



PADRE DAM
Municipal Water District

**SUPPORTING
DOCUMENT 4**

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March 25, 2009

Mr. David T. Barker, Supervising Engineer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4353

SUBJECT: COMMENTS ON THE TENTATIVE ORDER NO. R9-2009-0037, NPDES PERMIT NO. CA0107492; WASTE DISCHARGE REQUIREMENTS FOR THE PADRE DAM MUNICIPAL WATER DISTRICT PADRE DAM WATER RECYCLING FACILITY DISCHARGE TO SYCAMORE CREEK, TRIBUTARY TO THE SAN DIEGO RIVER

Dear Mr. Barker:

Thank you for the opportunity for Padre Dam Municipal Water District (PDMWD) to review and comment on the Tentative Order No. R9-2009-0037, NPDES Permit No. CA0107492. Our comments are summarized below.

Section I:

1. Page 5, II.B. PDMWD treats raw wastewater from the City of Santee, and portions of the City of El Cajon and the unincorporated community of Lakeside only. Please remove reference to the unincorporated communities of Alpine, Blossom Valley, Crest, Dehesa, Flinn Springs and Harbison Canyon.
2. Page 5, II.B. Please revise the first and second sentences in the second paragraph to read "The treatment process consist of...flocculation, sedimentation, denitrification filters, and chlorine disinfection. Effluent is discharged into **three** holding ponds before being discharged to Lake No. 7."
3. Page 5, II.B. Please remove "a water source for park irrigation" from the fifth sentence in the third paragraph. Water in the Lakes is not used for irrigation.
4. Page 11, III.B. & Page 14, IV.A.2.b. Please consider revising the sentence to read "Discharge to the San Diego River and contiguous waters from the Facility at a **30-day** running average daily flow rate in excess of 2.0 million gallons per day (MGD) is prohibited." This clarification is consistent with Discharge Specification No. 6 of the Waste Discharge and Recycling Requirements for the Production and Purveyance of Recycled Water for Padre Dam Municipal Water District (Order No. 97-49).

BOARD OF DIRECTORS
James Maletic
Augie Scalzitti
Andrew J. Menshek
August A. Cairnes MPA, SDA
Dan McMillan MBA, MS

9300 Fanita Parkway
Santee, CA 92071
T 619 448 3111
F 619 449 9469
www.padredam.org
PO Box 719003
Santee, CA 92072-9003

5. Page 12, IV.A.1.a Table 6a. Recent influent monitoring data, especially the data from 2008 and 2009 show monthly average TDS concentrations above 850 mg/L (occasionally above 900 mg/L). The recent trend of TDS increases in PDWRF influent may be due to a combination of water conservation measures and recent TDS increases in potable water supply, which could be related to the recent cutbacks in water supply to the Southern California Region from the State Water Project. While PDMWD is currently in compliance with the daily maximum TDS concentration limitation of 1,000 mg/L, consistent compliance in the future may become more challenging with the increased reliance on water supplies from the Colorado River, which has a significantly higher TDS concentration than water from the State Water Project, along with the other factors mentioned above. As a result, PDMWD requests that the following or similar statement be added to the Tentative Order:

“Discharges with TDS concentrations exceeding 1,000 mg/L would not be considered a violation if the influent water TDS concentration is greater than 910 mg/L and the difference between the effluent and influent TDS concentrations is maintained at or below 10 percent of the influent TDS concentration.”

Please also consider applying the effluent limitation of 1,000 mg/L to a 12-month average TDS concentration.

PDMWD is a leading proponent of water conservation and reuse in the San Diego region. We feel that this language would allow us to continue providing recycled water to our customers and augmenting water supplies in our region without receiving violations for conditions that are beyond our control.

6. Page 12, IV.A.1.a Table 6a. Please remove footnote No. 4, as it is no longer applicable to this table.
7. Page 13, IV.A.2.a Table 6b. The daily maximum mass loading limitation for MTBE should be 0.083 lb/day, which is consistent with the value included in Table F12 on page F-30 (0.018 lb/day appears to be a typo). As Table F-12 does not include monthly average limitations, it appears that the monthly average limitation of 0.010 lb/day was erroneously entered into Table 6b. Please remove the monthly average limit or consider revising the limit based on the correct daily maximum mass loading limitation. We also would like to note that the units appear in a reversed order compared to the other parameters in the table, which is confusing.
8. Pages 15-20, Table 6d. It appears that the performance goals (monthly average) at EFF-001A for THMs (bromoform, chlorodibromomethane, dichlorobromomethane, and chloroform) are based on “consumption of water and organisms” standards that are established by EPA in the California Toxics Rule (CTR) and National Toxics Rule (NTR). EFF-001A is located upstream of Santee Lakes, through which THM reduction is anticipated prior to reaching EFF-001B, the point of discharge to Sycamore Creek. As Santee Lakes are not designated as a source of potable supply, are not used for human consumption

of water, and are clay lined, we feel that the performance goals for THMs and other CTR/NTR compounds at EFF-001A should be based on "consumption of organisms only" as opposed to "consumption of water and organisms". Although we understand that monitoring at EFF-001A is for informational purposes only, we feel that application of appropriate standards is important, as Appendix F IV.E. states that "Effluent concentrations above the performance goals will not be considered as violations of the permit but serve as red flags that indicate water quality concerns. Repeated red flags may prompt the Regional Water Board to reopen and amend the permit to replace performance goals for constituents of concern with effluent limitations, or the Regional Water Board may coordinate such actions with the next permit renewal."

If the performance goals at EFF-001A will remain as shown in the Tentative Order, please consider adding the following footnote that applies to "OBJECTIVES FOR PROTECTION OF HUMAN HEALTH":

Performance goals for several of the parameters listed within this table are based on California Toxics Rule standards for the protection of human health (consumption of water and organisms), which apply to all waters released at EFF-001B. Exceedance of the performance goals at EFF-001A may indicate the need for the implementation of additional monitoring at EFF-001B in order to assess conformance with the standards at EFF-001B.

9. Page 32, VI.C.7. It is not practical to develop a schedule of compliance until sufficient monitoring data are available. If the additional monitoring results indicate that compliance will be achieved immediately or through operational adjustments and/or additional source control programs, then the compliance date of May 18, 2010 would likely be practical. However, if the monitoring data and follow-up studies show that design and construction of a new treatment process, source control measures, or other improvements would be necessary, then the compliance date of May 18, 2010 would not be practical, as any significant upgrades to the PDWRF would likely involve securing of funds, feasibility studies, environmental studies, and other lengthy processes in addition to design and construction of the system. Please note that since bis 2-ethylhexyl phthalate (DEHP) is a common plasticizer used in PVC pipes and other similar products found throughout the environment, achieving significant reductions through source control measures may not be practical.

In Section 2.1 of the 2005 Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, it is stated that:

"Up to five years from the date of permit issuance, reissuance, or modification to complete actions (such as pollutant minimization or facility upgrades) necessary to comply with CTR criterion-based effluent limitations that are derived with or without a TMDL."

We recognize from previous correspondence with the Regional Board that the May 18, 2010 compliance date is referenced in the SWRCB policy on compliance

schedules in NPDES permits (Resolution No. 2008-0025). This resolution also states that "nothing in this Policy precludes the Water Boards from authorizing compliance schedules as part of a new or revised standard that are longer than those authorized in this Policy, provided that the Water Boards adequately justify the compliance schedule length and that the State Water Board and the U.S. EPA approve the new or revised standard."

Based on this information, the Regional Board appears to have the ability to extend the compliance date beyond May 18, 2010. Depending on the outcome of future monitoring and related studies, PDMWD may need up to 5 years to achieve compliance with the proposed DEHP effluent limitations (especially, if the results of the monitoring and studies show that significant modifications to the existing treatment processes are required to meet the new effluent limits). Thus, PDMWD requests that the Regional Board extend the final compliance date to 5 years from date of permit reissuance. The compliance schedule may include:

- Effluent monitoring to confirm feasibility of long-term compliance or determine if compliance is infeasible: Approximately 1 year to monitor potential seasonal variation in the effluent concentration.
- Development of a compliance work plan, if deemed necessary: Approximately 1 year to evaluate treatment alternatives and/or other measures to achieve compliance.
- Implementation of the compliance work plan: Depending on the extent of the required measures to achieve compliance, this phase may take up to 3 years or longer to design and construct required improvements.

10. Page 36, VII.H.5. "1/n" in the equation for the geometric mean should be in superscript. Please also note that PDMWD uses IDEXX Colilert®-18 for detection of *Escherichia coli* and IDEXX Enterolert™ for detection of *Enterococcus*. These methods are approved and accepted methods by the US-EPA. The test results are reported as most probable number (MPN) not colony-forming units (CFU).
11. Page E-3, Attachment E Table E-1. The monitoring location name for influent sampling should be INF-001 (without "A") to be consistent with the name used in Section III on Page E-4.
12. Page E-3, Attachment E Table E-1. Collecting water, fish tissue, Benthic Macroinvertebrates and Periphyton samples from Station RSW-001a (Approximately 400 yards downstream from the Discharge Point No. 001) is impractical. Locating a sampling station at this location will not likely provide useful information. There are two small ponds downstream of the described location where fish could be taken for the semi-final fish tissue tests. PDMWD requests that Station RSW-001a to include the downstream ponds. Please consider revising the monitoring location description to "approximately 400 to 1,000 feet downstream from Discharge Point No. 001" to allow for the fish tissue, Benthic, and Periphyton samples to be collected from the best possible location available at the time of required sampling.

13. Page E-4, Attachment E Table E-2. Please consider reducing the sampling frequency of influent total dissolved solids (TDS) to monthly to be consistent with the sampling frequency for effluent TDS.
14. Page E-5 & 6, Attachment E Tables E-3 & 4. Monitoring requirements for bromoform, chlorodibromomethane, chloroform, dichlorobromomethane, and total trihalomethanes (THMs) appear in both tables (i.e. monitoring required at both EFF-001A & 001B). Please consider eliminating the THM monitoring requirements at EFF-001B. Since THMs are included in the performance goals described in Table 6d, monitoring at more than one location may not be necessary and would result in additional cost. Limiting THM monitoring to EFF-001A appears to be appropriate, particularly if the performance goals for THMs are revised per Comment No. 8 above. This approach is also consistent with Section IV.A.4 of the Tentative Order.
15. Page E-5 & 6, Attachment E Tables E-3 & 4. Monitoring requirements for Acute and Chronic Toxicity are currently shown in Table E-3 to be monitored at EFF-001A. This appears to be an error, as Attachment E V. on Page E-7 states that "The Discharger shall conduct quarterly acute and chronic toxicity testing on effluent samples collected at Effluent Monitoring Station **EFF-001B**..." This statement is consistent with the current monitoring location at EFF-001B per Order No. 2003-0179. Please move the toxicity testing requirement from Table E-3 (EFF-001A) to Table E-4 (EFF-001B). Footnote No. 5 for Table E-3 should also be moved to Table E-4. It's our understanding that the toxicity results at stations RSW-001a and RSW-001 were going to be used to compare the toxicity leaving the Santee lakes at Station EFF-001B.
16. Page E-6, Attachment E Table E-3 footnote No. 1. This footnote seems to be more applicable to Table E-4.
17. Pages E-10 through E-12, Attachment E VIII.A & B. Tentative Order requires water quality monitoring at a total of 7 receiving water stations, including both RSW-001a and 2. Monitoring and Reporting Program (MRP) under Order No. R9-2003-0179 requires water quality monitoring at a total of 6 receiving water monitoring stations. Please note that flow rate is the only parameter that is monitored at the current Receiving Water Monitoring Station No. 3, which is located at the outlet from the first pond within Carlton Oaks Golf Course. Based on the results of the receiving water monitoring to date and the high cost that would be incurred to add an additional water quality monitoring station, PDMWD requests that the frequency of water quality monitoring for RSW-006 be reduced to once per quarter for all parameters currently noted as once per month.
18. Page E-12, Attachment E VIII.B. Please remove Station RSW-007, as this station does not exist per Table E-1.
19. Page E-13 & 14, Attachment E IX A.1, 2, and 3. The first paragraph below Table E-6c states, "Benthic macroinvertebrate analysis shall be conducted in May and December of each year,..." The first paragraph below Table E6-d states, "Periphyton analysis shall be conducted in August and December of each year..."

The first paragraph below Table E-6e states, "...Sampling at RSW-001a must take place at the same time as benthic macroinvertebrate analysis." PDMWD requests that the language above be revised to allow for samples to be collected during specified quarterly periods (e.g. 2nd and 4th quarters of the year or 3rd and 4th quarters) in lieu of the specified months. This would allow us the opportunity to schedule sampling at times when the data would be most useful.

20. Page F-4, Attachment F II.A. Please see Comments Nos. 1, 2 and 3 for suggested revisions to the facility description.
21. Page F-4, Attachment F II.A. The Order No. for the waste discharge requirements (WDR) is No. 97-49 (second paragraph).
22. Page F-42, Attachment F VI.D.1.a. There is a typo in the paragraph above Table F-19. "...in Sycamore Creek."
23. Page F-43, Attachment F VI.D.1.c. Please delete RSW-007 from the last sentence, as this station does not exist.

We appreciate the time that you and your staff have taken to work on renewal of the subject NPDES permit. Please contact me if you have any questions regarding our comments above.

PADRE DAM MUNICIPAL WATER DISTRICT



Neal Brown, P.E.
Director of Engineering and Planning

NB:cc

cc: Gary Canfield, PDMWD
Rob Northcote, PDMWD
Al Lau, P.E., PDMWD
Arne Sandvik, P.E., PDMWD
David Cover, P.E., Black & Veatch
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