

California Regional Water Quality Control Board
Santa Ana Region

November 18, 2005

ITEM: 7

SUBJECT: Amendment to Order No. R8-2004-0065, NPDES No. CA8000188, Waste Discharge Requirements, Eastern Municipal Water District, Temescal Creek Discharge, Riverside County, Order No. R8-2005-0078

I. SUMMARY

On November 2, 2004, the Board adopted Order No. R8-2004-0065, NPDES No. CA8000188, renewing waste discharge requirements for Eastern Municipal Water District (hereinafter discharger or EMWD) for the discharge of excess tertiary treated wastewater that cannot be percolated/evaporated and/or recycled to a pipeline that ultimately discharges into Temescal Creek. The pipeline links into a single regionwide water recycling system connecting the five Regional Water Reclamation Facilities (RWRFs) operated by EMWD. Amendment of the Order is proposed to include tertiary treated wastewater discharges from the Rancho California Water District's Santa Rosa facility, located within the jurisdiction of the San Diego Regional Water Board, to EMWD's regionwide water recycling system. The amendment also includes requirements for the discharge of secondary treated and disinfected wastewater to surface waters when at least 20:1 dilution can be provided by the natural receiving waters.

II. DISCUSSION

EMWD operates the Moreno Valley, Perris Valley, San Jacinto Valley, Sun City, and Temecula Valley Regional Water Reclamation Facilities (RWRFs). Each of these RWRFs is regulated under individual waste discharge requirements for discharges to onsite percolation/evaporation ponds and for the use of recycled water for agricultural irrigation, golf course irrigation, wildlife enhancement, and maintenance of duck ponds and wildlife enhancement at locations near each respective plant.

On January 19, 2005, EMWD submitted a request to amend their current permit, Order No. R8-2004-0065, NPDES No. CA8000188, to include tertiary recycled water discharges from the Rancho California Water District's Santa Rosa facility to EMWD's regionwide water recycling system. On August 24, 2005, EMWD revised their earlier request to amend their permit to authorize discharges of secondary treated and disinfected wastewater to surface waters when 20:1 dilution or more can be provided by the natural receiving waters.

EMWD is currently authorized to discharge 47.5 million gallons per day (MGD) of wastewater into Temescal Creek. With the addition of flows from Rancho California Water District’s Santa Rosa Facility, EMWD requests that the authorized discharge volume be increased to 52.5 MGD¹.

The following changes to the Order are proposed: (additions are boldface and highlighted, deletions are struck out). Footnote text that has not changed but is referenced in the proposed amendments is not shown herein.

1. Order No. R8-2004-0065, Page 2 of 27, revise Finding 6 as follows:

6. The discharger’s RWRFs provide secondary or tertiary treatment. ~~Typically, secondary un-disinfected and/or d~~Disinfected wastewater is discharged to on-site percolation/evaporation ponds and/or used for agricultural uses. The Table below shows the treatment processes at each of the RWRFs. ~~Only~~ Tertiary-treated recycled water is discharged to Temescal Creek. **When Temescal Creek provides at least 20:1 dilution of the wastewater, secondary treated and disinfected wastewater may also be discharged.**

| Facility | San Jacinto Valley | Moreno Valley | Perris Valley | Sun City | Temecula Valley |
|-----------------|--|--|---------------|----------|-----------------|
| Treatment | | | | | |
| Primary | Screening, grit removal, primary clarification | Screening, grit removal primary clarification | | | |
| Secondary | Diffused-air activated sludge with biological nitrogen removal | | | | |
| Tertiary | Under Design | Chemical flocculation, filtration and chlorination | | | |
| Solids Handling | Anaerobic or aerobic digestion, belt presses for dewatering (future centrifuges), sludge drying beds. Biosolids are sent for land application or composting. | | | | |

2. Order No. R8-2004-0065, Page 2 of 27, add new Finding 8 and new footnote number 3 as follows and renumber the succeeding Findings and footnotes accordingly:

- 8. As described in Finding 2 above, the discharger operates a single region wide water reclamation system including pipelines that link the five RWRFs. This pipeline system includes the Palomar pipeline from the Temecula area to Lake Elsinore. The discharger recently entered into an agreement with Rancho California Water District (RCWD)³ to share the Palomar pipeline and allow the intermittent discharge of tertiary treated wastewater from RCWD’s Santa Rosa Water Reclamation Facility (SRWRF) when storage and reuse cannot accommodate the flow. The SRWRF is designed to treat 5**

¹ The initial Order (Order No. 93-33) issued to regulate EMWD’s discharges to Temescal Creek authorized a discharge volume of 58mgd.

MGD of wastewater and is currently regulated by Order No. 94-92 issued by the San Diego Regional Water Quality Control Board. Order No. 94-92 regulates the storage and reuse of recycled water from the SRWRF. The SRWRF consists of a flow equalization basin, pump station, denitrification reactors (optional), rapid mix/flocculation basins, tertiary clarifiers, gravity filters, chlorine contact basin, filter backwash basins, sludge holding basin, and sludge drying beds.

Footnote 3 Rancho California Water District encompasses approximately 100,000 acres of land located in the southwestern part of Riverside County. The District serves the area known as Temecula/Rancho California, which includes the City of Temecula, portions of the City of Murrieta and other contiguous land in the unincorporated territory of the County of Riverside

3. Order No. R8-2004-0065, Page 4 of 27, add new Findings 16 and 17 as follows and renumber following Findings accordingly:
 16. **Temescal Creek is not naturally perennial and very little natural flow exists. Under storm conditions, 20:1 (natural receiving waters to effluent) dilution of the effluent by storm flows may be provided. These storm conditions may also threaten the operational safety of the wastewater treatment facilities through influx of infiltrated storm flows into the sanitary sewer system. The discharge of secondary effluent when the creek provides at least 20:1 dilution may be necessary to protect the integrity of these facilities.**
 17. **This Order contains requirements and effluent limits for the discharge of secondary treated and disinfected wastewater into Temescal Creek when the Creek provides at least 20:1 dilution.**
4. Order No. R8-2004-0065, Page 6 of 27, revise finding 29 as follows:
 29. This Order implements relevant provisions of the CTR and the State Board Policy. Based on the methodology outlined in the State Board Policy, chromium (VI), copper, cyanide, mercury, selenium, and bis (2-ethylhexyl) phthalate were found to pose a reasonable potential to cause or contribute to an excursion of a water quality standard. Following the CTR and the Policy procedures, effluent discharge limitations were developed for **aluminum**, chromium (VI), copper, cyanide, **dichlorobromomethane**, heptachlor, mercury, selenium, and bis (2-ethylhexyl) phthalate. Statistical procedures as specified in the Policy are used in calculating effluent limits.

5. Order No. R8-2004-0065, Page 7 of 27, revise footnote 6, add new footnote 7, renumber following footnotes accordingly, and revise the table shown in Discharge Specifications A.1.a. as follows:

| EFFLUENT WITHOUT 20:1 DILUTION | | | | |
|---|---|--|---|---|
| Constituent | Average Weekly Concentration Limit | Average Monthly Concentration Limit | Average Weekly Mass Emission Rate ⁶ | Average Monthly Mass Emission Rate |
| | mg/l | mg/l | lbs/day | lbs/day |
| Biochemical Oxygen Demand | 30 | 20 | 11,885 13,136 | 7,923 8,757 |
| Suspended Solids | 30 | 20 | 11,885 13,136 | 7,923 8,757 |
| EFFLUENT WITH 20:1 DILUTION (CREEK FLOW⁷ : WASTEWATER FLOW) | | | | |
| Constituent | Average Weekly Concentration Limit | Average Monthly Concentration Limit | Average Weekly Mass Emission Rate ⁶ | Average Monthly Mass Emission Rate |
| | mg/l | mg/l | lbs/day | lbs/day |
| Biochemical Oxygen Demand | 45 | 30 | 19,703 | 13,136 |
| Biochemical Oxygen Demand | 45 | 30 | 19,703 | 13,136 |

Footnote 6: Mass emission rates for this and all other tables in this permit are based on the projected 2009 discharge flow rate of 47.5 ~~52.5~~ mgd.

Footnote 7: Exclusive of discharges from upstream publicly owned treatment works.

6. Order No. R8-2004-0065, Page 8 of 27, revise the table shown in Discharge Specifications A.1.b. as follows

b. Chlorine Residual/Ammonia Limitations for all discharges:

| Constituent | Instantaneous Maximum Concentration Limit (mg/l) | Average Monthly Concentration Limit (mg/l) | Average Monthly Mass Emission Rate (lbs/day) |
|-------------------------|---|---|---|
| Ammonia-Nitrogen | | 4.5 | 1,783 1,970 |
| Total Residual Chlorine | 0.1 | ---- | ---- |

7. Order No. R8-2004-0065, Page 8 of 27, revise Discharge Specifications A.1.c.(1) as follows
- (1) The 12-month average TDS constituent concentrations and mass emission rates shall not exceed 650 mg/l and ~~257,498~~ **284,603** lbs per day, respectively, unless:
8. Order No. R8-2004-0065, Page 8 of 27, modify Discharge Specifications A.1.d. as follows
- d. Total Inorganic Nitrogen (TIN) Limitations: The 12-month average TIN constituent concentrations and mass emission rates shall not exceed 10 mg/l and **4,379 lbs per day, respectively.**
9. Order No. R8-2004-0065, Page 9 of 27, revise the table shown in Discharge Specifications A.2 as follows:

| Constituent | Maximum Daily Concentration Limit (µg/l) | Average Monthly Concentration Limit (µg/l) | Maximum Daily Mass Emission Rate (lbs/day) | Average Monthly Mass Emission Rate (lbs/day) |
|--|--|--|--|--|
| Aluminum | 142.6 | 71 | 62.44 | 31.09 |
| Dichlorobromomethane | 92.5 | 46 | 40.50 | 20.14 |
| Total Recoverable Chromium (VI) ⁷ | 16.3 | 8.1 | 6.46 7.14 | 3.21 3.55 |
| Total Recoverable Copper | 25.6 | 12.8 | 10.14 11.21 | 5.07 5.60 |
| Total Recoverable Mercury | 0.08 | 0.04 | 0.03 0.04 | 0.016 0.018 |
| Total Recoverable Selenium | 8 | 4 | 3.17 3.50 | 1.58 1.75 |
| Free Cyanide | 8.5 | 4.3 | 3.37 3.72 | 1.70 1.88 |
| Bis(2-ethylhexyl) phthalate | 15 | 5.9 | 5.94 6.57 | 2.34 2.58 |
| Limits for metals that are hardness dependent were computed based on the hardness value median of effluent flows =138 mg/l ⁸ | | | | |

10. Order No. R8-2004-0065, Page 12 of 27, add new Discharge Specification A.7. as follows:

7. The discharge of secondary treated wastewater when the flow⁷ in Temescal Creek results in at least a dilution of 20:1 (receiving water flow : wastewater flow) or more at the point of discharge shall be an adequately disinfected and oxidized wastewater. The discharge shall be considered adequately disinfected if at some location in the treatment process, the median number of coliform organisms does not exceed 23 per 100 milliliters. The median value shall be determined from the bacteriological results of the last 7-days for which analyses have been completed. The discharge shall be considered adequately oxidized if it complies with the average weekly and average monthly effluent limitations for BOD and suspended solids as specified in Discharge Specification A.1.a., with 20:1 dilution, above.

The discharger shall make provisions for the measurement of the receiving water flow⁷ at a suitable location upstream of the discharge point and determine whether at least 20:1 dilution exists before discharging secondary treated effluent. A dilution of 20:1 or more is required at the point of discharge.

11. Order No. R8-2004-0065, Page 15 of 27, modify Compliance Determination E.2. as follows:

2. Compliance with average weekly and monthly discharge limitations specified under Discharge Specifications A.1.a. and A.1.d. shall be determined from the average of the analytical results of all samples collected during a calendar week or month, respectively. Where a calendar week overlaps two different months, compliance shall be determined for the month in which the week ends. If the average of daily discharges over a calendar week or month exceeds the average weekly or monthly discharge limitations, respectively, for a given parameter, an alleged violation will be flagged and the discharger may be considered out of compliance for each day of discharge within that week or month for that parameter.

12. Monitoring and Reporting Program No. R8-2004-0065, page 6 of 12, revise B.2. Effluent Monitoring as follows:

2. The following shall constitute the effluent monitoring program:

| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
|----------------------|----------|--------------------|--|
| Flow | mgd | Recorder/Totalizer | Continuous |
| Specific Conductance | µmhos/cm | Recorder | " |

| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
|-------------------------------------|------------------------|-------------------------|--|
| pH | pH units | " | " |
| Chlorine (Combined Residual) | mg/l | Recorder | Continuous |
| Turbidity | NTU ⁶ | " | " |
| BOD ₅ | mg/l | Composite | Daily |
| Suspended Solids | " | " | " |
| Ammonia-Nitrogen | " | " | " |
| Coliform Organisms | MPN/100mL ⁷ | Grab | Daily (See note (2), below) |
| Toxicity Monitoring | TUc | (See Section C., below) | (See Section C., below) |
| Bicarbonate | mg/l | 24-hr Composite | Monthly |
| Boron | " | " | " |
| Calcium | " | " | " |
| Carbonate | " | " | " |
| Chloride | " | " | " |
| Fluoride | " | " | " |
| Magnesium | mg/l | 24-hr Composite | Monthly |
| Nitrate (as Nitrogen) | " | " | " |
| Sodium | " | " | " |
| Sulfate | " | " | " |
| Total Dissolved Solids | " | " | " |
| Total Hardness | " | " | " |
| Total Inorganic Nitrogen | " | " | " |
| Iron | " | " | " |
| Manganese | " | " | " |
| Total Recoverable Cadmium | µg/l | 24-hr Composite | Monthly (see B.4, below) |
| Aluminum | " | " | Monthly |
| Bis (2-ethylhexyl) phthalate | " | " | " |
| Chromium VI or Total Chromium | " | " | " |
| Total Recoverable Copper | " | " | " |
| Dichlorobromomethane | " | " | " |
| Cyanide (free) | " | Grab | " |
| Chloroform | " | " | Monthly (see B.4, below) |
| Halomethanes ⁸ | " | " | " |
| Antimony | " | Composite | " |
| Heptachlor | " | " | " |
| Thallium | " | " | " |
| Total Recoverable Lead | " | " | " |

| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
|--|-------|----------------|--|
| Total Recoverable Mercury | " | " | Monthly |
| Total Recoverable Selenium | " | " | Monthly |
| Total Recoverable Silver | " | " | Monthly (see B.4, below) |
| Total Recoverable Zinc | " | " | Monthly (see B.4, below) |
| Hexachlorocyclohexane: alpha, beta, and gamma | µg/l | Composite | Monthly (see B.4, below) |
| Perchlorate | | Grab | Annually |
| Remaining EPA Priority Pollutants ⁸ (See Attachment "B" ⁹) | µg/l | Composite | Annually |

13. Monitoring and Reporting Program No. R8-2004-0065, page 8 of 12, add new Effluent Monitoring B.3. and B.4. as follows and renumber following paragraphs accordingly:

3. The following shall constitute the effluent monitoring program for the discharge of secondary treated and disinfected wastewater when at least 20:1 dilution is present in the receiving water:

| FOR DISCHARGES WHEN 20:1 DILUTION IS PRESENT IN THE RECEIVING WATERS | | | |
|--|--------------|--------------------|--|
| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
| Flow | MGD | Recorder/Totalizer | Continuous |
| Chlorine Contact Time (CT) | mg-minutes/l | Recorder | " |
| Total Chlorine Residual | mg/l | " | " |
| Suspended Solids | mg/l | grab | Daily |
| BOD ₅ | " | " | " |
| pH | pH units | " | " |
| Total Coliform | MPN/100ml | grab | Daily |
| Total Dissolved Solids | mg/l | " | Monthly |
| Total Hardness | " | grab | Monthly |

4. **Whenever there is a discharge of secondary treated and disinfected wastewater, the discharger shall submit documentation that at least 20:1 dilution existed in Temescal Creek at the time of the discharge. Documentation shall include the date(s), time(s), and duration(s) of the discharge, the corresponding flow in the receiving stream during the discharge, and the climatic condition in the area during the discharge. This documentation shall be submitted with the required monthly report.**
14. Monitoring and Reporting Program No. R8-2004-065, page 8 of 12, revise B.4. Effluent Monitoring as follows:
4. The monitoring frequency for this pollutant shall be reduced to quarterly if after three consequent monitoring events there is non-detected (ND). **The Discharger shall use the ML specified in Attachment "A" that would be below the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant in 40 CFR 131.38).** To reduce the monitoring frequency to quarterly, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

III. WRITTEN COMMENTS

Interested persons are invited to submit written comments on the proposed discharge limits and the staff report. Comments should be submitted by October 31, 2005, either in person or by mail to:

Jun Martirez
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

IV. INFORMATION AND COPYING:

Persons wishing further information may write to the above address or call Jun Martirez of the Regional Board at (951) 782-3258. Copies of the application, proposed waste discharge requirements, Fact Sheet, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday (excluding holidays).

V. REGISTER OF INTERESTED PERSONS:

Any person interested in a particular application or group of applications may leave his/her name, address, and phone number as part of the file for an application.

VI. PUBLIC HEARING:

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements as follows:

DATE: November 18, 2005
TIME: 9:00 a.m.
PLACE: City Council Chambers of Loma Linda
25541 Barton Road
Loma Linda, California

RECOMMENDATION:

Adopt Order No. R8-2005-0078, amending Order No. R8-2004-0065, NPDES No. CA800188, as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) - Doug Eberhardt
U.S. Army District, Los Angeles, Corps of Engineers - Regulatory Branch
U.S. Fish and Wildlife Service - Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
State Water Resources Control Board, Division of Water Quality – Jim Maughan
State Department of Water Resources - Glendale
State Department of Fish and Game – Los Alamitos
State Department of Health Services - San Diego – Steve Williams
Regional Water Quality Control Board, San Diego Region – Charles Cheng
Riverside County Environmental Health Services – Sandy Bunchek
Riverside County Flood Control and Water Conservation District – Jason Uhley
Riverside County Board of Supervisors – Bob Buster
Santa Ana River Discharger's Association (SARDA)
City of Lake Elsinore- City Manager
City of Canyon Lake – City Manager
Elsinore Valley Municipal Water District – Ron Young/Phillip Miller
Lee Lake Water District – John Pastore
Law Office of Thomas E. Luebben - James K. Hansen
Orange County Coastkeeper – Garry Brown
Orange County Water District – Nira Yamachika

South Coast Air Quality Management District – Barry R. Wallerstein
Lawyers for Clean Water C/c San Francisco Baykeeper
Natural Resources Defense Council- David Beckman
Best, Best & Krieger, LLP – Arthur L. Littleworth

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2005-0078

Amending Order No R8-2004-0065, NPDES No. CA8000188
Waste Discharge Requirements
for
Eastern Municipal Water District
Temescal Creek Discharge
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. On November 2, 2004, the Board adopted Order No. R8-2004-0065, NPDES No. CA8000188, renewing waste discharge requirements for Eastern Municipal Water District (hereinafter discharger or EMWD) for the discharge of excess tertiary treated wastewater that cannot be percolated/evaporated and/or recycled to a pipeline that links into a single regionwide water recycling system connecting the five Regional Water Reclamation Facilities operated by EMWD. This pipeline ultimately discharges into Temescal Creek.
2. EMWD operates the Moreno Valley, Perris Valley, San Jacinto Valley, Sun City, and Temecula Valley Regional Water Reclamation Facilities (RWRFs). Each of these RWRFs is regulated under individual waste discharge requirements for discharges to onsite percolation/evaporation ponds and for the use of recycled water for agricultural irrigation, golf course irrigation, wildlife enhancement, and maintenance of duck ponds and wildlife enhancement at locations near each respective plant.
3. On January 19, 2005, EMWD submitted a request to amend their current permit, Order No. R8-2004-0065, NPDES No. CA8000188, to include tertiary recycled water discharges from the Rancho California Water District's Santa Rosa facility to EMWD's regionwide water recycling system.
4. Order No. 93-33, the initial Order issued to regulated discharges to Temescal Creek by EMWD authorized a discharge volume of 58 mgd. Order No. R8-2004-0065 currently authorizes a discharge volume of wastewater to Temescal Creek of 47.5 million gallons per day (MGD). With the addition of flows from Rancho California Water District's Santa Rosa Facility, EMWD requests that the authorized discharge volume be increased to 52.5 MGD.
5. It is appropriate to amend Order No. R8-2004-0065 to include the discharge of tertiary treated wastewater from Rancho California Water District's Santa Rosa Facility as requested by EMWD.

6. In accordance with Water Code Section 13389, the amendment of Order No. R8-2004-0065, NPDES No. CA8000188, is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
7. The Regional Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
8. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. R8-2004-0065 shall be amended as follows:

1. Order No. R8-2004-0065, Page 2 of 27, revise Finding 6 as follows:
 6. The discharger’s RWRFs provide secondary or tertiary treatment. Disinfected wastewater is discharged to on-site percolation/evaporation ponds and/or used for agricultural uses. The Table below shows the treatment processes at each of the RWRFs. Tertiary-treated recycled water is discharged to Temescal Creek. When Temescal Creek provides at least 20:1 dilution of the wastewater, secondary treated and disinfected wastewater may also be discharged.

| Facility | San Jacinto Valley | Moreno Valley | Perris Valley | Sun City | Temecula Valley |
|-----------------|--|---------------|---------------|----------|-----------------|
| Treatment | | | | | |
| Primary | Screening, grit removal primary clarification | | | | |
| Secondary | Diffused-air activated sludge with biological nitrogen removal | | | | |
| Tertiary | Chemical flocculation, filtration and chlorination | | | | |
| Solids Handling | Anaerobic or aerobic digestion, belt presses for dewatering (future centrifuges), sludge drying beds. Biosolids are sent for land application or composting. | | | | |

2. Order No. R8-2004-0065, Page 2 of 27, add new Finding 8 and new footnote number 3 as follows and renumber the succeeding Findings and footnotes accordingly:
 8. As described in Finding 2 above, the discharger operates a single region wide water reclamation system including pipelines that link the five RWRFs. This pipeline system includes the Palomar pipeline from the Temecula area to Lake Elsinore. The discharger recently entered into an agreement with Rancho California Water District (RCWD)³ to share the Palomar pipeline and allow the intermittent discharge of tertiary treated wastewater from RCWD’s Santa Rosa Water Reclamation Facility (SRWRF) when storage and reuse cannot

accommodate the flow. The SRWRF is designed to treat 5 MGD of wastewater and is currently regulated by Order No. 94-92 issued by the San Diego Regional Water Quality Control Board. Order No. 94-92 regulates the storage and reuse of recycled water from the SRWRF. The SRWRF consists of a flow equalization basin, pump station, denitrification reactors (optional), rapid mix/flocculation basins, tertiary clarifiers, gravity filters, chlorine contact basin, filter backwash basins, sludge holding basin, and sludge drying beds.

Footnote 3 Rancho California Water District encompasses approximately 100,000 acres of land located in the southwestern part of Riverside County. The District serves the area known as Temecula/Rancho California, which includes the City of Temecula, portions of the City of Murrieta and other contiguous land in the unincorporated territory of the County of Riverside

3. Order No. R8-2004-0065, Page 4 of 27, add new Findings 16 and 17 as follows and renumber following Findings accordingly:
 16. Temescal Creek is not naturally perennial and very little natural flow exists. Under storm conditions, 20:1 (natural receiving waters to effluent) dilution of the effluent by storm flows may be provided. These storm conditions may also threaten the operational safety of the wastewater treatment facilities through influx of infiltrated storm flows into the sanitary sewer system. The discharge of secondary effluent when the creek provides at least 20:1 dilution may be necessary to protect the integrity of these facilities.
 17. This Order contains requirements and effluent limits for the discharge of secondary treated and disinfected wastewater into Temescal Creek when the Creek provides at least 20:1 dilution.
4. Order No. R8-2004-0065, Page 6 of 27, revise finding 29 as follows:
 29. This Order implements relevant provisions of the CTR and the State Board Policy. Based on the methodology outlined in the State Board Policy, chromium (VI), copper, cyanide, mercury, selenium, and bis (2-ethylhexyl) phthalate were found to pose a reasonable potential to cause or contribute to an excursion of a water quality standard. Following the CTR and the Policy procedures, effluent discharge limitations were developed for aluminum, chromium (VI), copper, cyanide, dichlorobromomethane, heptachlor, mercury, selenium, and bis (2-ethylhexyl) phthalate. Statistical procedures as specified in the Policy are used in calculating effluent limits.

5. Order No. R8-2004-0065, Page 7 of 27, revise footnote 6, add new footnote 7, renumber following footnotes accordingly, and revise the table shown in Discharge Specifications A.1.a. as follows:

| EFFLUENT WITHOUT 20:1 DILUTION | | | | |
|---|---|--|--|---|
| Constituent | Average Weekly Concentration Limit | Average Monthly Concentration Limit | Average Weekly Mass Emission Rate⁶ | Average Monthly Mass Emission Rate |
| | mg/l | mg/l | lbs/day | lbs/day |
| Biochemical Oxygen Demand | 30 | 20 | 13,136 | 8,757 |
| Suspended Solids | 30 | 20 | 13,136 | 8,757 |
| EFFLUENT WITH 20:1 DILUTION (CREEK FLOW⁷ : WASTEWATER FLOW) | | | | |
| Constituent | Average Weekly Concentration Limit | Average Monthly Concentration Limit | Average Weekly Mass Emission Rate⁶ | Average Monthly Mass Emission Rate |
| | mg/l | mg/l | lbs/day | lbs/day |
| Biochemical Oxygen Demand | 45 | 30 | 19,703 | 13,136 |
| Biochemical Oxygen Demand | 45 | 30 | 19,703 | 13,136 |

Footnote 6: Mass emission rates for this and all other tables in this permit are based on the projected 2009 discharge flow rate of 52.5 mgd.

Footnote 7: Exclusive of discharges from upstream publicly owned treatment works.

6. Order No. R8-2004-0065, Page 8 of 27, revise the table shown in Discharge Specifications A.1.b. as follows

b. Chlorine Residual/Ammonia Limitations for all discharges:

| Constituent | Instantaneous Maximum Concentration Limit (mg/l) | Average Monthly Concentration Limit (mg/l) | Average Monthly Mass Emission Rate (lbs/day) |
|-------------------------|---|---|---|
| Ammonia-Nitrogen | | 4.5 | 1,970 |
| Total Residual Chlorine | 0.1 | ---- | ---- |

7. Order No. R8-2004-0065, Page 8 of 27, revise Discharge Specifications A.1.c.(1) as follows
- (1) The 12-month average TDS constituent concentrations and mass emission rates shall not exceed 650 mg/l and 284,603 lbs per day, respectively, unless:
8. Order No. R8-2004-0065, Page 8 of 27, modify Discharge Specifications A.1.d. as follows
- d. Total Inorganic Nitrogen (TIN) Limitations: The 12-month average TIN constituent concentrations and mass emission rates shall not exceed 10 mg/l and 4,379 lbs per day, respectively.
9. Order No. R8-2004-0065, Page 9 of 27, revise the table shown in Discharge Specifications A.2 as follows:

| Constituent | Maximum Daily Concentration Limit (µg/l) | Average Monthly Concentration Limit (µg/l) | Maximum Daily Mass Emission Rate (lbs/day) | Average Monthly Mass Emission Rate (lbs/day) |
|--|--|--|--|--|
| Aluminum | 142.6 | 71 | 62.44 | 31.09 |
| Dichlorobromomethane | 92.5 | 46 | 40.50 | 20.14 |
| Total Recoverable Chromium (VI) ⁷ | 16.3 | 8.1 | 7.14 | 3.55 |
| Total Recoverable Copper | 25.6 | 12.8 | 11.21 | 5.60 |
| Total Recoverable Mercury | 0.08 | 0.04 | 0.04 | 0.018 |
| Total Recoverable Selenium | 8 | 4 | 3.50 | 1.75 |
| Free Cyanide | 8.5 | 4.3 | 3.72 | 1.88 |
| Bis(2-ethylhexyl) phthalate | 15 | 5.9 | 6.57 | 2.58 |
| Limits for metals that are hardness dependent were computed based on the hardness value =138 mg/l ⁸ | | | | |

10. Order No. R8-2004-0065, Page 12 of 27, add new Discharge Specification A.7. as follows:

7. The discharge of secondary treated wastewater when the flow⁷ in Temescal Creek results in at least a dilution of 20:1 (receiving water flow : wastewater flow) or more at the point of discharge shall be an adequately disinfected and oxidized wastewater. The discharge shall be considered adequately disinfected if at some location in the treatment process, the median number of coliform organisms does not exceed 23 per 100 milliliters. The median value shall be determined from the bacteriological results of the last 7-days for which analyses have been completed. The discharge shall be considered adequately oxidized if it complies with the average weekly and average monthly effluent limitations for BOD and suspended solids as specified in Discharge Specification A.1.a., with 20:1 dilution, above.

The discharger shall make provisions for the measurement of the receiving water flow⁷ at a suitable location upstream of the discharge point and determine whether at least 20:1 dilution exists before discharging secondary treated effluent. A dilution of 20:1 or more is required at the point of discharge.

11. Order No. R8-2004-0065, Page 15 of 27, modify Compliance Determination E.2. as follows:

2. Compliance with average weekly and monthly discharge limitations specified under Discharge Specifications A.1.a. and A.1.d. shall be determined from the average of the analytical results of all samples collected during a calendar week or month, respectively. Where a calendar week overlaps two different months, compliance shall be determined for the month in which the week ends. If the average of daily discharges over a calendar week or month exceeds the average weekly or monthly discharge limitations, respectively, for a given parameter, an alleged violation will be flagged and the discharger may be considered out of compliance for each day of discharge within that week or month for that parameter.

12. Monitoring and Reporting Program No. R8-2004-0065, page 6 of 12, revise B.2. Effluent Monitoring as follows:

2. The following shall constitute the effluent monitoring program:

| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
|------------------------------|----------|--------------------|--|
| Flow | mgd | Recorder/Totalizer | Continuous |
| Specific Conductance | µmhos/cm | Recorder | " |
| pH | pH units | " | " |
| Chlorine (Combined Residual) | mg/l | Recorder | Continuous |

| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
|-------------------------------|------------------------|-------------------------|--|
| Turbidity | NTU ⁶ | Recorder | Continuous |
| BOD ₅ | mg/l | Composite | Daily |
| Suspended Solids | " | " | " |
| Ammonia-Nitrogen | " | " | " |
| Coliform Organisms | MPN/100mL ⁷ | Grab | Daily (See note (2), below) |
| Toxicity Monitoring | TUc | (See Section C., below) | (See Section C., below) |
| Bicarbonate | mg/l | 24-hr Composite | Monthly |
| Boron | " | " | " |
| Calcium | " | " | " |
| Carbonate | " | " | " |
| Chloride | " | " | " |
| Fluoride | " | " | " |
| Magnesium | mg/l | 24-hr Composite | Monthly |
| Nitrate (as Nitrogen) | " | " | " |
| Sodium | " | " | " |
| Sulfate | " | " | " |
| Total Dissolved Solids | " | " | " |
| Total Hardness | " | " | " |
| Total Inorganic Nitrogen | " | " | " |
| Iron | " | " | " |
| Manganese | " | " | " |
| Total Recoverable Cadmium | µg/l | 24-hr Composite | Monthly (see B.4, below) |
| Aluminum | " | " | Monthly |
| Bis (2-ethylhexyl) phthalate | " | " | " |
| Chromium VI or Total Chromium | " | " | " |
| Total Recoverable Copper | " | " | " |
| Dichlorobromomethane | " | " | " |
| Cyanide (free) | " | Grab | " |
| Chloroform | " | " | Monthly (see B.4, below) |
| Halomethanes ⁸ | " | " | " |
| Antimony | " | Composite | " |
| Heptachlor | " | " | " |
| Thallium | " | " | " |
| Total Recoverable Lead | " | " | " |
| Total Recoverable Mercury | " | " | Monthly |
| Total Recoverable Selenium | " | " | Monthly |
| Total Recoverable Silver | " | " | Monthly (see B.4, below) |

| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
|--|-------|----------------|--|
| Total Recoverable Zinc | µg/l | Composite | Monthly (see B.4, below) |
| Hexachlorocyclohexane: alpha, beta, and gamma | µg/l | Composite | Monthly (see B.4, below) |
| Perchlorate | | Grab | Annually |
| Remaining EPA Priority Pollutants (See Attachment "B" ⁹) | µg/l | Composite | Annually |

13. Monitoring and Reporting Program No. R8-2004-0065, page 8 of 12, add new Effluent Monitoring B.3. and B.4. as follows and renumber following paragraphs accordingly:

3. The following shall constitute the effluent monitoring program for the discharge of secondary treated and disinfected wastewater when at least 20:1 dilution is present in the receiving water:

| FOR DISCHARGES WHEN 20:1 DILUTION IS PRESENT IN THE RECEIVING WATERS | | | |
|--|--------------|--------------------|--|
| Constituent | Units | Type of Sample | Minimum Frequency of Sampling & Analysis |
| Flow | MGD | Recorder/Totalizer | Continuous |
| Chlorine Contact Time (CT) | mg-minutes/l | Recorder | " |
| Total Chlorine Residual | mg/l | " | " |
| Suspended Solids | mg/l | grab | Daily |
| BOD ₅ | " | " | " |
| pH | pH units | " | " |
| Total Coliform | MPN/100ml | grab | Daily |
| Total Dissolved Solids | mg/l | " | Monthly |
| Total Hardness | " | grab | Monthly |

4. Whenever there is a discharge of secondary treated and disinfected wastewater, the discharger shall submit documentation that at least 20:1 dilution existed in Temescal Creek at the time of the discharge. Documentation shall include the date(s), time(s), and duration(s) of the discharge, the corresponding flow in the receiving stream during the discharge, and the climatic condition in the area during the discharge. This documentation shall be submitted with the required monthly report.

14. Monitoring and Reporting Program No. R8-2004-065, page 8 of 12, revise B.4. Effluent Monitoring as follows:
 4. The monitoring frequency for this pollutant shall be reduced to quarterly if after three consequent monitoring events there is non-detected (ND). The Discharger shall use the ML specified in Attachment "A" that would be below the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant in 40 CFR 131.38). To reduce the monitoring frequency to quarterly, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

15. All other conditions and requirements of Order No. R8-2004-0065 shall remain unchanged.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on November 18, 2005.



Gerard J. Thibeault
Executive Officer