in the Fact Sheet of the NPDES Permit are based on fact.

a) The record of violations associated with other treatment plants within the region shows that there is no relationship between permit violations and treatment level. In fact, plants that attain full secondary or even tertiary treatment levels have more than ten-times the number of violations of the MBCSD plant in the past five years.

b) The MBCSD effluent often meets or exceeds secondary treatment standards, so it is misleading to suggest that the limited reduction in the suspended solids concentration achieved by conversion to full secondary treatment would suddenly eliminate all future exceedances of permit limits. Instead, the exceedances largely occur because of unavoidable mechanical malfunctions of equipment. In place of these specious arguments, it is reasonable to suggest that many years from now, when the major components of the treatment process approach the end of their useful life, an increase in permit exceedances might be expected.

c) The discussions associated with the exceedances erroneously imply that occasional non-compliance with the effluent limitations in the NPDES Permit is the only consideration for the permit renewal. In fact, the ability to routinely meet water-quality standards promulgated in the California Ocean Plan (COP) is the primary consideration. The intensive monitoring associated with the MBCSD discharge has consistently demonstrated that the discharge regularly achieves the required receiving-water standards, yet, there is no mention of this fact in the Fact Sheet.

d) The following erroneous statements concerning the exceedances require correction for the reasons indicated:

i) **[Page F-11, Section F.IV.A.4]** *~~"The reported dioxin concentration value was 0.56 pg/L, 8% greater than the effluent limit. This exceedance was much smaller than the 20% instrumentation calibration standard. The Dischargers state the particular dioxin congener that was responsible for the violation is ubiquitous in the environment and was present in the influent to the treatment plant. The Dischargers also stated that the violation could be attributed to laboratory contamination, which is commonplace when measuring concentrations at sub-parts-per-quadrillion. Staff suspects the dioxin could have been formed in the disinfection process of the treatment plant, where a relatively high concentration of organic matter is combined with a high dose of chlorine."~~* The last statement is incorrect because neither the solids concentration nor the chlorine dose at the time of the dioxin measurement was particularly high relative to other effluent samples, when dioxin measurements were well below the permit limit. The Fact Sheet fails to point out the fact that the excess 8% is well below the 20% resolution of the chemical assay. Finally, the MBCSD never stated that the dioxin was present in the influent, although this is a plausible assumption given that drinking water is also often chlorinated.

ii) **[Page F-11, Section F.IV.A.4]** *~~"Notably, this violation might not have occurred had the facility been designed to meet secondary treatment standards, because a solids removal system in the chlorine contact chamber would not likely be necessary."~~*

This statement is incorrect because the solids removal system in the chlorine contact chamber has nothing to do with secondary treatment. Instead, it has to do with the fundamental redesign of facility in 1985. Certainly, a new facility could be designed so that solids would not accumulate in a tank that was originally designed as a clarifier, but that could be accomplished without achieving secondary treatment. Even so, solids would accumulate somewhere in the process. Conversely, even if the suspended solids concentrations were to meet full secondary treatment standards, which the effluent has for 17 of the last 23 months, solids would continue to settle in the contact tank.

iii) **[Page F-12, Section F.IV.A.4]** ~~"Again, these violations might not have occurred had the facility been designed to meet secondary treatment standards, because solids would not be present in the chlorine contact chamber at levels that would alter the chlorine dosing process. (Similar problems have not occurred at facility's that meet secondary treatment standards.)~~ Again, this statement is blatantly incorrect. The violation was caused by the design of the sampling device that controlled the chlorination/dechlorination process, and had nothing to do with the suspended-solids load. The sample-supply line was subsequently redesigned to improve flow and filter screens are now cleaned more often. These changes eliminated the sampling problem and chlorine violations have not occurred since. According to representatives from other treatment plants, identical sampling devices at full-secondary and tertiary facilities require the same type of maintenance regimen."

Staff Response 8: Upon reviewing the Fact Sheet again, staff believes the subject statements were somewhat speculative and unnecessary, and agrees to the recommended changes.

Comment 9: "Remove cross-shore benthic monitoring stations B-8 and B-9 [Page E-3, Section E.II] and add replicate sampling for composite chemical analyses at the remaining stations [Page E-14, Section E.VII.A]. The locations of cross-shore Stations B-8 and B-9 are shown in the figure on the next page, [but not included here]. These stations were added in the last permit but were subsequently found to be heavily influenced by natural depth gradients. The depth-related differences at these stations mask potential discharge-related impacts and render the data at these stations of little use. In exchange for the reduced monitoring effort at these cross-shore stations, the grab sample replication should be increased at the remaining (along-shore) stations. Variability in trace-metal concentrations significantly increased after replicate grab sampling was dropped in the current permit's monitoring program. Consequently, chemical analysis of a composite of three replicate grab samples at Stations B-2 through B-7 should be reinstated to stabilize the determination of chemical concentrations. To implement this requirement, the last sentence in the last paragraph on page E-14 should read: "A grab sample Three grab samples shall be collected using a 0.1 m² Van Veen grab sampler at all benthic monitoring stations, and analyzed at each benthic monitoring station. A composite of these three samples should be analyzed as follows:"

Staff Response 9: Staff agrees that the cross-shore configuration of benthic monitoring stations B-8 and B-9 masks potential discharge-related impacts. B-8 and

B-9 are clearly influenced more by depth differences than by the discharge. (If B-8 and B-9 were impacted more by the discharge than depth, then the along-shore stations that are the same distance from the outfall as B-8 and B-9 would exhibit a similar spatial gradient, which is not the case.) Replicate grab-sampling at the along-shore benthic monitoring stations is a fair tradeoff for removal of B-8 and B-9. Staff proposes to include the requested change.

~~Comment 10: "Footnote the annual minimum frequency of analysis in the effluent monitoring requirements for the protection of human health to state that "After results are reported, the Discharger may request to the Regional Board and EPA that only those parameters detected during the first year of sampling be analyzed during the remainder of the permit" [Pages E-6, E-7, and E-8, Section E.IV.A]. Adding this footnote is consistent with other 301(h) NPDES discharge permits in the region. Moreover, quantitative analyses of a decade of effluent measurements has definitively demonstrated that the MBCSD discharge has a high compliance potential for the chemical constituents currently monitored on a semi-annual basis. The results from this reasonable potential analysis should be included in the rationale for changes to the effluent monitoring frequency [Page F-22, Section F.V.8] as follows: "None of these priority pollutants were detected in effluent by the several sampling events during the life of the existing Quantitative statistical analysis of a large number of historical contaminant measurements demonstrates that there is a low potential for non-compliance, and that the proposed effluent-monitoring reductions are warranted. This historical performance, and the cost of this the monitoring justifies the this monitoring-frequency reductions. Effluent monitoring for those priority pollutants which were detected during the life of the existing Permit remains the same."~~

Staff Response 10: Dischargers always have the right to request monitoring reductions, so the requested footnote is unnecessary. However, for the sake of consistency with other permits, staff agrees to add the footnote as requested. The Discharger should note that staff is not authorized to grant monitoring reductions. The Central Coast Water Board, in addition to USEPA, must approve reductions. Staff also agrees to include the additional rationale for the proposed monitoring frequency reductions.

Comment 11: "Change the minimum sampling frequency for effluent metals from semi-annually to annually [Page E-5, Section E.IV.A]. Analysis for effluent metals should conform to the annual sampling frequency required of other priority pollutants. The fact that metals have been detected in past effluent samples does not provide an adequate rationale for the semi-annual sampling frequency. The statement concerning the reductions in monitoring, "Effluent monitoring for those priority pollutants which were detected during the life of the existing Permit remains the same." [Page F-22, Section F.V.8] suggests that because a compound has been detected historically, it has a potential for non-compliance. However, such an approach provides no comparison between a concentration that is environmentally significant and the detectable concentration, which is largely a measure of a laboratory's analytical ability. In fact, trace metals differ from other priority pollutants

because they occur naturally in the environment at detectable levels. Some are even required by organisms as nutrients. The fact that they occur naturally in the environment should not be a reason to intensify monitoring. On the contrary, the reasonable-potential analyses of historical effluent measurements has definitively demonstrated that the potential for future compliance for metals concentrations is high, and that annual sampling is sufficient to demonstrate continued compliance with the COP."

Staff Response 11: Staff does not accept the Discharger's rationale for reducing effluent monitoring frequency for metals. The metals are occasionally detected in effluent, which justifies more frequent monitoring than the other priority pollutants. The Discharger suggests that staff is intensifying monitoring. This is not the case. The proposed semi-annual effluent monitoring frequency for metals remains the same as the existing permit.

Comment 12: "Reduce the number of initial chronic screening tests from "...no fewer than three tests" to "...no fewer than two tests" [Page E-11, Section E.V.B]. Ostensibly, multiple screening tests are conducted to account for potential effluent variability. However, MBCSD effluent varies semiannually, and requiring more than two semiannual tests is redundant. There is no regulatory basis for the three-test requirement because the COP does not specify the length of an initial screening period for chronic tests. The proposed duration of two tests is reasonable and conforms to the intent of the COP."

Staff Response 12: Staff agrees that an initial screening period of two tests is appropriate. Most similar dischargers in the Central Coast Region are only required to determine the most sensitive species through one screening. Two tests should adequately account for any effluent variability. Staff proposes to accept the change as requested.

Comment 13: "Replace the seventeen instances of the statement "*The discharge shall not cause...*" with "*Wastewater constituents within the discharge shall not cause.*" [Pages 15 and 16, Sections V.A, V.B, V.D, V.E, V.F, V.G, V.H, V.I, V.J, V.K, V.L, V.M, V.N, V.O, V.P, V.Q, and V.R]. This change is consistent with the intent of the COP and is particularly important for the MBCSD discharge because, on occasion, the naturally occurring bottom seawater that is entrained in the buoyant effluent plume has different properties from shallower receiving waters. Receiving-water changes in suspended solids, dissolved oxygen, and other constituents that result from the movement of ambient seawater should be distinguished from those caused by the presence of effluent constituents."

Staff Response 13: The subject discharge is unique in that the offshore monitoring program is powerful enough to distinguish entrainment of a naturally-occurring turbid bottom seawater layer by the buoyant effluent plume from changes resulting from effluent constituents. Staff agrees that movement of seawater should be distinguished from changes caused by the presence of effluent constituents. Staff proposes to accept the change as requested.

Comment 14: "Remove the requirement for testing dissolved-sulfide concentrations in benthic porewater samples [*Page E-15, Section E.VII.A, Line 3 of Sampling-Frequency Table and Footnote 18; Page F-15, Section F.IV.B.5, Last Sentence of the 1st full Paragraph; Page F-22, Section F.V.11*]. The additional year of sampling required in the footnote for elimination of sulfide sampling has already been conducted, and the stated requirement has been met. The MBCSD has performed the high-resolution sulfide analysis on porewater samples on three separate sampling occasions, in 2003, 2004, and 2005. None of the 27 samples contained detectable sulfide concentrations. Moreover, elevated sulfide concentrations in porewater are usually restricted to quiescent marine and estuarine environments, where there are high concentrations of organic constituents. Often these benthic environments are also hypoxic. This is not the case for the coarse sand sediments surrounding the MBCSD outfall, which are intensively reworked by waves and currents."

Staff Response 14: When originally drafting the proposed permit in 2003, staff proposed to give the Discharger the option to monitor Dissolved Sulfide in sediment porewater to decrease variability of results. The porewater extraction technique is relatively difficult and expensive, so staff further proposed that this monitoring requirement may be discontinued by written approval of the Executive Officer if Dissolved Sulfides are not detected in any porewater sample from any benthic sediment monitoring station for one additional year. Since the Discharger has used the porewater extraction technique and not detected any Dissolved Sulfides at any station for two additional years, the Discharger has met this requirement. Staff therefore proposes to remove the requirement for testing Dissolved Sulfides in sediment porewater as requested.

Comment 15: "Revise the locations of the surfzone monitoring stations to conform to historical measurement locations [*Page E-2, Section E.II*]. The coordinates of the surfzone monitoring locations provided in the monitoring-location table in the permit do not coincide with the along-shore distances cited in the same table. Moreover, neither the coordinates nor the along-shore distances coincide with the precise locations where surfzone samples have been collected over the past two decades. These inconsistencies only became known after analysis of detailed navigational data collected during a recent shoreline survey. The revised surfzone monitoring stations should be as follows:

SZ-A1	Upcoast Reference	35° 23'58" N	120° 52'07" W	1330 m (4363 ft) N
SZ-A	Upcoast Midfield	35° 23'45" N	120° 52'04" W	912 m (2992 ft) N
SZ-B	Upcoast Nearfield	35° 23'31" N	120° 52'00" W	488 m (1602 ft) N
SZ-C	Onshore of Diffuser	35° 23'15" N	120° 51'57" W	0
SZ-D	Downcoast Nearfield	35° 23'02" N	120° 51'55" W	426 m (1398 ft) S
SZ-E	Downcoast Midfield	35° 22'46" N	120° 51'54" W	922 m (3026 ft) S
SZ-F	Downcoast Reference	35° 22'24" N	120° 51'53" W	1602 m (5250 ft) S

Staff Response 15: Staff appreciates the Discharger's attention to these details, and proposes to accept these changes as requested.

Comment 16: "Clarify the requirement that *"Dilution and control water should be obtained from an unaffected area of the receiving waters"* [Page E-11, Section E.V.B]. The statement should be modified to specify *"Dilution and control water should be obtained from an unaffected area of the receiving waters of the open ocean along the Pacific coast."* Otherwise, the statement could be incorrectly interpreted to mean that dilution and control waters used in the chronic bioassays need to be collected from the region around the outfall. That would be an onerous and unnecessary requirement. In contrast to discharges within enclosed bays, the receiving waters of the open ocean are relatively uniform and there is no advantage to collecting seawater near the outfall, as opposed to seawater collected in the open ocean near the toxicity testing facility."

Staff Response 16: Staff agrees, and proposes to accept this change as proposed.

Comment 17: "Focus the discussion of toxoplasma and sea otters [Page F-19 and F-20, Section F.IV.B.8]. The discussion provided in the Fact Sheet under Section F.IV.B.8 misrepresents the potential for impacts from the MBCSD discharge, and fails to clearly state, at the beginning of the discussion, the empirical fact that the MBCSD discharge is not responsible for the observed toxoplasmosis in the local sea otter population. In particular, it does not fully discuss the implications of mussel-testing results, which unequivocally demonstrate that the MBCSD discharge cannot be the source of *Toxoplasma gondii* infection in sea otters. The Fact Sheet also fails to point out that the mussel analyses determined that the MBCSD discharge does not contain other bacterial pathogens such as *Campylobacter*, *Clostridium perfringens*, *Plesiomonas shigelloides*, *Salmonella*, and *Vibrio* spp. (*cholerae*, *parahaemolyticus*, etc.). Additionally, the Fact Sheet cites research published by Miller et al, but does not discuss the implications of their finding that "...seropositivity to *T. gondii* was not significantly associated with ...proximity to sewage outfalls ($P=0.955$) but was highly correlated with freshwater flow ($P<0.001$)."
This finding clearly demonstrates both the

overwhelming influence of non-point source contamination, and the lack of influence from wastewater discharges. The rest of the toxoplasmosis discussion in this section of the Fact Sheet is either not pertinent to this NPDES permit, is highly speculative, or has since been proven wrong. Consequently, the last full paragraph on Page F-19 should be eliminated from the Fact Sheet in its entirety. In particular, discussing the details of the high toxoplasmosis infection rates in otters near Morro Bay is unwarranted given that they are unrelated to the discharge. Similarly, discussing early speculation that high infection rates might be related to "~~...the only discharge with a~~ 301(h) Waiver in the studied area," is clearly unfounded since, as stated later in the Fact Sheet, "*... the subject discharge is not a source of T. gondii loading to Estero Bay.*"

Staff Response 17: Staff appreciates the Discharger's concern regarding its discussion of toxoplasma and sea otters in the Fact Sheet, but believes the discussion is balanced and complete. Staff does not accept the Discharger's recommended changes.

Comment 18: "Remove tributyltin as a monitoring constituent [Page E-6, Section E.IV.A]. Tributyltin was eliminated from the effluent monitoring program in the current permit because it has never been detected in MBCSD effluent. Also, its use is now restricted within the U.S. and it is not a likely constituent of MBCSD effluent. Instead, its distribution in the marine environment is primarily linked to its use as an anti-fouling additive to bottom paint on large ships, and detectable levels tend to be associated with relict contamination within the seafloor sediments of very large harbors."

Staff Response 18: Staff checked the existing monitoring program and confirmed that effluent tributyltin monitoring is not required. Staff proposes to remove the effluent tributyltin monitoring requirement as requested.

Comment 19: "Revise the description of the effluent sampling location [Page E-2 (Section E.II)]. The effluent sampling location should not coincide with the location of the offshore diffuser structure, as it is currently listed in the NPDES Permit. Instead, effluent samples are collected at the air-relief structure, which is located onshore within the confines of the treatment plant at 35° 22' 47"N, 120° 51' 40"W. This location is downstream of any in-plant return flows or disinfection units, and is the last access point before the wastewater flows into the outfall."

Staff Response 19: Staff agrees that the specified effluent sampling location should be the Facility's air-relief structure, not the offshore diffuser structure. Staff proposes to accept this change as requested.

Comment 20: "Modify and move the following statement to a footnote on the appropriate constituents: *"The mass based goals determined from the 99th percentile of historical effluent concentrations and a flow of 2.06 MG"* [Page E-8, Section E.IV.B]. The statement is unclear as originally written. It should be replaced by "The performance-based mass emission goal was determined from the 99th

percentile of historically detected effluent concentrations, and a flow of 2.06 MGD. It should be a footnote on the following nine constituents: arsenic, copper, zinc, total cyanide, toluene, benzene, chloroform, halomethanes, and tetrachloroethene."

Staff Response 20: Staff agrees with this comment and proposes to accept this change as requested.

~~Comment 21: "Provide a footnote to "Effluent Limitations" stating that "The daily mass emission calculations are based on the average design flow rate of 2.06 million gallons per day (MGD)." [Page 11, Section IV.A].~~ Normally, mass emissions would be based on the effluent peak seasonal dry weather flow of 2.36 MGD that is stated in Section IV.A. However, in this version of NPDES Permit, the mass emissions are computed from the average design flow rate. This results in more restrictive limitations on mass emissions. This fact should be clarified in a footnote. Otherwise, the computed mass-emission limitations might be thought to be in error."

Staff Response 21: Staff agrees with this comment and proposes to accept this change as requested, except that the footnote is more appropriately added to Section IV.C.5, not Section IV.A.

Comment 22: "Remove the statement concerning the predictive ability of the monitoring and reporting program (MRP) [Page 6, Section II.K]. The finding, "The MRP is not capable of predicting future impacts to water quality and beneficial uses resulting from significant increases in pollutant loading," is inappropriate and misleading. First, it adds nothing to an assessment of the MRP based on its intended use because "...significant increases in pollutant loading" are not proposed as part of this permit. Second, it is misleading because the intensive and well-designed monitoring program is capable of detecting small increases in pollutant loading, and is capable of detecting potential discharge-related impacts regardless of their cause. In accordance with its intent, the MRP acts as a sentinel for untoward influences from the discharge, thereby allowing timely implementation of corrective actions that limit potential "...future impacts to water quality and beneficial uses....""

Staff Response 22: Staff agrees this finding is somewhat misleading, and proposes to replace it with the following, taken from the MRP:

"The MRP is intended to: a) document short and long-term effects of the discharge on receiving waters, sediments, biota, and on beneficial uses of the receiving water; b) determine compliance with NPDES permit requirements and conditions; and c) assess the effectiveness of industrial pretreatment and toxics control programs."

Comment 23: "Qualify the discussion of Total Suspended Solids (TSS) exceedances [Page F-10, Section F.IV.A.1]. As written, the statement concerning the TSS exceedances imply they are a regular occurrence. This is not the case, and the following statement should be qualified as indicated: "...thus the long-term average effluent TSS concentration is far below these limitations. However, these

limitations were violated on three related occasions during a brief period in 2002. Since 1998, there have been no other exceedances of the TSS limit."

Staff Response 23: Staff did not intend to imply that effluent TSS violations are a regular occurrence. Staff proposes to accept these minor changes to the Fact Sheet as requested.

Comment 24: ~~"Augment the statement concerning biosolids in the facility description [Page F-3, Section F.II.A].~~ The biosolids statement should be augmented to read: "Historically, biosolids have been anaerobically digested and dried, composted, and then trucked to the San Joaquin Valley for use as a soil conditioner. However, in the past two years, the MBCSD has successfully implemented a composting operation at the treatment plant that will allow beneficial reuse of biosolids locally."

Staff Response 24: Staff proposes to accept this change as requested.

Comment 25: "Remove the two-sentence preamble to the section on Receiving Water Limitations [Page 15, Section V]. In its current form, the statement is ambiguous and unnecessary. It states, "Receiving water quality is a result of many factors, some unrelated to the discharge. This permit considers these factors and is designed to minimize the influence of the discharge to [on] the receiving water." This statement ambiguously implies that the permit considered factors unrelated to the discharge to minimize its influence. The statement adds nothing to the rationale for receiving-water limitations."

Staff Response 25: Historically, this statement has been included in most discharge permits in the Central Coast Region to protect dischargers from receiving water quality factors that are beyond the discharger's control. Staff agrees the statement "this permit considers..." is ambiguous. Since the Discharger's monitoring program is powerful enough to discern between discharge-related impacts and receiving water factors beyond its control, staff also agrees this statement is unnecessary. Staff therefore proposes to remove this statement as requested.

Note: The following comments were provided by the Discharger's staff, and were titled as "Recommended Corrections to Typographical Errors, and other Inaccuracies and Discrepancies." Only the more significant comments are included here. The very minor clerical corrections recommended by the Dischargers that are not included here were made as recommended.

Comment 26: "Use consistent and accurate terminology when referring to the 301(h)-modified NPDES discharge permit issued to the MBCSD. The only accurate descriptor of the permit or its requirements is "modified." The Clean Water Act only uses the term "modified" in its description of Section 301(h). It never uses other terms that are commonly misapplied to the Act, such as "variance" and "waiver." These other terms are misnomers, because Section 301(h) only modifies three of the secondary treatment requirements and all other secondary treatment standards still

apply. Use of the term "waived" gives the misleading impression that secondary treatment requirements are eliminated altogether. All instances where these misnomers are used in the draft MBCSD permit should be changed to use the term "modified"....[comments then specify all sections of the draft where "modified" should be used instead of "variance" or "waiver."]

Staff Response 26: "Modified" is the terminology used in the Clean Water Act, therefore staff has revised the permit to only use "modified," not "variance" or "waiver."

Comment 27: "Use consistent and accurate terminology when referring to the MBCSD as the "Permittee" or "MBCSD," not the "Discharger." This change implicitly acknowledges that the MBCSD, like the Regional Board, as a branch of government providing a valuable public service to its constituents. The term "Discharger" connotes that nothing of value is being achieved by the MBCSD's treatment and subsequent discharge of municipal wastewater. Specifically, modify the first sentence of Section II.A on Page 4 as follows: "Background. The City of Morro Bay and Cayucos Sanitary District (hereinafter MBCSD Dischargers)...." and modify the subsequent references to "discharger" accordingly."

Staff Response 27: Staff acknowledges that the City of Morro Bay and Cayucos Sanitary District provide a valuable service to its constituents. Staff disagrees that the term "Discharger" connotes that it achieves nothing of value. "Discharger" is a term used in Clean Water Act and the California Water Code and the term the Water Boards typically use to refer to all persons discharging waste pursuant to waste discharge requirements, including NPDES Dischargers. "Discharger" remains used in the permit.

Comment 28: "Correct the Conversion Schedule to conform to the Conversion Schedule contained in the *SETTLEMENT AGREEMENT FOR ISSUANCE OF PERMITS TO AND UPGRADE OF THE MORRO BAY-CAYUCOS WASTEWATER TREATMENT PLANT* that was negotiated by MBCSD and RWQCB staff [Page 8]."

Staff Response 28: The Conversion Schedule included in the draft was an old version by the Discharger's consultant Carollo Engineers, and is corrected in the proposed permit, and in this staff report, as requested.

Comment 29: "Correct the Six-Month Median Effluent Limit for silver to 0.07 mg/L [Page 12, Section IV.C.2]. The NPDES Permit incorrectly specifies a limiting concentration for silver as 0.09 mg/L. This concentration does not account for the background concentration of silver in seawater that is specified in the COP."

Staff Response 29: Correction made. Staff appreciates the Dischargers' diligence in pointing out a correction that results in a slightly more stringent limitation.

Comment 30: "Provide footnote "b" that is associated with the effluent limitations for cyanide [Page 12, Section IV.C.2]. The NPDES Permit indicates that cyanide has a footnote "b," but does not provide the footnote. According to the COP,

the footnote should read as follows. *"If a discharger can demonstrate to the satisfaction of the Regional Board (subject to EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR PART 136, as revised May 14, 1999."*

"Add a footnote that allows the effluent limitation for chromium (III) to be met as a total chromium limitation [Page 12, Section IV.C.3]. This is consistent with footnote #2 applied to hexavalent chromium on Page 11. It is also consistent with the current discharge permit."

Staff Response 30: Staff mistakenly omitted these footnotes from the draft, therefore has added them to the proposed permit, as requested.

Comment 31: "Correct the Average Monthly Effluent Limit for chloroform to 17.4 mg/L [Page 13, Section IV.C.4]. The NPDES Permit lists an incorrect limit (1.74 mg/L)."

Staff Response 31: Staff recalculated this chloroform effluent and checked the previous permit, and verified that the limit should be 17.4 mg/L. The chloroform limit is corrected as requested.

Comment 32: "Correct the units on the Six-Month Median Effluent Limit for heptachlor and heptachlor epoxide to ng/L [Page 13, Section IV.C.4]. The NPDES Permit specifies heptachlor limiting concentrations that are associated with units of ng/L rather than the units of pg/L, which are incorrectly listed in the NPDES Permit."

Staff Response 32: The heptachlor and heptachlor epoxide limits in the draft permit are correct and remain unchanged. Units of pg/L are more appropriate than units of ng/L, because ng/L requires an inordinate number of significant figures.

Comment 33: "Change the type of sample for chlorinated phenolics from composite to grab [Page E-5, Section E.IV.A]. This conforms to the sample type of non-chlorinated phenolic compounds. The sample type for endosulfan, which is the next parameter in the list below non-chlorinated phenolic compounds, should be explicitly spelled out as a 24-hour composite so the continuation marks for compounds listed below it are correct."

"Change the type of sample for radionuclides from grab to composite [Page E-5, Section E.IV.A]. This conforms to the historical sample type used to determine radioactivity."

“Change the type of sample for bis(2-chloroisopropyl) ether from grab to composite [Page E-6, Section E.IV.A]. This conforms to the sample type of the other related constituents.”

Staff Response 33: Staff agrees these corrections are appropriate. Corrections made as requested.

~~**Comment 34:** “Change the mass-emission goal for total cyanide to 71 kg/yr [Page E-8, Section E.IV.B].~~ The revision is based on the measurement of a detectable cyanide concentration in July 2000. Because of this detection, it is now one of the nine compounds potentially subject to antidegradation analysis should its mass emission increase above the specified limit.

Change the mass-emission goal for benzene to 12 kg/yr [Page E-9, Section E.IV.B]. The revision is based on the measurement of a detectable benzene concentration in July 1999. Because of this detection, it is also one of the nine compounds potentially subject to antidegradation analysis should its mass emission increase above the specified limit.

Change the mass-emission goal for dioxin to 1.48 mg/yr [Page E-10, Section E.IV.B]. This is the correct emission based on the permit limit of 0.52 pg/L.”

Staff Response 34: Staff checked these numbers and found these changes to be appropriate. Note that these are slight increases in the mass emission goals in the Monitoring and Reporting Program, not the Maximum Allowable Daily Mass Emission Rates. These changes do not constitute backsliding. With exception to dioxin, which is discussed extensively above, detections of these pollutants were not effluent violations. These detections have not resulted in any discernable degradation to receiving water quality or beneficial uses.

Comment 35: Elizabeth Leite of Willow Creek, California, submitted the following comments on January 20, 2006:

“My husband and I volunteer as instructors and educators at the Marine Mammal Center housed in the Golden Gate National Seashore. We are retired school teachers and have taken extensive training in order to provide instructional programs to visiting groups and individuals. We have learned a great deal about ocean ecology and understand the necessity of maintaining a healthy oceanic ecosystem for the health of marine mammals, fisheries, and human beings. It is from this frame of reference that I urge you to improve the 9.5 year upgrade timeline now proposed by the Morro Bay/Cayucos sewage treatment plant. This timeline needs to proceed as rapidly as possible and it needs to protect the California sea otter, an endangered species. State and federal clean water laws require this.

“As you probably know, we have a serious tragedy developing on our coast. Agricultural runoff, discharges of stormwater, and the outflow from sewage

treatment plants are affecting the nearshore environment. Our endangered marine mammal, the sea otter, once gaining in numbers, is struggling again on the central coast. Both domoic acid poisoning and toxoplasmosis are affecting this beautiful animal, and its numbers are going down. These catastrophic maladies are increasing as a result of pollution and bacterial contamination from inefficient sewage treatment. Similarly, an epidemic of leptospirosis last year affected California sea lions in record numbers. Sea lions along the north and central coast were infected. The magnitude of the problem suggests that the ocean is in trouble. California Fish and Game has stated this. (Outdoor California, September-October 2003) The evidence is before us.

"The only way to clean up the central coast is to maintain tough pollution standards. Toxins, herbicides, pesticides, fecal bacteria, and many kinds of contaminants threaten human health. They are obviously affecting the health of marine mammals. Marine mammals are sentinels. They are showing us what is wrong. Please insist on a faster, more efficient upgrade for the Morro Bay, Cayucos sewage plant."

Staff Response 35: Please see staff's response to Comment 2 above. There is no evidence that the discharge has adversely impacted the California sea otter.

Comment 36: Kristen Herald of Wooster, Ohio, submitted the following comments on January 17, 2006:

"It is unreasonable to give the Morro Bay/Cayucos sewage treatment plant almost 10 years (10 years!) to update its facilities to no longer be a threat to the California sea otter. The total population of California sea otters statewide is only a mere 2,700, and declining. The otters act as sentinels, showing the health of the ecosystem around them. They are now dying of infections, depleting an already low population in the state of California. The source has been traced to poor water quality due to contaminants from sewage dumped in the bay by the Morro Bay/Cayucos sewage treatment plant. The sewage contains high levels of bacteria, parasites, pathogens, and fecal bacteria as well as many other harmful pollutants that threaten the lives of marine animals such as a variety of shellfish, seals, dolphins, a multitude of fish species and several shorebird and geese populations, not to mention the otter.

"It has been researched and shown that the update of the treatment plant and its facilities could happen as quickly as two and a half years. Not only is it absolutely possible to be carried out and finished in such a short period of time, but it would also cost less!

"Please, do not let this happen. The sooner the updates to the treatment plant are carried out, the better for all involved. The disturbing quality of the water is not only threatening the California sea otter, but other species that inhabit the waters. Allowing the pollution to continue leads to dangers posed not only to marine life,

but also human life and public health, causes degradation of coastal habitats, beach closures, and damage to the local economy.

"I urge you to shorten the period of time given to the sewage treatment plant to upgrade. This has a great effect on helpless animals, and I hope that is taken in to consideration."

Staff Response 36: Please see staff's response to Comment 2 above. There is no evidence that the discharge has adversely impacted the California sea otter.

Comment 37: E. Joy Oakes of Los Angeles, California, submitted the following comments on January 20, 2006:

"Please upgrade the timeline to improve the Morro Bay/Cayucos sewage treatment plant, thus protecting the sea otters, other marine life and Moro Bay's famous estuary. I have cancer with no genetic history of the disease and have to believe that environmental hazards are one of the reasons I am so ill. Please do your part to help our planet, your beautiful city and the people and animals that depend on your concern. Thank you."

Staff Response 37: Please see staff's responses to previous comments.

Comment 38: The City of Morro Bay submitted additional written comments on February 2, 2006, regarding the new collection system requirements proposed in the draft permit. The comments are included verbatim here (without footnotes, for readability's sake):

"Thank you for this opportunity to submit additional comments on the proposed discharge permit for the Morro Bay - Cayucos (MBCSD) Wastewater Treatment Plant. These comments are based on a comprehensive review of the wastewater collection system requirements contained in the proposed WDR's, and reflect the input from City of Morro Bay staff only. The Cayucos Sanitary District staff has indicated that they will be submitting comments on the collection system requirements under a separate comment letter.

"City staff requests that the Wastewater Collection System Requirements (Pages 21-23), as well as the Elements of the Wastewater Collection System Management Plan - (Attachment G), be deleted from the proposed WDR for MBCSD. It is City staffs understanding that the State Water Resources Control Board (SWRCB) is scheduled to adopt Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies (State WDR) in March 2006. The SWRCB will not exclude the City and District from the State WDR on the basis that it's operations are covered by specific NPDES Permit provisions. Strict compliance with both regulatory programs will result in duplication of effort and poor use of limited resources. Therefore, we feel that to include these new requirements in the permit is redundant and unnecessary and will place additional unnecessary burdens on City staff and the staff of the Regional Board.