State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles

FACT SHEET
ORDER NO. R4-2003-0156
WASTE DISCHARGE REQUIREMENTS
FOR
CAMROSA WATER DISTRICT
(Camrosa Water Reclamation Facility)

NPDES No. CA0059501
Public Notice No.: R4-2003-XXX

FACILITY ADDRESS	FACILITY MAILING ADDRESS
Camrosa Water Reclamation Facility	7385 Santa Rosa Road
1900 S. Lewis Road	Camarillo, CA 93012
Camarillo, CA 93012	
Contact: Christopher M. Smith	
Telephone: (805) 482-4677	

I. Public Participation

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced facility. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on November 14, 2003.

B. **Public Hearing**

The Regional Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date, time, and location:

Date:	December 4, 2003
Time:	9:00 a.m.
Location:	City of Simi Valley, Council Chambers 2929 Tapo Canyon Road Simi Valley, California

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is www.swrcb.ca.gov/rwqcb4 where you can access the current agenda for changes in dates and locations.

C. **Information and Copying**

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged by calling the Los Angeles Regional Board at (213) 576-6600.

D. **Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

E. **Waste Discharge Requirements Appeals**

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel

ATTN: Elizabeth Miller Jennings
P.O. Box 100, 1001 I Street
Sacramento, CA 95812

II. BACKGROUND

On May 15, 2002 Camrosa Water District (hereinafter CWD or Discharger) filed a Report of Waste Discharge (ROWD) and applied to the Regional Board for reissuance of waste discharge requirements and a permit to discharge tertiary treated wastewater, from its treatment facility located in Camarillo, to the Calleguas Creek, a water of the State and the United States, under the National Pollutant Discharge Elimination System (NPDES) permit NPDES No. CA0059501. CWD discharges municipal and industrial wastewater from the Camrosa Water Reclamation Facility (CWRF).

III. PURPOSE OF ORDER

This NPDES Permit regulates the discharge of treated wastewater to Calleguas Creek, a water of the State and the United States. This discharge was previously permitted by Waste Discharge Requirements in Order No. 2000-09, adopted by this Regional Board on January 26, 2000. This Order is a re-issuance of the waste discharge requirements that have been revised to reflect current wastewater treatment processes and to include additional findings, effluent limitations, prohibitions, updated standard provisions, and an expanded monitoring and reporting program.

IV. FACILITY DESCRIPTION

A. CWRF is a publicly owned treatment works (POTW) and CWD operates the CWRF, located at 1900 Lewis Road, Camarillo, California. CWRF has a design capacity of 1.5 million gallons per day (mgd) and serves an approximate population of 16,000 people. In 1995, CWD began making modifications and upgrades to its wastewater treatment plant. In April 1997, the new facilities were placed into service. Since then, CWRF provides tertiary treatment to municipal and industrial wastewater.

B. The CWRF receives most of the domestic wastewater from the City of Camarillo. There are no significant industrial discharges within the City of Camarillo and not subjected to pretreatment regulations [40 Code of Federal Regulations (CFR) Part 403]. Therefore, CWD is no longer required to implement a Pretreatment Program.

C. The United States Environmental Protection Agency (USEPA) and Regional Board has classified CWRF as a major Discharger. CWRF has a Threat to Water Quality Category of 3 and a Complexity Rating of A, or a combined rating of 3-A.

D. Normally, filtered, chlorinated effluent wastewater from the CWRF is pumped to two of the four effluent disposal ponds north of the treatment facility. Currently,

there is approximately 50 millions gallons of disposal space available in the ponds. Wastewater used for irrigation purposes is drawn off from the ponds on an "as-needed" basis. Storage is currently approximately 40 days capacity. Two of the storage ponds are currently being used to store water from the Conejo Creek.

V. TREATMENT PROCESS DESCRIPTION

A. Current treatment consists of a bar screen, headworks lift station, Eimco© Carousel denitIR© extended aeration system, anoxic denitrification, secondary clarification, Parkson upflow sand filtration, chlorination, and impoundment for reclamation. Biosolids from the secondary clarifiers are impounded, dried in sludge drying beds at the plant, and transported to a land application projects in La Paz County, Arizona.

B. **Water Recycling Facility.** Treated effluent from CWRF is currently used for irrigation of various crops, with the remainder of the excess flows directed to off-site evaporation/percolation ponds. At an average daily flow of 1.3 MGD, the facility generates 474.5 million gallons of tertiary filtered disinfected effluent on an annual basis. Presently 54% of the total production, or approximately 254 MGD of the effluent produced at the CWRF is used for irrigation of 1,011 acres of various crops. The CWD is currently in the process of evaluating other options for year-round effluent reuse.

Future beneficial reuse applications include irrigation of highway medians, golf courses and landscapes, as well as, direct and non-direct food chain crops. Other reclaimed water applications may include dust control water, wash-down water and fire protection water. The production, distribution and reuse of recycled water for direct, non-potable applications are presently regulated under Water Reclamation Requirements (WRRs) Order No. 95-059, adopted by this Board on May 15, 1995.

VI. DISCHARGE DESCRIPTION

A. Treated effluent is typically reclaimed and used for irrigation of various food crops, while any unused effluent is discharged into four storage ponds under separate Waste Discharge Requirements contained in Order No. 95-059. The discharge of treated effluent to surface water occurs during rainy periods only, when there is little or no demand for irrigation water and the storage ponds are at or nearing their storage capacity. Treated effluent from the storage ponds, which have a detention time prior to discharge of at least 40 days, is discharged to Calleguas Creek only when irrigation demands are minimal, through Discharge Serial No. 001 (Latitude 34°10'53", Longitude 119°01'43"). The discharge outfall is located at Pond #2. Calleguas Creek is a tributary to Mugu Lagoon, and is part of the Calleguas Creek Watershed Management Area. Since 1998, there have been no discharges to the Creek.

B. Receiving Water. There are many tributaries to Callegaus Creek upstream of the discharge. Conejo Creek is one of the major tributaries that enters the Calleguas Creek. For most of the length of the Conejo and Calleguas Creeks, the sides of the channel are rip rapped, but the bottom is unlined. A number of agricultural and industrial drains serve as conveyance for agricultural and industrial drainage water to the Calleguas Creek estuary and Mugu Lagoon. Therefore, 18 months receiving water monitoring data showed exceedances for some of the pesticides.

C. Proposed Discharge Location. On September 15, 2003, Board staff met with the CWD to discuss a proposed new discharge location. CWD proposes to relocate its discharge outfall on Calleguas Creek to a new location, approximately 2.3 miles downstream of the existing one, and plans to abandon the existing outfall. With the relocation, CWD is also considering the irrigation use of recycled water for an additional 1,000 acres of agricultural land, thereby reducing further the likelihood of discharge to Calleguas Creek.

The proposed outfall location (Latitude 34" 09' 49", Longitude 119" 03' 42") is located in Calleguas Creek, south of the Hueneme Road Bridge (Potrero Road Bridge). While the Basin Plan contains no specific mineral objectives for this Reach, depending on this discharge location in relation to tidal influence, there may be beneficial uses that would be affected by mineral discharges that would have to be considered in the permitting process.

A review of CEQA documentation and assessment studies on the projected impacts, if any, of the discharge on the receiving water at the new location is required. A baseline assessment of the potential impacts on the beneficial uses, including aquatic and wildlife habitats, will also be required prior to discharge at this location.

When the new discharge location is approved, the permit will be reopened to incorporate the new discharge point and its findings.

VII. DISCHARGE QUALITY

There have been no discharges to Calleguas Creek since 1998. All the treated wastewater has been used for recycling purposes. Therefore, effluent water quality monitoring has not been conducted since 1998. However, CWD has performed 18 months interim monitoring for priority pollutants on the samples collected from Pond #2 where the discharge outfall is located. Reasonable Potential Analysis (RPA) was performed on the priority pollutant data submitted to determine if effluent limits are warranted.

A review of the last five years of Annual Reports submitted (as required in WRRs Order No. 95-059) shows that CWD has consistently met the prescribed limits for conventional and non-conventional pollutants, except for chloride.

The following table contains the effluent discharge quality as reported in the 2002 Annual Report for WRRs.

Constituents	Unit	Maximum (Monthly Average)	Minimum (Monthly Average)	Annual Average
BOD	mg/L	12.7	0.2	6.4
TDS	mg/L	877	712	793
Turbidity	mg/L	4	1.1	2.25
TSS	ml/L	0.1	0.1	0.1
Oil & Grease	mg/L	<0.5	<0.5	<0.5
Ammonia-N	mg/L	0.3	0.2	0.22
Nitrate-N	mg/L	3	1	1.9
Nitrite-N	mg/L	0.1	0.1	0.1
Chloride	mg/L	218	175	199
Sulfate	mg/L	154	42	135
Fluoride	mg/L	0.22	0	0.15
Boron	mg/L	0.83	0.12	0.35
Interim Monitoring Results: The following are the priority pollutants that are detected above criteria and have limits.				
Bis(2-ethylhexyl) phthalate	ug/L	1.9	1	1.3
Cholordibromomethane	ug/L	73	3	26.5
Dichlorobromomethane	ug/L	62	4	28
Lindane	ug/L	0.43	0.43	0.43
Copper	ug/L	33	3	10.25
Cyanide	ug/L	8.5	8.5	8.5
4,4' – DDE	ug/L	0.04	0.02	0.03
4,4' – DDT	ug/L	0.03	0.01	0.02
Bis(2-ethylhexyl)phthalate	ug/L	14	1	2.68
Lead	ug/L	18.6	0.5	2.38
Mercury	ug/L	0.2	0.02	0.06

The "<" symbol indicates that the pollutant was not detected (ND) at that concentration level. It is unknown if the pollutant is present at a lower concentration.

The Attachment R, contains a more extensive statistical analysis of effluent priority pollutant data collected by the Discharger from July 2001 to December 2002.

The Discharger has not monitored for toxicity in the effluent since 1998, as there were no discharges to the Callegaus Creek. However, the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were under review 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, at a public hearing, the State Board adopted Order No. WQO 2003-0012, deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the SIP is adopted. In the mean time, the State Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar narrative chronic toxicity effluent limitation and trigger. This Order also contains a reopener to allow the Regional Board to modify the permit, if necessary, consistent with any new policy, law, or regulation.

VIII. APPLICABLE PLANS, POLICIES, AND REGULATIONS

A. **Federal Water Pollution Control Act (CWA).**
Effluent limitations and toxic effluent standards 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. 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.

B. **Antidegradation Policy.**
On October 28, 1968, the State Water Resources Control Board (State Board) adopted Resolution No. 68-16*, Maintaining High Quality Water*, which established an Antidegradation Policy for State and Regional Boards. The State Board has, in State Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the Federal Antidegradation Policy. Additional implementation requirements are included in the Administrative Procedures Update. Both state and federal antidegradation policies require that where the quality of the waters exceed levels necessary to support the beneficial uses, that quality shall be maintained and protected unless allowing lower quality is necessary to accommodate important economic or social development, and provided the lower water quality is adequate to support the existing beneficial uses.

C. **Sources of Drinking Water Policy.** On May 19, 1988, the State Board adopted Resolution No. 88-63, *Sources of Drinking Water Policy*, which required all Regional Boards to designate all surface and groundwater, with limited exemptions, as suitable or potentially suitable for municipal and domestic supply. 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).*

To implement Regional Board Resolution No. 89-03 and State Board Resolution No. 88-63, in the 1994 the Basin Plan, the Regional Board designated all inland surface and ground waters in the region as existing, intermittent, and potential Municipal and Domestic Supply (MUN). The potential designation is conditioned that no new effluent limitations will be placed in WDRs until the Regional Board has undertaken a detailed review of the criteria for exempting a water body from the SODW policy, and adopts a Basin Plan Amendment to finalize the designation.

D. **Potential Municipal and Domestic Supply (P*).** To implement Regional Board Resolution No. 89-03 and State Board Resolution No. 88-63, in the 1994 the Basin Plan, the Regional Board designated all inland surface and ground waters in the region as existing, intermittent, and potential Municipal and Domestic Supply (MUN). The potential designation is conditioned that no new effluent limitations will be placed in WDRs until the Regional Board has undertaken a detailed review of the criteria for exempting a water body from the SODW policy, and adopts a Basin Plan Amendment to finalize the designation.

This permit is consistent with the foregoing provision of the Basin Plan.

E. **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, as amended on January 27, 1997, by Regional Board Resolution No. 97-02. This updated and consolidated plan represents the Board's master 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 groundwater, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the State Antidegradation Policy, 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 pertinent water quality policies and regulations. The 1994 update of the Basin Plan has been prepared to be consistent with all State and Regional Board plans and policies adopted from 1994 and earlier. This Order implements the plans, policies and provisions of the Basin Plan.

F. ***Beneficial Uses***. The Basin Plan contains water quality objectives and beneficial uses for the Calleguas Creek and contiguous waters.

1. The beneficial uses of the receiving surface water are:

(Calleguas Creek - Hydro Unit 403.11)

Potential: municipal and domestic supply[1] (P*); and,
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;

(Calleguas Creek Estuary - Hydro Unit 403.11)
Potential: navigation, water contact recreation;

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;

(Mugu Lagoon - Hydro Unit 403.11)

Potential: water contact recreation;

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.

2. There is the potential for public contact in the receiving water downstream of the discharge, therefore, the quality of wastewater discharged to the Calleguas Creek and to the Calleguas Creek Estuary must be such that no public health hazard is created.

3. The beneficial uses of the receiving groundwater are:

Calleguas Creek – Pleasant Valley

<u>Confined Aquifer</u>

Existing: municipal and domestic supply[2], industrial service supply, industrial process supply, and agricultural supply.

<u>Unconfined and Perched Aquifer</u>

[1] 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.

[2] Effluent limits are prescribed to protect the groundwater recharge beneficial use designation.

Existing: industrial service supply, industrial process supply, and agricultural supply.

Potential: municipal and domestic supply[2]

4. The requirements in this Order are intended to protect designated beneficial uses and enhance the water quality of the watershed. Effluent limits must protect both existing and potential beneficial uses.

G. The California Department of Health Services established primary and secondary maximum contaminant levels (MCLs) for a number of chemical and radioactive contaminants. These MCLs can be found in Title 22, California Code of Regulations (Title 22). Chapter 3 of the Basin Plan 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 the "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore the secondary MCL's, which are limits based on aesthetic, organoleptic standards, are also incorporated into this permit to protect groundwater quality.

Groundwater Recharge. Sections of the Calleguas Creek, Hydro Unit 403.11, are designated for GWR. Surface water from the Calleguas Creek enters the Pleasant Valley Basin. Since flow in the river recharges the groundwater, the Basin Plan requires Title 22-based limits be imposed to protect the precious sources of groundwater. By limiting the contaminants in the CWD 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.

H. **State Implementation Plan (SIP) and California Toxics Rule (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, 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

Federal Clean Water Act (CWA). This policy also establishes the following: implementation provisions for priority pollutant criteria promulgated by USEPA through the California Toxics Rule (CTR) and for priority pollutant objectives established by Regional Water Quality Control Boards (RWQCBs) in their water quality control plans (Basin Plans); monitoring requirements for priority pollutants with insufficient data to determine reasonable potential; monitoring requirements for 2, 3, 7, 8 –TCDD equivalents; and chronic toxicity control provisions. The CTR became effective on May 18, 2000 (codified as 40 CFR Part 131.38). Toxic pollutant limits are prescribed in this Order to implement the CTR and Basin Plan.

I. In the CTR, USEPA promulgated criteria that protects the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. USEPA recognizes that adoption of 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 it can demonstrate that the chosen risk level is adequately protective of the most highly exposed subpopulation, and has completed all necessary public participation. This demonstration has not happened in California. Further, the 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 Water Quality Standards Handbook: Second Edition (EPA-823-B-005a, August 1994) to demonstrate that a different risk factor is more appropriate. Upon completion of the study, the State Board will review the results and determine if the risk factor needs to be changed. 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.

J. **303(d) Listed Pollutants.** On July 25, 2003, USEPA approved the State's list of impaired waterbodies. The list (hereinafter referred to as the 303(d) List) was prepared in accordance with Section 303(d) of the Federal Clean Water Act to identify specific impaired waterbodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources.

Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list) is on the 303(d) List. The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

- chloradane (tissue), copper, DDT tissue and sediment), endosulfan (tissue), mercury, nickel, nitrogen, PCBs (tissue), sediment toxicity, sedimentation/siltation and zinc.

Calleguas Creek Reach2 (estuary to Potrero Rd- was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list).

The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

- ammonia, ChemA (tissue) chlordane, copper, DDT (tissue & sediment), endosulfan (tissue), fecal coliform, nitrogen, PCBs (tissue), sediment toxicity, sedimentation/siltation, toxaphene (tissue & sediment).

The Regional Board revised the 303(d) list in 2002 and submitted the draft to the Sate Board for approval. The State Board had scheduled the draft 303(d) list, dated October 15, 2002, for approval at two of its meetings, however the interim was postponed to hold additional workshops and to allow more time for the public to submit comments. The draft 303(d) list dated October 15, 2002, was revised on January 13, 2002, was adopted by the State Board at its February 4, 2003 meeting. The adopted 303(d) list was approved by USEPA on July 25, 2003.

K. **Relevant 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. 2000-09 for the CWRF), for the aforementioned POTWs. Following the adoption of NPDES Order No. 2003-0156, and concurrent rescission of Order No. 2000-09, 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. 2003-0156. 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 approved the *Nitrogen Compounds and Related Effects* TMDL on March 19, 2003. The Office of Administrative Law approved it on June 5, 2003 and USEPA on June 20, 2003 respectively.

L. **Watershed Approach.** This Regional Board has been working to implement a Watershed Management Approach to address water quality protection in the Los Angeles Region. The objective is to provide a more comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrological-defined drainage basin or watershed. The Watershed Management Approach 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. This Order and the accompanying *Monitoring and Reporting Program* fosters the implementation of this approach by protecting beneficial uses in the watershed.

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.

M. **Watershed Management Initiative Chapter**: As described in the State of the Watershed Report and in Chapter 2.10 of the *Watershed Management Initiative*, the Calleguas Creek Watershed drains a 343 square mile area of southern Ventura County and a small portion of western Los Angeles County. The northern boundary of the watershed is formed by the Santa Susana Mountains, South Mountain, and Oak Ridge. The southern boundary is formed by the Simi Hills and Santa Monica Mountains. The major tributaries to Calleguas Creek are the Arroyo Simi, Arroyo Las Posas, Arroyo Conejo, and Conejo Creek. Revolon Slough, in the western part of the County, is also considered part of the watershed, though the slough drains directly to Mugu Lagoon and mixes with Calleguas Creek at the estuary. Urban development is largely restricted to the city limits of Simi Valley, Moorpark, Thousand Oaks, and Camarillo. Although some residential development has occurred along the slopes of the watershed, most upland areas are still open space. Agricultural activities, primarily the cultivation of orchards and row crops are spread out along the valleys and on the Oxnard Plain. Mugu Lagoon, located at the mouth of the watershed is one of the few remaining significant saltwater wetland habitats in southern California. Groundwater supplies are critical to agricultural operations and to the sand and gravel mining industry in the watershed.

Callegaus Watershed can be accessed through Regional Board's web site at http://www.swrcb.ca.gov/rwqcb4 and clicking on the word "watersheds".

N. **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 EPA.

IX. REGULATORY BASIS FOR EFFLUENT LIMITS AND DISCHARGE REQUIREMENTS

A. ***Water Quality Objectives and Effluent Limits***. Water Quality Objectives (WQOs) and effluent limitations in this permit are based on:

- The State Water Resources Control Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" (the State Implementation Plan or SIP);
- 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;
- Administrative Procedures Manual and Administrative Procedure Updates;
- California Toxics Rule (Federal Register Volume 65, No. 97);
- 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 Regulations
  - Federal Clean Water Act, and
  - 40 CFR Parts 122, 131, among others; and,
- Best professional judgment (pursuant to 40 CFR 122.44).

Where numeric effluent limitations have not been established in the Basin Plan, 40 CFR Part 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.

B. USEPA regulations, policy, and guidance documents upon which Best Professional Judgment (BPJ) was developed may 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).

C. To implement Section 405(d) of the Clean Water Act, 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.

D. Section 402(p) of the Federal Clean Water Act, 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 Part 122.26, which established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, in 1992 the State Board issued a statewide general permit [NPDES No. CAS000001, reissued on April 17, 1997] to regulate storm water discharges associated with industrial activity applicable to POTWs with a design flow of one mgd or greater. The FWTP has not filed a Notice of Intent to be covered under the general NPDES Permit No. CAS000001, therefore, this Order includes requirements for discharges of storm water.

E. ***Federal Water Pollution Control Act (CWA).*** Effluent limitations and toxic effluent standards 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.

F. **Antibacksliding** provisions are contained in Sections 303(d)(4) and 402(o) of the CWA, and in 40 CFR Part 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions. Section 402(o) of the CWA establishes express statutory language prohibiting the backsliding of effluent limitations. It consists of the following three parts:

1. Section 402(o)(1) prohibits (subject to exceptions in section 303(d)(4) and/or 402(o)(2)) the relaxation of effluent limitations for two situations:

    a. When a permittee seeks to revise a technology-based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent; and
    b. When a permittee seeks relaxation of an effluent limitation, which is based upon a State treatment standard or water quality standard.

2. Section 402(o)(2) outlines specific exceptions to the general prohibition against establishment of less stringent effluent limitations. Codified in the NPDES regulations at 40 CFR 122.44(l), Section 402(o)(2) provided that the establishment of less stringent limits may be allowed where:

   a. There have been material and substantial alterations or additions to the permitted facility which justify this relaxation;
   b. New information (other than revised regulations, guidance, or test methods) is available that was not available at the time of permit issuance which would have justified a less stringent effluent limitation;
   c. Technical mistakes or mistaken interpretations of the law were made in issuing the permit under Section 402(a)(1)(b);
   d. Good cause exists due to events beyond the permittee's control (e.g., acts of God) and for which there is no reasonably available remedy;
   e. The permit has been modified under 40 CFR 122.62, or a variance has been granted; or
   f. The permittee has installed and properly operated and maintained required treatment facilities, but still has been unable to meet the permit limitations (relaxation may only be allowed to the treatment levels actually achieved).

   Although the statute identified six exceptions where effluent limitations may be relaxed, the language specifically stated that exceptions "c" and "e" (as listed above) do not apply to water quality-based effluent limitations. Thus, exceptions c & e would only apply to technology-based effluent limitations derived using best professional judgement.

3. Section 402(o)(3) prohibits the relaxation of effluent limitations in all cases if a revised effluent limitation would result in a violation of applicable effluent limitation guidelines or water quality standards, including antidegradation requirements. Thus, even if any of the antibacksliding exceptions outlined in either the statute or regulations are applicable and met, Section 402(o)(3) acts as a floor and restricts the extent to which effluent limitations may be relaxed. This requirement affirms existing provisions of the CWA that require limits, standards, and conditions to ensure compliance with applicable technology-based limits and water quality standards.

G. ***Applicable Water Quality Objectives***. 40 CFR Part 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 WQOs. The CTR promulgates numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. A compliance schedule provision in the SIP authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met.

Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR Part 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.

H. ***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 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 401.12 and 40 CFR 423, Appendix A) and include metals and man-made 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, nitrogen, phosphorous, chemical oxygen demand, and whole effluent toxicity, etc.

I. ***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 USEPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations, which are specified in 40 CFR 133. These technology based regulations apply to all POTWs and identify the minimum level of effluent quality attainable by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH.

J. ***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 122.44(d)(1)

requires that the permit contain a WQBEL. Applicable water quality standards for the Callegaus Creek are contained in the Basin Plan and CTR, as described in previous findings.

K. ***Water Quality Based Effluent Limits for Toxic Pollutants.*** Toxic substances are regulated in this permit by water quality based effluent limitations derived from the 1994 Basin Plan, the CTR, and/or best professional judgment (BPJ) pursuant to Part 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 122.44(d)(1)(i), and in part, the SIP, require the establishment of WQBELs that will protect water quality. As documented in 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.

L. **REASONABLE POTENTIAL ANALYSIS**

Reasonable Potential Analyses for Toxic Pollutants.
As specified in 40 CFR Part 122.44(d)(1)(i), permits are required to include limits for all pollutants that the permitting authority determined are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard. Using the method described in the SIP, Regional Board staff have conducted Reasonable Potential Analyses (RPA) on priority pollutants using the Discharger's monitoring data and other available information regarding the discharge and receiving water. Attachment R summarizes the results of RPA; and where available, the lowest adjusted criteria (C_a) the maximum effluent concentrations (MECs), and the calculated effluent limits

a. ***RPA Data.*** CWD did not discharge to Calleguas Creek since 1998; therefore no regular NPDES discharge data is available. Regional Board staff used priority pollutant data from 18 months Interim Monitoring Reports for effluent and ambient water, in the RPAs.

Chronic Toxicity – Toxicity in the effluent was not monitored because there was no discharges to Calleguas Creek since 1998. The circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential 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. ***Interim Monitoring.*** In accordance with the SIP and pursuant to Water Code section 13267, the Regional Board required the Discharger to conduct monthly interim monitoring of priority pollutants (except for asbestos and 2,3,7,8-TCDD) in the effluent and receiving water. Monitoring for asbestos and 2,3,7,8-TCDD is semiannual. The goal is to obtain an adequate number of data points for statistical analyses. Interim monitoring started in July 2001 and completed in December 2002. Results of interim monitoring are reported to the Regional Board on a quarterly basis. Interim monitoring data from July 2001 to December 2002 were used in the RPAs.

c. ***Reasonable Potential Determination.*** Section 1.3 of the SIP details the procedure in conducting a RPA. The preliminary steps involve the following:

i. Identifying the lowest or most stringent criterion or water quality objective for the pollutant (C);
ii. Adjusting the selected criterion/objective (Ca), when appropriate, for hardness, pH, and translators of the receiving water. For this permit, the hardness used was 364 mg/L as $CaCO_3$. Ambient hardness ranged from 325 to 406 mg/L averaging 364. The SIP only allows a freshwater maximum hardness of 400 mg/L as $CaCO_3$.
iii. Collating the appropriate effluent data for the pollutant;
iv. Determining the observed maximum concentration in the effluent (MEC) from the effluent data; and
v. Determining the observed maximum ambient background concentration of the pollutant (B).

There are three tiers in determining reasonable potential:

- For the first tier, the MEC is compared with the adjusted lowest applicable water quality objective or criterion (C_a). If the pollutant was not detected in any samples and the reported detection limits were below C_a, the lowest detection limit is used as the MEC. If the MEC is greater than C_a, then there is reasonable potential for the constituent to cause or contribute to an excursion above C_a and a WQBEL must be prescribed. If the MEC is less than C_a or if the pollutant was not detected in any of the effluent samples and all of the reported detection limits were greater than or equal to C_a, proceed with Tier 2.

- For the second tier, if the MEC is less than C_a or if the pollutant was not detected in any of the effluent samples and all of the detection limits were greater than or equal to C_a, then the observed maximum ambient background concentration (B) of the pollutant is compared with C_a. If B is greater than C_a, then a WQBEL is required. If B is less than C_a, proceed to Tier 3.

- For the third tier, other information available, such as the CWA 303(d) List and fish advisories, is reviewed to determine RPA. Section 1.3 of the SIP describes the type of information that can be considered in Tier 3. If the review indicates the need for a WQBEL to protect the beneficial uses, regardless of the results of Tier 1 and Tier 2, a WQBEL is prescribed.

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

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:
- detected in the effluent with concentrations above criteria; copper, cyanide, dichlorobromomethane, chlorodibromomethane and gamma–BHC; and
- detected in receiving water with concentrations above criteria; lead, mercury, bis(2-ethylhexyl)phthalate, 4,4'-DDE and 4,4'-DDT.

WQBELS for bis(2-ethylhexyl)phthalate is based on Title 22, MCLs, and the others are based on the CTR criteria.

TCDD was detected once in the receiving water, and CWD is required to monitor for TCDD both in the effluent and receiving water on a semi annual basis and submit the results to Regional Board for evaluation.

X. WASTE DISCHARGE REQUIREMENTS

A. On the basis of the preliminary staff review and application of state and federal authorities, the Board proposes to renew the permit.

B. Numeric toxic constituent limitations are based on the Basin Plan narrative water quality objective for toxic constituents, "All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life"; on the CTR; and, the interpretation of the Basin Plan narrative criteria using USEPA's 304(a) nationally recommended water quality criteria. For toxic constituents that have no reasonable potential to cause or contribute to excursions of water quality objectives, no numerical limitations are prescribed.

Chronic Toxicity - Consistent with SIP section 4, the Order contains a narrative effluent limitation for Chronic Toxicity. The circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were reviewed by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 17, 2003, the State

Board decided to defer the numeric chronic toxicity effluent limitations 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.

C. Pursuant to 40 CFR 122.45(d)(1) and (2), daily maximum limitations are included in the permit. It is impracticable to only include average weekly and average monthly effluent limitations in the permit, because a single daily discharge of a pollutant, in excess amounts, can cause violations of water quality objectives. The effects of 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.

Furthermore, Section 1.4 of the SIP requires the step-by-step procedure to "adjust" or convert CTR numeric criteria into Average Monthly Effluent Limitations (AMELs) and Maximum Daily Effluent Limitations (MDELs), for toxics.

- Step 3 of Section 1.4 of the SIP (page 6) lists the statistical equations that adjust CTR criteria for effluent variability.

- Step 5 of Section 1.4 of the SIP (page 8) lists the statistical equations that adjust CTR criteria for averaging periods and exceedance frequencies of the criteria/objectives. This section also reads, "For this method only, maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations.

Attachment R summarizes the results of RPA and the AMELs and MDELs for priority pollutants.

D. Pursuant to 40 CFR 122.45(f), mass-based limits are included in the tentative permit, in addition to concentration-based limits.

E. The numeric limitations contained in this Order are intended to protect and maintain existing and potential beneficial uses of the receiving waters.

F. Effluent Limitations:

1. Limits for conventional and non-conventional pollutants:

		Discharge Limitations		
Constituents	Units	Monthly Average [1/]	Weekly Average [1/]	Daily Maximum [2/]
Settleable Solids	mL/L	0.1	----	0.3

		Discharge Limitations		
Constituents	Units	Monthly Average [1/]	Weekly Average [1/]	Daily Maximum [2/]
BOD_5 (20°C)	mg/L	30	45	----
	lbs/day[3/]	375	563	----
Suspended Solids	mg/L	30	45	----
	lbs/day[3/]	375	563	----
Oil and Grease	mg/L	10	----	15
	lbs/day[3/]	125	----	187
Total Dissolved Solids	mg/L	850	----	----
	lbs/day[3/]	10633	----	----
Sulfate	mg/L	250	----	----
	lbs/day[3/]	3127	----	----
Chloride	lbs/day	----	----	1500[4/]
Boron	mg/L	1.0	----	-----
	lbs/day[3/]	12.5	----	----
Fluoride	mg/L	1.2	----	---
	lbs/day[3/]	15	----	---
Total residual chlorine	mg/L	----	----	0.1 [5/]
	lbs/day	----	----	1.25
Detergents (as MBAS)	mg/L	0.5	----	---
	lbs/day[3/]	6.25	----	---
Nitrate-Nitrogen plus Nitrite-Nitrogen	mg/L	----	----	9[6/]
	lbs/day[3/]	----	----	112
Nitrate-N	mg/L	----	----	9[6/]
	lbs/day[3/]	----	----	112
Nitrite-N	mg/L	-----	----	0.9[6/]
	lbs/day[3/]	-----	----	11.2
Total ammonia	mg/L	3.0[6/]		7.2[6/]
	lbs/day[3/]	-----		33[6/] (WLA)
	mg/L	[7/]	----	[8/]

1/ As defined in Standard Provisions, Attachment N.

2/ 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.

3/ Based on the plant design flow rate of 1.5 mgd. During events such as storms in which the flow exceeds the design capacity, the mass discharge rate limitations will be tabulated using the concentration limits and the actual flow rates.

4/ This is the waste load allocation (WLA) under routine and draught conditions, according to the Chloride TMDL promulgated by USEPA on March 22, 2002.

5/ For total residual chlorine, this is the instantaneous maximum effluent limitation.

6/ 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 will supercede any previously applicable effluent limitations for this Nitrogen constituent. OAL and U.S. EPA approved the *Nitrogen Compounds and Related Effects TMDL*, on June 5, 2003 and June 20, 2003 respectively.

7/ Discharger must comply with the updated ammonia water quality objectives in the Basin Plan, Table 3-3 (Attachment H) which resulted from Resolution No. 2002-001 adopted by the Regional Board on April 25, 2002.

For compliance with Criteria Continuous Concentration (CCC) is the Attachment H, the pH and temperature samples collected in the receiving water downstream of the discharge and the ammonia nitrogen sample collected in the effluent, shall be taken and reported at the same time. Shall there be no receiving water present, the pH and temperature of the effluent at the end of pipe shall be determined and reported.

8/ Discharger must comply with the updated ammonia water quality objectives in the Basin Plan Table 3-1 (Attachment H) which resulted from Resolution No. 2002-011 adopted by the Regional Board on April 25, 2002.

For compliance with Criteria Maximum Concentration (CMC) is the Attachment H, the pH sample collected in the receiving water downstream of the discharge and the ammonia nitrogen sample collected in the effluent, shall be taken and reported at the same time. Shall there be no receiving water present, the pH of the effluent at the end of pipe shall be determined and reported.

2. Basis for conventional and non-conventional pollutants:

a. *Biochemical Oxygen Demand (BOD) and Suspended solids*

Biochemical oxygen demand (BOD) is a measure of the quality of the organic matter in the water and, therefore, the water's potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration. Unless there is a steady supply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, in fish kills.

40 CFR Part 133 describes the minimum level of effluent quality attainable by secondary treatment, for BOD and suspended solids, as:

- the 30-day average (monthly average) shall not exceed 30 mg/L, and
- the 7-day average (weekly average) shall not exceed 45 mg/L.

In addition to having mass-based and concentration-based effluent limitations for BOD and suspended solids, the CWRF also has a percent removal requirement for these two constituents. In accordance with 40 CFR Parts 133.102(a)(3) and 133.102(b)(3), the 30-day average (monthly average) percent removal 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 monthly average values of the raw wastewater influent pollutant concentrations to the facility and the monthly average values of the effluent pollutant concentrations for a given time period.

b. *Oil and grease*

Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, and causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The limits for oil and grease are based on the Basin Plan (page 3-11) narrative, "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses."

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a weekly average limitation, because spikes that occur under a weekly average scheme could cause a visible oil sheen. A weekly average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the exceptions under the Antibacksliding Policy apply.

c. *Settleable solids*

Excessive deposition of sediments can destroy spawning habitat, blanket benthic (bottom dwelling) organisms, and abrade the gills of larval fish. The limits for settleable solids are based on the Basin

Plan (page 3-16) narrative, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." The numeric limits are empirically based on results obtained from the settleable solids 1-hour test, using an Imhoff cone.

It is impracticable to use a weekly average limitation, because short-term spikes of settleable solid levels that would be permissible under a weekly average scheme would not be adequately protective of all beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the exceptions under the Antibacksliding Policy apply. The monthly average and daily maximum limits were both included in the previous permit (Order 2000-09) and CWRF has been able to meet both limits.

d. *Residual chlorine*

Disinfection of wastewater with chlorine produces a chlorine residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-9) narrative, "Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses."

It is impracticable to use a weekly average or a monthly average limitation, because it is not as protective of the beneficial uses as the daily maximum limitation. Chlorine is very toxic to aquatic life and short-term exposures of chlorine may cause fish kills.

e. *Total Dissolved Solids, Sulfate, Boron and Nitrogen*

High levels of dissolved solids renders water useless for many beneficial uses. Elevated levels of boron affect agricultural use (especially citrus). The limits for total dissolved solids, sulfate, boron and nitrogen, defined as the sum of nitrate-nitrogen plus nitrite-nitrogen, are based on the Basin Plan Table 3-8 (page 3-12) for Calleguas Creek (above Petrero Road). Also, WLA is prescribed for nitrate-nitrogen plus nitrite-nitrogen based on adopted TMDL.

It is practicable to express the limits for total dissolved solids, sulfate and boron as a monthly average, since these pollutants are not expected to cause acute effects on beneficial uses. Maximum limits for total dissolved solids, sulfate and boron were included in the previous permit (Order 2000-09) and CWRF has been able to meet these limits.

It is practicable to express nitrogen as a monthly average.

f. *Chloride*

Effluent has exceeded the chloride limit therefore, chloride has reasonable potential to cause or contribute to an excursion of a water quality objective, a water quality-based effluent limitation is required in order to be protective of the water quality objective. The limit for chloride must be met at the end-of pipe.

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. 2000-09 for the CWRF), for the aforementioned POTWs. Following the adoption of NPDES Order No. 2003-0156, and concurrent rescission of Order No. 2000-09, 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.

TSO prescribes an interim limit and CWD is required to develop PMP and to reduce chloride levels in the effluent.

g. *Fluoride*

The limit for fluoride is based on the Basin Plan Table 3-6 (page 3-9). It is practicable to express the limit as a monthly average, since fluoride is not expected to cause acute effects on beneficial uses. A maximum limit for fluoride was included in the previous permit (Order 2000-09) and CWRF has been able to meet this limit.

h. *Methylene Blue Active Substances (MBAS)*

The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface and ground waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant

soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of both surface and ground waters.

Given the nature of the facility (a POTW) which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective (WQO) and the narrative WQO for prohibition of floating material such as foams and scums. Therefore an effluent limitation is required.

The 0.5 mg/L concentration (which has been determined to be protective of beneficial uses and the aesthetic quality of waters), is based on the Department of Health Services' secondary drinking water standard, and on the Basin Plan WQO (p.3-11) which reads, "Waters shall not have MBAS concentrations greater than 0.5 mg/L in waters designated MUN." While the wastewater from this POTW is not directly discharged into a MUN designated surface water body, it will percolate into unlined reaches of the Calleguas Creek [via ground water recharge designated beneficial use (GWR)] to ground water designated for MUN beneficial use. In addition, the Basin Plan states that "Ground water shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore, the secondary MCL should be the MBAS limit for this discharge to protect ground water recharge and the MUN use of the underlying ground water, while also protecting surface waters from exhibiting scum or foaming.

Since the Basin Plan objective is based on a secondary drinking water standard, it is practicable to have a monthly average limitation in the permit.

i. *Total Inorganic Nitrogen* Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. Nitrogen is considered a nutrient. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). In the past CWRF has met the limits for inorganic nitrogen. WLA for inorganic nitrogen is based on adopted TDML

Total ammonia. Ammonia is 303(d) listed in Reach 2 of the Calleguas Creek. The upgraded plant was designed to fully oxidize ammonia and staff do not believe this will be a problem for CWRF to meet the WLA for this Plant prescribed in Callegaus Creek

TMDL. The numerical limits are contained in Basin Plan Tables 3-1 and 3-3 (Attachment H). WLA for ammoina is based on adopted TDML.

The values that appear in the 1994 Basin Plan Ammonia Tables were based on the *Quality Criteria for Water 1986* (EPA 440/5-86-001) document.

To express the 1-Hour and the 4-Day total ammonia concentrations as nitrogen, the tabulated values should be multiplied by the 0.822 conversion factor. The factor was obtained by using stoichiometry.

Atomic mass of nitrogen = 14.01. Atomic mass of hydrogen = 1.008. In one mole of ammonia (NH_3), there is one nitrogen for every 3 hydrogens. Therefore, the molecular weight of NH_3 = 14.01 + (3 x 1.008) = 17.034.
The conversion factor is:

$$\frac{1 \text{ mole N}}{1 \text{ mole } NH_3} = \frac{14.01 \text{ mg N}}{17.037 \text{ mg } NH_3} = 0.822$$

i. Coliform

Total and fecal coliform bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. Given the nature of the facility, a wastewater treatment plant, pathogens are likely to be present in the effluent in cases where the disinfection process is not operating adequately. As such, the permit contains the following technology-based effluent limitations for coliform:

- the median number of coliform organisms at some point in the treatment process must not exceed 2.2 per 100 milliliters, and
- the number of coliform organisms must not exceed 23 per 100 milliliters in more than one sample within any 30-day period.

The Calleguas Creek Reach 2 is 303(d) listed for coliform in the water column. The disinfection process reduces the likelihood of having pathogens in the effluent. Most of the time the coliform analysis results are reported as less than 1 MPN/100 mL. It is not likely that the 303(d) listing of coliform is due to the discharge of treated effluent from the Discharge from CWRF. Therefore, the technology-based effluent limitation is also protective of water quality.

k. pH

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of “pure”

water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. The effluent limitation for pH which reads, "The pH of the wastes discharged shall at all times be within the range of 6.5 to 8.5," is taken from the Basin Plan (page 3-15) which reads, "The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge.

l. *Turbidity*

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. Turbidity can result in a variety of water quality impairments. The Basin Plan references the DHS secondary drinking water standard for turbidity. The effluent limitation for turbidity which reads, "For the protection of water contact recreation beneficial uses, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed daily average of 2 NTUs.

m. *Radioactivity*

Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. The effluent limitation for radioactivity which reads, "Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64443, of the California Code of Regulations, or subsequent revisions," is based on the Basin Plan (page 3-15).

3. *Toxicity*

CWD did not monitor for toxicity since 1998 as there were no discharges to Calleguas Creek. The toxicity limitations are based on:

- the Basin Plan objectives (page 3-16 and 3-17);
- USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996; and,
- USEPA Whole Effluent Toxicity (WET) Control Policy July 1994.

Acute Toxicity Limitation:

The Discharger may test for acute toxicity by using USEPA's *Methods for Measuring the Acute Toxicity of effluent and Receiving Waters to Freshwater and Marine Organisms*, October 2002, (EPA /821-R-02-012).

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 any acute toxicity bioassay test result is less than 90% survival, 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 completion of the test and the additional tests shall begin within 3 business days of receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. 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 objective.

c. If any two out of the initial test and the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately begin a TIE.

d. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (MRP) No. 6769.

Chronic Toxicity Limitation and Requirements:

a. The chronic toxicity of the effluent shall be expressed and reported in toxic units, 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 accelerated chronic toxicity testing according to MRP No. 6769, Section VI.D.2.d. If any three out of the initial test and the six accelerated tests results 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 MRP No. 6769.

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 direction from the State Water Resources Control Board or failure of the CWD to comply fully with the TRE/TIE requirements.

4. Basis for Priority Pollutants:

Limits for priority pollutants:

			Discharge Limitations[4/]	
CTR #	Constituent	Units	Monthly Average[1/]	Daily Maximum[2/]
68	Bis(2-Ethylhexyl)Phthalate[9/]	µg/L	4[6]	-------
		lbs/day[3]	0.05	-------
6	Copper [5/, 7/]	µg/L	19	47
		lbs/day[3]	0.24	0.6
14	Cyanide[5/, 7/]	µg/L	4.3	8.5
		lbs/day[3]	0.055	0.106
8	Mercury[5/, 8/]	µg/L	0.051	0.12
		lbs/day[3]	0.00064	0.0015
7	Lead[5/, 7/]	µg/L	10	30
		lbs/day[3]	0.125	0.38
23	Chlorodibromomethane[8/]	µg/L	34	77
		lbs/day[3]	0.43	0.97
27	Dichlorobromomethane[8/]	µg/L	46	100
		lbs/day[3]	0.58	1.25
105	Lindane[8/]	µg/L	0.063	0.126
		lbs/day[3]	0.0008	0.0025
109	4,4'-DDE[8/]	µg/L	0.00059	0.00118
		lbs/day[3]	0.0000074	0.0000147
108	4,4'-DDT[8/]	µg/L	0.00059	0.00118
		lbs/day[3]	0.0000074	0.0000147

1/ As defined in Standard Provisions, Attachment N.

2/ 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.

3/ Based on the plant design flow rate of 1.5 mgd. During events such as storms in which the flow exceeds the design capacity, the mass discharge rate limitations will be tabulated using the concentration limits and the actual flow rates.

4/ RPA triggered limits based on CTR/SIP.

5/ Concentration expressed as total recoverable.

6/ Limit based on Title 22 MCL because it is more stringent than the proposed CTR-based limit.

7/ Based on most stringent CTR criteria [Criterion Continuous Concentration (CCC)] for the protection of freshwater aquatic life. To arrive at the calculated limitation, the CTR CCC was adjusted according to SIP Section 1.4.

Federal Register Vol. 65, No. 97, page 31689, discusses the basis for the aquatic life criteria in the CTR. The Criterion Maximum Concentration (CMC), a short term concentration limit, and the Criterion Continuous Concentration (CCC), a four day concentration limit, are designed to provide protection of aquatic life and its uses from acute and chronic toxicity to animals and plants. The criteria are intended to identify average pollutant concentrations which will produce water quality generally suited to maintenance of aquatic life and designated uses while restricting the duration of excursions over the average so that total exposures will not cause unacceptable adverse effects.

Federal Register Vol. 65, No. 97, page 31691, discusses how the CCC is intended to be the highest concentration that could be maintained indefinitely in a water body without causing an unacceptable effect on an aquatic community or its uses.

8/ Based on most stringent CTR criteria for the protection of human health from consumption of organisms only. To arrive at the calculated limitation, the CTR criterion was adjusted according to SIP Section 1.4.

9/ Based on the Basin Plan chemical constituent incorporation of Title 22, Drinking Water Standards, by reference for the protection of GWR beneficial use.

5. Mixing zones and dilution credits are not used:

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.

The Regional Board has concluded mixing zones and dilution credits would be inappropriate to grant, at this time, in light of the following factors:

- the receiving water primarily consists of nuisance flows and other effluents, limiting its ability to assimilate additional waste;
- Several reaches of Conejo Creek, Calleguas Creek, and Mugu Lagoon [including those subject to this Order] are 303(d) listed (i.e, impaired) for certain constituents;
- Impaired waters do not have the capacity to assimilate pollutants of concern at concentrations greater than the applicable objective;
- For the protection of the beneficial uses, such as rare, threatened, or endangered species.
- For the protection of warm freshwater habitat;
- For the protection of the beneficial uses, such as estuarine habitat; marine habitat; wildlife habitat;
- 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 7 Q 10 data);
- Because a mixing zone study has not been conducted; and
- Because a hydrologic model of the discharge and the receiving water has not been conducted.

6. Example calculation: Copper

Is a limit required? What is RPA?
From Table R, *Reasonable Potential Analysis and Limit Derivation*, we determined that Reasonable Potential Analysis (RPA) = Yes, therefore a limit is required.

Step 1 – Identify applicable water quality criteria.
From California Toxics Rule (CTR), we can obtain the Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC). Freshwater Aquatic Life Criteria for copper is expressed as a function of total hardness (mg/L) in the water body and as a function of the water-effect ratio, WER, (CTR page 31717, (b)(2)):

$$CMC = WER \times CF \times (\exp \{m_A [\ln(hardness)] + b_A\})$$
$$CMC = 1 \times 0.960 \times (\exp \{0.9422 \times \ln(364) - 1.700\})$$
$$CMC = 45.38\ \mu g/L$$

$$CCC = WER \times CF \times (\exp \{m_C [\ln(hardness)] + b_C\})$$
$$CCC = 1 \times 0.960 \times (\exp \{0.8545 \times \ln(364) - 1.702\})$$

CCC = 27.01 µg/L

where: exp = the base e exponential function
WER = 1
hardness = 400 mg/L (from monitoring data)
m_A = 0.9422 (CTR pg. 31713, Table 1 to paragraph (b)(2))
b_A = -1.700 (CTR pg. 31713, Table 1 to paragraph (b)(2))
m_C = 0.8545 (CTR pg. 31713, Table 1 to paragraph (b)(2))
b_C = -1.702 (CTR pg. 31713, Table 1 to paragraph (b)(2))
CF = 0.960 (CTR pg. 31717, Table 2 to paragraph (b)(2))

The freshwater CMC and CCC for copper are expressed in terms of the dissolved fraction of the metal in the water column. To calculate the total recoverable CMC and CCC the dissolved fraction criteria is divided by the conversion factor, CF:

CMC = 45.38/0.960 = 47.28 µg/L
CCC = 27.01/0.960 = 28.13 µg/L

Step 2 – Calculate effluent concentration allowance (ECA).
ECA = Criteria in CTR, since no dilution is allowed.

Step 3 – Determine long-term average (LTA) discharge condition.

a. Calculate CV:
CV = Standard Deviation / Mean
= 0.72

b. Find the ECA Multipliers from SIP Table 1 (page 7), or by calculating them using equations on SIP page 6.
When CV = 0.99, then:
ECA Multiplier acute = 0.2057 and
ECA Multiplier chronic = 0.375

c. LTA acute = ECA acute x ECA Multiplier acute
= 47.28 µg/L x 0.2057 = 9.731 µg/L

d. LTA chronic = ECA chronic x ECA Multiplier chronic
= 28.13 µg/L x 0.375 = 10.56 µg/L

Step 4 – Select the lowest LTA.
LTA acute < LTA chronic, therefore, lowest LTA = 9.731 µg/L

Step 5 – Calculate the Average Monthly Effluent Limitation (AMEL) and Maximum Daily Effluent Limitation (MDEL) for AQUATIC LIFE.

a. Find the LTA multipliers from SIP Table 2 (page 9) or by calculating them using equations in the SIP page 8. You need to know CV and n (frequency of sample collection per month). If effluent samples are collected 4 times a month or less, then n = 4. CV was determined to be 0.72 in a previous step.
AMEL Multiplier = 1.935
MDEL Multiplier = 4.859

b. AMEL aquatic life = lowest LTA (from Step 4) x AMEL Multiplier
= 9.731 µg/L x 1.935 = 18.835 µg/L

c. MDEL aquatic life = lowest LTA (from Step 4) x MDEL Multiplier
= 9.731 µg/L x 4.859 = 47.28 µg/L

Step 6 – Find the Average Monthly Effluent Limitation (AMEL) and Maximum Daily Effluent Limitation (MDEL) for HUMAN HEALTH.

a. Find multipliers: given CV = 0.99 and n = 4.
For AMEL human health, there is no multiplier.
The MDEL/AMEL human health multiplier = 2.5

b. AMEL human health organisms only = ECA = Not Applicable, no CTR criteria avilable.

Step 7 – Compare the AMELs for Aquatic life and Human health and select the lowest. Compare the MDELs for Aquatic life and Human health and select the lowest.

a. Lowest AMEL = 18.83 (19) µg/L (Based on Aquatic life protection)

b. Lowest MDEL = 47.28 (47) µg/L (Based on Aquatic life protection)

7. A numerical 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. 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.

8. The numeric limitations contained in Order No. R4-2003-0156 were derived using best professional judgement and are based on applicable state and federal authorities, and as they are met, will be in conformance with the goals of the aforementioned water quality control plans, and water quality criteria; and will protect and maintain existing and potential beneficial uses of the receiving waters.

XI. COMPLIANCE DETERMINATION

A. 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 minimum level (ML).

B. ***Pollution Minimization Program***. The Discharger shall be required to develop a Pollutant Minimization Program (PMP), in accordance with Section 2.4.5.1 of the SIP, when there is evidence that the priority pollutant is present in the effluent above an effluent limitation and either:

1. A sample result is reported as detected but not quantified (DNQ) and the effluent limitation is less than the reported ML; or,

2. A sample result is reported as non-detect (ND) and the effluent limitation is less than the method detection limit (MDL).

   Examples of evidence that the priority pollutant is present in the effluent above an effluent limitation are:

   - sample results reported as when the effluent limitation is less than the MDL;
   - sample results from analytical methods more sensitive than those methods included in the permit in accordance with Sections 2.4.2 or 2.4.3;
   - presence of whole effluent toxicity;
   - health advisories for fish consumption; or,
   - results of benthic or aquatic organism tissue sampling.

3. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a PMP (as described in Section 2.4.5.1 of the SIP), the Discharger shall not be deemed out of compliance.

4. The goal of the PMP is to reduce all potential sources of a priority pollutant(s) through pollution minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the WQBEL.

XIII. INTERIM LIMITS

a. 40 CFR Part 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued, but the current Basin Plan does not allow the inclusion of interim limits and compliance schedules within NPDES permits. However, the SIP does allow inclusion of an interim limit within an

NPDES permit for priority pollutants if the limit for the priority pollutant is CTR-based, and if the previous permit did not contain an effluent limit for that priority pollutant.

b. The CWRF may not be able to achieve immediate compliance with the limits for copper, cyanide, chlorodibromomethane, dichlorobromomethane and lindane. Data submitted in interim monitoring reports indicate that these constituents have been detected in the effluent, at least once, at a concentration greater than the new limits proposed in this Order. Interim limits for copper, cyanide, chlorodibromomethane, dichlorobromomethane and lindane are contained in the accompanying Order.

ii. CWD shall comply immediate with the following interim effluent limits until December 10, 2008. Thereafter, the Discharger shall comply with the limitations specified in Section X.F.4:

CTR # [1]	Constituent	Units	Monthly Average
6	Copper	µg/L	33[2]
14	Cyanide	µg/L	8.5[2]
23	Chlorodibromomethane	µg/L	73[2]
27	Dichlorbromomethane	µg/L	62[2]
105	Lindane	µg/L	0.43[2]

iii. The Discharger shall submit quarterly progress reports (January 15, April 15, July 15 and October 15) to describe the progress of studies and/or actions undertaken to reduce these compounds in the effluent, and to achieve compliance with the limits in this Order by September 10, 2008. The first progress report shall be received at the Region Board by April 15, 2004.

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 part 131.38(b)(1).

2 Interim limits prescribed as maximum detected effluent concentration or based on P-limit calculations. P-limit monthly average interim effluent limit was derived statistically as the 99% confidence level of the 95th percentile, using the P-limit software. This program incorporates the procedure in Appendix E of *the Technical Support Document (TSD) For Water Quality-based Toxics Control [EPA/505/2-90-001]* for the limit calculation.