SUPPORTING DOCUMENT 2

U.S. Environmental Protection Agency
Region IX

California Regional Water Quality Control Board
San Diego Region

Joint Responses to Written Comments Received by January 28, 2009 at 5:00 p.m. and Oral Comments Received during January 21, 2009 Public Hearing

Order No. R9-2009-0001
NPDES No. CA0107409

Waste Discharge Requirements and
National Pollutant Discharge Elimination System Permit
for the City of San Diego E.W. Blom
Point Loma Metropolitan Wastewater Treatment Plant
Discharge to the Pacific Ocean through the
Point Loma Ocean Outfall, San Diego County

Written Comments and Responses:

1. December 5, 2008
   Jim Gilhooly, General public
   Via fax/oppose

Comment:

The commenter opposes approval of the City of San Diego's (City's) 301(h) waiver. The commenter is concerned that the City has received more than one waiver, providing the City with an unfair advantage and allowing it to operate below federal secondary treatment standards. The commenter is concerned that the City's new Methane Gas Processing and Transportation System, planned for 2009, will utilize air-polluting tanker trucks which will degrade already poorly maintained roads and cause safety issues, noise, air, and water pollution to the residents of Point Loma, Cabrillo Recreation Center, and other densely populated areas of San Diego.

The commenter is also concerned that residents and future generations will also end up paying for the City's methane project and any associated United States Environmental Protection Agency (USEPA) fines and litigation expenses as a result of the 301(h) waiver being granted. The commenter states that the methane gas project is subsidized by the California Self Generation Program, Federal Renewal Energy Tax Credits, and the U.S. Department of Defense Climate Change Program. In addition, the contract price of methane gas between the City and the Developer seems to the commenter like a City "welfare program gift" to the Developer.

The commenter suggests that the City look at the City of Los Angeles' system, which incorporates full secondary treatment and produces electrical power to operate the treatment facility using anaerobic digester gas (methane).

Lastly, the commenter believes data submitted by the City as the basis for USEPA's tentative decision is biased and lacks credibility because it is not verified by an independent entity. The commenter is also concerned that enforcement of possible violations at the facility has not been conducted by USEPA.

Response:

The December 2, 2008 Tentative Decision Document (TDD) describes how USEPA has tentatively concluded that the City's 2007 301(h) application for discharge meets the applicable statutory and regulatory requirements to obtain a 301(h) variance from federal secondary treatment standards. The methane gas project is not relevant to the 301(h) variance application and, consequently, was not reviewed by USEPA. For its 2008 review, although USEPA relied on its 1995 and 2002 reviews of modeling and some data analyses, USEPA reanalyzed the bulk of the applicant's raw effluent and receiving water monitoring data collected under the terms of the 301(h) permit. Rather than relying on the applicant's analyses and conclusions, USEPA's own data analyses and reviews provide the basis for its conclusions in the 2008 TDD. Analyzed data were collected by the City in accordance with its existing NPDES permit and USEPA's 301(h) variance application regulations. The City certified, under penalty of law, that the information is true, accurate, and complete. There are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. The City followed appropriate QA/QC procedures during data collection efforts and the Regional Water Quality Control Board (Regional Water Board) and USEPA have no information to suggest that any raw data submitted by the City are incomplete or inaccurate.

The Regional Water Board and USEPA wish to point out that as a major NPDES facility, the Point Loma Wastewater Treatment Plant (WTP) is annually inspected for compliance by the NPDES permitting authority. These inspection reports are available for public review, by appointment, at the San Diego Regional Water Board office.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

2. December 11, 2008
   Jim Gilhooly, General public
   Via fax/oppose

Comment:

The commenter opposes approval of the City's 301(h) waiver, as it is the third waiver in 15 years. The commenter believes the data submitted by the City that provide the basis

for USEPA's tentative decision are biased and designed to achieve the desired waiver. The commenter states that the City's report does not contain any current quantities, rates, or concentrations of chemical, physical, biological or other constituents in the effluent discharge which could be used in comparison to previous data. The commenter states that the report does not contain any comments on the parallel tunnel outfall tie-in and the impact on marine resources through turbidity/sedimentation and intertidal resources. The commenter states that the report does not address corrective actions on past violations, the population growth and resultant volume upsurge from the 15 agencies/cities that use the facility, or the upgrade on the San Ysidro International Wastewater Plant (whose effluent outfall will be down-current from the Point Loma Ocean Outfall). The commenter questions how the waiver can be granted when the effluent discharge from the Point Loma plant does not comply with federal secondary treatment standards and corrective actions on the previous waivers have not been conducted by USEPA.

Response:

For its 2008 review, although USEPA relied on its 1995 and 2002 reviews of modeling and some data analyses, USEPA reanalyzed the bulk of the applicant's raw effluent and receiving water monitoring data collected under the terms of the 301(h) permit. Our review of these data does not suggest any material alterations to conditions that would warrant a complete update to the application. The conditions of the permit monitoring program are specified by USEPA and the Regional Water Board to provide the information needed to evaluate compliance with applicable water quality standards and the 301(h) criteria. The permit also contains a coordinated regional monitoring component which is used to evaluate environmental conditions in coastal areas of the Southern California Bight, from Point Conception to the U.S./Mexico border. Rather than relying on the applicant's analyses and conclusions, USEPA's own data analyses and reviews provide the basis for its conclusions in the 2008 TDD. In the TDD, USEPA has concluded that the Point Loma WTP discharge, in combination with other sources, will not adversely impact public water supplies or interfere with the protection and propagation of a balanced, indigenous population of fish, shellfish and wildlife, and will allow for recreational activities. USEPA is unaware of any "corrective actions" required under either the 1995 or 2002 301(h) variances.

In response to the complaint about the lack of current data in the City's "report", USEPA points out that the data in the City's 301(h) variance application, by necessity, reflects conditions as of the time of application. The City also submits pertinent data in compliance reports to USEPA and the Regional Water Board, in accordance with the existing order/permit. The application and the compliance reports contain current quantities, rates, and concentrations of constituents detected in the effluent discharge.

USEPA believes that comments concerning the tunnel outfall tie-in are not relevant because this was not put forward for evaluation under the application and the focus of USEPA's evaluation under the 301(h) criteria are the impacts of the City's wastewater discharge.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

3. December 19, 2008
   Doug Wilson, General Manager
   Padre Dam Municipal Water District
   Via mail/support

Comment:

The commenter, a participating agency, supports USEPA's tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter strongly feels that the combination of chemically-assisted primary treatment at Point Loma WTP and deep, offshore disposal through the ocean outfall protects public health and the environment in the local area, as indicated by the City of San Diego's comprehensive ocean monitoring program. USEPA approval of the 301(h) variance is urged at the earliest possible date.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

4. December 19, 2008
   Doug Wilson, General Manager
   Padre Dam Municipal Water District
   Via mail/support

Comment:

The commenter, a participating agency, supports USEPA's tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter feels that the combination of chemically-assisted primary treatment of the effluent, deep ocean outfall, and the City of San Diego's exemplary record of compliance with the State Water Resources Control Board Water Quality Control Plan for Ocean Waters of California (California Ocean Plan) over the past 15 years has proven to be protective of local public health and the environment. In addition, the City's comprehensive ocean monitoring, along with scientific analysis, has not indicated any harmful impacts to the ocean environment. The commenter supports the tentative decision because it continues to protect the environment while being fiscally prudent with public resources. The commenter urges USEPA and the Regional Water Board to take the necessary actions to make the decision final at the earliest possible date.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

5. December 22, 2008
   Ernest Ewin, Interim Chair
   Metro Wastewater Joint Powers Authority
   Via mail/support

Comment: See Written Comment #4 and response.

6. December 22, 2008
   Cheryl Cox, Mayor
   City of Chula Vista
   Via mail/support

Comment: See Written Comment #4 and response.

7. December 23, 2008
   Betty Rexford, Councilmember
   City of Poway
   Via mail/support

Comment: See Written Comment #4 and response.

8. December 24, 2008
   Casey Tanaka, Mayor
   City of Coronado
   Via mail/support

Comment: See Written Comment #4 and response.

9. January 2, 2009
   Art Madrid, Mayor
   Ernest Ewin, Councilmember
   City of La Mesa
   Via mail/support

Comment: See Written Comment #3 and response.

10. January 5, 2009
Kathi Henry, City Manager
City of El Cajon
Via mail/support

Comment: See Written Comment #3 and response.

11. January 5, 2009
Chris Zapata, City Manager
City of National City
Via mail/support

Comment: See Written Comment #3 and response.

12. January 5, 2009
Mark Watton, General Manager
Otay Water District
Via mail and email/support

Comment: See Written Comment #4 and response.

13. January 6, 2009
Edward Kimura
Sierra Club, San Diego Chapter
Via email/support

Comment:

The commenter states that the 301(h)-modified permit should include more details on the modification to add disinfection using sodium hypochlorite. Ocean monitoring for bacteria indicators and the schedule for implementing a final design should be presented.

The City should participate in the State-wide “No Drugs Down the Drain” campaign.

The 2008 TDD notes that the method detection limits (MDLs) used for effluent monitoring of aldrin, polychlorinated biphenyls (PCBs), and tetrachlorodibenzo-p-dioxin (TCDD) equivalents need to be lowered to achieve levels in the Code of Federal Regulations at Part 136 (40 CFR 136). Comparison of effluent and sediment data is complicated by different measurement units.

Differences between some of the units of analytical measurements in the 2007 annual report need to be reconciled (e.g., Table 4.4 and Appendix B for PCBs).

Efforts should continue to improve the fate and transport predictions for contaminants from the ocean outfall.

Response:

Based on the 2007 301(h) application, USEPA staff anticipate that the current engineering design for the disinfection system is indeed the final design (TDD, pp. 76-82). However, during the current timeframe, the City is optimizing sodium hypochlorite concentrations in the effluent channel in order to achieve compliance with bacterial indicator water quality objectives in the offshore zone of State waters. The conditions (geographic areas, stations, water depths, and sample frequency) of the bacterial indicator monitoring program are presented in the monitoring and reporting program of the draft permit.

The City is participating in the State-wide "No Drugs Down the Drain" campaign and this type of program has been integrated into the City's public education program. Under the terms of the order/permit, the City must continue to implement its public education program, although the permit does not require participation in the State's campaign.

USEPA has also noted some discrepancies in the analytical units for some data submitted in the City's annual receiving water monitoring reports. USEPA staff has requested the Discharger confirm the correct sample depths and analytical units presented in future annual reports.

USEPA and the Regional Water Board agree that the City should continue to improve their fate and transport predictions for contaminants from the Point Loma Ocean Outfall. To this end, USEPA and the Regional Water Board have incorporated a special studies component into the monitoring and reporting program to address monitoring questions beyond the core monitoring requirements used to evaluate permit compliance and compliance with water quality standards.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

14. January 7, 2009
J. M. Barrett, Director of Public Utilities
City of San Diego
Metropolitan Wastewater Department
Via email/support

Comments:

a. Daily Flow Limit of 240 MGD: The flow limitation established in Requirement III.B (page 12 of Order No. R9-2009-0001) should be revised to note that the 240 mgd flow limit applies under average dry weather conditions Requirement III.B should state:

> *III.B. Discharge through the PLOO from the facility in excess of an average daily dry weather flow of 240 mgd is prohibited.*

Discharge Prohibition III.B of Tentative Order No. R9-2009-0001 carries forward a misstated flow limit set forth in Order No. R9-2002-0025 which inadvertently omitted the words “dry weather” from the 240 mgd PLOO flow requirement. Prohibition A.25 of the original 1995 Point Loma 301(h) NPDES permit (Order No. 95-105) established PLOO flow limits as:

> *25. Discharge through the PLOO from any treatment facility at a 30-day average dry weather flowrate in excess of the design capacity of that treatment facility is prohibited. For purposes of this permit, the design capacity of that treatment facility identified in the findings of this permit, unless the Regional Board Executive Officer (hereinafter Executive Officer) approves a revised design capacity in accordance with this permit.*

The Regional Water Board has previously designated design flows for the Point Loma WTP and Ocean Outfall at 240 mgd (dry weather) and 432 mgd (peak day). Metro System master facilities plans are based on these maximum design flows. Order No. R9-2009-0001 should limit flows through the PLOO and PLWTP to 240 mgd (dry weather) and 432 mgd (peak day).

Response:

The flow limit applies to a monthly, rather than daily, average.

The final order/permit has been changed accordingly.

b. Continuous Chlorine Monitoring: Provision VI.C.6.a of Tentative Order No. R9-2009-0001 would require the City to begin continuous effluent monitoring of chlorine residual within 180 days of the effective date of the permit. This requirement is also specified within Footnote 15 to Table E-3 (page E-14 of the Monitoring and Reporting Program).

The City has contacted vendors of equipment for continuous monitoring of chlorine residual and the vendors have informed the City that continuous monitoring of the PLOO discharge for total chlorine residual may not be currently feasible or implementable. While continuous chorine monitoring is feasible with drinking water or filtered recycled water (which contain near-zero concentrations of total suspended solids), the City to date has not been able to locate any chlorine detection sensors that will reliably operate within the TSS range of the PLOO effluent (which during 2008 averaged a TSS concentration of 35 mg/l). Additional analysis is required to assess chlorine residual analysis equipment and address the feasibility of such continuous chlorine monitoring. To protect the ocean environment and to address the feasibility of continuous chlorine monitoring, the City recommends that Provisions VI.C.6.a of Order No. R9-2009-0001 be revised to the following:

VI.C.6. Other Special Provisions

a. The Discharger shall prepare a study that assesses the feasibility and reliability of implementing continuous effluent monitoring for total chlorine residual. If a feasible and reliable method for continuous chlorine residual monitoring is identified, the study shall present an implementation plan for pilot testing and implementing the continuous chlorine monitoring method. The feasibility study and implementation plan shall be submitted to the Executive Director within 365 days of the effective date of this Order. Until or unless such continuous chlorine monitoring is implemented, to ensure compliance with WQBELs for total chlorine residual, the Discharger shall collect four grab samples per day that are representative of the daily discharge and analyze the grab samples for total chlorine residual. These samples shall be collected at equal time intervals throughout on-site ELAP-accredited laboratory working hours.

Response:

Based on best professional judgment as outlined in the Ocean Plan Reasonable Potential Analysis Procedure (Step 13), USEPA and the Regional Water Board have determined that the operation of effluent disinfection using chlorination at Point Loma WTP constitutes reasonable potential for the effluent discharge to exceed Table B objectives for total chlorine residual and the resulting halogenated organic chemical compounds. Based on this determination, WQBELs for the following constituents are included in the Order: total chlorine residual, phenolic compounds, chlorinated phenolics, chlorodibromomethane, chloroform, 1,4-dichlorobenzene, dichlorobromomethane, dichloromethane (methylene chloride), and halomethanes. In addition, the permit contains a condition requiring continuous compliance monitoring for total chlorine residual.

Within 180 days of the effective date of the permit, continuous monitoring is required. Until that time, in lieu of continuous monitoring, four grab samples per day and a split of each sample shall be concurrently monitored for bacteria indicator levels.

The continuous monitoring requirement is consistent with the State Water Resources Control Board June 2006 Draft Total Residual Chlorine and Chlorine-Produced Oxidants Policy of California.

No changes have been made to the final order/permit in response to this comment.

c. Dioxin Test Method: Footnote 10 to Table E-3 (page E-13 of the Monitoring and Reporting Program) proposes that USEPA Method 1613 be required for analysis of dioxin. In adopting Addendum No. 1 to Order No. R9-2002-0025, the Regional Water Board and USEPA agreed to the City's use of USEPA Method 8280 (GC-ECD/MS detection) for analyzing dioxin. As part of this approval, the City demonstrated that

performance of Method 8280 meets or exceeds the performance of Method 1613 in effluent, and Method 8280 eliminates effluent-related interferences that may cause Method 1613 to register “false positives” for the presence of dioxin isomers.

The City requests that Footnote 10 to Table E-3 be revised to allow use of Method 8280 for the analysis of dioxin, as is currently approved within Addendum No. 1 to Order No. R9-2002-0025.

Response:

USEPA understands that other California NPDES dischargers are using Method 1613 to test for dioxin and that “false positives” have not appeared to be an issue for these monitoring efforts (e.g., State-wide monitoring conducted under the State Implementation Policy, extensive monitoring conducted for dioxin in the San Francisco Bay Area). Subsequent to permit reissuance, the City may request a data-driven review of this issue by the State Water Board’s quality assurance office and USEPA Region 9, as a component of a formal request to use Method 8280 for NPDES compliance monitoring, in lieu of Method 1613. Based on the outcome of such reviews and the resulting new information, USEPA and the Regional Water Board may consider reopening the order/permit for modification to authorize NPDES compliance monitoring using Method 8280.

No changes have been made to the final order/permit in response to this comment.

d. Receiving Water Ammonia Monitoring: Table E-5 of the Monitoring and Reporting Program and page F-47 of the Fact Sheet require that depth profile receiving water samples be collected and analyzed for ammonia. It is the City’s understating that this monitoring is proposed as a means of tracking the wastewater plume once the Point Loma WTP chlorination is fully functional, making receiving water bacteriological monitoring no longer effective for tracking the plume. The City believes further study of the use of this parameter for plume tracking is needed, including its effectiveness, and the frequency and procedures for parameter monitoring. The City believes that it is not possible to comply with the requirement as written, as no probes are presently available for the CTD units to measure this parameter in situ. As a result, the monitoring would require collecting and analyzing a large number of grab samples at discrete depths. If such grab samples are to be required, sampling protocols including depths will need to be established. The City notes that it is preparing to initiate a special study, which will be performed from April 2009 through September 2010, to characterize the Point Loma WTP plume. The results of this study should prove relevant to determining long-term plume monitoring requirements. To address the ammonia monitoring issues and to assess plume tracking, the City requests that Special Provision VI.C.6.b be added that requires the following:

VI.C.6 Other Special Provisions

b. The Discharger shall prepare a feasibility study that assesses behavior of the PLOO wastewater plume and means of tracking the plume. The feasibility study shall present a recommended plan for plume tracking which includes identifying recommended modifications in receiving water sampling parameters, locations, and/or sampling protocols. The feasibility study shall be submitted to the Executive Director within 2 years of the effective date of this Order.

The City recommends that the ammonia monitoring provisions in Table E-5 be modified pending further discussion between the Regional Board, USEPA, and the Discharger.

Response:

USEPA agrees that the monitoring and reporting program condition for ammonium (NH4+) monitoring is incorrect and that receiving water monitoring for ammonium is properly conducted using grab samples collected at discrete water column depths. Samples should be analyzed using EPA Method 350.1B Rev. A. To the north of San Diego, Orange County Sanitation District successfully monitors ammonium (NH4+), together with bacterial indicators, for plume tracking following effluent disinfection and offshore discharge. USEPA and the Regional Water Board also agree that the City's proposed order/permit condition for a plume tracking feasibility study should be added to the final order/permit.

The final order/permit has been changed by adding the City's recommended condition for a plume tracking feasibility study and to correct and revise the water column monitoring conditions for ammonium. The final order/permit requires that ammonium be monitored at "F" and "kelp bed" stations located within State waters, at the discrete water depths and frequencies currently used for sampling bacteria indicators. This new component of the monitoring and reporting program may be re-considered and revised by USEPA and the Regional Water Board based on the results and new information presented in the City's feasibility study to assess the behavior of the Point Loma Ocean Outfall plume.

e. Report Submittal Schedule: Table D-9 (page E-30 of the Monitoring and Reporting Program) proposed that self monitoring reports be submitted within 30 days of the end of specific reporting periods. Such a submittal is simply not physically feasible for a number of the required analyses, particularly analyses that involve offshore monitoring, benthic monitoring, and analysis/evaluation of collected data.

Monitoring and reporting schedules and requirements set forth in the current NPDES permit (Order No. R9-2002-0025) present a clear description of the content of required reports and establish due dates that are feasible. The City recommends that Table E-9 of Order No. R9-2009-0001 be modified in accordance with the current permit reporting schedule (see Table E-9 on p. 4 of comment letter).

Response:

The Regional Water Board believes that a schedule similar to the current permit's self-monitoring report schedule is appropriate for the tentative order/permit, with the exception of the semi-annual pretreatment report (covering the period of July 1 through December 31), as explained in the response to Comment #14 (j), and the annual pretreatment report.

The final order/permit has been changed by retaining a self-monitoring report schedule similar to the current schedule, with the exception of the semi-annual pretreatment report (covering the period of July 1 through December 31) and annual pretreatment report, which shall be submitted no later than March 1.

f. Dioxin Isomers: Footnote 9 to Table 10 (page 19 of the Tentative Order/Permit) reproduces a list of TCDD isomers and toxicity equivalents that is taken from the California Ocean Plan. This list is repeated on page A-6 and in Footnote 10 to Table E-2 (page E-10 of the Monitoring and Reporting Program). The California Ocean Plan nomenclature for TCDD isomers is ambiguous and clarity is required to define TCDD isomers where multiple substitutions are possible (e.g. 2,3,7,8 with "hexa" and "hepta" isomers). To eliminate this ambiguity, the City recommends that Footnote 9 to Table 10 of Order No. R9-2009-0001 (and repeated lists) clarify that the intent of the Order/Permit and the California Ocean Plan is to set forth the following list of TCDD isomers and toxicity equivalence factors:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1
1,2,3,7,8-penta CDD	0.5
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
octa CDF	0.001

Response:

USEPA appreciates the City's recommendation to clarify the 2,3,7,8-TCDD equivalents nomenclature in the California Ocean Plan for the purpose of this order/permit. USEPA recognizes that the pairings of congeners and TEFs put forward by the City for consideration by USEPA reflect the more comprehensive requirement when choosing between the lists of congeners and TEFs in the California Ocean Plan and State Implementation Policy. Consequently, while no changes have been made to the final order/permit, which reflects the provisions of the California Ocean Plan, USEPA and the Regional Water Board believe that the City may report the additional, more comprehensive monitoring results for compliance with the final order/permit.

No changes have been made to the final order/permit in response to this comment.

g. Antidegradation: Special Provision VI.C.2.e (pages 34 and 35 of the Tentative Order) requires the City to submit a Tier II antidegradation study to assess whether mass emissions of phenol result in a "significant" water quality effect. The City will submit the antidegradation study as required under Special Provision VI.C.2.e of the Tentative Order, but the City feels that our NPDES application has already demonstrated compliance with the Tier II "significance" requirement.

As shown in these submitted documents, phenol concentrations at the Zone of Initial Dilution (ZID) boundary are projected to be significantly less than half of the California Ocean Plan receiving water limits. Maximum projected ZID boundary concentrations are presented in Section B.7 of the Large Applicant Questionnaire (Volume III). As presented in Table III.B-22 of the Large Applicant Questionnaire (Volume III, page III.B-31), the maximum observed PLOO total phenol concentration during 2002-2006 was 25.6 µg/l. At an initial dilution of 204:1, this maximum observed 25.6 µg/l total phenol concentration results in a computed total phenol concentration at the ZID boundary of 0.12 µg/l. The 0.12 µg/l total phenol concentration is a tiny fraction of the Ocean Plan daily maximum receiving water standards of 120 µg/l for phenolic compounds and 4 µg/l for chlorinated phenolics. As presented in Table III.B.21 (page III.B.30 of the Large Applicant Questionnaire), the 90th percentile PLWTP phenol concentration during 2002-2006 was 16 µg/l. At an initial dilution of 204:1, this 90th percentile concentration corresponds to a receiving water concentration at the ZID boundary of 0.077 µg/l. This 0.077 µg/l value is a small fraction of the 6-month median Ocean Plan receiving water standards of 30 µg/l for phenolic compounds and 1 µg/l for chlorinated phenolics.

Even if future PLWTP effluent concentration of phenol were to increase commensurate with projected PLOO flow increases, the phenol concentrations at the boundary of the ZID will remain well below half of the Ocean Plan receiving water limits. As shown in Tables III.B-21 and III.B-22 of the Large Applicant Questionnaire (Volume III) and within the Antidegradation Analysis (Volume II), this continued compliance is projected even if 100 percent of the total phenolics in the PLOO discharge were to be converted to chlorinated phenolics.

Response:

USEPA points out that not only must the Point Loma WTP effluent discharge achieve water quality standards at the ZID boundary, as described in the City's comment, but that ZID boundary concentrations need to be evaluated in relation to ambient (farfield) concentrations, as outlined on page 40 of the TDD. USEPA appreciates the City's diligent monitoring and assessment effort toward this meeting this requirement in the final order/permit.

No changes have been made to the final order/permit in response to this comment.

h. Biosolids Monitoring for Ammonia: Special Provision VI.C.5.B.III.a (page 38 of the Tentative Order) would require the City to monitor biosolids for ammonia. This requirement appears to be a typographical error and should be removed. No need for such an analysis exists, and no approved analytical method exists for analyzing ammonia-nitrogen in biosolids.

Response:

Ammonia-N needs be monitored to properly evaluate whether or not land applications of biosolids are occurring at the proper agronomic rates. While USEPA notes that no NPDES-approved analytical method exists for this analysis, compliance monitoring can be conducted using methods found in Standard Methods for the Examination of Water and Wastewater (e.g., some of the procedures under Method 4500), Methods of Soil Analysis (e.g., some of the methods in Chapter 33); and Plant, Soil, and Water Reference Methods for the Western Region. The potassium chloride extraction method in Methods of Soil Analysis is often recommended for NH4+ and NO3- analysis in biosolids.

No changes have been made to the final order/permit in response to this comment.

i. Dilution Ranges for Bacteriological Analyses: Compliance Determination VII.I.2.e.ii (page 51 of the Tentative Order) requires dilutions for bacteriological analyses to result in a range of values from 2 to 16,000 CFU. The City requests that this section be revised to reflect the City's laboratory historical ranges for bacteriological analyses:

- 2 to 16,000/100ml CFU for total coliforms,
- 2 to 12,000/100ml CFU for fecal coliforms,
- 2 to 12,000/100ml CFU for enterococci.

These ranges are based on standard dilution volumes of 0.5, 5.0, and 50 ml, and the acceptable plate count range for the Membrane Filtration (MF) method specified in *Standard Methods for the Analysis of Water and Wastewater*. Per Standard Methods, the acceptable plate count ranges are different for total coliforms (20 to 80 CFU) than for fecal coliforms and enterococci (20 to 60 CFU) and applying the highest dilution and highest acceptable plate counts will provide the highest reportable results:

Dilution	Maximum Acceptable Plate Count	Factor	Reportable Count (CFU/100ml)
0.5	80	200	16,000 (80x200)
0.5	60	200	12,000 (60x200)

Because the MF technique has a method limitation of 60 CFU for a countable plate for fecal coliforms and enterococci, it is not possible for a decimal dilution series to produce an upper limit of 16,000 CFU/100ml. To cover the 16,000 CFU/100ml range for fecal coliforms and enterococci, it would be necessary to use a decimal dilution that would yield a result above the 16,000 CFU/100ml. The drawback to this is that more error is introduced when the dilution series is expanded by using higher dilutions.

The California Ocean Plan requirement for a range of 2 to 16,000 CFU/100ml is likely an inadvertent holdover from the old MTF (Multiple Tube Fermentation) method based on the MPN (Most Probably Number) table used for estimating total and fecal coliform densities. Under the old MTF method, a 5-5-5 combination serial dilution yields a range of less than 2 to greater than 1,600 MPN/100ml using base dilutions of 10ml, 1.0ml and 0.1ml. By using a higher dilution series, countable plates will yield bacterial densities to 16,000 MPN/100ml using the base range integers of the MPN table (see Table 9221:IV, Standard Methods).

Increasing the required fecal coliform and enterococci ranges to 16,000 CFU/100ml provides no practical or regulatory benefit compared to the existing range of 12,000 CFU/100ml. Historical receiving water counts are typically low, (except when influenced by coastal runoff), and action level benchmarks in the Ocean Plan are more than two orders of magnitude below the currently achieved 12,000 CFU/100ml range. In addition, any seawater sample with a total coliform concentration ≥1000 CFU/100ml and a fecal:total ratio ≥0.1 is considered representative of contaminated waters and is used as an indicator of the PLOO waste field or other source of bacterial contamination, and the total coliform resampling limit of 10,000 CFU/100ml is more conservative than the currently achieved range of 12,000 CFU/100ml for fecal coliforms and enterococci.

Response:

Based on the required method-specific dilution series, USEPA and the Regional Water Board agree with the City and has revised the final order/permit in accordance with the City's recommendations for reportable counts. This change continues to allow USEPA and the Regional Water Board to evaluated compliance with bacteria indicator water quality standards.

j. Semiannual SIU Compliance Report: Special Provision VI.C.5.c.vi (page 46) requires semiannual SIU noncompliance status reports to be submitted by March 1 and September 1 of each year. Due to data availability limitations, the City requests that due dates for the semiannual SIU noncompliance reports be revised to April 1 and September 1.

Response:

March 1 is the standard pretreatment reporting deadline chosen by USEPA Region 9 for NPDES dischargers with pretreatment programs in the Region. It would be unfair for USEPA to relax this deadline for San Diego, but not for other dischargers with pretreatment programs.

No changes have been made to the final order/permit in response to this comment.

k. PCBs: Tentative Order No. R9-2009-0001 (page A-5) restates the California Ocean Plan definition of PCBs which refers to Aroclors. It should be noted that the City's current required monitoring for sediment and fish tissues determines PCBs as congeners, whereas Aroclors are measured for influent and effluent samples. It would be preferable to the City to make all required determinations for PCBs as congeners.

Response:

USEPA agrees that it would be helpful for PCBs in wastewater to be measured as congeners, rather than the arochlors, in order to better understand receiving water monitoring data for PCBs which are reported as congeners, in accordance with recommendations by the National Oceanic and Atmospheric Administration (NOAA). Although wastewater PCBs must continue to be measured and reported as arochlors so that compliance with California Ocean Plan objectives may continue, USEPA and the Regional Water Board would support a decision by the City to also monitor and report wastewater PCBs as congeners to facilitate assessment of the impact of the Point Loma WTP discharge on sediment and fish.

No changes have been made to the final order/permit in response to this comment.

l. Attachment B: If desired, the City can provide the Regional Board with a better quality bathymetric map of the PLOO area.

Response:

A better quality bathymetric map of the PLOO area has been provided by the City and is included in the final order/permit.

m. Location of "F" Stations: Table E-1 (page E-4 of the Monitoring and Reporting Program) provides a list of the various monitoring station locations. In 2003, the Regional Board approved modifications to the coordinates for the 36 new offshore "F" stations in order to align the stations along the 18m, 60m, 80m and 98m depth contours. The coordinates for the F stations presented in Table E-1 are the original nominal station locations listed in Addendum 1 to Order No. R9-2002-0025 and do not reflect the revised station locations. If desired, the City can forward an electronic file to the Regional Board that identifies the exact locations of the currently-approved "F" stations.

Response:

The coordinates of “F” stations have been corrected in the final order/permit, to reflect those approved by the Regional Water Board and USEPA in 2003.

n. Emergency Connection Sampling: Table E-2 (page E-7 of the Monitoring and Reporting Program) requires that flows discharged to the Metro System from the Tijuana emergency connection be monitored on a daily basis for: BOD, total dissolved solids, total suspended solids, volatile suspended solids, oil and grease, floatable particulates, settleable solids, turbidity, and pH. The City requests that Table E-2 be modified to require weekly monitoring of these constituents only at times when flow is present.

Response:

The Regional Water Board agrees that weekly monitoring of these constituents at times when flow is present is adequate. Table E-2 of the Monitoring and Reporting Program has been updated accordingly.

o. Chromium III Monitoring: Footnote 2 to Table E-2 (page E-8 of the Monitoring and Reporting Program) allows total chromium monitoring to be used for purposes of assessing compliance with Chromium VI. Footnote 2 should also be applied to Chromium III within Table E-2 on E-8. Similarly, Footnote 2 should be applied to Chromium III within Table E-3 on page E-10.

Response:

The City’s request is consistent with the requirements of the California Ocean Plan and USEPA and the Regional Water Board have revised the final order/permit to be consistent with the California Ocean Plan Table B monitoring requirement for Chromium III.

p. Chronic Toxicity Screening: Chronic Toxicity Testing Requirement V.A.1 (page E-14) requires annual screening to determine the most sensitive species, and requires continued sampling of the most sensitive species. Further, re-screening is required at different times each calendar year. As currently written, Chronic Toxicity Testing Requirement V.A.1 would periodically entail re-screening events during consecutive semi-annual cycles. Such consecutive re-screening would not provide an opportunity to make use of the ‘selected’ most sensitive species from the prior screening. The City recommends retaining the chronic toxicity screening approach set forth in Order No. R9-2002-0025 where biennial screening occurs and three screening tests are performed if the first screening test indicates that a different species is most sensitive.

Response:

USEPA and the Regional Water Board agree that the chronic toxicity screening condition in Order No. R9-2002-0025 is adequate and has replaced the proposed condition requiring annual screening with the following condition, in the final order/permit:

"The Discharger shall conduct monthly chronic toxicity tests on 24-hour composite effluent samples. For the initial three suites of chronic toxicity tests, the Discharger shall split a 24-hour composite effluent sample and concurrently conduct toxicity tests using a fish, an invertebrate, and an alga species. After the initial screening period, the Discharger shall conduct routine monthly toxicity testing using the most sensitive species. Every other year, the Discharger shall re-screen at a different time from the prior years. Re-screening can be limited to one month, if results are the same as the previous three-month screening. However, if results of the re-screening are different, then the Discharger shall conduct two additional months of re-screening to determine the most sensitive species and then conduct routine monthly toxicity testing using the most sensitive species."

q. Split Samples for Bacteriological Contaminants: Footnote 15 to Table E-3 (page E-14 of the Monitoring and Reporting Program) requires split samples for total chlorine residual and bacteriological parameters. As noted above, this requirement should be modified to reflect the fact that continuous chlorine residual monitoring may not be feasible. Until continuous sampling can be demonstrated to be feasible and reliable, the City proposes to collect four samples per day for analysis of total chlorine residual. The requirement for splitting samples for concurrent analysis of effluent bacteriological concentrations is unnecessary for assessing compliance, and should be deleted.

It should be noted that, as part of its pilot project chlorination program, the City is collecting split samples for chlorine residual and bacteriological parameters for research purposes in assessing the effectiveness of pilot chlorination facilities and operations. No need exists for incorporating this research-related temporary split sample monitoring into the NPDES permit as a permanent requirement. The Tentative Order already provides for substantial receiving water bacteriological analyses for purposes of assessing Ocean Plan compliance–requiring four effluent samples per day for each bacteriological parameter is unnecessary and is not useful for assessing compliance.

Response:

See response to Comment #14 (b).

r. Chronic Toxicity Testing pH Drift: Chronic Toxicity Testing Requirement V.A.3.j sets forth testing requirements for assessing chronic toxicity effects due to pH drift. It is unlikely that ammonia and pH drift will affect chronic toxicity testing at a 204:1 initial dilution. Such ammonia and pH drift, however, may affect acute toxicity testing (Section V.B). The City recommends that the ammonia and pH drift requirements set forth in

Chronic Toxicity Testing Requirement V.A.3.j be deleted, but that similar ammonia and pH drift requirements be added to Acute Toxicity Testing Requirement V.B.3.j (page E-20).

Response:

USEPA and the Regional Water Board believe that the City's recommendation is consistent with the intent of the requirement in the draft order/permit. USEPA and the Regional Water Board have revised the final order/permit to be consistent with the City's request.

s. Chronic Toxicity Testing: Chronic Toxicity Testing Requirement V.A.4 (page E-17) requires reporting TU_C using both NOEC and LC25. Elsewhere in the tentative permit, TU_C compliance is determined on the basis of NOEC only. Reporting two TUc values may cause inconsistent interpretation of compliance with effluent limitation. To avoid the potential for misinterpretation, the City recommends that TUc be reported as (100/NOEC) and that LC25 be reported in its original form.

Response:

USEPA and the Regional Water Board believe that the City's recommendation is consistent with the intent of the requirement in the draft order/permit. USEPA and the Regional Water Board have revised the final order/permit to be consistent with the City's request; however, the term "LC25" in the City's request has been revised to the term "EC25 (or IC25)" as stated in the draft order/permit.

t. Acute Toxicity Screening: Acute Toxicity Testing Requirement V.B.1 (page E-18) requires annual screening to determine the most sensitive species, and requires continued sampling of the most sensitive species. Further, re-screening is required at different times each calendar year. As currently written, Acute Toxicity Testing Requirement V.B.1 would periodically entail re-screening events during consecutive semi-annual cycles. Such consecutive re-screening would not provide an opportunity to make use of the 'selected' most sensitive species from the prior screening. The City recommends retaining the biennial acute toxicity screening approach set forth in Order No. R9-2002-0025. The City also recommends using results from three screening events if the first screening test indicates that a different species is most sensitive.

Response:

USEPA and the Regional Water Board agree that the acute toxicity screening condition in Order No. R9-2002-0025 is adequate and has replaced the proposed condition requiring annual screening with the following condition, in the final order/permit:

"The Discharger shall conduct semi-annual acute toxicity tests on 24-hour composite effluent samples. For the initial three suites of acute toxicity tests, the Discharger shall split a 24-hour composite effluent sample and concurrently conduct toxicity tests using a

fish and an invertebrate. After the initial screening period, the Discharger shall conduct routine semi-annual toxicity testing using the most sensitive species. Every other year, the Discharger shall re-screen at a different time from the prior years. Re-screening can be limited to one month, if results are the same as the previous three-month screening. However, if results of the re-screening are different, then the Discharger shall conduct two additional months of re-screening to determine the most sensitive species and then conduct routine semi-annual toxicity testing using the most sensitive species."

u. Offshore Sediment Monitoring: Offshore sediment monitoring provisions are set forth in Core Monitoring Requirement VIII.A.3 (page E-25 of the Monitoring and Reporting Program). In the first paragraph on page E-25 the requirement states that organisms should be fixed in 15% formalin and then transferred to 70%. The City suggests the following modification as the most appropriate procedure:

The benthic organisms retained on the sieve shall be fixed in 10 percent buffered formalin and transferred to at least 70 percent ethanol within two to seven days for storage.

Response:

USEPA and the Regional Water Board agree and the final order/permit has been revised to be consistent with the City's request.

Also, in the second paragraph on page E-25 it states that: "The following parameters shall be summarized by station." It is appropriate to calculate these parameters by sample (grab) and then summarize them by station. The City recommends that this sentence be revised to read:

The following parameters shall be calculated for each grab sample and summarized by station as appropriate.

Response:

USEPA and the Regional Water Board agree and the final order/permit has been revised to be consistent with the City's request.

Following the above paragraph on page E-25, eight benthic community parameters are listed, including average number of species (species richness) per 0.1 m^2, total number of species per station, total numerical abundance, infaunal trophic index (ITI), benthic response index (BRI), Swartz' 75% dominance index, Shannon-Weiner's diversity index (H'), and Pileou's evenness. The City recommends deleting the ITI requirement, as the ITI is no longer considered a valuable index for community assessment. This change would be consistent with a similar modification to the recently issued Monitoring and

Reporting Program for the South Bay Water Reclamation Plant (SBWRP: Order No. R9-2006-0067, NPDES No. CA0109045).

The City requests that this list of benthic community parameters be clarified as follows:

a. *Number of species per 0.1m^2 (species richness)*
b. *Total (cumulative) number of species per station*
c. *Total numerical abundance*
d. *Benthic response index (BRI)*
e. *Swartz's 75% dominance index*
f. *Shannon's diversity index (H')*
g. *Pileou's evenness index (J')*

Response:

USEPA and the Regional Water Board agree and the final order/permit has been revised to be consistent with the City's request.

v. Fish Tissue Monitoring: The City recommends that the following three paragraphs be substituted for the three-paragraph tissue analysis section under Receiving Water Requirement VIII.A.4 to clarify several potential ambiguities:

Chemical analyses of fish tissues shall be performed annually on target species collected at or near the trawl and rig fishing stations. The various stations are classified into zones for the purpose of collecting sufficient numbers of fish for tissue analyses. Trawl Zone 1 represents the near-field zone, defined as the area within a 1-km radius of stations SD-010 and/or SD-012; Trawl Zone 2 is considered the northern far-field zone, defined as the area within a 1-km radius of stations SD-013 and/or SD-014; Trawl Zone 3 represents the LA-5 disposal site zone, and is defined as the area centered within a 1-km radius of station SD-008; Trawl Zone 4 is considered the southern far-field zone, and is defined as the area centered within a 1-km radius of station SD-007. Rig Fishing Zone 1 is the near-field area centered within a 1-km radius of station RF-001; Rig Fishing Zone 2 is considered the far-field area centered within a 1-km radius of station RF-002. There are no depth requirements for these six zones with regards to the collection of fishes for tissue analysis.

Liver tissues shall be analyzed annually (i.e., during October) from fishes collected in each of the above four trawl zones. No more than a maximum of five 10-minute (bottom time) trawls shall be required per zone in order to acquire sufficient numbers of fish for composite samples; these trawls may occur anywhere within a defined zone. Three replicate composite samples shall be prepared from each trawl zone, with each composite consisting of tissues from at least three individual fish of the same species. These liver tissue samples shall be analyzed for the presence and concentrations of lipids, PCBs (congeners), chlorinated pesticides, and the following three metals: mercury, arsenic and selenium. The species of fish targeted for tissue analysis from the trawl zones shall be primarily flatfish, including, but not limited to, the Pacific sanddab

(Citharichthys sordidus) and longfin sanddab (Citharichthys xanthostigma). If sufficient numbers of these primary species are not present in a particular zone (i.e., cannot be collected during five trawls), secondary target species such as other flatfish or rockfish captured in these trawls may be used as necessary.

Muscle tissues shall be analyzed annually (i.e., during October) from fishes collected in each of the above two rig fishing zones in order to monitor the uptake of pollutants in species and tissues that are consumed by humans. These species shall be representative of those caught by recreational and/or commercial fishery activities in the region. All fish shall be collected by hook and line or by setting baited lines or traps within the two rig fishing zones described above. The species targeted for analysis in these zones shall be primarily rockfish, which may include, but are not limited to, the vermilion rockfish (Sebastes miniatus) and the copper rockfish (Sebastes caurinus). If sufficient numbers of these primary species are not present or cannot be caught in a particular zone, secondary target species such as other rockfish or scorpionfish may be collected and analyzed as necessary. Three replicate composite samples of the target species shall be obtained from each zone, with each composite consisting of a minimum of three individual fish. Muscle tissues shall be removed from the composite samples and analyzed for the presence and concentrations of lipids, PCBs (congeners), chlorinated pesticides, and the following nine metals: arsenic, cadmium, chromium, copper, lead, mercury, selenium, tin and zinc.

Response:

USEPA and the Regional Water Board agree and the final order/permit has been revised to be consistent with the City's request.

w. Strategic Process Studies: Because of the adaptive nature of special projects, or the need or opportunity to begin new projects mid-year, modifications to the proposed project approval procedures may be necessary from time to time in order to conduct the most efficient and scientifically sound studies. To accommodate such needs, the City recommends that the following sentence be added to VIII.B Strategic Process Studies:

Modifications to the above schedule in order to address the adaptive nature of strategic process studies may be approved if agreed upon by the Executive Officer, USEPA and the Discharger.

Response:

USEPA and the Regional Water Board believe that the existing order/permit condition, incorporated into the draft order/permit is sufficient to accommodate the adaptive nature of the City's strategic process studies.

No changes have been made to the final order/permit in response to this comment.

x. SMR Submittals: Reporting Requirement IX.B.1 (page E-30 of the Monitoring and Reporting Program) requires Self Monitoring Reports (SMRs) to be submitted in hard copy. The City recommends that this requirement be modified to allow the City to submit the SMRs in "pdf" electronic format if so directed by the Executive Officer.

Response:

The SMR reporting condition in the draft order/permit has been modified to allow for hard copies or electronic copies accompanied by a hard copy signed penalty of perjury statement.

y. DMR Submittal Forms: Reporting Requirement IX.C.3 (page E-33 of the Monitoring and Reporting Program) requires Discharger Monitoring Reports (DMRs) to be submitted on "forms that follow the exact same format as USEPA Form 3320-1".

Discharger monitoring result forms currently required by the State Board are similar to but do not follow the "exact same format" as Form 3320-1. The City recommends that Reporting Requirement IX.C.3 be reworded to require DMR formats acceptable to the State Board and Regional Board.

Response:

The DMR reporting condition in the draft order/permit is consistent with State Water Board and USEPA language for NPDES reporting in the California Ocean Plan permit template.

No changes have been made to the final order/permit in response to this comment.

z. Applicability of OPRA: The City continues to comply with the provisions of the 1994 Ocean Pollution Reduction Act (OPRA). For the record, however, the City disagrees with the assertion that the requirements of the 1994 Ocean Pollution Reduction Act (OPRA) apply to the renewal of Order No. R9-2002-0025. The City recognizes and appreciates that the tentative decision is issued without prejudice to the City to contest the applicability of OPRA in any future NPDES permit, as indicated in the memorandum dated December 2, 2008 by Wayne Nastri, issuing the tentative decision.

Response:

For the record, although USEPA is issuing the final decision regarding the City's 301(h) variance and 301(h)-modified NPDES permit without prejudice to the City to contest the applicability of OPRA in any future NPDES permit, USEPA disagrees with the City's assertion that the requirements of the 1994 Ocean Pollution Reduction Act do not apply to the renewal of the City's 301(h)-modified NPDES permit.

No changes have been made to the final order/permit in response to this comment

aa. Additional Minor Corrections and Typographical Errors: The City requests that the final order/permit be revised to address the minor corrections and typographical errors listed on pages 13 and 14 of the commenter's letter (Comments on Tentative Order No. R9-2009-0001, January 7, 2009).

Response:

In response to this comment, USEPA and the Regional Water Board have made the requested changes (minor corrections and typographical errors) to the final order/permit.

15. January 8, 2009
James C. Janney, Mayor
City of Imperial Beach
Via mail, fax, and email/support

Comment: See Written Comment #3 and response.

16. January 15, 2009
Mary Teresa Sessom, Mayor
City of Lemon Grove
Via mail/support

Comment: See Written Comment #3 and response.

17. January 16, 2009
Dianne Jacob, Chairwoman, Second District
San Diego County Board of Supervisors
Via mail/support

Comment: See Written Comment #3 and response.

18. January 21, 2009
Crystal Crawford, Mayor
City of Del Mar
Via mail/support

Comment: See Written Comment #4 and response.

19. January 25, 2009
Gus Ayer, General public
Fountain Valley, CA
Via email/oppose

Comment:

The commenter is requesting denial of the City's 301(h) waiver request and states that San Diego should be required to treat their sewage to full secondary standards. The commenter describes how San Diego has employed many scientific studies purporting to show the safety of their sewage discharge. However, on close examination, their studies show a shift of the organisms living near the outfall to species that tolerate pollution, with a decrease of species sensitive to pollution. The City tries to explain this away by saying that the ocean near the outfall has more "organic enrichment". Of course, "organic enrichment" can be viewed as a term for "partially treated sewage". This shift very nearly reaches the threshold determined by USEPA to indicate lower biodiversity in the ocean. This is not acceptable; it is not responsible. Moreover, the City has so much bacteria in their sewage outfall that they have to add bleach to disinfect the sewage before releasing it into the ocean, in order to protect swimmers and divers. The commenter says that the City should upgrade its treatment to full secondary standards which is also a step towards full recovery and recycling of wastewater.

Response:

The shift of benthic megafaunal organisms living near the terminus of the Point Loma Ocean Outfall that is described by the commenter was analyzed and reviewed by USEPA on pages 56 through 64 of the TDD. The responses observed in the benthic macrofauna community appear related to both the quality and volume of the ocean outfall discharge and suggest that a moderate level of organic enrichment is occurring near the outfall diffuser.

However, a moderate degree of organic enrichment, in and of itself, does not preclude the maintenance of a balanced, indigenous population of shellfish, fish and wildlife. USEPA's analysis of the benthic communities in the vicinity of the outfall indicates that, while impacts from the outfall on species composition and relative abundances can be detected, these impacts are within a reasonable range of variation (see San Diego regional survey results). USEPA, at this time, does not see material changes that would suggest adverse impacts to pollution-sensitive species or undue enhancement indicated by pollution-tolerant species. In addition, USEPA's review of sediment toxics data (TDD, pp. 46-53) does not suggest that these changes are due to the effects of toxics discharged from the outfall. Consequently, USEPA has concluded that conditions beyond the zone of initial dilution are not degraded and that the proposed improved discharge is in compliance with California Ocean Plan water quality standards and meets the 301(h) criteria.

In undisinfected advanced primary and secondary effluents indicator organisms for pathogens are usually present at levels which do not achieve water quality standards for water contact recreation. Based on information provided in the 2007 301(h) application, USEPA believes that when Point Loma WTP's disinfected plume drifts into State waters, California Ocean Plan water quality standards for the designated water contact recreational use will be met at all water depths.

USEPA and the Regional Water Board agree that the City should plan for and implement programs that will achieve more reclamation and reuse of its treated effluent (TDD, pp. 26-28).

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

20. January 25, 2009
Mary Jo Baretich, President
Cabrillo Wetlands Conservancy
Via email/oppose

Comment: See Written Comment #19 and response.

21. January 25, 2009
Elliot Gordon, General public
Irvine, CA
Via email/oppose

Comment: See Written Comment #19 and response.

22. January 25, 2009
Eileen Murphy, General public
Huntington Beach, CA
Via email/oppose

Comment: See Written Comment #19 and response.

23. January 25, 2009
Jeff Stevens, General public
Newport Beach, CA
Via email/oppose

Comment: See Written Comment #19 and response.

24. January 25, 2009
Kathleen Stiven, General public
Cardiff, CA
Via email/oppose

Comment: See Written Comment #19 and response.

25. January 25, 2009
Jan D. Vandersloot, Director
Ocean Outfall Group

Via email/oppose

Comment: See Written Comment #19 and response.

26. January 25, 2009
Tiffany Vandersloot, General public
Laguna Niguel, CA
Via email/oppose

Comment: See Written Comment #19 and response.

27. January 26, 2009
Kristine Breese, General public
Via email/oppose

Comment:

The commenter request that the City's 301(h) waiver be denied because they do not want their kids in a dirty ocean and to not think marine life should suffer.

Response:

USEPA believes that the 3.9 nautical mile offshore discharge of treated effluent proposed in the City's 301(h) application will achieve California Ocean Plan water quality standards for water contact recreation at a distance 3 nautical miles offshore, as the drifting Point Loma plume enters offshore zone State waters. USEPA's review of effluent, receiving water quality, and biological data indicates that advanced primary treatment and effluent disinfection practices employed by the City at Point Loma WTP will assure that a balanced indigenous population of shellfish, fish and wildlife is protected (TDD pp. 16 (Stratification), 76-81).

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

28. January 26, 2009
Nancy M. Donaven, General public
Huntington Beach, CA
Via email/oppose

Comment:

The commenter communicates that cleaning up the ocean environment on the California coast is important to the ocean's future health. The commenter states that people worry about water supply in San Diego, but still drain possibly reclaimable water to the ocean and that Orange County has developed a groundwater replenishment program which reuses water from the sanitation district. The commenter concludes that

San Diego should be doing something similar to Orange County, rather than polluting the ocean and depending on an equally destructive desalination project.

Response:

While USEPA has determined that the Point Loma WTP discharge meets the statutory and regulatory requirements of Clean Water Act sections 301(h) and 301(j) and implementing regulations, USEPA and the Regional Water Board agree that the City should plan for and implement programs that will achieve more reclamation and reuse of its treated effluent (TDD, pp. 26-28).

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

29. January 26, 2009
Doug Korthof, General public
Seal Beach, CA
Via email/oppose

Comment:

The commenter opposes the City's 301(h) waiver request and urges USEPA to adopt a no-waiver policy for populations greater than 100,000, or wastewater volumes more than 10 mgd. The commenter states that scientists and concerned officials agree it is difficult to quantify effluent flow and its effects on the nearshore ocean. The commenter states that although the City's ocean studies are impressive, the relevant standard is based on secondary treatment. The commenter points out that sewage treated to the secondary standard contains viable viruses and protozoans, including the organisms causing toxoplasmosis which can harm exposed mammals, including humans, swimming in the ocean. The commenter points out that San Diego needs time to upgrade its system to full secondary treatment and devise strategies to recycle its wastewater. The commenter advocates that the best remedy for solving this problem is denial of the waiver and a settlement agreement and plan for compliance such that open-ended waivers are no longer needed by the City.

Response:

There is no basis in the Clean Water Act and its implementing regulations for establishing a population or flow cut-off concerning which communities may be eligible for a 301(h)-modified permit. USEPA has determined that the Point Loma WTP discharge meets the statutory and regulatory requirements of Clean Water Act sections 301(h) and 301(j) and implementing regulations. The commenter's concerns regarding toxoplamosis (an infection common to many warm-blooded mammals) have not been borne in any water quality data or data regarding the health of humans or marine mammals in the San Diego area. While much of the science regarding toxoplasmosis is unsettled, a number of studies have hypothesized that the protozoa *T. gondii*, which is

present in cat litter, could have adverse impacts on marine mammals exposed to sewage discharges. There is no evidence to suggest that the discharge from Point Loma WTP has caused or contributed to toxoplasmosis in any receptor (human or otherwise) in the vicinity of Point Loma. Therefore, we have no basis for concluding that this issue warrants denial of the 301(h) application. Moreover, the State of California has recently banned "flushable" cat litter and this is expected to dramatically reduce the presence of *T.gondii* in wastewater discharges, generally. In addition, since the wastefield is not present in the beach or nearshore areas, casual recreational users are not generally exposed to any constituents in the Point Loma WTP discharge. Finally, it should be noted that there is no evidence to suggest that secondary treatment will materially affect discharges of *T.gondii*. With the operation of effluent disinfection, bacterial indicator water quality objectives in the California Ocean Plan, protecting water contact recreation, will be met where the Point Loma outfall plume drifts into offshore zone State waters. USEPA and the Regional Water Board agree that the City should plan for and implement programs that will achieve more reclamation and reuse of its treated effluent (TDD, pp. 26-28).

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

30. January 28, 2009
Rebecca Swan, General public
Via email/oppose

Comment:

The commenter opposes the City's 301(h) waiver request and states that scientists and concerned officials agree it is difficult to quantify effluent flow and its effects on the nearshore ocean. The commenter points out that San Diego needs time to upgrade its system to full secondary treatment and devise strategies to recycle its wastewater. The commenter advocates that the best remedy for solving this problem is denial of the waiver and a settlement agreement and plan for compliance such that open-ended waivers are no longer needed by the City.

Response: See Written Comment #29 and response.

31. January 27, 2009
Judith M. Gielow, General public
Costa Mesa, CA
Via email/oppose

Comment:

The commenter requests the denial of the City's 301(h) waiver, stating that the application of secondary treatment can alleviate the concerns of citizens who fear the water is being made unhealthy for water recreation. The commenter states that San

Diego should join California's coastal communities committed to secondary treatment standards.

Response: See Written Comment #29 and response.

32. January 28, 2009
Doug Korthof, General public
Via email/oppose

Comment:

The commenter points out that sewage treated to the secondary standard contains viable viruses, worms, bacteria, etc. The commenter states that one problem with sewage discharges is a disease called "toxoplasmosis" which can infect and harm exposed mammals, including humans and sea otters swimming in the ocean. The commenter asserts that San Diego and other places generating massive sewage outflows may be doing more harm than good by discharging, a few miles offshore, treated sewage containing these organisms where they are dispersed and can come back to the beach.

Response:

USEPA believes there is no evidence to suggest that the Point Loma Ocean Outfall plume reaches beaches in the San Diego area (TDD, pp. 16, 76-82). See also Written Comment 29 and response.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

33. January 28, 2009
Larry Porter, General public
Newport Beach, CA
Via email/oppose

Comment:

The commenter is requesting denial of the City of San Diego's 301(h) waiver request and that San Diego should be required to treat their sewage to full secondary standards. The commenter says that the City should not be allowed to "trade" a two million dollar study for more reclaimed water use for the "'waiver' for waste".

Response:

As described in the 2008 TDD, USEPA believes that the City's 2007 301(h) variance application meets the applicable statutory and regulatory criteria necessary to receive a 301(h)-modified NPDES permit. The reclamation/reuse study mentioned by the

commenter was not considered by USEPA when making its determination whether or not to grant the City's 301(h) variance.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

34. January 28, 2009
Don Schulz, Member
Surfrider Foundation, Huntington Beach/Seal Beach Chapter
Via email (received January 28, 2009) and mail (received February 4, 2009)/oppose

Comment: See Written Comment #19 and response.

35. January 28, 2009
Michelle Mehta
David Beckman
Mark Gold,
NRDC/Heal the Bay
Via email/oppose

Comment:

NRDC and Heal the Bay oppose reissuance of a 301(h) waiver for the Point Loma WTP. Commenters state that the USEPA policy allowing discharge of minimally-treated sewage to the ocean is unjustified and unacceptable. The commenters state that the WTP fails to comply with 40 CFR 125.63 and present three reports (Scripps Institute of Oceanography, "Point Loma Outfall Project", September 2004; Engle, D. and Largier, J., "Assessment of Coastal Water Resources and Watershed Conditions at Cabrillo National Monument, California", August 2006; and Environment and Sustainability Initiative, University of California, San Diego, "Final Report: Point Loma Outfall Review", October 1, 2007), as evidence that the 301(h) monitoring program is inadequate to demonstrate compliance with 40 CFR 125.62.

a. 2004 Report: The commenters cite the inadequacies from the 2004 report, as follows:
"The City does not adequately monitor or understand the physical circulation of the coastal waters relevant to the Point Loma Ocean Outfall in terms of spatial and temporal variability and synoptic patterns (e.g., seasonal variability or in response to episodic events), or the geographic extent of the 'receiving waters'."

"The location, movement, and dispersal of the plume from the outfall is also inadequately monitored and understood."

"Because of the lack of knowledge of the plume's location, its impact on the planktonic community is unclear. The spatial and temporal resolution, and the types of

measurements currently made are inadequate to quantify the effects of chronic nutrient loading on the plankton relative to natural nutrient sources and other anthropogenic sources."

"Understanding the impact of the outfall on the benthic environment requires modification of the existing monitoring program, primarily to provide more appropriate control stations. Currently the control sites, because they are substantially different in the character of their sediments from the other monitoring sites, and because they may be contaminated from sources other than Point Loma, do not provide a basis for evaluating benthic impacts with confidence."

"Present monitoring does not include integration of littoral transport cells. Therefore, it is possible that contaminated sediments are accumulating downslope from the shelf, and because this area is not monitored, there is presently no way to know if the effects of the PLOO or other sources of contaminants are accumulating in these areas."

The commenters further describe that the 2004 report states the City was considering an increase in the plant's daily discharge from 175 mgd to 240 mgd and that a major conclusion of the 2004 report was there is currently insufficient information to determine how the projected increase in the discharge at Point Loma would affect water quality. The commenters state: "Although it does not appear that the Plant made changes to its monitoring program in light of the 2004 report findings by Scripps, the Plant has in fact increased its daily discharge to 208 mgd for 2009, and is projected to further increase to 219 mgd for 2014. The commenters conclude it follows that the Plant's monitoring program is inadequate to determine how this current and projected increased discharge affects water quality."

Response:

USEPA and the Regional Water Board disagree that the City has failed to meet its burden of proof that the monitoring program assures compliance with water quality standards; a balanced indigenous population, or compliance with the California Ocean Plan. As evidence, the introduction to the 2004 report, page 1, states:

"The City of San Diego's ocean monitoring program has been underway since 1991, in response to regulatory requirements associated with the discharge of wastewater from the PLOO. This effort provides a very significant foundation, particularly in the benthos, for understanding environmental impacts. The City's program has been useful to regulatory agencies in assessing requirements for treatment and provides the context for future work.

The City, working with other interested stakeholders, recognized that new information is available from ongoing research, and new monitoring capabilities are being developed. As a result, the City asked for this report to help consider enhancements to its ongoing monitoring effort making it more effective in assessing the impact to human and ecosystem health and preparing for the possibility of increased output from the PLOO in

the future. The report and its recommendations should not be taken as criticism of the City's program. Rather, they represent a forward-looking long-term view of the broad needs of the region. The report provides a means for the City to gain a more quantitative understanding of the role of the PLOO in the local and regional context of water motion, planktonic and benthic ecosystems, and potential human health effects. We have also addressed emerging technologies that may soon be suitable for inclusion in routine monitoring programs to help responsible agencies anticipate and prepare."

With respect to the 2004 study, USEPA and the Regional Water Board acknowledge the desirability of developing more rigorous tools to characterize the impact of the City's sewage treatment on biological communities and distinguish these impacts from the possible influence of confounding factors. The commenters note that the 2004 study identifies the possibility of developing such tools to improve the characterization of impacts to planktonic and benthic communities. However, USEPA believes that the analytical methods currently available to USEPA are sufficient to assess compliance with the 301(h) criteria.

With regard to the planktonic community, USEPA agrees that the analytic tools currently available cannot specifically address the relative effects of the outfall and other potential inputs (e.g., ambient water temperature) on community structure. However, this level of analysis is not necessary given that the data is sufficient to warrant a conclusion that the planktonic community is essentially intact; and, hence, not being adversely affected by the City's discharge.

Similarly, with regard to the benthic community, USEPA agrees that comparisons of stations potentially affected by the City's discharge with the appropriate control stations are a useful tool for assessing impacts of the discharge on the benthic community and that it is always appropriate to consider whether better control stations can be identified. However, no station is likely to serve as the perfect control. USEPA is persuaded that the control stations used in this assessment provide useful information that supports the conclusion that benthic communities are not being unduly stressed by the discharge, particularly in light of other measures of benthic community health analyzed in the TDD (TDD, pp. 56-64).

With respect to the criticism that USEPA failed to evaluate current and projected increased discharges from Point Loma WTP and resulting effects on water quality, USEPA points out that pages 16-21 and Table 1 of the TDD describe both the current and projected increased flows from the treatment plant though 2014. The average annual flow for 2007 was 161 mgd and the projected average annual flow for 2014 is 202 mgd. These actual and projected flows remain below the flows evaluated by USEPA for the 1995 301(h) application. Consequently, in the 2008 TDD, USEPA has continued to evaluate impacts to water quality using the initial dilution values it reviewed in 1995 (TDD, pp. 19-20, 32-38, 40-43). Based on these initial dilution values and measures of effluent quality, USEPA concluded that California Ocean Plan water quality standards would be met and that the existing monitoring program is adequate to evaluate compliance with State water quality standards.

b. 2006 Report: The commenters cite the inadequacies from the 2006 report, as follows:
Insufficient information about the effluent plume "…raises the possibility that the PLOO contributes to background concentrations of these constituents in the coastal ocean (i.e., farfield effects). Four of the analytes detected (copper, silver, cyanide and ammonia) were concentrated enough on average in effluent during 2004 to exceed USEPA daily maxima or acute exposure criteria for marine life. Although the circumstances that could result in cross-shore transport of the PLOO effluent plume all the way to [Cabrillo] have not been described, it is possible that exposure to poorly diluted effluent could harm some biota. Such an exposure occurred in 1992 at [Cabrillo] when the outfall pipe was ruptured near shore. … [We] do not know if the PLOO can be reasonably ruled out as a source of these pollutants in the ocean near [Cabrillo]."

Response:

With regard to the 2006 study, the 1992 outfall break was a highly anomalous condition that is not indicative of the impacts of the City's current and proposed discharge. The discharge from the broken outfall was not properly diffused and was in much shallower water than the current discharge, greatly reducing initial dilution. In addition, the discharge from the 1992 outfall break was much closer to shore than the City's current discharge. Thus, it is not surprising that the un-permitted discharge from the broken outfall would have had some impacts on resources in Cabrillo National Monument; however, such impacts provide little support for the proposition that a much better diffused disinfected wastefield being discharged much further from shore is likely to adversely affect water quality.

For the 2008 TDD, USEPA evaluated the Point Loma WTP effluent data for metals, ammonia, and toxic organic chemicals detected in the undiluted effluent at least once, during the period 2002 to 2006. These included copper, silver, cyanide, and ammonia. For this response, USEPA reviewed data worksheets prepared for the TDD and compared maximum effluent values in 2004 for copper, silver, cyanide, and ammonia to USEPA's water quality criteria for the protection of aquatic life (criterion maximum concentration [CMC], one-hour average). While CMC values can be exceeded in the undiluted effluent, under the critical initial dilution condition modeled by USEPA (99:1), CMC values are achieved. This conclusion is supported by acute toxicity testing results for fish and shrimp, conducted using the California Ocean Plan regulatory dilution value for acute toxicity (20.4:1), showing no acute toxicity. USEPA believes the effluent analyses conducted for the TDD support the conclusion that ocean waters near Cabrillo National Monument are protected under the conditions of the currently permitted discharge.

c. 2007 Report: The commenters cite the inadequacies from the 2007 report, as follows:

“[T]he complexity of the oceanographic conditions in the Point Loma area demands more observations before any conclusions can be made about the transport of the plume.” University of California, San Diego, 2007.

“The physical oceanographic data at present is inadequate to predict with certainty either the location or the dilution rate of the plume.”

The commenters also state the 2007 report notes that PCB levels in rockfish caught close to the outfall were “significantly higher” than PCB levels in fish north of the outfall and that there is no way to know definitively whether the elevated levels were due to the plant or another source.

The commenters conclude these reports demonstrate that in at least one of the criteria to gain a 301(h) waiver, the plant has failed to meet its burden of proof that the monitoring program assures compliance with water quality standards, a balanced indigenous population, or compliance with the Ocean Plan.

Response:

The 2007 report focused on microbiology, sediment chemistry, and bioaccumulation. USEPA notes that the introduction to the 2007 report, page 3, states: “We found no evidence of significant adverse impacts of the PLOO.”

With respect to physical oceanography and plume transport, the 2007 report, page 4, concluded that the probability of the plume surfacing was very low and the spatial distribution of bacteria suggests the plume is trapped at depth and does not reach the shore. The report also noted that hydrographic work to track the plume and fine-scale modeling in order to better understand shoreward plume transport are both planned by the City for the near future and monitoring for these analyses is already underway.

The TDD’s conclusions regarding impacts on fish are based on USEPA’s review of the applicant’s fish monitoring data collect pre-discharge (1991-1993) and from 1994-2006. Regarding the presence of PCBs in fish in the vicinity of the outfall, USEPA disagrees with the commenters’ assertion. USEPA has concluded that regional data do not demonstrate a spatial-temporal pattern indicating an impact from the outfall. USEPA has determined that the modified discharge allows for recreational activities (fishing) beyond the zone of initial dilution. Note that USEPA disagrees with the 2007 report’s conclusion that the LA-5 disposal site is the most likely source of significant PCB contamination in fish on the Point Loma shelf. USEPA believes that more comprehensive PCB monitoring in the San Diego region could provide: additional information to better characterize PCB levels in regional sediments and a more thorough explanation for the observed PCB contamination in the region’s fish.

No changes have been made to the final decision or order/permit in response to this comment.

Written comments from the individuals listed below were received after the close of the public comment period (January 28, 2009 at 5:00 p.m.). Consequently, USEPA and the Regional Water Board have not summarized these late comments or provided written responses; however, staff have reviewed these late comments and believe that the issues raised in the late comments were also raised in the timely written comments submitted by other individuals and groups before the close of the public comment period. The responses prepared in response to the timely comments adequately address the issues raised in the comments submitted after the comment period closed.

36. January 28, 2009 (after 5 p.m.)
Irwin Haydock, General public
Fountain Valley, CA
Via email/oppose

37. January 29, 2009
Scott Andrews, President
Save Everyone's Access
Via email/oppose

January 29, 2009 (noted "Final Corrected Version")
Scott Andrews, President
Save Everyone's Access
Via email/oppose

January 29, 2009
Scott Andrews, President
Save Everyone's Access
Via email/requesting late comment letter be accepted

38. January 30, 2009
Ms. Beebe
Via email/oppose

39. January 31, 2009
Doug Korthof
Via email/oppose

40. January 31, 2009
Jim Gilhooly, General public
Via fax/oppose

41. February 1, 2009
Scott Andrews, President
Save Everyone's Access
Via email/notification of January 29, 2009 comment

42. February 6, 2009
Jim Gilhooly, General public
Via fax/oppose

43. February 22, 2009
Jim Gilhooly, General public
Via fax/oppose

44. May 5, 2009
Jim Gilhooly, General public
Via fax/oppose

Oral Comments and Responses:

1. Jerry Sanders
   Mayor, City of San Diego
   Transcript of Proceedings p. 23
   Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP and urges USEPA and the Regional Water Board to take the necessary actions to make the decision final at the earliest possible date.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

2. Cheryl Cox
   Mayor, City of Chula Vista
   Transcript of Proceedings p. 25
   Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter recognizes the Ocean Monitoring Program provided in the City of San Diego's application and also the collaborative efforts of Surfrider and Coastkeeper with Mayor Sanders.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

3. Mark Roback
   Chairman, Metropolitan Wastewater Joint Powers Authority
   Transcript of Proceedings p. 25
   Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter believes that the science and the economics are sound.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD. USEPA, following the applicable statutory and regulatory requirements for review to grant a 301(h) variance, did not consider economics in its assessment of the City's 301(h) application.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

4. James Barrett
   Director, Public Utilities for the City of San Diego
   Transcript of Proceedings p. 49
   Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter states that the variance provides the opportunity for common solutions that benefit water and wastewater utilities and their shared commodity, reclaimed water. The City strongly believes that USEPA's tentative decision to approve the variance: is correct based on sound science; correctly represents the effectiveness of the present wastewater treatment and disposal system; and is in the best interest of the local community. The City has only provided written comments to address issues in the draft permit.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD. USEPA and the Regional Water Board agree that reclaimed water is an important issue and encourages the City to plan for and implement programs that will achieve more reclamation and reuse of its treated effluent (TDD, pp. 26-28).

No changes have been made to the 301(h) final decision in response to this comment.

5. Tom Howard
   City of Poway and its council
   Transcript of Proceedings p. 53

Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter states that recycled water from the North City Water Reclamation Plant is vital as a source of water for the industrial park in south Poway. The City of Poway is looking at ways to extend the use of that water source to other parts of Poway.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD. USEPA and the Regional Water Board agree that reclaimed water is an important issue and encourages the City to plan for and implement programs that will achieve more reclamation and reuse of its treated effluent (TDD, pp. 26-28).

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

6. Scott Huth
City of Coronado
Chairman, Metro Technical Advisory Committee
Transcript of Proceedings p. 54
Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter states that the Discharger has a demonstrated record of performing well at Point Loma WTP. The commenter mentions that the Point Loma plant is 17 percent greater at removing BOD and 11 percent greater at removing TSS than what the required standards, so Point Loma is doing better than standards require. The commenter also states that the participating agencies strongly support recycled water and are working with the Discharger to improve such capabilities.

Response: See Oral Comment #5 and response.

7. Paul Dayton
General Public
Transcript of Proceedings p. 55
Support

Comment:

The commenter supports the tentative decision to approve the 301(h) variance for the Point Loma WTP. The commenter states that the San Diego Region has fairly serious problems related to watershed issues, bay effluents, and waste dredge disposal problems; however, the commenter feels that the Point Loma Ocean Outfall is "environmentally essentially invisible". The commenter has studied whether or not a disturbance of nutrients exists around the zone of initial dilution, but except for small amounts of material and sulfides, the commenter could not see any effect at the outfall terminus.

Response:

While USEPA disagrees with the commenter's statement that the Point Loma Ocean Oufall is "environmentally essentially invisible", USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

8. Angelica Villagrana
San Diego Regional Chamber of Commerce
Transcript of Proceedings p. 57
Support

Comment:

The commenter states that the San Diego Chamber of Commerce strongly supports the tentative decision to approve the 301(h) variance for the Point Loma WTP, as extensive scientific studies and water monitoring have shown that the City's treated discharge has no negative environmental impact on the ocean's environment. The treatment plant also has consistently met all permit requirements. The commenter urges USEPA and the Regional Water Board to approve the variance and make the decision final.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

9. Timothy Bertch
Former Director, Metropolitan Wastewater Department
Transcript of Proceedings p. 58
Support

Comment:

The commenter supports the approval of the proposed permit for the Point Loma WTP. The commenter suggests that in future decisions, the Regional Water Board consider the overall environmental impact to not only the aquatic environment, but also to the land and air, if the alternative of building secondary treatment is required. The commenter states that if the decision had been made to transition to secondary treatment, the electrical load required to operate the facility would be equivalent to many thousands of new homes and result in over 100,000 tons of CO2 emissions each year. The commenter also recommends the Regional Water Board clarify bacterial indicator recreational standards in the Basin Plan so that the standard does not apply three miles from land below depths of 25 meters, as no one recreates there. The commenter states that the City added disinfection to their application due to the ambiguity of the bacterial indicator standard and recommends that the Regional Water Board modify the permit to remove disinfection after the Basin Plan is changed. The commenter also pointed out that the waiver is part of the law and there are no sunset provisions provided for it. The commenter urges final approval of the proposed permit.

Response:

USEPA believes the commenter's general recommendation regarding the 301(h) variance is consistent with the conclusions and recommendations of the 2008 TDD. However, USEPA disagrees with the commenter's position on several points. USEPA followed the applicable statutory and regulatory requirements for review of an application for a 301(h) variance. USEPA did not consider the other factors suggested by the commenter (e.g., impacts to land and air). The overall environmental impacts of a secondary treatment project at the Point Loma WTP site are properly assessed during a review conducted under the California Environmental Quality Act. USEPA disagrees with the commenter's understanding of current applicable bacterial indicator water quality objectives and the designated use of water contact recreation (REC-1) in offshore waters of the State impacted by the Point Loma outfall plume. USEPA has provided a detailed explanation of the applicable REC-1 water quality standards in these waters on pages 78-82 of the TDD. USEPA also wishes to point out to the commenter that a final judicial decision regarding the applicable "sunset provision" for CWA section 301(j) has not yet been made; this issue is addressed on page 1 of the TDD.

10. Eric Germain
General Public
Transcript of Proceedings p. 63
Support

Comment:

The commenter states that the only part of planet Earth affected by this waiver is a tiny 30-foot sphere, similar in size to an aircraft carrier, at the end of the outfall, which is 320

feet deep and four-and-a-half miles out to sea; every other piece of the Pacific Ocean is within specification for the federal standards of secondary treatment. The commenter states that, as a taxpayer, the decision, the business decision, or the cost-benefit analysis cannot be made to justify spending a billion-and-a-half dollars to fix that part of the ocean.

Response:

USEPA believes the commenter supports granting the 301(h) variance and permit. However, USEPA wishes to point out that it followed the applicable statutory and regulatory requirements for review in order to grant a 301(h) variance; these requirements do not include a cost-benefit analysis as part of USEPA's decision making process.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

11. Ed Kimura
Sierra Club San Diego Chapter
Transcript of Proceedings p. 65
Conditional support

Comment:

The commenter states that he had previously submitted written comments, but that he has additional comments. The commenter states that the Sierra Club, San Diego Surfrider Foundation, and San Diego Coastkeeper's support of the 301(h) waiver is conditioned upon the City joining the proposed cooperative agreement with the three local environmental groups. The agreement would require the City to conduct a wastewater recycling engineering study to investigate methods to increase water recycling and reduce wastewater flows to the Point Loma WTP and ultimately result in the potential for upgrade to secondary treatment at the current Point Loma WTP site. The commenter points out that the Sierra Club, San Diego Surfrider Foundation, and San Diego Baykeeper and Coastkeeper opposed the 2002 waiver, which resulted in a settlement agreement with the City. This settlement agreement resulted in a pilot study being performed that showed the advantages of using a biologically aerated filter over conventional activated sludge for secondary treatment; however it turns out that there is not enough available space to implement this treatment at the site. The agreement also brought up the issue of improved ocean monitoring and provided for a water reuse study. Rather than continued opposition to future waivers, the proposed cooperative agreement will open the way to achieve and increase water recycling and secondary, or better, treatment for the Point Loma WTP, which is important in addressing the emerging issues of contaminants of concern, like personal care products, pharmaceuticals, and fire retardants.

Response:

USEPA believes the commenter's recommendations regarding the 301(h) variance are consistent with the conclusions and recommendations of the 2008 TDD, as the cooperative agreement between the City and these environmental groups has been signed. USEPA and the Regional Water Board agree that the City should plan for and implement programs that will achieve more reclamation and reuse of its treated effluent and reduce flows to the Point Loma WTP (TDD, pp. 26-28).

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

12. Bruce Reznik
Executive Director, San Diego Coastkeeper
Transcript of Proceedings p. 67
Conditional support

Comment:

The commenter states that Coastkeeper has been working with the City and has reached a tentative agreement with the Mayor to develop a long-term strategy to reduce or eliminate ocean discharge of sewage and maximize water reclamation and reuse in the region. The commenter states that if the agreement is finalized on January 27th, Coastkeeper will support the waiver, assuming this is the last waiver for the City of San Diego. The commenter states that Coastkeeper does not like the waiver, and that along with Surfrider and Sierra Club, they litigated over the 2002 waiver, resulting in the 2005 Water Reuse Study which led to the pilot study to maximize reclamation at the North City Plant to 16 MGD, to augment the local San Vicente Reservoir. The commenter states that there is new and emerging evidence that secondary treatment is not sufficient to address all the concerns of the ocean and suggests that it is time to look beyond waivers, beyond secondary treatment, to do 100 percent reclamation, secure the local water supply, eliminate imported water and desalination, and fulfill the zero discharge goal of the Clean Water Act. The commenter's goal is that in five years, the City will not reapply for a 301(h) waiver and that a plan will be in place to go to zero discharge.

Response: See response to Oral Comment #11.

13. Marco Gonzalez
Coast Law Group, representing Surfrider, Sierra Club, and Coastkeeper
Transcript of Proceedings p. 71
Conditional support

Comment:

The commenter states that the goal should not be secondary treatment, but turning sewage into drinking water. The commenter believes taxpayer dollars need to be used

for water reclamation, not secondary treatment. The commenter states that going to secondary will take ten years. The commenter suggests that a long-term plan be put in place that takes into account the City's infrastructure, pipes, pump stations, reservoirs, advanced treatment capacity, and tax dollars. The commenter states that they are giving "conditional nonopposition" to the waiver, as long as the City agrees to do the study proposed by Surfrider, Sierra Club, and Coastkeeper. The commenter states that secondary treatment does not address emerging contaminants, such as endocrine disruptors, and that the only way to treat such contaminants is through reverse osmosis, which should be part of a treatment train that puts the water into reservoirs and ultimately the drinking water system.

Response: See response to Oral Comment #11.

14. Scott Andrews
President, Save Everyone's Access
Transcript of Proceedings p. 75
Oppose

Comment:

The commenter believes the City of San Diego's intention is not to go to secondary and that the City's effort in water reclamation is small in comparison to the large volume of the Point Loma WTP discharge. The commenter believes that the future water supply of the City and the sewage issue are connected. The commenter is concerned about the discharge's impact on migrating fish populations, as it seems to be large. The commenter also feels it is unfair that the City be approved for this waiver when every other major city has moved to secondary treatment. The commenter is concerned that reverse osmosis or ultraviolet light may not provide adequate treatment for the thousands of chemicals and chemical cocktails and make the water safe for human consumption.

Response:

The 2008 TDD describes how USEPA has tentatively concluded that the City's 2007 301(h) application for discharge meets the applicable statutory and regulatory requirements to obtain a 301(h) variance from federal secondary treatment standards. Pages 65-76 of the TDD describe the trends in fish community structure and contaminant body burdens in target fish species over time. USEPA does not see evidence of unacceptable impacts to fish populations in these data. USEPA notes to the commenter that the California Department of Public Health has jurisdiction over direct and indirect potable water reuse in California and that any such proposal would be subject to Department of Public Health review and approval. USEPA and the Regional Water Board note that reverse osmosis and ultraviolet light are not current treatment processes at Point Loma WTP.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

15. Joey Racano
California Ocean Outfall Group
Transcript of Proceedings p. 79
Oppose

Comment:

The commenter opposes approval of the City's 301(h) waiver as the discharge will impact protected marine areas, such as the Cabrillo National Monument. The commenter states that secondary treatment is the law and that City of San Diego is recalcitrant. The commenter is concerned about endocrine disruptors, created during disinfection of less than secondary treated sewage, which impact aquatic life. The commenter requests that migratory creatures, not just benthic creatures, be considered. The commenter is concerned that the impurities from the recycled water would be diverted back to the outfall resulting in increase concentrations of effluent contaminants. The commenter urges prevention over reaction with source control, such as a full tertiary system. The commenter states that cost is the same either way, and that the coast of California should not be a dumping ground.

Response:

The 2008 TDD describes how USEPA has tentatively concluded that the City's 2007 301(h) application for discharge meets the applicable statutory and regulatory requirements to obtain a 301(h) variance from federal secondary treatment standards. The TDD, on page 16, confirms protection of the Cabrillo National Monument, through the location of the Point Loma outfall and quality of the discharged effluent. Pages 65-76 of the TDD describe the trends in fish community structure and contaminant body burdens in target fish species over time. Based on USEPA's review, there is no evidence of unacceptable impacts to fish populations in these data. USEPA notes that although the volume of wastestreams resulting from the tertiary treatment processes are likely to be direct to the ocean for disposal, all discharges through the Point Loma Ocean Outfall must comply with water quality standards in the California Ocean Plan and the State's antidegradation policy.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

16. James O. McDonald
General Public
Transcript of Proceedings p. 83
Oppose

Comment:

The commenter requests that the City's 301(h) waiver be denied because it allows the City to operate contrary to prevailing treatment practices and is economically unjust to all other municipalities that have gone ahead with the installation of secondary treatment facilities required under the Clean Water Act. The commenter feels that this change is long overdue and that the City needs to get in step with the rest of the nation in protecting its receiving waters.

Response:

USEPA followed the applicable statutory and regulatory requirements for review to grant a 301(h) variance which does not assess the economics of wastewater treatment and facility upgrades.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.

17. Doug Korthof
General Public
Transcript of Proceedings p. 85
Oppose

Comment:

The commenter opposes approval of the City's 301(h) waiver. The commenter believes that the demand will increase for another waiver in five years because things will not change but the population will grow. The commenter states that Point Loma WTP is too small and that federal help is needed to upgrade the facility. The commenter points out that the money put into an upgrade, such as in Orange County, where they do secondary treatment and groundwater replenishment, will come back to the community as increased property values and healthier water for swimming. The commenter is concerned that only *E. coli* is monitored, rather than toxoplasmosis, which can harm mammals, including humans swimming in the ocean. The commenter urges a move beyond secondary or tertiary treatment, to complete water reuse.

Response:

USEPA followed the applicable statutory and regulatory requirements for review to grant a 301(h) variance which does not assess the economics of wastewater treatment and facility upgrades.

However, USEPA and the Regional Water Board agree that the City, in coordination with its participating agencies, should plan for and implement programs to achieve maximum recovery and reuse of its treated effluent, thereby reducing flows to the Point Loma WTP.

Finally, USEPA wishes to clarify that in fact *E. coli* is not monitored. In order to characterize bacteria levels, total coliform, fecal coliform, and enterococcus are monitored under the conditions of the 301(h)-modified permit. This is because in ocean water environments, the California Ocean Plan protects water contact recreation using these bacterial indicators which are commonly found in human sewage. It is uncommon to conduct routine monitoring using pathogenic organisms which may, or may not, be found when human sewage is present. Rather, direct indicators of human sewage are monitored and where found to be present, will communicate risk of illness due to exposure to pathogenic organisms in the contaminated water. Because the effluent discharged through the 3.9 nautical mile Point Loma Ocean Outfall is disinfected, USEPA expects the City will comply with State water quality standards for water contact recreation where the Point Loma WTP plume drifts into State waters, at a distance 3 nautical miles offshore of Point Loma.

The commenter's concerns regarding toxoplamosis (an infection common to many warm-blooded mammals) are not reflected in any water quality data or data regarding the health of humans or marine mammals in the San Diego area. While much of the science regarding toxoplasmosis is unsettled, a number of studies have hypothesized that the protozoa *T. gondii*, which is present in cat litter, could have adverse impacts on marine mammals exposed to sewage discharges. There is no evidence to suggest that the discharge from Point Loma WTP has caused or contributed to toxoplasmosis in any receptor (human or otherwise) in the vicinity of Point Loma. Therefore, we have no basis for concluding that this issue warrants denial of the 301(h) application. Moreover, the State of California has recently banned "flushable" cat litter and this is expected to dramatically reduce the presence of *T.gondii* in wastewater discharges, generally. In addition, since the wastefield in not present in the beach or nearshore areas, casual recreational users are not generally exposed to any constituents in the Point Loma WTP discharge. Finally, it should be noted that there is no evidence to suggest that secondary treatment will materially affect discharges of *T.gondii*.

No changes have been made to the 301(h) final decision or order/permit in response to this comment.