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March 26, 2007

Project No. R1253; W.O. No. 30101

Ms. Melissa Valdovinos
Water Resources Control Engineer
California Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

SUBJECT: SCR:01-0217.02:MVALD
Otay Water District, Ralph W. Chapman
Tentative Order No. R9-2007-0038, Master Reclamation Permit

Dear Ms. Valdovinos:

We have reviewed the Master Reclamation Permit (Tentative Order No. R9-2007-0038) for the Otay Water District (OWD) Ralph W. Chapman Water Reclamation Facility and are providing comments to reflect our request for amendments that will allow the District to operate the reclaimed water system at its optimum and comply with San Diego Regional Water Quality Control Board requirements. We take this opportunity to acknowledge the time and effort that has been put forward by staff at the Regional Board and their input at several meetings that have facilitated communication prior to and during our review of the Tentative Order. Our comments may include issues already discussed with Regional Board staff since the issuance of the Tentative Order and are included here for completeness and as part of the public record.

The District acknowledges the Conditions to meet the Waiver Policy set forth in the Regional Board's cover letter to the Tentative Order until it is fully adopted.

General Comments.

1. OWD requests that all tables in the Final Order be systematically numbered for ease of reference. This request will facilitate locating appropriate tables when referencing the adopted order.

2. The term "Recycled Water Agency" is used in Finding 31.e prior to the definition of Otay Water District as OWD, or Discharger, or Recycled Water Agency which is at the end of Finding 36.

3. OWD acknowledges Items No. 5 through No. 9 in the Department of Health Services (DHS) letter dated January 12, 2007 and expects that all reliability features and enhancements to the Ralph W. Chapman Water Reclamation Facility (RWCWRF) will be included in the Reliability Report required in Section D.3 of the Tentative Order. Specifically related to Item No. 6 in the DHS letter, OWD would like to clarify that it plans to have chlorine residual analyzer spare parts available, not the entire analyzer units.

Comments on the Tentative Order Findings.

1. **Finding 16.** OWD requests replacement of the last sentence in the second paragraph of Finding 16– with the third finding in the DHS letter by Brian Bernardos dated February 22, 2007 that reads: "OWD agreed to develop and submit for DHS approval a "Reliability Plan" that will address alternative ways to improve reliability and monitoring and will propose a schedule to implement Title 11, Section 60341(e) requirements that the plant shall have the capability of automatically actuating short-term retention or disposal provisions and automatically actuate long-term storage or disposal provisions including all necessary sensors, instruments, valves and other devices to enable fully automatic diversion of untreated or partially treated wastewater to approved emergency storage or disposal in the event of failure of a treatment process and a manual reset to prevent automatic restart until the failure is corrected."

2. **Finding 17.** OWD requests the volume of supplemented potable water to be modified to 10.3 MGD to be inclusive of up to 9.0 MGD from the City of San Diego's SBWRP plus 1.3 MGD from the RWCWRF, to offset existing and future demands for potable water for irrigation uses.

3. **Finding 20.** OWD requests the following modification to the fourth sentence to reflect actual operating conditions. "Skimmings and waste activated sludge (WAS) from the tanks are directly discharged to the City of San Diego sewage collection system."

4. **Finding 20.** In the last sentence the word "ponds" should be changed to "reservoirs."

5. **Finding 21.** The effluent values shown for the RWCWRF from January 2002 through December 2006 need to be verified against OWD records. The chloride level is reported higher than minimum levels (160 mg/L), sulfate (190 mg/L), MBAS <0.05 mg/L) and fluoride (<0.01 mg/L). The maximum effluent reports from 2003 through 2005 indicated minimum effluent levels for chloride (160 effluent values may also need to be verified including manganese (0.01 mg/L) and MBAS (0.44 mg/L). Regional Board staff has indicated they would verify the effluent values and provide OWD with the source data shown in the Tentative Order table.

6. **Finding 22.** OWD requests clarification of the designation of the RWCWRF based on effluent categorization described in 23 CCR 2200 – Annual Fee Schedules. OWD believes that the designation should change from 2A to 2B since the RWCWRF does not have discharges of toxic wastes (category A) instead the facilities have physical, chemical and biological treatment systems (category B). Regional Board staff has indicated the change will be made.

7. **Finding 24.** Correct spacing on first line (blank areas). OWD requests additional notations to Finding 24 *Beneficial Uses of Groundwater a. Municipal and Domestic Supply* since the beneficial use falls under the exception and is not an existing use in all but one of the underlying groundwater basins. In Basin Plan Section 2 *Exceptions to the "Sources of Drinking Water" Policy* adopted in 1989 by Resolution No. 89-33, *'Incorporation of "Sources of Drinking Water" Policy into the Water Quality Control Plan (Basin Plan) of the San Diego Region",* the Regional Board has determined hydrologic units, areas, and subareas which do not support the MUN or "*Sources of Drinking Water*" designations. These ground water and surface water hydrologic units areas, and subareas are identified in Basin Plan Tables 2-2 and 2-5 with a "+" indicating that the water body has been exempted by the Regional Board from the municipal use designation. All surface water beneficial uses are exempt for the OWD Proposed Use Areas and Exempt or Potential for Ground Water Beneficial Uses, except for La Nacion which has a designated MUN beneficial use. OWD is a purveyor of recycled water to the southeastern portion of the La Nacion subarea (See Figure 4-1 of the OWD Engineering Report).

Comments on theTentative Order Requirements.

8. **Section A.7**. OWD requests the combined effluent from the RWCWRF and SBWRP used for water recycling to be a calendar monthly total volume equivalent to 10.3 MGD.

9. **Section B.1**. Modify to clarify that the discharge specifications in this permit apply to RWCWRF and that SBWRP is covered under its own permit (Order No. 2000-203 and subsequent addenda).

10. **Section B.3. Effluent Limitations.** TDS, chloride and sulfate have two effluent limitations, one as maximum (monthly average and daily) and one as an increment over water supply levels. OWD suggests changes to the permit language to make it clearer by amending footnote c as follows: "The following effluent limitations apply as increments above the supply water concentrations up to the tabulated effluent limitations listed for each constituent in the table above."

Section B.3. Effluent Limitations.

a. OWD seeks clarification on the derivation of the Monthly Average and Daily Maximum effluent limitations in Section B.3. We believe the column headings may be reversed. OWD requests that the Regional Board include the derivation of the effluent limitations as a footnote to the table in Section B.3, unless the explanation is provided in the upcoming Fact Sheet.

b. OWD requests specific clarification on the derivation of effluent limitations with respect to the requirement that the limits not be exceeded more than 10% of the time, since this is not included in the table in Section B.3.

c. OWD requests the removal of the groundwater quality objective for turbidity from the table in B.3 in lieu of the turbidity limitations set in B.5.

11. **Section B.6. Effluent Limitations. Comments on the Applicability of Drinking Water Maximum Concentration Levels to Recycled Water.**

OWD requests deletion of the Drinking Water based Primary Standards as the effluent discharge standards for reclaimed water. OWD believes the use of Drinking Water maximum contamination levels (MCLs) from the California Code of Regulations, Title 22, Tables 64431-A and 64444-A, which establish limitations on inorganic and organic chemicals in drinking water for the protection of human health, are not applicable to recycled water effluent from the RWCWRF.

In August 2006, Fallbrook Public Utility District (FPUD) brought this issue forward to the Regional Board regarding Tentative Order R9-2006-0064 for its Treatment Plant No. 1 Reclamation Project. Similar requirements to meet MCL discharge standards had been included in the FPUD Tentative Order. FPUD argued the following:

> *MCLs are adopted by the Department of Health Services (DHS) to apply only to the direct supply of water to the public for drinking water purposes. ...The MCLS set forth in Title 22 of the California Code of Regulations were intended only to apply to drinking water treatment facilities providing potable water at the tap or point of use, not as specifications applicable to reclamation and/or reuse projects. See 22 C.C.R.* §64431 and §64444. *Since the recycled water produced... is not used for direct potable purposes, the Title 22-based MCL requirements are unnecessarily restrictive and inappropriate.*

On behalf of OWD, PBS&J discussed this issue with Jeff Stone, DHS Recycled Water Program Director, in a telephone conversation on February 28, 2007. Mr. Stone concurred that the MCLs in the Title 22 regulations referenced in the Tentative Order were never meant to be used to regulate recycled water effluent quality.

At the Regional Board Hearing on August 16, 2006, with regard to the FPUD Tentative Order R9-2006-0064, the Board directed staff to "work on the issue to develop some regional information then bring the item back to the Board as quickly as possible." OWD agrees with FPUD, that the inclusion of these requirements as "end of pipe" limits is inappropriate for the beneficial use of recycled water. By applying MCLs as direct limits, the Regional Board is discouraging the use of recycled water throughout the region, which is contrary to State law and policy. OWD requests the Regional Board disclose their findings on this issue as a result of the Regional Board directive.

In response to FPUD's comments, the Regional Board staff stated that when site specific groundwater and hydrogeologic information is available, the Regional Board may take that information into consideration when developing effluent limitations rather than applying water quality objectives to the effluent end of pipe. With regard to the use of recycled water in the La Nacion HSA, the only groundwater basin in OWD's jurisdiction that has an Existing Municipal and Domestic Beneficial Use, OWD has been providing recycled water for irrigation in this basin for more than 5 years. During the same period, Sweetwater Authority, the water district that operates wells in the Lower Sweetwater HA groundwater basin, has been operating eight municipal supply wells and monitoring the quality of the water from these wells.

Sweetwater Authority's 2006 Water Quality Report indicates that they operate three wells in National City and five wells in the San Diego Formation, a deeper groundwater basin. No contaminants, including volatile organic chemicals or non-volatile synthetic organic chemicals, have been detected in either well supply. In 2002, the Authority conducted an assessment of "possible contaminating activities" in determining the vulnerability of water quality in its well fields. The report notes that the National City well field is considered most vulnerable to a confirmed leaking gasoline tank and has been conducting monthly monitoring of the well field since being notified. All monitoring tests have been negative for contamination of this well field. The San Diego Formation well field is high in TDS. The water extracted from these wells is treated using reverse osmosis membranes and disinfection at the Reynolds Groundwater Desalination Facility. This well field was assessed to be most vulnerable to runoff from nearby urban activities. Sweetwater Authority monitors these wells on a regular basis and all monitoring tests have been negative for contamination to the Authority's well field.

OWD requests that the Regional Board consider the available monitoring data for the Sweetwater Authority wells in determining that the application MCLs for Primary Drinking Water Standards to the recycled water effluent from the Ralph W. Chapman WRF is not necessary. Sweetwater Authority's vulnerability assessments, monitoring program and treatment system ensures the preservation of beneficial uses of groundwater in the La Nacion basin. Irrigation customers in OWD are required to follow Recycled Water Use Rules and Regulations that stipulate that conditions causing overspray or runoff shall be limited or prevented. Properly operated irrigation systems are designed to apply the amount of water needed to support the plants being irrigated, and any excess recycled water that is not evaporated but recharged to the groundwater basin would be minor and incidental. With over 5 years of recycled water use and well monitoring in this basin, no evidence of contamination of the downstream well fields has been found. With this history of compliance with the Basin Plan's water quality objectives, OWD contends that the requirement to monitor the recycled water effluent for MCLs for Primary Drinking Water Standards would serve no purpose.

OWD requests that the Regional Board consider the directive in the Porter-Cologne Act which defines water quality objectives as "...the limits or levels of water quality constituents or characteristics which are established for the **reasonable** protection of beneficial uses of water or the prevention of nuisance within a specific area" (§13050(h)) [emphasis added] in the preparation of the effluent limitations for the RWCWRF.

OWD believes that the continued and regulated use of recycled water and the on-going groundwater monitoring program provides reasonable protection of the beneficial use of water and prevention of nuisances in the La Nacion basin and that the *Action Plan on Water Reclamation* in the Region 9 Basin Plan supports the use of reclaimed water for the proposed areas. The Discharge Specifications in Sections B.1 through B.5 are appropriate and sufficient as effluent limitations and specifications.

12. **Section C. Recycled Water Purveyance Requirements.** This entire section lists the "Recycled Water Agency" instead of Otay Water District or the RWCWRF. Not a significant comment, but noted.

13. **Section C.1.c.** We request modification of the language in this section to allow the requirement to be satisfied by having the records available for inspection at the OWD offices.

14. **Section C.1.d.** OWD requests that this section be moved from Section C – Recycled Water Purveyance Requirements to Section D – Facility Design and Operation Specifications, preferably incorporated into D.3 as part of the Reliability Plan compliance schedule.

15. **Section C.1.e.** OWD requests deletion of the entire paragraph. As noted in January 3, 2007 meeting notes, a tracer study was determined not to be required by DHS.

16. **Section C.2.** OWD requests clarification on the required submittals to DHS and DEH.

17. **Section C.2.b**. Note that OWD has its own AWWA certified cross-connection specialists who coordinate with DEH staff. Therefore "of the DEH" can be removed from the paragraph.

18. **Section D. Facility Design and Operation Specifications.** This section lists the "Recycled Water Agency" instead of Otay Water District or the RWCWRF. Not a significant comment, but noted.

19. **Section D.2. Certification Report.** OWD requests the second sentence be modified as follows: "The disposal facilities shall have adequate capacity for the full permitted distribution of 10.3 MGD."

We request clarification regarding the certification requirements for the RWCWRF. OWD can provide existing information and specifications of the design capacity of the various treatment components from the original design reports (which were reviewed and approved by DHS) and which remains unchanged.

20. **Section D.3. Reliability Plan**

a. OWD requests the Reliability Plan due date to be amended to 90 days for submittal of the draft Reliability Plan for review and approval by DHS and the other agencies. As currently written the tentative order would require submittal of the approved Reliability Plan within 90 days, yet OWD has no way of ensuring agency review and approval can be completed within that timeline.

b. We request the Order be amended to include the more specific provisions to be addressed in the Reliability Plan, as outlined in the 2-22-07 DHS letter:

- SCADA will monitor flow measurement
- SCADA will continually calculate and monitor the CT
- Plant shall have capability of automatically actuating short term and long term retention or disposal of untreated or partially treated recycled water
- Incorporate automatic activation of standby chemical feed pump and diversion of flow if standby pump breaks down or runs out of chemicals
- Availability of spare parts for turbidimeters and chlorine residual analyzers on site.

21. **Section D.6 – Operation Manual.** OWD seeks removal of the secondary turbidity alarm set points and levels in Sections D.6.a. and D.6.b, respectively, pending submission of the Reliability Plan to determine how and where turbidity will be measured and alarmed.

MONITORING AND REPORTING PROGRAM NO. R9-2007-0038

Comments on the Monitoring Provisions.

22. **B. Influent Monitoring.** OWD requests the addition of language to allow the influent flow to be determined by a mass balance calculation involving flow metering at other locations throughout the plant. OWD requests this modification due to the technical challenges of accurately measuring influent, raw wastewater accurately.

23. **C.3. Monitoring and Reporting Criteria.**

a. OWD Requests the deletion of the second turbidity constituent entry on page 37 and the addition of footnote "h" to the first turbidity constituent entry on the table on page 36.

b. OWD requests removal of the monitoring and reporting requirements associated with all constituents generated from the municipal supply maximum contaminant levels (MCL) from the Drinking Water regulations.

c. OWD requests the metals monitoring frequency remain at annual as in the previous permit due to the low levels found in the effluent as shown by the historical data. Such metals as aluminum, barium, chromium, lead, and zinc have been reported several orders of magnitude lower than the discharge limitations listed in Table B.6. Also, historically non-detectable amounts for arsenic, cadmium, mercury, and selenium have been reported. The addition of rarely found metals such as antimony, beryllium, nickel and thallium, and cyanide should be removed from the monitoring requirements.

We appreciate the opportunity to provide preliminary comments on the Tentative Order and we look forward to the revisions by Regional Board staff. Please do not hesitate to contact Lisa Coburn-Boyd at 619-670-2219 for any assistance we may offer in expediting and completing the process.

Sincerely,
OTAY WATER DISTRICT

Mark Watton
General Manager

MW/LCB:jf

cc. Mr. Brian Bernados, DHS
Mr. Glenn Leeks, County, DEH
Mr. Manny Magaña, OWD
Mr. Rod Posada, OWD
Mr. Ron Ripperger, OWD
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