



THE CITY OF SAN DIEGO
REPORT TO THE CITY COUNCIL

DATE ISSUED: November 7, 2007 REPORT NO: 07-190

ATTENTION: Council President and Members of the City Council, City Council
Docket of November 20, 2007

SUBJECT: 1) Submittal of the Modified National Pollution Discharge Elimination System (NPDES) discharge permit (Waiver) for the Point Loma Wastewater Treatment Plant (PLWTP)
2) Authorization for the Mayor and Council to hire Outside Counsel for technical legal support during waiver process, to report to the Mayor and Council

REFERENCE:

REQUESTED ACTION:

- Approve the Mayor's proposal to submit the modified National Pollution Discharge Elimination System (NPDES) permit (Waiver) application for Point Loma Wastewater Treatment Plant (PLWTP).
- Authorization for the Mayor and Council to hire outside counsel for technical legal support during the waiver process, to report to the Mayor and Council.

STAFF RECOMMENDATION:

- Approve the Mayor's proposal to submit the modified National Pollution Discharge Elimination System (NPDES) permit (Waiver) application for Point Loma Wastewater Treatment Plant (PLWTP).
- Authorize the Mayor and Council to hire outside counsel for technical legal support during the waiver process, to report to the Mayor and Council.

SUMMARY:

The Point Loma Wastewater Treatment Plant (PLWTP) operates with a modified NPDES permit that does not require full secondary treatment prior to discharge through a deep ocean outfall. Authorized by section 301(h) of the Clean Water Act, the modified permit requires renewal every five years. The modified permit (waiver) for the PLWTP expires in June 2008. The City must decide whether to pursue a continuation of the modified permit, or forgo that legally permissible opportunity and instead voluntarily begin moving towards secondary treatment at the PLWTP. The Environmental Protection Agency (EPA) deadline to submit the renewal application is December 14, 2007.

The City of San Diego is unique from other wastewater dischargers once the treated discharge reaches the marine environment. The City discharges its treated wastewater through a four and one half mile long ocean outfall. The outfall is one of the longest in the United States. The outfall depth (320 feet) is one of the deepest in the United States. The thermocline, a temperature layer within the water, keeps the suspended solids deep. The City of San Diego Point Loma discharge has the additional advantages of a cross current, a bottom slope, and utilizes a diffuser design that provides superior dispersion to traditional outfall pipe configurations.

The City of San Diego also conducts one of the most extensive ocean monitoring programs in the world. Extensive ocean monitoring efforts have historically shown that the discharge poses no discernable negative impact to marine organisms surrounding the outfall. This data has been sufficient to allow the City to operate since 1995 with a waiver from the federal regulations governing wastewater discharges to rivers, lakes and coastal waters.

Since the last waiver application, the City has enhanced its ocean monitoring program and is seeking federal appropriations for even more enhancements. A Scientific Technical Review Committee conducted a thorough review of the environmental data collected from the extensive ocean monitoring program associated with the PLWTP. The findings show that the PLWTP does not have a detrimental impact on the ocean environment surrounding the four-and-one-half mile long outfall, along the shoreline or within the Point Loma kelp beds. The findings of the Scientific Technical Review Committee, along with wastewater department staff's assessment that the City meets all of the waiver criteria, and the City's continued compliance with regulatory requirements related to the PLWTP, support the decision to continue operation at the PTLWP at current treatment standards and seek a waiver. Seeking a waiver allows the City to continue to discharge without harming the ocean environment while also following the most prudent course of action for ratepayers in the City and the regional participating agencies.

Should the City not submit the waiver application, the PLWTP would have to be operating at secondary standards by June 2008, the date the current waiver expires. Operating at secondary is not possible by June 2008. Not meeting the criteria of either submitting a waiver, or being at secondary treatment by June 2008, will result in enforcement action or litigation leading to secondary treatment, as well as subject the City to fines for being in violation of the Clean Water Act. Therefore, submitting the waiver application is necessary in order to remain in compliance with the Clean Water Act.

Decision Making Factors:

Before making a decision on what course of action to take regarding the PLWTP, the Mayor made a commitment to have the facts about the impacts of our treatment practices evaluated, and presented in a public forum. Protecting the environment as well as being in compliance with regulatory requirements are a priority and weighed heavily in the decision making process. Because of the complexity of the issue, and the considerable impacts of applying for or not applying for a waiver are considerable, the Mayor also evaluated and took into account the following:

1. Protecting the environment
2. Meeting regulatory requirements

3. The cost, protecting ratepayers and reducing rate impacts
4. Assessment of federal and state funding opportunities

Protecting the Environment:

Assessing what, if any, ocean environmental impacts were occurring as a result of the Point Loma Wastewater Treatment Plant discharge was the first critical step needed.

In June 2007, Mayor Sanders engaged a distinguished panel of scientists from the University of California San Diego (Scripps Institution of Oceanography) and San Diego State University to provide the City with a comprehensive and independent review of the environmental data collected from the extensive ocean monitoring program associated with the operation of the PLWTP. The scientific findings of the impact to the ocean environment were crucial information to have prior to taking a position on whether the City should voluntarily go to secondary treatment at Point Loma.

From July to September 2007, UCSD/Scripps Institution of Oceanography, San Diego State University professors and their graduate students conducted an independent review of ocean monitoring data to confirm City staff analysis that ocean data supported waiver submission.

A summary of the results included the following findings:

- None of the scientists found evidence of significant adverse impacts of the Point Loma Ocean Outfall
- There is no discernible connection between the wastewater plume and shoreline water quality
- Monitoring of receiving waters environment is comprehensive and well conducted

Areas Reviewed:

- Benthic Ecology
 - Communities have remained fairly stable and changes have been consistent with region wide trends
 - Point Loma outfall has not affected community composition
 - Many different approaches reach the same answer
 - Monitoring of receiving waters environment is comprehensive and well conducted
- Sediment Chemistry
 - Accumulation in the region around the outfall is not discernible
- Microbiology and Public Health
 - Little evidence that the wastewater discharge is impacting shoreline or adversely affecting human health
 - No connection between wastewater plume and shoreline water quality
- Physical Oceanography
 - Probability of discharge reaching surface is very low
 - More plume (transport path for discharged wastewater) data needed
- Bioaccumulation
 - PCB levels in Rockfish livers requires further evaluation
 - Not elevated in sediments/waters near outfall

- Probable source is nearby dredge dumping area not associated with wastewater discharge
- Not a health risk nor exceeds standards; does not influence decision

Recommendations for further study:

- Review PCB levels in Rockfish livers and isolate source
- Continue/complete efforts to better define plume

In summary, the critical evaluation shows the discharge from PLWTP is not causing harm to the environment. The decision to apply for a waiver and not voluntarily go to secondary treatment was based on the environmental data.

Negative Environmental Impacts of going to Secondary Treatment

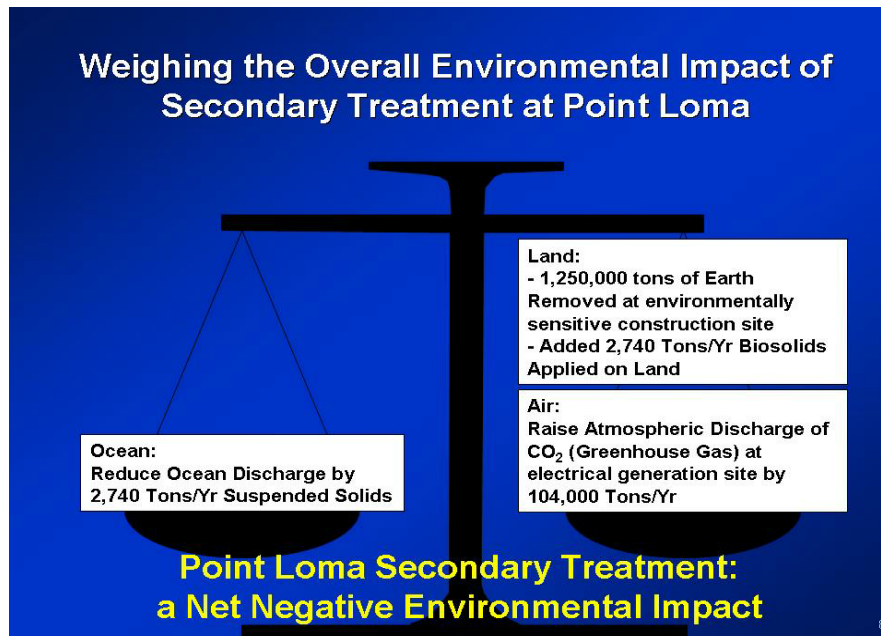
Apart from having an independent review of the ocean monitoring data to assess impacts to the ocean environment, MWWD staff also conducted an assessment of what the environmental impacts would be of going to secondary treatment.

Achieving secondary standards would remove nearly 2700 tons of additional suspended solids annually from the discharge, forcing these solids to then be applied at a landfill.

Due to land limitations at the current PLWTP site, integration of secondary design into the existing City property and plant footprint would require removal of over 1 million tons of earth. Removal of this material would be a significant impact on the Point Loma neighborhood due to the number of truck loads required to transport this fill to a disposal or alternative use site.

The most significant environmental effect of achieving secondary standards is the large carbon footprint caused by the electricity requirements. Secondary treatment is a very power intensive process and the PLWTP would shift from being a green power provider to the grid to one of the top electrical loads in the city. The resultant carbon dioxide release at the electrical generation site would exceed 100,000 tons per year based on power needs and the EPA sponsored calculator website.

Staff assessed that the ocean was not being harmed by current discharge from the Point Loma outfall and that secondary treatment was a net negative impact on the environment.



Proponents of secondary treatment argue the precautionary principle, the inability of current monitoring to detect all of the possible impacts to the ocean environment until it is too late. However, even if the City were to voluntarily go to secondary, we would still “not know what we don’t know” even after spending \$1.5 billion to construct secondary treatment.

The outfall extends for 4.5 miles into the ocean and splits into two diffuser arms reaching a total of one mile. Looking along the diffuser section, the current discharge reaches secondary levels within 30 feet of the outfall structure and ocean water samples can not discern discharge versus background particulate after 100 feet. Therefore, the difference between secondary standards and current discharge for Point Loma equals a semicircle with a radius of 30 feet located at the bottom over 24,000 feet from shore.

San Diego’s discharge is different than other locations. The suspended solids discharge is very close to secondary treatment standards already. Using Chemically Enhanced Primary Treatment, the difference in solids removal between what is currently discharged and secondary standards is minimal (Total Suspended Solids (TSS) before treatment at Point Loma is 275 PPM, post treatment, the TSS discharged from Point Loma is 40 PPM vs. 30 PPM standard of the Clean Water Act). Further, the discharge meets all regulatory requirements for shoreline, kelp bed, marine populations and ocean sediments.

San Diego meets Waiver Criteria

Upon receiving the findings of the Scientific Technical Review Committee, the Mayor directed staff to complete the application package required for the waiver.

The waiver application is a very lengthy and comprehensive document. It is MWWD staff’s assessment that the City’s application meets all of the Clean Water Act section 301(h) waiver criteria and is robust enough to handle potential appeals.

The City of San Diego conducts one of the most extensive ocean monitoring programs in the world. Two vessels are used to collect over 150,000 samples per year, and the samples are analyzed by chemists and biologists.

The City will continue the enhanced ocean monitoring program and assess any potential impact to the ocean environment. The Mayor is committed to continue the City's ocean monitoring program.

Protecting Ratepayers and Reducing Rate Impacts

Seeking a waiver is the most prudent course of action for the City, its ratepayers and the participating agencies.

Moving to secondary treatment would have considerable rate impacts and would require approval of substantial rate increases.

The total cost of secondary treatment at Point Loma is estimated to be:

\$1.5B in 2015 dollars

\$0.8B in interest payments for bonds

\$2.3B total payments

After construction, the average expected Point Loma operations and maintenance cost is \$58M per year (an increase of \$38M over the current Point Loma O&M cost of \$20M). Almost half of this increase is just for electrical power requirements.

Applying for a waiver will provide additional time to develop future options for Point Loma and for the continued improvement in treatment technologies and practices. It also avoids spending \$2.3 billion for a secondary treatment plant that science tells us is not needed and, therefore, an unnecessary burden on ratepayers. The priority should continue to be addressing the current water and wastewater infrastructure needs and improvements to comply with the existing wastewater consent decree and water compliance order, both of which will require additional rate increases.

One of the concerns expressed by those in support of going to secondary treatment is that there is a cost associated with deferring secondary treatment because the cost of construction will only increase with time. While construction costs do continue to increase, the cost of secondary has decreased with time as new technologies emerge and are tested. As the City learned with the Biological Aerated Filtration (BAF) demonstration project, emerging wastewater treatment technologies may provide the region a lower cost alternative to traditional treatment methods. The Mayor is committed, through the Metropolitan Wastewater Department, to identifying and exploring new emerging treatment technologies.

Additionally, submission of the waiver keeps the City in control of the level of treatment at the PLWTP. Under the waiver, the City could decide to proceed to secondary treatment at the PLWTP at any time. As a result, submission of the waiver minimizes litigation risk to the City. Because achievement of secondary standards by June 2008 (expiration date of current permit) is not possible, the City of San Diego will likely be sued for not operating within Clean Water Act

standards if the waiver is not submitted. This will result in significant legal expenses, which will provide no benefit to the City. The resulting settlement may force the City to achieve secondary treatment on a compressed and more costly timeline than could be achieved by a deliberate decision.

Should the PLWTP be required to operate at secondary treatment levels in the future, it is important to continue with a course of action that will protect the ratepayer interests.

1. MWWD will continue to identify and explore new technologies that could further reduce the cost of secondary treatment.
2. Federal and State funding opportunities will continue to be assessed
3. Continue to ascertain the availability of land at Point Loma

Assessment of Federal and State Funding Opportunities:

A thorough assessment of the true existing federal and state funding opportunities, both current and in the foreseeable future was conducted by the City's contract lobbyists in Washington and Sacramento (Attachments 3, 4). The purpose of this detailed review was to determine the likelihood of non-ratepayer funding for the construction of a secondary treatment plant and whether the City would be jeopardizing potential funding should it not pursue available opportunities immediately.

The Orange County Sanitation District decided 5 years ago to construct a secondary treatment plant and seek state and federal funding assistance for construction costs. The District began an all-out effort to secure funding assistance, including contracting with additional intergovernmental consultants to lead the effort before their elected representatives. Their target was to receive \$50 million over ten years. In 2003, they received \$1million and in 2004 they received an additional \$800,000. Since 2004 they have been unsuccessful at receiving additional funding and have concluded they will unlikely receive anymore. The \$1.8 million total received is woefully below their goal and will now need to be assessed on the ratepayers of the Sanitation District.

The federal and state funding assessments, along with Orange County's lack of funding success despite their aggressive pursuit, demonstrate that should the City volunteer to go to secondary at this time, there is no indication that the City would successfully receive significant federal and state funds for the construction of a secondary treatment plant. Therefore, the costs would be shouldered by the ratepayers. Should future rate increases not be approved by City Council, or by the property owners via the Proposition 218 process, the City would be forced to pay the costs of construction and operation of a secondary treatment plant with General Fund dollars.

Waiver Application and Process Timeline:

If the waiver application is submitted, the following is the estimated timeline for the process and potential actions that would follow:

December 14, 2007	Environmental Protection Agency (EPA) deadline for submission of waiver application
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May 2008	Tentative decision expected by EPA regarding waiver application Scenarios: EPA Tentative Denial: City of San Diego to Appeal EPA Tentative Approval Anticipate environmental groups to appeal
June 2008	Estimated date of Joint hearing by EPA and Regional Water Quality Control Board (RWQCB) to set final decision regarding the City's waiver application

RAMIFICATIONS OF DISAPPROVAL:

Disapproval of Mayor's proposal to submit the waiver application: Disapproval indicates Council desires to proceed to Secondary Treatment and is expected to result in the following sequence of actions:

- Staff will return with Proposition 218 to raise the funds required to upgrade the PLWTP.
- After City Council approval to release the Proposition 218, and subsequent City Council approval of the associated rates, staff will negotiate a Secondary Treatment Consent Decree with EPA.
- After completion of establishment and approval of the Secondary Treatment Consent Decree, MWWD will report to City Council.

Outside Legal Counsel:

The NPDES waiver application and anticipated appeal process is a highly technical process that requires unique and extensive legal and technical expertise. The City of San Diego's last waiver was held up in the appeal process for two years. Outside legal counsel was retained during the previous waiver application and appeal process, and contributed to the City's successful waiver application.

It is expected that an appeal process and/or litigation will follow the Environmental Protection Agency (EPA)/Regional Water Quality Control Board (RWQCB) decision regarding the City of San Diego PLWTP Waiver Application process.

Approval of outside counsel allows the City to best prepare for the waiver application process and the expected appeal process.

Outside counsel would provide the following to the Mayor and City Council:

1. Provide City of San Diego staff and leadership with legal briefings on the various aspects and requirements of the 301h waiver process prior to the Tentative Decision.
2. Tentative Decision and Public Hearing
 - a. Assist with review and analysis of basis for Tentative Decision.
If approval:

i. Expecting a subsequent appeal from outside organizations, counsel will work with staff to prepare needed documents to support the EPA/RWQCB decision and City of San Diego legal rights.

If denial:

i. Legal analysis (rationale, conclusory, arbitrary, supported by the record, consistent with 301(h) and Subpart G, etc.)

ii. Assist where possible with Technical analysis

iii. Support a successful appeal (per (3) below)

- b. Prepare response/ comment letter with assistance of technical staff.
- c. Consider materials that San Diego may want to add to the record.
- d. Review EPA's administrative record for the Tentative Decision.
- e. Consider necessity of extending the public comment period. This may include the time necessary to conduct additional scientific testing/trying alternative methodologies, etc.
- h. Issue Freedom of Information Act requests (FOIAs) for materials related to (1) the bases for the tentative decision (2) past tentative decisions granting the waiver (to identify contradictions in EPA's approach) and (3) any other issues as appropriate.
- j. Assist in preparing for Public Hearing
- k. Assist in submitting comment documents and San Diego's supplements to the administrative record.

3. Assist with Appeal of Final Decision (if necessary)

a. First step: Environmental Appeals Board Hearing (EAB); standard of review is clear error, although a petition for review may be granted for public policy reasons. (Note: Successful petitions are almost always without prejudice (i.e., EPA can supplement the record to support its position)).

b. Second Step: Judicial review in the 9th Circuit; standard of review is arbitrary, capricious, or manifestly contrary to the statute.

4. In general: Assist with a response to any legal arguments that may be presented challenging the application at any point in the process.

FISCAL CONSIDERATIONS:

There is no fiscal impact beyond the current budget if the Council approves the waiver assuming EPA/RWQCB also approve.

If the Council disapproves continued operation under the waiver and supports constructing a secondary treatment plant, substantial rate increases would have to be approved.

The total cost of constructing a secondary treatment plant at Point Loma is estimated to be:

\$1.5B in 2015 dollars

\$0.8B in interest payments for bonds

\$2.3B total payments

After construction, the average expected Point Loma Operations and Maintenance cost is \$58M per year (an increase of \$38M over the current Point Loma O&M cost of \$20M). Almost half of this increase is just for electrical power requirements.

PREVIOUS COUNCIL and/or COMMITTEE ACTION:

July 26, 2006 - *Rules, Open Government and Intergovernmental Relations Committee* Action to work toward a consent decree that would implement secondary treatment at Pt. Loma Wastewater Treatment Plant within terms and timeframe to be determined: and to indicate that it is a priority of the City of San Diego to obtain funding from federal and state government for infrastructure upgrades and seek legislation to support this strategy.

November 2, 2007 Natural Resources and Culture Committee

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS:

Extensive presentations and public input sessions have been held throughout San Diego, covering all 8 Council Districts. All public outreach requested by the Community, Stakeholders or Council Members were scheduled.

Over 50 public meetings have been held and the vast majority of the groups agreed with the waiver submission. Since the Mayor’s decision to pursue another waiver, several organizations have voted to support the Mayor’s position and none have opposed it.

Date	Presentation
June 29	Assemblymember Lori Saldaña
July 16	SD County Taxpayers Association
July 17	City Attorney Michael Aguirre
July 20	Chamber Infrastructure Committee
July 27	Senator Feinstein Staff
July 31	Region 9 Regional Water Quality Control Board
August 1	State Lobbyist
August 14	Senator Boxer Staff, Representative Davis Staff
August 16	Rancho Bernardo Community Planning
August 22	EPA Region 9 (San Francisco)
August 23	Coastal Commission Staff
August 24	D1, D7, D8 Staffs, IBA
August 27	Linda Vista Community Planning
August 29	Barry Newman (PUAC/IROC)
September 4	Miramar Ranch North Planning Committee
September 5	City Heights Area Planning Committee
September 5	Mission Valley Unified Planning Committee
September 5	Jim Peugh (PUAC/IROC)
September 6	La Jolla Community Planning Association
September 10	Honolulu Wastewater Staff
September 11	Eastern Area Planning Committee
September 12	Carmel Mountain Ranch Community Council

September 13	Del Mar Mesa Community Planning Group
September 14	Representative Davis Staff #2
September 17	Navajo Planning Committee
September 18	Clairemont Mesa Planning Committee
September 18	Torrey Hills Community Planning Board
September 19	Tierrasanta Community Council
September 19	Food and Beverage Organization
September 20	Serra Mesa Planning Group
September 21	Chamber of Commerce Water Committee
September 26	Women's Environmental Council
September 26	Pacific Beach Community Planning
October 1-3	Mayor in DC (Various Federal Legislators, EPA)*
October 02	D1*
October 02	D2*
October 02	D7*
October 03	Rancho Peñasquitos
October 04	Chamber of Commerce Infrastructure Committee
October 04	Metro Commission
October 09	D4*
October 09	D8*
October 09	Eastern Area Planning Committee (Voted to support waiver 9-0-1)
October 10	D3*
October 10	Peninsula Community Subcommittee
October 10	Taxpayers' Executive Committee
October 10	IBA
October 10	Carmel Mountain Ranch Community Council (No quorum)
October 11	Industrial Environmental Association
October 11	Del Mar Mesa Community Planning Group (Voted to support waiver 8-0)
October 12	Catfish Club
October 15	Navajo Planning Committee (no vote)
October 16	Chamber of Commerce Public Policy Committee (Voted to support waiver)
October 16	Clairemont Mesa Planning Committee (Voted to support waiver 11-2)
October 17	Otay Mesa Nestor Community Council (no vote)
October 17	Tierrasanta Community Council (Voted to support waiver 11-2-1)
October 18	Coastkeeper
October 18	Peninsula Community Planning Board (no vote)
October 18	Serra Mesa Planning Group (Voted to support waiver 7-2)
October 22	Linda Vista Community Planning (no vote)
October 23	American Society of Civil Engineers
October 30	Chamber of Commerce Board (Voted to Support Waiver)
November 01	District 8 Staff
November 01	Metro Commission (continued support)
November 01	La Jolla Community Planning Association (15-1)
November 02	RWQCB Executive Officer

November 05	City Heights Area Planning Committee (15-0)
November 06	Miramar Ranch North Planning Committee (10-0)
November 07	Rancho Peñasquitos Planning Committee
November 13	EPA Region 9
November 13	Point Loma Town Council
November 15	Rancho Bernardo Community Planning
November 20	City Council
November 20	Torrey Hills Community Planning Board
November 28	Mission Valley Unified Planning Committee

* indicates briefings by other than MWWD

Blue indicates presentations scheduled

Waiver Positions Known to Date:

The following San Diego agencies, organizations and/or community groups have taken an official position on the Waiver:

<u>Name of Organization</u>	<u>Position</u>
San Diego Taxpayers Association	Support
San Diego Regional Chamber of Commerce	Support
Metro Commission	Support
Eastern Area Planning Committee	Support
Del Mar Mesa Community Planning Group	Support
Clairemont Mesa Planning Committee	Support
Tierrasanta Community Council	Support
Serra Mesa Planning Group	Support
La Jolla Community Planning Committee	Support
City Heights Area Planning Group	Support
Miramar Ranch North Planning Group	Support

KEY STAKEHOLDERS AND PROJECTED IMPACTS:

No ratepayer impact for submitting the waiver; significant rate increases if waiver not submitted.

Timothy C. Bertch, PhD
Metropolitan Wastewater Department Director

R.F. Haas
Deputy Chief of Public Works

Attachments:

1. Community Power Point Presentation
2. Scientific Review Committee Final Report, October 1, 2007
3. Federal Funding Assessment Memo from Patton Boggs
4. Intergovernmental Relations Department State Bond Assessment
5. Report to the Rules, Open Government and Intergovernmental Relations Committee, July 26, 2006 meeting