

**CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2003-0151

NPDES PERMIT NO. CA0063274

**VENTURA COUNTY WATERWORKS DISTRICT NO. 1
(Moorpark Wastewater Treatment Plant)**

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1. Location Map
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3. Schematic Diagram of the Wastewater Flow
4. Schematic Diagram of the Wastewater Flow
5. Priority Pollutants List
- F. Fact Sheet including:
 - Table A1 - Ammonia Nitrogen and Other Non-priority Pollutants Effluent Data
 - Table A2 - Temperature and pH Effluent Data, Ammonia Criterion Calculation
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**State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2003-0151

NPDES NO. CA0063274

**WASTE DISCHARGE REQUIREMENTS
FOR
VENTURA COUNTY WATERWORKS DISTRICT NO. 1
(Moorpark Wastewater Treatment Plant)**

The California Regional Water Quality Control Board, Los Angeles Region (hereafter Regional Board) finds:

PURPOSE OF ORDER

1. Ventura County Waterworks District No. 1 (hereinafter VCWD or Discharger) discharges tertiary-treated wastewater, from its Moorpark Wastewater Treatment Plant (Moorpark WTP) located in Moorpark, to Arroyo Las Posas, a water of the United States. The discharge is regulated under waste discharge requirements contained in Order No. 00-049, adopted by this Regional Board on April 13, 2000. Order No. 00-049 also serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0063274). Order No. 00-049 has an expiration date of December 10, 2003.
2. On January 6, 2003, VCWD filed a Report of Waste Discharge (ROWD) and applied to the Regional Board for renewal of its waste discharge requirements (WDR) and NPDES permit to discharge tertiary-treated wastewater.
3. This Order is the reissuance of waste discharge requirements that serves as an NPDES permit for the Moorpark WTP.

FACILITY AND TREATMENT PROCESS DESCRIPTION

4. VCWD owns and operates the Moorpark WTP, located at 9550 Los Angeles Avenue, Moorpark, California. Figure 1 shows the location of the plant. The Moorpark WTP receives wastewater from the City of Moorpark. The wastewater is a mixture of domestic and industrial wastewater. The latter is pretreated pursuant to 40 CFR Part 403 prior to discharge to the sewers. The Moorpark WTP serves an approximate population of 33,300 people.
5. The Moorpark WTP was designed to provide secondary treatment to 3.0 million gallons per day (mgd) of wastewater, and tertiary treatment to 1.5 mgd of secondary treated effluent. Under normal conditions, the Moorpark WTP discharges secondary treated effluent to on-site percolation/evaporation ponds under Waste Discharge Requirements contained in Order No. 00-048, adopted by this Regional Board on April 13, 2000. During wet weather, when the flow exceeds the percolation capacity, the Moorpark WTP further provides tertiary treatment (filtration and disinfection/dechlorination) to a portion

of the secondary treated effluent for discharge into Arroyo Las Posas. Figure 2 shows the layout of the treatment plant and percolation ponds.

6. The United States Environmental Protection Agency (USEPA) and the Regional Board have classified the Moorpark WTP as a major discharger. It has a Threat to Water Quality and Complexity Rating of 1-A, pursuant to CCR Section 2200.
 7. The Moorpark WTP has been undergoing a two-phase upgrade and expansion. The plant was originally designed to provide secondary treatment to 3.0 million gallons per day (mgd) of wastewater, and tertiary treatment to 1.5 mgd of secondary treated effluent. The Phase I plant upgrade was completed and has been in operation since July 2001. It included conversion of the aeration/polishing ponds secondary treatment system to an activated sludge process, and the construction of a solids dewatering facility, solar sludge drying beds, and a dewatered cake storage pad. The Phase I upgrade did not change the plant's design capacity.
 8. The upgraded primary and secondary treatment systems consist of an in-channel screening (Aqua Guard® screens), grit removal, Biolac® extended aeration system, and secondary clarification. Secondary treated effluent is discharged to 30 onsite percolation/evaporation ponds. Waste sludge is either dewatered using a belt press or dried in sludge drying beds before being hauled away for land application to an approved facility.
 9. Tertiary treatment system consists of chemical flocculation, gravity settling, up-flow Dynasand® filtration, and disinfection using sodium hypochlorite solution. During wet weather, when the flow exceeds the percolation and reclamation capacity, the disinfected tertiary treated effluent is dechlorinated prior to discharging into Arroyo Las Posas, which is tributary to Mugu Lagoon.
- Figures 3, and 4, show the schematic diagram of the wastewater flow.
10. Prior to the plant upgrade, VCWD was not able to meet the effluent turbidity limit of 5 NTU contained in Order No. 00-049. Therefore, together with the issuance of Order No. 00-049, the Regional Board also issued to VCWD a Time Schedule Order No. 00-050 (TSO) that required VCWD comply with the turbidity limit by September 1, 2002. During the Phase I plant upgrade period, VCWD was required to comply with the interim turbidity limit of 8 NTU prescribed in the TSO. VCWD has completed the construction of the Phase I upgrade and has been operating the upgraded plant since July 2001. Effluent monitoring data for turbidity from October 2001 to March 2002 range from 0.2 to 3.95 NTU which consistently met the effluent turbidity limit.
 11. Currently, VCWD is proceeding with the Phase II plant upgrades that include increasing the secondary treatment capacity to 5 mgd by expanding the Biolac® extended aeration system, providing nitrogen removal, increasing the pumping capacity of the sewer lift station, and expanding the tertiary treatment capacity to 3 mgd. In addition, VCWD intends to improve the solids handling capacity, convert the plant water system to recycled water, improve reliability with additional stand-by power capacity, and increase the building space for laboratory and operations.

12. **Water Recycling Facility.** VCWD constructed and is operating a recycled water distribution system, consisting of recycled water storage, pumping facilities, and distribution pipelines, to provide tertiary treated and disinfected recycled water directly to end-users. The production, distribution and reuse of recycled water for direct, non-potable applications are presently regulated under Water Recycling Requirements (WRR) Order No. R4-2002-0028, adopted by this Board on January 24, 2002. The implementation of a water recycling program will reduce the likelihood or amount of tertiary treated wastewater discharged into Arroyo Las Posas during wet weather.
13. **Storm Water Management.** VCWD does not treat storm water runoff at the Moorpark WTP, except for stormwater infiltration and inflows in the sewer and stormwater that traverses the treatment tanks. It has developed a Storm Water Pollution Prevention Plan (SWPPP) for storm water flows at the facility that do not enter the treatment system.

DISCHARGE OUTFALL AND RECEIVING WATER DESCRIPTION

14. The Moorpark WTP discharges tertiary-treated wastewater to Arroyo Las Posas, a water of the United States, above the estuary, within the Calleguas Creek Watershed Management Area, at the following discharge point:

Discharge Serial No. 001: The Moorpark WTP normally discharges secondary treated effluent into a series of on-site evaporation/ percolation ponds. However, when the flow exceeds the percolation capacity (as during rainy periods), up to 1.5 mgd of secondary treated wastewater is diverted for tertiary treatment prior to discharge into Arroyo Las Posas, through Discharge Serial No. 001 (Latitude 34°16'00", Longitude 118°56'00"). Arroyo Las Posas is tributary to Mugu Lagoon, and is part of the Calleguas Creek Watershed Management Area. Mugu Lagoon is one of the few remaining salt marshes in California located along the Pacific Flyway.

15. The Ventura County Flood Control District channelized portions of Calleguas Creek to convey and control floodwater, and to prevent damage to homes located adjacent to the creek. Calleguas Creek is a water of the United States that conveys floodwater and urban runoff, along with treated water. The Arroyo Las Posas is unlined near the point of discharge. Groundwater recharge occurs incidentally, in these unlined areas of Arroyo Las Posas and Calleguas Creek where the underlying sediments are highly transmissive to water as well as pollutants.

Notwithstanding that segments located further downstream of the discharge are concrete-lined, the watershed supports a diversity of wildlife. Threatened and endangered species such as the peregrine falcon, least tern, light-footed clapper rail, and the brown pelican are found in Calleguas Creek and Mugu Lagoon.

DISCHARGE QUALITY DESCRIPTION

16. After the completion of the Phase I plant upgrade in July 2001, the Moorpark WTP only discharged the tertiary-treated effluent to Arroyo Las Posas from October 2001 to March 2002. The characteristics of the wastewater discharged, based on monitoring data during this discharging period, are as follows in Table 1. Only the priority pollutants that

were detected are shown below. Nondetected toxic priority pollutants and the detection limits are given in the Fact Sheet. (Note: The “<” symbol indicates that the pollutant was not detected (ND) at that concentration level.)

Table 1
Effluent Characteristics

CTR# ^[1]	Constituent	Unit	Average or median ^[2]	Maximum	Minimum
	Flow	mgd	1.5	1.5	1.42
	pH	pH units	7.1	7.6	6.7
	Temperature	°F	67	76	61
	BOD ₅ 20°C	mg/L	< 2	3.1	< 2
	BOD % removal	%	99.4	99.7	98.9
	Total suspended solids	mg/L	< 1	4.4	< 1
	TSS % removal	%	99.5	99.8	98.9
	Settleable solids	ml/L	< 0.1	< 0.1	< 0.1
	Total coliform	MPN per 100 ml	< 1.1	> 23	< 1.1
	Fecal coliform	MPN per 100 ml	< 1.1	23	< 1.1
	Residual chlorine	mg/L	< 0.1	< 0.1	< 0.1
	Total dissolved solids	mg/L	578	616	560
	Chloride	mg/L	141	167	112
	Sulfate	mg/L	138	162	113
	Boron	mg/L	0.54	0.6	0.43
	Total Phosphate	mg/L	0.41	0.83	< 0.05
	Turbidity	NTU	0.47	3.95	0.16
	Oil and grease	mg/L	< 5	< 5	< 3
	Fluoride	mg/L	0.11	0.17	< 0.1
	MBAS	mg/L	0.1	0.1	< 0.2
	Ammonia-N	mg/L	0.16	0.5	< 0.2
	Organic-N	mg/L	1.08	5.7	< 0.5
	Nitrate-N	mg/L	5.32	10.4	2.12
	Nitrite-N	mg/L	< 0.05	< 0.05	< 0.05
	Total Nitrogen	mg/L	6.53	11.73	2.82
	Chronic toxicity	TUc	1.00	1.00	1.00
	Acute toxicity	% survival	95	100	90
1	Antimony	µg /L	0.5	0.7	< 0.5
2	Arsenic	µg /L	1.4	2.4	1.1
4	Cadmium	µg /L	0.2	0.3	0.2
5a	Chromium-III	µg /L	1.0	1.8	< 0.5
6	Copper	µg /L	4.3	7	2.5
7	Lead	µg /L	0.6	0.9	0.5
9	Nickel	µg /L	2.2	3.4	1.6
11	Silver	µg /L	< 0.2	0.4	< 0.2
13	Zinc	µg /L	54	58	50

CTR# ^[1]	Constituent	Unit	Average or median ^[2]	Maximum	Minimum
20	Bromoform	µg /L	< 0.5	1.9	< 0.5
23	Dibromochloromethane	µg /L	7.8	13.3	3.6
26	Chloroform	µg /L	24.8	43.7	6.5
27	Bromodichloromethane	µg /L	15.3	29.5	3.4
68	Bis(2-Ethylhexyl) phthalate	µg /L	< 5	9.5	< 5

Footnotes

- [1] This number corresponds to the compound number found in Table 1 of CTR. It is simply the order in which the 126 priority pollutants were listed in 40 CFR, Section 131.38(b)(1).
- [2] When a data set contains nondetected data, the median value of the data set is reported.

APPLICABLE LAWS, PLANS, POLICIES AND REGULATIONS

17. **Federal Clean Water Act.** The federal Clean Water Act (CWA) provides that no person may discharge pollutants from a point source into a water of the United States, except in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect and enhance water quality. CWA Section 402 authorizes the USEPA or states with an approved NPDES program to issue NPDES permits. The State of California has an approved NPDES program.

18. **Basin Plan.** The Board adopted a revised *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) on June 13, 1994, amended on January 27, 1997, by Regional Board Resolution No. 97-02. This updated and consolidated plan represents the Board's master water quality control planning document and regulations. The revised Basin Plan was approved by the State Board and the State of California Office of Administrative Law (OAL) on November 17, 1994, and February 23, 1995, respectively. The Basin Plan (i) designates beneficial uses for surface and groundwaters, (ii) sets narrative and numeric objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the state and federal antidegradation policies, and (iii) includes implementation provisions, programs, and policies to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other state pertinent water quality policies and regulations. The 1994 Basin Plan was prepared to be consistent with all applicable State and Regional Board plans and policies adopted from 1994 and earlier. This Order implements the plans, policies and provisions of the Board's Basin Plan.

19. **Sources of Drinking Water Policy.** On May 19, 1988, the State Board adopted Resolution No. 88-63, *Sources of Drinking Water (SODW) Policy*, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with State Board's SODW policy, on March 27, 1989, the Regional Board adopted Resolution No. 89-03, *Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B)*.

20. **Potential Municipal and Domestic Supply (P* MUN).** Consistent with Regional Board Resolution No. 89-03 and State Board Resolution No. 88-63, in 1994 the Regional Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional designation in the 1994 Basin Plan included the following implementation provision: “no new effluent limitations will be placed in Waste Discharge Requirements as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Board’s enabling resolution] until the Regional Board adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Board’s enabling resolution].” On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Board finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.
21. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for Clean Water Act (CWA) purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA’s new regulation (also known as the *Alaska rule*), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
22. **Beneficial Uses.** The designated beneficial uses in the Basin Plan for the Conejo Creek, Calleguas Creek, and Mugu Lagoon:
- A. The beneficial uses of the receiving surface waters are:
- Arroyo Las Posas - Hydro Unit 403.62
- Existing: ground water recharge, freshwater replenishment, contact and non-contact water recreation, warm freshwater habitat, and wildlife habitat;
- Potential: municipal and domestic supply, industrial process supply, industrial service supply, agricultural supply, cold freshwater habitat;
- Calleguas Creek - Hydro Unit 403.12
- Existing: industrial service supply, industrial process supply, agricultural supply, ground water recharge, contact and non-contact water recreation, warm freshwater habitat, and wildlife habitat;
- Potential: municipal and domestic supply;

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

Calleguas Creek - Hydro Unit 403.11

Existing: agricultural supply, groundwater recharge, freshwater replenishment, contact and non-contact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, rare, threatened or endangered species, and wetland habitat;

Potential: municipal and domestic supply;

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

Calleguas Creek Estuary - Hydro Unit 403.11

Existing: non-contact water recreation, commercial and sport fishing, estuarine habitat, wildlife habitat, rare, threatened or endangered species, migration of aquatic organisms, spawning, reproduction, and/or early development, and wetland habitat;

Potential: navigation, water contact recreation;

Mugu Lagoon - Hydro Unit 403.11

Existing: navigation, non-contact water recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, preservation of biological habitats, rare, threatened or endangered species, migration of aquatic organisms, spawning, reproduction, and/or early development, shellfish harvesting, and wetland habitat.

Potential: water contact recreation;

B. The beneficial uses of the receiving ground waters are:

Las Posas Valley (Ventura Central Basin) – DWR Basin No. 4-8

South and North Las Posas Area

Existing- municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

Pleasant Valley (Ventura Central Basin) - DWR Basin No. 4-6

Confined aquifers: Existing- municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

Unconfined aquifers: Existing- industrial service supply; industrial process supply; and, agricultural supply;
Potential- municipal and domestic supply.

Oxnard Plain (Ventura Central Basin) - DWR Basin No. 4-4

Confined aquifers: Existing- municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

Unconfined aquifers: Existing- municipal and domestic supply; and, agricultural supply;
Potential- industrial service supply.

Oxnard Forebay: Existing- municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

23. ***Title 22 of the California Code of Regulations.*** The California Department of Health Services established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22, California Code of Regulations (Title 22). The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect the groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore the secondary MCLs, which are limits based on aesthetic, organoleptic standard, are also incorporated into this permit to protect groundwater quality.

Groundwater Recharge. Sections of Arroyo Las Posas, near the Moorpark WTP discharge point, are designated for GWR. Similarly, sections of Calleguas Creek downstream of the existing Discharge Serial No. 001 are also designated for GWR. Surface waters from Arroyo Las Posas and Calleguas Creeks enter the Pleasant Valley and the Oxnard Plain Groundwater Basins. Since ground water from these basins is used to provide drinking water to people in local areas, Title 22-based limits are needed to protect that drinking water supply. By limiting the contaminants in the Moorpark WTP discharges, the amount of pollutants entering the surface waters and groundwater basins are correspondingly reduced. Once

groundwater basins are contaminated, it may take years to clean up, depending on the pollutant. Compared to surface water pollution, investigations and remediation of groundwater are often more difficult, costly, and extremely slow. For these reasons Title 22-based limits will remain in the NPDES permit to protect the GWR use and the MUN use in the ultimate receiving ground water.

24. **Antidegradation Policy.** On October 28, 1968, the State Board adopted Resolution No. 68-16, *Maintaining High Quality Water*, which established an antidegradation policy for State and Regional Boards. Similarly, the CWA (section 304(d)(4)(B)) and USEPA regulations (40 CFR section 131.12) require all NPDES permitting actions to be consistent with the federal antidegradation policy.
25. **California Toxics Rule (CTR).** The USEPA promulgated the CTR criteria that became effective on May 18, 2000 (codified as 40 CFR section 131.38). The CTR established water quality criteria for priority toxic pollutants in California's inland surface waterways. The CTR also provides for schedules of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the discharger demonstrates that it is infeasible to promptly comply with the CTR criteria. The human health criteria for carcinogens in the CTR is based on an incremental cancer risk level of one in a million (10^{-6}). USEPA recognizes that adoption of criteria at a different risk factor is outside of the scope of the CTR. However, States have the discretion to adopt water quality criteria that result in a higher risk level, if the chosen risk level has been demonstrated to adequately protect the most highly exposed subpopulation, and all necessary public outreach participation has been conducted. This demonstration has not been conducted in California. Further, information that is available on highly exposed subpopulations in California supports the need to protect the general population at the 10^{-6} level. The discharger may undertake a study, in accordance with the procedures set forth in Chapter 3 of USEPA's Water Quality Standards Handbook: Second Edition (EPA-823-B-005a, August 1994) to demonstrate that a different risk level is more appropriate for discharges subject to this Order. Upon completion of the study, the State Board and Regional Board will review the results and determine if the risk level proposed is more appropriate. In the mean time, the State will continue using a 10^{-6} risk level, as it has done historically, to protect the population against carcinogenic pollutants.
26. **State Implementation Plan (SIP).** Anticipating USEPA's promulgation of the CTR, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP) on March 2, 2000. The SIP was amended by Resolution No. 2000-30, adopted on April 26, 2000, and the Office of Administrative Law approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants to inland surface waters, enclosed bays and estuaries of California which are subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the Clean Water Act. The policy provides for the following:
 - A. implementation procedures for the priority pollutant criteria promulgated by USEPA through the CTR and for the priority pollutant objectives established by Regional Water Quality Control Boards (RWQCBs) in their Basin Plans;
 - B. monitoring requirements for priority pollutants with insufficient data to determine reasonable potential;

- C. monitoring requirements for 2,3,7,8-TCDD equivalents; and,
- D. chronic toxicity control.

27. **Watershed Approach.** This Regional Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region, as detailed in the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative, collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and use sound science. Information about the Calleguas Creek Watershed and other watersheds in the region can be obtained from Regional Board's web site at <http://www.swrcb.ca.gov/rwqcb4/> and clicking on the word "watersheds". The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available.

Pursuant to this Regional Board's watershed initiative framework, the Calleguas Creek Watershed Management Area was the targeted watershed for fiscal year 2001-2002. However, the NPDES permit renewals were re-scheduled so that provisions of the CTR and SIP could be incorporated into the permits.

28. **CWA 303(d) Listed Pollutants.** On July 25, 2003, USEPA approved the State's 2003 list of impaired waterbodies prepared pursuant to CWA 303(d). The list (hereinafter referred to as the 303(d) list) identifies waterbodies where water quality standards are not expected to be met after the implementation of technology-based effluent limitations on point sources (water quality-limited waterbodies).

Arroyo Las Posas, Calleguas Creek, Mugu Lagoon, and its tributaries are on the 303(d) list for the following pollutants/stressors, from point and non-point sources:

Calleguas Creek Reach 6 (Lewis Somis Road to Moorpark Freeway (23)) -
Hydrologic Unit 403.62

- Ammonia, Chloride, DDT (in sediment), Fecal coliform, Nitrate and Nitrite, Nitrate as Nitrate, Sedimentation/Siltation, Sulfates, Total dissolved solids.

Calleguas Creek Reach 3 (Petro Road upstream to confluence with Conejo Creek) -
Hydrologic Unit 40.12

- Chloride, Nitrate and Nitrite, Sedimentation/Siltation, Total dissolved solids.

Calleguas Creek Reach 2 (Estuary to Potrero Road) -- Hydrologic Unit 403.12

- Ammonia, Chem A (pesticides and lubricants in fish tissue), Chlordane (in fish tissue), Dissolved copper, DDT, DDT (in fish tissue and sediment), Endosulfan (in fish tissue), Fecal coliform, Nitrogen, PCBs (in fish tissue), Sediment toxicity, Sedimentation/Siltation, and Toxaphene (in fish tissue and sediment).

Calleguas Creek Reach 1 (Mugu Lagoon) -- Hydrologic Unit 403.11

- Chlordane (in fish tissue), Copper, DDT (in fish tissue and sediment), Endosulfan (in fish tissue), Mercury, Nickel, Nitrogen, PCBs (in fish tissue), Sediment toxicity,

Sedimentation/Siltation, and Zinc.

29. **Total Maximum Daily Loads.** A Total Maximum Daily Load (TMDL) is a determination of the amount of a pollutant from point, nonpoint, and natural background sources, with a margin of safety, that may be discharged to a water quality-limited water body. The regulatory requirements for TMDL are codified in 40 CFR section 130.7. Section 303(d) of the CWA requires that TMDLs must be developed for the pollutants of concern which impact the water quality of water bodies on the 303(d) list. Under the March 23, 1999, amended consent decree between the USEPA and *Heal the Bay, et al.*, (Case No. C 98-4825 SBA, *Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et al.*), TMDLs for chloride in Calleguas Creek must be completed by March 2002; nutrients by March 2002; pesticides, historic pesticides, and PCBs by March 2005; and metals by 2006. The remaining TMDLs, such as sulfates are tentatively scheduled for completion in the 2003/2004 fiscal year.

Chloride TMDL and Chloride Limits. On March 22, 2002, the consent decree deadline for the establishment of a chloride TMDL, USEPA Region 9 established the Calleguas Creek Total Maximum Daily Load for chloride. Subsequently, on October 17, 2002, the State Board adopted Order WQO 2002-0017, in the matter of the petition of the City of Simi Valley, City of Thousand Oaks, Camarillo Sanitary District, Camrosa Water District, and Ventura County Waterworks District No. 1, which provided a stay, maintaining the 190 mg/L chloride interim effluent limitation of prior Regional Board resolutions and contained in the existing NPDES permits (Order No. 00-049 for the Moorpark WTP), for the aforementioned POTWs. Following the adoption of NPDES Order No. 2003-XXXX, and concurrent rescission of Order No. 00-049, the Discharger may file a stipulation for Future Order Issuing Stay, which would modify Order No. WQO 2002-0017, extending the 190 mg/L chloride stay for the duration of NPDES Order No. 2003-XXXX. Consistent with the State Board's stay, upon expiration of the stay, the accompanying Order or its successors may be reopened and modified to include appropriate final effluent limits for chloride.

Nitrogen Compounds and Related Effects TMDL. On October 24, 2002, the Regional Board adopted Resolution No. 2002-017, Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in Calleguas Creek (Nitrogen Compounds and Related Effects TMDL). The State Board, the Office of Administrative Law, and USEPA approved the Nitrogen Compounds and Related Effects TMDL on March 19, 2003, June 5, 2003, and June 20, 2003, respectively.

REGULATORY BASIS FOR EFFLUENT LIMITS AND DISCHARGE REQUIREMENTS

30. **Water Quality Objectives and Effluent Limits.** Water Quality Objectives (WQOs) and effluent limitations in this permit are based on:
- The plans, policies and water quality standards (beneficial uses + objectives + antidegradation policy) contained in the 1994 *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, as amended, including chemical constituent limitations established by incorporating the California Code of Regulations, Title 22, maximum contaminant

- levels designed to protect the existing drinking water use of the receiving groundwaters;
- California Toxics Rule (40 CFR 131.38);
 - The State Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" (the State Implementation Plan or SIP);
 - USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;
 - USEPA Whole Effluent Toxicity (WET) Control Policy July 1994;
 - Applicable Federal Laws and Regulations
 - Federal Clean Water Act, and
 - 40 CFR sections 122.125, and 131, among others; and,
 - Best professional judgment (pursuant to 40 CFR section 122.44).
31. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that water quality based effluent limits may be set based on USEPA criteria and supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
32. U.S. EPA regulations, policy, and guidance documents upon which Best Professional Judgment (BPJ) was developed include, in part:
- Inspectors Guide for Evaluation of Municipal Wastewater Treatment Plants, April 1979 (EPA/430/9-79-010);
 - Fate of Priority Pollutants in Publicly Owned Treatment Works Pilot Study October 1979 (EPA-440/1-79-300);
 - Technical Support Document for Water Quality Based Toxics Control March 1991 (EPA-505/2-90-001); and,
 - USEPA NPDES Permit Writers' Manual, December 1996 (EPA-833-B-96-003).
33. **Mass and Concentration Limits.** 40 CFR section 122.45(f)(1) requires that except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR section 122.45(f)(2) allows the permit writer, at its discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents; however, the mass-based limits are inappropriate during wet weather flows when plant flows may exceed design capacity. Therefore, during storm events when flows exceed design capacity, only concentration-based limits are applicable.

34. **Maximum Daily Effluent Limitations.** Pursuant to 40 CFR section 122.45(d)(2), for a POTW's continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. It is impracticable to only include average weekly and average monthly effluent limitations for certain pollutants in the permit, because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of certain pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, maximum daily effluent limitations, as referenced in 40 CFR section 122.45(d)(1), are included in the permit for certain constituents as discussed in the Fact Sheet accompanying this Order.
35. **Pretreatment.** Under contract with VCWD, Ventura Regional Sanitation District (VRSD) developed and implemented a USEPA approved industrial wastewater Pretreatment Program for the Moorpark WTP. After the VRSD contract ended, VCWD has implemented its own pretreatment program for the Moorpark WTP. Currently, this Pretreatment Program is under staff review at Regional Board.
36. **Sewage Sludge.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR Part 503 to regulate the use and disposal of municipal sewage sludge. This Order implements the regulations and it is the responsibility of the Discharger to comply with said regulations, which are enforceable by USEPA.
37. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR section 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Board issued a statewide general permit, General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. This permit was amended in September 1992 and reissued on April 17, 1997 in State Board Order No. 97-03-DWQ.

General NPDES permit No. CAS000001 is applicable to storm water discharges from the Moorpark WTP's premises. VCWD filed a Notice of Intent to comply with the requirements of the general permit. VCWD developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP), to comply with the State Board's Order No. 97-03-DWQ. In the near future, VCWD plans to capture 100% of the stormwater runoff from the biosolids area and contain it within the treatment plant.
38. **Clean Water Act Effluent Limitations.** Numeric and narrative effluent limitations are established pursuant to Section 301 (Effluent Limitations), Section 302 (Water Quality-Related Effluent Limitations), Section 303 (Water Quality Standards and Implementation Plans), Section 304 (Information and Guidelines [Effluent]), Section 305 (Water Quality Inventory), Section 307 (Toxic and Pretreatment Effluent Standards), and Section 402 (NPDES) of the CWA. The CWA and amendments thereto are applicable to the discharges herein.

39. **Antibacksliding.** Antibacksliding provisions are contained in Sections 303(d)(4) and 402(o) of the CWA and in 40 CFR section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions. Section 402(o)(2) outlines six exceptions where effluent limitations may be relaxed.
40. **Applicable Water Quality Objectives.** 40 CFR section 122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial use.

The Basin Plan includes narrative and numeric Water Quality Objectives (WQOs). The CTR promulgates numeric aquatic life criteria for 23 toxic pollutants and numeric human health criteria for 57 toxic pollutants. A compliance schedule provision in the CTR and the SIP authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal CTR criteria when certain conditions are met. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

41. **Types of Pollutants.** For CWA regulatory purposes, pollutants are grouped into three general categories under the NPDES program: conventional, toxic, and non-conventional. By definition, there are five conventional pollutants (listed in 40 CFR section 401.16): 5-day biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. Toxic or "priority" pollutants are those defined in Section 307(a)(1) of the CWA (and listed in 40 CFR section 401.12 and 40 CFR Part 423, Appendix A) and include metals and organic compounds. Non-conventional pollutants are those which do not fall under either of the two previously described categories and include such parameters as ammonia, phosphorous, chemical oxygen demand, whole effluent toxicity, etc.
42. **Technology-Based Limits for Municipal Facilities (POTWs).** Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level--referred to as "secondary treatment"--that all POTWs were required to meet by July 1, 1977. More specifically, Section 301(b)(1)(B) of the CWA required that EPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Based on this statutory requirement, EPA developed national secondary treatment regulations which are specified in 40 CFR Part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH.
43. **Water Quality Based Effluent Limits (WQBELs).** Water quality-based effluent limits are designed to protect the quality of the receiving water by ensuring that State water quality standards are met by discharges from an industrial/municipal point source. If, after technology-based effluent limits are applied, a point source discharge will cause, have the

reasonable potential to cause, or contribute to an exceedance of an applicable water quality criterion, then 40 CFR section 122.44(d)(1) requires that the permit contain a WQBEL. Although the CWA establishes explicit technology-based requirements for POTWs, Congress did not exempt POTWs from additional regulation to protect water quality standards. As a result, POTWs are also subject to WQBELs. Applicable water quality standards for Arroyo Las Posas, Calleguas Creek, and Mugu Lagoon are contained in the Basin Plan and CTR, as described in previous findings.

44. ***Water Quality Based Effluent Limitations for Toxic Pollutants.*** Toxic substances are regulated in this permit by WQBELs derived from the 1994 Basin Plan, the CTR, and/or best professional judgment (BPJ) pursuant to 40 CFR section 122.44. If a discharge causes, has a reasonable potential to cause, or contribute to a receiving water excursion above a narrative or numeric objective within a State water quality standard, federal law and regulations, as specified in 40 CFR section 122.44(d)(1)(i), and in part, the SIP, require the establishment of WQBELs that will protect water quality. As documented in Table R and the fact sheet, pollutants exhibiting reasonable potential in the discharge, authorized in this Order, are identified in the Reasonable Potential Analysis (RPA) section and have final effluent limits. The discharger is required to gather the appropriate data and the Regional Board will determine if final effluent limits are needed. If final limits are needed, the permit will be reopened and limits will be included in the permit.
45. ***Basis for Effluent Limits for 303(d) Listed Pollutants.*** For 303(d) listed pollutants, the Regional Board plans to develop and adopt total maximum daily loads (TMDLs) which will specify wasteload allocations (WLA) for point sources and load allocations (LA) for non-point sources, as appropriate. Following the adoption of TMDLs by the Regional Board, NPDES permits will be issued, and where appropriate, reopened to include effluent limits consistent with the assumptions of the TMDL, based on applicable WLAs. In the absence of a TMDL, the permits will include water quality-based effluent limitations derived as provided in the CTR, SIP (if applicable), and other applicable guidance using best professional judgement. These effluent limits are applied at the end-of-pipe.
46. ***Mixing Zones and Dilution Credits.*** Mixing zone and dilution credits were not allowed in the calculation of the WQBELs in this Order. While the 1994 Basin Plan and the 2000 SIP provide for mixing zones on a case by case basis, there are criteria that have to be complied with before a mixing zone is allowed. One of the criteria in the Basin Plan is that, for rivers and streams, the mixing zone cannot extend more than 250 feet downstream of the discharge point. The Basin Plan also points out that for most inland streams in the region, upstream flows are minimal and mixing zones are usually not appropriate. In calculating year-round mixing zone and dilution credits, the SIP requires the use of critical stream flow data for acute (1Q10) and chronic (7Q10) aquatic life criteria. 1Q10 is the lowest flow that occurs for one day and 7Q10 is the average low flow that occurs for seven consecutive days, with statistical frequencies of once every 10 years.

Board staff visited the vicinity of the reach of the Calleguas Creek (Arroyo Las Posas) where the Moorpark WTP's discharge occurs and determined mixing zone and dilution credit are not appropriate for their discharge because of the following:

- A. There are no extensive flow information available at a location immediately upstream of the discharge point to be considered for mixing zone studies (1Q10 and 7Q10 data).
 - B. Board staff also observed that no rapid mixing occurs at the confluence of the discharge and the river, indicative of an incomplete mixing zone.
 - C. The receiving water primarily consists of discharges from various sources and POTWs as well as rising groundwater, thus limiting its ability to assimilate additional wastes.
 - D. Reaches of the Calleguas Creek, at the discharge point and downstream (estuary), are included in the 303(d) list of impaired water bodies for a number of constituents.
 - E. No report or study for mixing zones has been submitted to the Regional Board.
47. Specific effluent limitations for each constituent contained in this order were developed in accordance with the foregoing laws, regulations, plans, policies, and guidance. The specific methodology and example calculations are documented in the fact sheet prepared by Regional Board staff that accompanies this Order.

REASONABLE POTENTIAL ANALYSIS

48. As specified in 40 CFR section 122.44(d)(1)(i), permits are required to include limits for all pollutants "which the Director (defined as the Regional Administrator, State Director, or authorized representative in 40 CFR section 122.2) determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard."
- A. Using the method described in the TSD, the Regional Board has conducted Reasonable Potential Analyses (RPA) for:
 - a. Chronic Toxicity - Chronic Toxicity effluent data is summarized in Table A1 of the accompanying Fact Sheet. The Discharger's effluent demonstrated no chronic toxicity during the last permit cycle. However, given the nature of the discharge and the type of facility, the Discharge has reasonable potential to contribute to an exceedance of the Basin Plan narrative chronic toxicity water quality objective. Based on this information, the Regional Board has determined that there is a reasonable potential that the discharge will cause toxicity in the receiving water and, consistent with SIP section 4, the Order contains a narrative effluent limitation for Chronic Toxicity. The circumstances warranting a numeric Chronic Toxicity effluent limitation were reviewed by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, the State Board adopted Order No. WQO 2003-0012, deferring the numeric chronic toxicity effluent limitation issue until the adoption of Phase II of the SIP, and replaced the numeric chronic toxicity effluent limitation with a narrative effluent limitation for the time being.
 - b. Ammonia, Other Nitrogen Species, MBAS, and Oil and Grease - RPA was conducted for Ammonia, Nitrate plus Nitrite as Nitrogen, Nitrite

Nitrogen, MBAS, and Oil and Grease (Table A3 of the accompanying Fact Sheet) using the Discharger's effluent data from their self monitoring reports. Effluent data are summarized in Table A1 of the accompanying Fact Sheet. Temperature and pH effluent data is summarized in Table A2 of the accompanying Fact Sheet. The RPA compares the projected maximum receiving water concentrations, derived from effluent data, with the Basin Plan water quality objectives (WQOs). Based on this analysis, the Regional Board has determined that there is a reasonable potential that the discharge will cause or contribute to an exceedance of the Basin Plan WQOs and, consistent with 40 CFR 122.44(d), the Order contains numeric effluent limitations for Nitrate plus Nitrite as Nitrogen, MBAS, and Oil and Grease. Since Ammonia, Nitrite, and Nitrate are three species representing three major oxidation states of nitrogen in the effluent, in the event of inadequate nitrification, Ammonia and Nitrite may become the dominate species in the effluent. Therefore, the inclusion of limitations for Ammonia as nitrogen and Nitrite as nitrogen is needed even though there is no reasonable potential for these two compounds.

- B. Using the method described in the SIP, the Regional Board has conducted Reasonable Potential Analyses (RPA) using the discharger's effluent data contained in Table D. The RPA compares the effluent data with water quality objectives in the Basin Plan and CTR.
- a. **Reasonable Potential Determination.** The RPA (per the SIP) involves identifying the observed maximum pollutant concentration in the effluent (MEC) for each constituent based on the effluent concentration data. There are three tiers to determining reasonable potential. If any of the following three tiers is triggered, then reasonable potential exists:
- i. For the first tier, the MEC is compared with the lowest applicable Water Quality Objective (WQO), which has been adjusted for pH, hardness and translator data, if appropriate. If the MEC is greater than the (adjusted) WQO, then there is reasonable potential for the constituent to cause or contribute to an excursion above the WQO and a WQBEL is required. However, if the pollutant was not detected in any of the effluent samples and all of the reported detection limits are greater than or equal to the WQO, proceed with Tier 2. The Regional Board exercised its discretion in identifying all available, valid, relevant, representative data and information in accordance with SIP Section 1.2 (page 8).
 - ii. For the second tier, if the MEC is less than the adjusted WQO, then the observed maximum ambient background concentration (B) for the pollutant is compared with the adjusted WQO. If B is greater than the adjusted WQO, then a WQBEL is required. If B is less than the WQO, then a limit is only required under certain circumstances to protect beneficial uses. If a constituent was not detected in any of the effluent samples and all of the detection limits are greater than or equal to the adjusted WQO, then the

ambient background water quality concentration is compared with the adjusted WQO. The Regional Board exercised its discretion in identifying all available, applicable ambient background data in accordance with SIP Section 1.4.3 (page 16).

- iii. For the third tier, other information is used to determine RPA, such as the current CWA 303(d) List. Section 1.3 of the SIP describes the type of information that can be considered in Tier 3.

For all parameters that have reasonable potential to cause or contribute to an exceedance of a WQO/criteria, numeric WQBELs are required. Section 1.4, Step 5 of the SIP (page 8) states that maximum daily effluent limitations (MDELs) shall be used for POTWs in place of average weekly limitations. WQBELs are based on CTR, USEPA water quality criteria, and Basin Plan objectives.

If the data are unavailable or insufficient to conduct an RPA for a pollutant, or if all reported detection limits of the pollutant in the effluent are greater than or equal to the WQO, the Regional Board will establish interim requirements, in accordance with Section 2.2.2 of the SIP, that require additional monitoring for the pollutant in place of a WQBEL. Upon completion of the required monitoring, the Regional Board shall use the gathered data to conduct a RPA and determine if a WQBEL is required. However, if Tier 1 or Tier 3 triggered reasonable potential for a pollutant, then the lack of receiving water data for Tier 2 evaluation would not inhibit the establishing WQBELs in the permit.

A numeric limit has not been prescribed for a toxic constituent if it has been determined that it has no reasonable potential to cause or contribute to excursions of water quality standards. However, if the constituent had a limit in the previous permit derived from Quality Criteria for Water 1986 [EPA 440/5-86-001, May 1, 1986 (Gold Book)] and from California Code of regulations (Title 22) maximum contaminant levels, and if none of the Antibrackishwater exceptions apply, then the limit will be retained. A narrative limit to comply with all water quality objectives is provided in *Standard Provisions* for the priority pollutants which have no available numeric criteria.

- b. **RPA Data.** The RPA was based on effluent monitoring data for October 2001 through March 2003, and interim monitoring results for July 2001 through December 2002, and February 2003. Table R1 of the fact sheet summarizes the RPA, lists the constituents, and where available, the lowest, adjusted WQO, the MEC, the "Reasonable Potential" result, and the limits from the previous permit.

Metals Water Quality Objective. For metals, the lowest applicable Water Quality Objective (WQO) was expressed as total recoverable, and

where applicable, adjusted for hardness. A spreadsheet (Table R2) was used to calculate the total recoverable CTR criteria. Hardness values from samples collected in the receiving water upstream of the discharge point were averaged and used to determine the appropriate CTR WQO for those hardness-dependent metals. However individual hardness values greater than 400 mg/L were capped at 400 prior to calculating the average hardness. This is consistent with the preamble to the CTR, contained in federal register Section E.f. *Hardness* (p.31692), 40 CFR Part 131.

Interim Monitoring Requirements. In accordance with the SIP, the Regional Board may impose interim monitoring requirements upon the Discharger, so that the Discharger obtains adequate ambient, background water data for priority pollutants upstream of the discharge point as well as suitable effluent data. The Executive Officer directed the Discharger to begin an interim monitoring program for the duration of 18 months, beginning July 2001. The Discharger collected the eighteen required samples and reported the results quarterly to the Regional Board. Section 1.3, Step 8, of the SIP authorizes the Regional Board to use the gathered data to conduct RPA, as outlined in Steps 1 through 7, and determine if a water quality-based effluent limitation is required.

A reopener provision is included in this Order that allows the permit to be reopened to allow the inclusion of new numeric limitations for any constituent that exhibits reasonable potential to cause or contribute to exceedance of applicable water quality objectives.

For some priority pollutants, the applicable water quality objectives are below the levels that current technology can measure. Section 2.4.5 of the SIP discusses how compliance will be determined in those cases. The Discharger should work with the laboratory to lower detection levels to meet applicable and reliable detection limits; follow procedures set forth in 40 CFR Part 136; and, report the status of their findings in the annual report. During the term of the permit, if and when monitoring with lowered detection limits shows any of the priority pollutants at levels exceeding the applicable WQOs, the discharger will be required to initiate source identification and control for the particular pollutant. Appendix 4 of the SIP lists the minimum levels (MLs) and laboratory techniques for each constituent.

The numeric limitations contained in this Order are intended to protect and maintain existing, intermittent, and potential beneficial uses of the receiving waters. Environmental benefits provided by these limitations are reasonable and necessary.

- c. When reasonable potential exists, WQBELs are calculated, following procedures in SIP. However if the pollutant has an MCL, Regional Board staff compares the calculated WQBEL with the MCL-based WQBEL and selects the more stringent of the two as the limit.

49. The following toxic pollutants exhibited reasonable potentials to exceed their respective most stringent water quality objective or criterion, therefore, WQBELS are prescribed in this Order: mercury, selenium, and bis(2-ethylhexyl)phthalate. WQBELS for bis(2-ethylhexyl)phthalate is based on Title 22, CCR MCLs, and the others are based on the CTR criteria.
50. ***Ammonia and Other Nitrogen Compounds limits.*** The *Nitrogen Compounds and Related Effects* TMDL adopted by the Regional Board on October 24, 2002, includes waste load allocations for ammonia (NH₃), nitrite as nitrogen (NO₂-N), nitrate as nitrogen (NO₃-N), and total nitrogen (NO₂-N + NO₃-N). The TMDL authorizes interim limits (expressed as interim waste allocations) for total nitrogen (NO₃-N + NO₂-N). The interim waste load allocation applies until four years after the effective date of the TMDL. In addition, the Nutrient TMDL authorized, at the discretion of the Regional Board, interim limits for ammonia extending until no later than October 24, 2004, for POTWs that are not able to achieve immediate compliance with the ammonia waste load allocation. Since the Moorpark WTP was able to comply with TMDL waste load allocations for ammonia, nitrite as nitrogen, nitrate as nitrogen, and total nitrogen, the interim limits for these nitrogen compounds are not specified in the permit. Once the *Nitrogen Compounds and Related Effects TMDL* is approved by USEPA and become effective, the TMDL waste load allocations will become final effluent limits for these nitrogen compounds.

The ammonia objectives in the 1994 Basin Plan were revised by Regional Board Resolution No. 2002-011, adopted on April 25, 2002, to be consistent with the 1999 USEPA update on ammonia criteria. Regional Board Resolution No. 2002-011 was approved by State Board, OAL, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect. The final effluent limitation for ammonia prescribed in this Order are based on the revised ammonia criteria and apply at the end of pipe.

This Order does not contain a statistically derived water quality based effluent limitation (WQBEL) for ammonia. Instead, the ammonia limit was taken directly from the Basin Plan Tables. This was done to prevent backsliding issues that might arise from the Ammonia Basin Plan Amendment (Resolution No. R02-011) adopted by the Regional Board on April 25, 2002. The Amendment updates the ammonia objectives in the 1994 Basin Plan with the 1999 USEPA criteria. The criteria for ammonia in the 1994 Basin Plan Tables are more stringent than the recently adopted ammonia criteria in the Ammonia Basin Plan Amendment.

51. This Order is consistent with State and Federal antidegradation policies in that it does not authorize a change in the quantity of wastewater discharged by the facility, nor does it authorize a change or relaxation in the manner or level of treatment. As a result, both the quantity and quality of the discharge are expected to remain the same consistent with antidegradation policies. The accompanying monitoring and reporting program requires continued data collection and if monitoring data show a reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the permit will be reopened to incorporate appropriate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for potential and existing uses and conforms with antidegradation policies and antibacksliding provisions.

52. ***Pollutant Minimization Program.*** This Order provides for the use of a Pollutant Minimization Program, developed in conformance with Section 2.4.5.1 of the SIP, when there is evidence that a priority pollutant is present in the Discharger's effluent above an effluent limitation.

INTERIM LIMITS

53. 40 CFR section 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued, but the current Basin Plan does not allow inclusion of interim limits and compliance schedules in NPDES permits for effluent limits. The CTR and SIP allow inclusion of interim limits in NPDES permits for CTR-based priority pollutants. The CTR provides for a five-year maximum compliance schedule, while the SIP allows for longer, TMDL-based compliance schedule. However, the USEPA has yet to approve the longer TMDL-based compliance schedules. Therefore, new orders always includes interim limits and compliance schedules for CTR-based priority pollutants limits for a maximum of five years, when the Discharger has been determined to have problems in meeting the new limits. This Order includes a reopener to allow the Regional Board to grant TMDL-based compliance schedules if the USEPA approves the longer compliance schedule provisions of the SIP and the appropriate conditions are met. For new non-CTR-based limits prescribed in this Order based on Basin Plan's WQO, for which the Discharger will not be able to meet immediately, interim limits and compliance dates may be provided in a Time Schedule Order (TSO).
54. The Moorpark WTP may not be able to achieve immediate compliance with the limits for bis(2-ethylhexyl)phthalate contained in Section I.A.2.b. Data submitted in previous discharge monitoring reports indicate that this constituent has been detected in the effluent, at least once, at a concentration greater than the new limit proposed in this Order. An interim limit for bis(2-ethylhexyl)phthalate could be contained in a Time Schedule Order, if needed. However, VCWD requested that the Regional Board not issue any TSO for chloride and bis(2-ethylhexyl)phthalate.
55. The limitations contained in this Order are intended to protect and maintain existing and potential beneficial uses of the receiving waters. Environmental benefits provided by these limitations are reasonable and necessary.

PUBLIC NOTIFICATION AND CEQA COMPLIANCE

56. The Regional Board has notified the Discharger and interested agencies and persons of its intent to renew waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
57. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
58. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and is effective 50 days from the date of adoption because of significant public comment, in

accordance with federal law, provided the Regional Administrator, U.S. EPA, has no objections.

59. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.
60. The issuance of waste discharge requirements that serve as an NPDES Permit for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 (California Environmental Quality Act) of the Public Resources Code in accordance with California Water Code Section 13389.

IT IS HEREBY ORDERED that the Ventura County Waterworks District No. 1, as owner and operator of the Moorpark Wastewater Treatment Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Effluent Limitations

1. Wastes discharged shall be limited to treated municipal and industrial wastewater, as proposed in the ROWD and storm water.
2. The discharge of an effluent with constituents in excess of the following limits is prohibited:
 - a. Conventional and nonconventional pollutants:

Constituent	Units	Discharge Limitations		
		Daily Maximum ^[1]	Weekly Average ^[2]	Monthly Average ^[2]
BOD ₅ 20°C	mg/L	45	30	20
	lbs/day ^[3]	560	380	250
Suspended solids	mg/L	45	30	15
	lbs/day ^[3]	560	380	190
Settleable solids	ml/L	0.3	--	0.1
Oil and grease	mg/L	15	--	10
	lbs/day ^[3]	190	--	130
Total residual chlorine	mg/L	0.1 ^[4]	--	--
Total dissolved solids	mg/L	--	--	850
	lbs/day ^[3]	--	--	10,600
MBAS ^[5]	mg/L	--	--	0.5
	lbs/day ^[3]	--	--	6.3
Chloride	lbs/day	2,200 ^[6]	--	--
	lbs/day	1,600 ^[7]	--	--

Constituent	Units	Discharge Limitations		
		Daily Maximum ^[1]	Weekly Average ^[2]	Monthly Average ^[2]
Sulfate	mg/L	--	--	250
	lbs/day ^[3]	--	--	3,100
Boron	mg/L	--	--	1.0
	lbs/day ^[3]	--	--	13
Fluoride	mg/L	--	--	1.2
	lbs/day ^[3]	--	--	15
Total inorganic nitrogen (Nitrate + nitrite as nitrogen)	mg/L	32.01 ^[8]	--	31.5 ^[8]
	mg/L	--	--	9.0 ^[9]
Total ammonia	mg/L	--	--	2.63 ^[10]
Nitrite-N (as N)	mg/L	--	--	0.9 ^[11]

Footnotes:

- [1] The daily maximum effluent concentration limit shall apply to both flow weighted 24-hour composite samples and grab samples, as specified in the Monitoring and Reporting Program (Attachment T).
- [2] Average Monthly Discharge Limitation means the highest allowable average of daily discharge over a calendar month, calculated as the sum of all daily discharges measures during that month divided by the number of days on which monitoring was performed.
- Average Weekly Discharge Limitation means the highest allowable average of daily discharge over a calendar week, calculated as the sum of all daily discharges measures during that week divided by the number of days on which monitoring was performed
- [3] The mass emission rates are based on the plant design flow rate of 1.5 mgd.
- [4] Based on results of continuous monitoring, total residual chlorine concentration of up to 0.3 mg/L, at the point in the treatment train immediately following dechlorination, shall not be considered violations of this requirement provided the total duration of such excursions do not exceed 15 minutes during any 24-hour period. Peaks in excess of 0.3 mg/L lasting less than one minute shall not be considered a violation of this requirement.
- [5] Unlined reaches of Arroyo Las Posas downstream of the discharge points are designated with the beneficial use of groundwater recharge (GWR) in the Basin Plan. In order to protect the underlying drinking water basins, this Title 22-based limit is prescribed.
- [6] This is the waste load allocation (WLA) under routine conditions, according to the Chloride TMDL promulgated by USEPA on March 22, 2002.
- [7] This is the waste load allocation (WLA) under drought conditions, according to the Chloride TMDL promulgated by USEPA on March 22, 2002.
- [8] This is the interim limit for nitrate plus nitrite as nitrogen, according to the Nutrient TMDL for Calleguas Creek, Resolution 2002-017, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in Calleguas Creek (Nitrogen Compounds and Related Effects TMDL)* adopted by the Regional Board on October 24, 2002 and approved by USEPA on June 20, 2003. Resolution 2002-017 allows four years from the effective date of the *Nitrogen Compounds and Related Effects TMDL* for the application of this interim limit. Since the Discharger completed the plant upgrade in July 2001, the interim limit for nitrate plus nitrite as nitrogen will end on December 10, 2004.
- [9] This is the waste load allocation, according to the *Nitrogen Compounds and Related Effects TMDL* adopted by the Regional Board on October 24, 2002 and approved by USEPA on June 20, 2003. This limit

becomes effective on December 10, 2004, and will supercede any previously applicable effluent limitations for Total Inorganic Nitrogen.

- [10] This is the waste load allocation for ammonia, according to the *Nitrogen Compounds and Related Effects TMDL* adopted by the Regional Board on October 24, 2002, and approved by USEPA on June 20, 2003. This limitation will apply on the effective date of this Order (i.e., 50 days after December 4, 2003).
- [11] This is the waste load allocation, according to the *Nitrogen Compounds and Related Effects TMDL* adopted by the Regional Board on October 24, 2002, and approved by USEPA on June 20, 2003. This limitation will apply on the effective date of this Order (i.e., 50 days after December 4, 2003).

b. Toxic pollutants:

CTR # ^[1]	Constituent	Units	Discharge Limitations	
			Monthly Average ^[2]	Daily Maximum
8	Mercury	µg/L	0.05 ^[5]	0.10 ^[5]
		lbs/day ^[4]	0.00063	0.0013
10	Selenium ^[3]	µg/L	4.1 ^[5]	8.2 ^[5]
		lbs/day ^[4]	0.051	0.10
68	Bis(2-Ethylhexyl)phthalate	µg/L	4 ^[6]	--
		lbs/day ^[4]	0.050	--

Footnotes:

- [1] This number corresponds to the compound number found in Table 1 of CTR. It is simply the order in which the 126 priority pollutants were listed in 40 CFR section 131.38 (b)(1).
- [2] Compliance may be determined from a single analysis or from the average of the initial analysis and three additional analyses within the month taken one week apart after the results of the initial analysis are obtained.
- [3] Concentration expressed as total recoverable.
- [4] The mass emission rates are based on the plant design flow rate of 1.5 mgd.
- [5] For priority pollutants, Section 2.4.5 of CTR *Compliance Determination*, reads, "Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML."
- [6] RPA triggered limit based on Title 22 MCL because it is more stringent than the proposed CTR-based limit

B. Other Effluent Limitations

1. The pH of wastes discharged shall at all times be within the range of 6.5 to 8.5.
2. The temperature of wastes discharged shall not exceed 86°F.
3. Pursuant to 40 CFR sections 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal by weight for BOD and total suspended solids shall not be less than 85 percent. Percent removal is defined as a

percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day (monthly) average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day (monthly) average values of the effluent pollutant concentrations.

4. Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64443, of the CCR, or subsequent revisions.
5. The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process does not exceed 2.2 per 100 milliliters, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last seven (7) days for which an analysis has been completed. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and disinfection processes.
6. The wastes discharged to water courses shall have received treatment equivalent to that of filtered wastewater. Filtered wastewater means oxidized, coagulated, and clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity of the filtered wastewater does not exceed any of the following:
 - a. An average of 2 Nephelometric turbidity unit (NTU) within a 24-hour period;
 - b. 5 NTU more than 5 percent of the time (72 minutes) within a 24 hour period; and
 - c. 10 NTU at any time.
7. To protect underlying ground water basins, pollutants shall not be present in the wastes discharged at levels that pose a threat to ground water quality.

C. Receiving Water Limitations

1. For waters designated with a warm freshwater habitat (WARM) beneficial use, the temperature of the receiving water at any time or place and within any given 24-hour period shall not be altered by more than 5°F above the natural temperature (or above 70°F if the ambient receiving water temperature is less than 60 °F) due to the discharge of effluent at the receiving water station located downstream of the discharge. Natural conditions shall be determined on a case-by-case basis.
2. The pH of inland surface waters shall not be depressed below 6.5 or

raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.

3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.
4. In fresh waters designated for contact recreation (REC-1), the following geometric mean limits and single sample limits shall apply for fecal coliform concentrations in the receiving waters, as a result of wastes discharged:
 - a. Geometric Mean Limits
 - i. E.coli density shall not exceed 126/100 mL.
 - ii. Fecal coliform density shall not exceed 200/100 mL.
 - b. Single Sample Limits
 - i. E.coli density shall not exceed 235/100 mL.
 - ii. Fecal coliform density shall not exceed 400/100 mL.

The geometric mean values should be calculated based on a statistically sufficient number of samples (general not less than 5 samples equally spaced over a 30-day period).

If any of the single sample limits are exceeded, the Regional Board may require repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance.

When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

5. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits, as a result of wastes discharged:
 - a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%, and
 - b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.
6. The wastes discharged shall not produce concentrations of toxic substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.

7. The wastes discharged shall not contain radionuclides in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in accumulation of radionuclides in the food web to an extent that present a hazard to human, plant, animal, or aquatic life.
8. The wastes discharged shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.
9. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.
10. The wastes discharged shall not contain substances that result in increases in BOD which adversely affect the beneficial uses of the receiving waters.
11. The wastes discharged shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
12. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.
13. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.
14. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.
15. The wastes discharged shall not result in visible floating particulates, foams, and oil and grease in the receiving waters.
16. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause aesthetically undesirable discoloration of the receiving waters.
17. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life as a result of the wastes discharged.

D. Toxicity Requirements:

1. Acute Toxicity Limitation and Requirements for Effluent:

- a. The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70 % survival.
- b. If either of the above requirements I.D.1.a.i. or I.D.1.a.ii. is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume testing at the regular frequency as specified in the monitoring and reporting program. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the limits.
- c. If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70 % survival, the Discharger shall immediately implement the Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan described later in this section.
- d. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program CI 7513 (Attachment T).

2. Chronic Toxicity Limitations and Requirements for Effluent:

- a. The chronic toxicity of the effluent shall be expressed and reported in toxic units (TU_c) where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

- b. There shall be no chronic toxicity in the effluent discharge.
- c. If the chronic toxicity of the effluent exceeds the monthly median of 1.0 TU_c, the Discharger shall immediately implement an accelerated chronic toxicity testing program according to Monitoring and Reporting Program CI 7513, Item VI.D.2.d. If any three out of the initial test and the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan.
- d. The Discharger shall conduct chronic toxicity monitoring as specified in Monitoring and Reporting Program No. 1759 (Attachment T).
- e. This permit may be reopened to include effluent limitations for pollutants found to be causing chronic toxicity and to include numeric chronic toxicity effluent limitations based on the direction from the State Water Resources Control Board or failure of the City to comply fully with the TRE/TIE requirements.

3. Chronic Toxicity Requirements for Receiving Water:

- a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.
- b. Receiving water and effluent toxicity testing shall be performed concurrently on the same day or close to each other as possible.
- c. If the chronic toxicity in the receiving water at the monitoring station immediately downstream of the discharge exceeds 1.0 TU_c in a critical life stage test and the toxicity is a result of the effluent waste discharge, then the Discharger shall immediately implement an accelerated chronic toxicity testing according to Monitoring and Reporting Program CI 7513, section VI.D.2.d. If two of the six tests exceed 1.0 TU_c, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan.
- d. If the chronic toxicity of the receiving water upstream of the discharge greater than the downstream and the TU_c of the effluent chronic toxicity test is less than 1 TU_c, then accelerated monitoring need not be implemented.

4. Preparation of An Initial Investigation TRE Workplan

- a. The Discharger shall submit a detailed copy of the Discharger's Initial Investigation TRE Workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The Discharger shall use EPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a

minimum, the TRE Work Plan must contain the provisions in Attachment C. This Workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

- i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
- ii. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,
- iii. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section VI.D.4. for guidance manuals.

II. BIOSOLIDS REQUIREMENTS

- A. The Discharger shall comply with the requirements of 40 CFR Part 503, in general, and in particular the requirements in Attachment B of this Order, [*Biosolids Use and Disposal Requirements*]. These requirements are enforceable by the USEPA.
- B. The Discharger shall comply, if applicable, with the requirements in State issued statewide general Waste Discharge Requirements (WDRs) Order No. 2000-10-DWQ, titled "General waste Discharge Requirements for the Discharge of Biosolids to Land for use as a soil Amendment in Agricultural, Silvicultural and Horticultural and Land Reclamation Activities" adopted in August 2000.
- C. The Discharger shall comply, if applicable, with WDRs issued by other Regional Boards to which jurisdiction the biosolids are transported and applied.
- D. The Discharger shall furnish this Regional Board with a copy of any report submitted to USEPA, State Board or other regional board with respect to municipal sludge or biosolids.

III. PRETREATMENT REQUIREMENTS

- A. This Order includes the Discharger's Pretreatment Program as previously submitted to this Regional Board. Currently, this Pretreatment Program is under staff review at Regional Board.
- B. The Discharger shall implement and enforce its approved Pretreatment Program. The Discharger shall be responsible and liable for the performance of all control

authority pretreatment requirements contained in 40 CFR, Part 403, including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the effective date of this Order or the effective date of Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Board, USEPA, or other appropriate parties, as provided in the Federal Clean Water Act. The Regional Board or USEPA may initiate enforcement action against an industrial user for noncompliance with acceptable standards and requirements as provided in the Federal Clean Water Act and/or the California Water Code.

- C. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Federal Clean Water Act with timely, appropriate, and effective enforcement actions. The Discharger shall require industrial users to comply with Federal Categorical Standards and shall initiate enforcement actions against those users who do not comply with the standards. The Discharger shall require industrial users subject to the Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.
- D. The Discharger shall perform the pretreatment functions as required in Federal Regulations 40 CFR, Part 403 including, but not limited to:
 - 1. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
 - 2. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
 - 3. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and
 - 4. Provide the requisite funding of personnel to implement the Pretreatment Program as provided in 40 CFR 403.8(f)(3).
- E. The Discharger shall submit semiannual and annual reports to the Regional Board, with copies to the State Board, and USEPA, Region 9, describing the Discharger's pretreatment activities over the period. The annual and semiannual reports (and quarterly reports, if required) shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (Attachment P), or an approved revised version thereof. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

IV. PROVISIONS

- A. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- B. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic, and pretreatment effluent standards, and all federal regulations established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal Clean Water Act and amendments thereto.
- C. This Order includes the attached *Monitoring and Reporting Program* (Attachment T). If there is any conflict between provisions stated in Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former prevail.
- D. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements (Standard Provisions)* (Attachment N). If there is any conflict between provisions stated herein and the Standard Provisions, those provisions stated herein prevail.
- E. The Discharger shall comply with the requirements of the State Board's General NPDES Permit No. CAS000001 and *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities* (Order No. 97-03-DWQ) by continuing to implement a SWPPP and conducting the required monitoring.
- F. **Compliance Determination**
 - 1. Compliance with single constituent effluent limitations – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (See reporting requirement III.A. of MRP), then the Discharger is out of compliance.
 - 2. Compliance with monthly average limitations – In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:
 - a. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger will have demonstrated compliance with the monthly average limit for that month.
 - b. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for that constituent, the Discharger shall collect four additional

samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after the sample was obtained, whichever is later.

When all sample results are greater than or equal to the reported minimum Level (see Reporting Requirement III.A. of MRP), the numeric average of the analytical results of these four samples will be used for compliance determination.

When one or more sample results are reported as “Non-Detected (ND)” or “Detected, but not Quantified (DNQ)” (see Reporting Requirement III.D. of MRP), the median value of these four samples will be used for compliance determination. If one or both of the median values is ND or DNQ, the median will be the lower of the two middle values.

- c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average limitation has been demonstrated.
 - d. If only one sample was obtained for the month or for a monthly period and the result exceeded the monthly average, then the Discharger is in violation of the monthly average limit.
3. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation and greater than or equal to the Reported Minimum Level, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero.
 4. Compliance with effluent limitations expressed as a median – In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and
 - a. If the number of measurements (n) is odd, then the median will be calculated as $= X_{(n+1)/2}$, or
 - b. If the number of measurements (n) is even, then the median will be calculated as $= [X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the n/2 and n/2+1 data points.

Consecutive exceedances of the coliform 7-day median effluent limitation,

which take place within a calendar week and result from a single operational upset, shall be treated as a single violation.

5. Compliance with the receiving water temperature limitation – If the receiving water temperature, downstream of the discharge, exceeds 80 °F as a result of:
 - a. high temperature in the ambient air, or
 - b. high temperature in the receiving water upstream of the discharge,then the exceedance shall not be considered a violation.
- G. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for “Not Detected” (ND) and the estimated concentration for “Detected but Not Quantified” (DNQ) for the calculation of the monthly average concentration.
- H. **Pollutant Minimization Program (PMP)**
 1. The goal of the PMP is to reduce all potential sources of a pollutant through minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the effluent limitation.

Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The completion and implementation of a Pollution Prevention Plan, required in accordance with California Water Code Section 13263.3(d) shall fulfill the PMP requirement in this section.
 2. The Discharger shall develop a PMP, in accordance with Section 2.4.5.1., of the SIP, if all of the following conditions are true, and shall submit the PMP to the Regional Board within 120 days of determining the conditions are true:
 - a. The calculated effluent limitation is less than the reported minimum level (ML);
 - b. The concentration of the pollutant is reported as detected but not quantified (DNQ); and,
 - c. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.
 3. The Discharger shall develop a PMP, in accordance with Section 2.4.5.1., of the SIP, if all of the following conditions are true, and shall submit the

PMP to the Regional Board within 120 days of determining the conditions are true:

- a. the calculated effluent limitation is less than the method detection limit (MDL);
 - b. The concentration of the pollutant is reported as “Non-Detected”, ND;
 - c. There is evidence that the pollutant is present in the effluent above the calculated effluent limitation.
4. The Discharger shall consider the following in determining whether the pollutant is present in the effluent at levels above the calculated effluent limitation:
- a. health advisories for fish consumption;
 - b. presence of whole effluent toxicity;
 - c. results of benthic or aquatic organism tissue sampling;
 - d. sample results from analytical methods more sensitive than methods included in the permit;
 - e. the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the method detection limit.
5. Elements of a PMP. The PMP shall include actions and submittals acceptable to the Regional board including, but not limited to, the following:
- a. An annual review and semiannual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;
 - b. Quarterly monitoring for the reportable pollutant in the influent to the wastewater treatment system;
 - c. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant in the effluent at or below the calculated effluent limitation;
 - d. Implementation of appropriate cost-effective control measures for the pollutant, consistent with the control strategy; and,
 - e. An annual status report that shall be sent to the Regional Board including:
 - All PMP monitoring results for the previous year;
 - A list of potential sources of the reportable pollutant;
 - A summary of all action taken in accordance with control strategy; and,
 - A description of actions to be taken in the following year.

- I. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of a plant upset or outage due to power failure or other causes, the discharge of raw or inadequately treated sewage does not occur.
- J. The Discharger shall protect the facility from inundation which could occur as a result of a flood having a predicted frequency of once in 100 years.
- K. This Order may be reopened and modified to revise Title 22-based effluent limitations as appropriate, if the Discharger conducts studies to gather data which demonstrates, to the satisfaction of the Regional Board, that dilution/attenuation is appropriate.
- L. The Discharger shall comply with all applicable water quality objectives for receiving waters, including the toxic criteria in 40 CFR Part 131.36, as specified in this permit.

V. REOPENERS AND MODIFICATIONS

- A. This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limits based on future reasonable potential analysis to be conducted, upon completion of the collection of additional data by the Discharger. Notwithstanding the foregoing, in the event that reasonable potential analyses indicate that a pollutant has reasonable potential, the Regional Board staff shall bring an appropriate modification to the Regional Board, at the next practicable Board meeting.
- B. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to incorporate requirements for the implementation of the watershed protection management approach.
- C. This Order may be modified, in accordance with the provisions set forth in 40 CFR sections 122 and 124, to include new MLs.
- D. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of the Ammonia objective, or the adoption of a TMDL for Calleguas Creek Watershed.
- E. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
- F. This Order may be reopened and modified to include TMDL-based compliance schedules, upon a proper demonstration by the Discharger and developed in accordance with section 2.1 of the SIP, if and when the USEPA approves the TMDL-based compliance schedules provision of the SIP.

- G. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- H. This Order may be reopened to modify final effluent limits, if at the conclusion of necessary studies conducted by the Discharger, the Regional Board determines that dilution credits, attenuation factors, or metal translators are warranted.

VI. EXPIRATION DATE

This Order expires on November 10, 2008.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

VII. RESCISSION

Order Nos. 00-049, adopted by this Regional Board on April 13, 2000 is hereby rescinded, except for enforcement purposes.

I, Dennis A. Dickerson, 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, Los Angeles Region, on December 4, 2003.

Dennis A. Dickerson
Executive Officer

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4