

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

REGION 4, LOS ANGELES REGION

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ORDER NO. R4-2007-0002

NPDES NO. CA0059099

WASTE DISCHARGE REQUIREMENTS FOR THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS MALIBU MESA WASTEWATER RECLAMATION FACILITY DISCHARGE TO PUERCO BEACH/SANTA MONICA BAY, VIA MARIE CANYON

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Los Angeles County Department of Public Works
Name of Facility	Malibu Mesa Wastewater Reclamation Facility
Facility Address	3863 Malibu Country Drive
	Malibu, California 90265
	Los Angeles County

The discharge by the **County of Los Angeles Department of Public Works** from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Tertiary treated wastewater	34° 02' 02" N	118° 42' 30" W	Marie Canyon, tributary to Puerco Beach
002	Tertiary treated wastewater	34° 02' 01" N	118° 42' 40" W	Unnamed canyon west of Marie Canyon, tributary to Puerco Beach


Table 3. Administrative Information

This Order was adopted by the Regional Water Board on:	January 11, 2007
This Order shall become effective on:	February 10, 2007
This Order shall expire on:	December 10, 2011
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 00-166 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

This rescission is dependent upon and relative to the issuance and enforceability of this Order. To the extent any provisions, limitations, or requirements set forth in this Order supersede analogous provisions, limitations, or requirements in Order No. 00-166, are stayed or deemed to be enforceable, the relevant provisions, limitations, or requirements of Order No. 00-166 shall remain enforceable.

I, Jonathan S. Bishop, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 11, 2007.

 Chief Deputy E.O. for

Jonathan S. Bishop, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 4, LOS ANGELES REGION**

**ORDER NO. R4-2007-0002
NPDES NO. CA0059099**

**WASTE DISCHARGE REQUIREMENTS FOR THE
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
MALIBU MESA WASTEWATER RECLAMATION FACILITY
DISCHARGE TO PUERCO BEACH/SANTA MONICA BAY, VIA MARIE CANYON**

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Los Angeles County Department of Public Works
Name of Facility	Malibu Mesa Wastewater Reclamation Facility
Facility Address	3863 Malibu Country Drive
	Malibu, California 90265
	Los Angeles County
Facility Contact, Title, and Phone	Mike Orcutt, Wastewater Treatment Plant Operator Supervisor, (626) 300-3348
Mailing Address	Los Angeles County Department of Public Works 900 South Fremont Avenue, Alhambra, California 91803
Type of Facility	Publicly Owned Treatment Works (POTW)
Facility Design Flow	0.20 million gallons per day (mgd)

II. FINDINGS

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

- A. Background.** Los Angeles County Department of Public Works (hereinafter referred to as Discharger) is currently discharging wastewater pursuant to Order No. 00-166 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0059099. The Discharger submitted a Report of Waste Discharge, dated April 8, 2005, and applied for a NPDES permit renewal to discharge up to 0.20 mgd of treated wastewater from Malibu Mesa Wastewater Reclamation Facility, hereinafter Facility. The application was deemed complete on January 31, 2006.
- B. Facility Description.** The Los Angeles County Department of Public Works owns and operates the wastewater reclamation facility. The treatment system consists of a headwork with comminutor, and a bypass channel with bar screen. An influent flow meter is located after the bypass channel. Secondary treatment consists of the Walker Process packaged activated sludge plant that includes an aeration basin with coarse bubble diffusers, two aeration blowers (one of which is a stand-by), an aerobic digester, and a secondary sedimentation basin. Return activated sludge and waste activated sludge are pumped by airlift pumps. The sludge is hauled away to the City of Los Angeles Tillman Reclamation Plant for treatment and disposal. Tertiary treatment is provided through coagulation, rapid mix, flocculation, and sand filtration. Filtration consists of three continuous backwash Dynasand® filters. The wastewater is disinfected using an ultraviolet light system. There is no chlorine added to the effluent water. Wastewater is discharged from Discharge 001 and 002 (see Table on cover page) to Marie Canyon and an unnamed canyon west of Marie Canyon, respectively, and flows into Puerco Beach, a water of the United States and a tributary to Santa Monica Bay, Pacific Ocean. Attachment B provides a map of the area around the facility. Attachment C provides a flow schematic of the facility.
- C. Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC.
- D. Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available environmental information. Attachment F, which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E are also incorporated into this Order.
- E. California Environmental Quality Act (CEQA).** This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

F. Technology-based Effluent Limitations. The Code of Federal Regulations (CFR) at 40 CFR Section 122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on tertiary treatment or equivalent requirements that meet both the technology-based secondary treatment standards, at 40 CFR Part 133, for POTWs and protect the beneficial uses of the receiving waters. The Regional Water Board has considered the factors listed in CWC Section 13241 in establishing these requirements and Best Professional Judgment (BPJ) in accordance with 40 CFR Section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. Water Quality-based Effluent Limitations. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR Section 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

The immediate receiving water is Marie Canyon and an unnamed canyon west of Marie Canyon, which drains into Puerco Beach and Santa Monica Bay. The 2002 USEPA 303(d) list of impaired waters classifies Puerco Beach and Santa Monica Bay Beach as impaired by beach closures, high coliform count, DDT (fish consumption advisory for DDT), and PCBs (fish consumption advisory for PCBs). Santa Monica Bay is impaired by chlordane (sediment), DDT (tissue and sediment, centered on Palos Verdes Shelf), debris, fish consumption advisory, PAHs (sediment), PCBs (tissue and sediment), and sediment toxicity.

On December 12, 2002, an amendment to the Basin Plan for the Los Angeles Region to incorporate implementation provisions for the Region's bacteria objectives and to incorporate a wet-weather total maximum daily load for bacteria at Santa Monica Bay beaches was adopted. Coliform effluent limitations based upon TMDL are included in this Order.

H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies that do not have beneficial uses listed in the Basin Plan.

The Basin Plan at page 2-4 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan does not specifically identify beneficial uses for Marie Canyon and an unnamed canyon west of Marie Canyon, but does identify present and potential uses for Puerco Beach and Puerco Canyon Creek. Puerco Canyon Creek is the nearest canyon to Marie Canyon and also flows to Puerco Beach/Santa Monica Beach. These beneficial uses are wildlife habitat, municipal and domestic supply, water contact and non-contact water recreation, warm freshwater habitat, navigation, commercial and sport fishing, marine habitat, wildlife habitat, shellfish harvesting, spawning, reproduction, and/or

early development. Thus, as discussed in detail in the Fact Sheet (Attachment F), beneficial uses applicable to Marie Canyon and an unnamed canyon west of Marie Canyon are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 and 002	Puerco Canyon Creek	<u>Existing:</u> Wildlife habitat (WILD). <u>Intermittent:</u> Municipal and domestic supply (MUN), water contact recreation (REC-1), non-contact water recreation (REC-2), and warm freshwater habitat (WARM).
	Puerco Beach	<u>Existing:</u> Navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), marine habitat (MAR), wildlife habitat (WILD) and shellfish harvesting (SHELL). <u>Potential:</u> Spawning, reproduction, and/or early development (SPWN).

The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The ammonia Basin Plan amendment was approved by the State Water Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA’s 1999 ammonia criteria update.

- I. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
- J. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through

the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the California Toxics Rule. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005.

K. Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds one year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order includes compliance schedule and interim effluent limitation. A detailed discussion of the basis for the compliance schedule and interim effluent limitation is included in the Fact Sheet (Attachment F).

L. 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 CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA 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.

M. Stringency of Requirements for Individual Pollutants. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on Biochemical Oxygen Demand (BOD₅), Total Suspended Solids (TSS), and pH. Restrictions on BOD₅, TSS, and pH are specified in federal regulations as discussed in 40 CFR 133.102, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1).

- N. Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of 40 CFR Section 131.12 and State Water Board Resolution No. 68-16.
- O. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR Section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some effluent limitations in this Order are less stringent than those in the previous Order. As discussed in detail in the Fact Sheet this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.
- P. Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWA authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- Q. Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR Sections 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- R. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- S. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

- A.** The bypass or overflow of untreated wastewater or wastes to Marie Canyon and an unnamed canyon west of Marie Canyon is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Federal Standard Provisions.
- B.** Discharge of treated wastewater at a location or in a manner different from that described in Finding No. IIB is prohibited.
- C.** The discharge shall not exceed 0.20 mgd and shall only consist of disinfected tertiary treated domestic wastewater. The point of discharge shall only be at Discharge Point Nos. 001 or 002 as described in the Findings. For discharges to Discharge Point No. 002, the Discharger shall submit to the Regional Board, prior to discharge, the reasons and supporting documentation for the necessity to discharge at this point. Discharge shall only be commenced when approval has been obtained from the Executive Officer.
- D.** Discharge of treated wastewater is prohibited from April 1 to October 31 unless authorized in writing by the Executive Officer upon demonstration of necessity under emergency conditions and have met all the conditions stated in section III.F.
- E.** Discharge shall be limited to 10 days per year, unless authorized in writing by the Executive Officer upon demonstration of necessity under emergency conditions. Regional Board staff shall report to the Board in a year the number of days and the volume of discharge.
- F.** Discharges are only allowed when all of the following conditions are met:
 - 1.** Soils are saturated and cannot receive any additional irrigation water, as dictated by the hydrogeologic monitoring program. Soil moisture content shall be measured and logged daily during the wet season (November 1 through April 15) to monitor soil saturation. Soil saturation, as defined for this permit, is the point at which the vegetation can not naturally absorb any additional water, as determined by daily field tests, including neutron probe samples and field observations.
 - 2.** The National Weather Service forecasts a wet weather event that could cause overtopping of the reservoirs. A log of all weather forecasts from November 1 to April 15 shall be submitted to the Regional Board on a monthly basis.
 - 3.** The storage reservoirs are at their maximum storage capacity with only freeboard left for precipitation and wave lap protection, and, therefore, cannot accept any more recycled water from the Reclamation Facility. The maximum storage capacity is defined as the volume of the two reservoirs to the top of the first liner (an elevation of 245.56 feet) minus wave lap protection (0.25 feet) and necessary freeboard for the projected precipitation and runoff from the immediate vicinity.

- G.** Influent waste discharge to the Reclamation Facility shall be limited to domestic wastewater only. No water softener regeneration brines, laboratory chemicals, or industrial wastes shall be discharged to the Reclamation Facility.

- H.** The maximum daily flow of influent from the collection system to the headworks of the Reclamation Facility shall not exceed the design capacity of 0.20 mgd.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001 and 002

1. Final Effluent Limitations – Discharge Point 001 and 002

- a. The discharge of tertiary treated effluent shall maintain compliance with the following effluent limitations at Discharge Point 001 and 002, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD ₅ 20°C	mg/L	20	30	45		
	lbs/day	33	50	75		
Total Suspended Solids (TSS)	mg/L	15	40	45		
	lbs/day	25	67	75		
pH	pH units	--	--	--	6.5	8.5
Oil and Grease	mg/L	10	--	15		
	lbs/day	17	--	25		
Settleable Solids	ml/L	0.1	--	0.3		
Detergents [(as Methylene Blue Activated Substances (MBAS)]	mg/L	0.5	--	--		
	lbs/day	0.8	--	--		
Chloride	mg/L	230	--	--		
	lbs/day	383.6	--	--		
Ammonia Nitrogen	mg/L	3.15		22.02		
	lbs/day	5.25		36.73		
Nitrate + Nitrite as Nitrogen	mg/L	10		--		
	lbs/day	16.68		--		
Nitrite-N (as N)	mg/L	1		--		
	lbs/day	1.67		--		
Copper	µg/L	23.53		51.68		
	lbs/day	0.039		0.086		
Nickel	µg/L	64.57		141.83		
	lbs/day	0.10770		0.23657		
Bis(2-Ethylhexyl)Phthalate	µg/L	5.90		16.30		
	lbs/day	0.00984		0.027188		

- b. 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 average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations
- c. The temperature of wastes discharged shall not exceed 86°F.
- d. 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.
- e. 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.
- f. For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 2 Nephelometric turbidity units (NTUs); and (b) 5 NTUs more than 5 percent of the time (72 minutes) during any 24 hour period.
- g. The waste discharged shall not contain visible oil or grease, and shall not cause the appearance of grease, oil or oily slick, or persistent foam in receiving waters, or on channel banks, walls, inverts or other structures or facilities.
- h. Acute Toxicity Limitation
 - 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 IV.A.1.h.a.(i) or IV.A.1.h.a.(ii) is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test are received by the Discharger 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 the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.
- d. The Discharger shall conduct acute toxicity monitoring as specified in Attachment E - Monitoring and Reporting Program (MRP).
- i. Chronic Toxicity Trigger 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 trigger median of 1.0 TU_c , the Discharger shall immediately implement accelerated chronic toxicity testing according to Attachment E - MRP, Section V.B.3. 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, as specified in Attachment E – MRP, Section V.D.
- d. The Discharger shall conduct chronic toxicity monitoring as specified in Attachment E – MRP.
- 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 District to comply fully with the TRE/TIE requirements

2. Interim Effluent Limitations

- a. During the period beginning January 11, 2007 and ending on May 18, 2010, the discharge of tertiary treated wastewater shall maintain compliance with the following limitations at Discharge Point 001 and 002, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E). This interim effluent limitation shall apply in lieu of the corresponding final effluent limitation specified for the same parameter during the time period indicated in this provision.
- a. This permit has final effluent limitations for ammonia nitrogen and nitrate + nitrite as nitrogen based on Basin Plan WQO. The Regional Water Board evaluated the Discharger’s effluent monitoring data from January 2001 to December 2005 and determined that the Discharger may not be able to immediately comply with the final effluent limitations. Therefore, an interim limit and compliance schedule for ammonia nitrogen and nitrate + nitrite as nitrogen are provided in the accompanying Time Schedule Order R4-2007-0003.

Table 7. Interim Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Bis(2-ethylhexyl) Phthalate	µg/L	21.8	--	--	--	--
	lbs/day	0.0364	--	--	--	--

B. Land Discharge Specifications – (Not Applicable)

C. Reclamation Specifications

- 1. The reuse of the reclaimed water by Pepperdine University is regulated under a separate Waste Discharge Requirements and Water Recycling Requirements for County of Los Angeles Department of Public Works and Pepperdine University, Malibu Campus, Order No. 00-167, File No. 70-060.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Marie Canyon and an unnamed canyon west of Marie Canyon:

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. The fecal coliform concentration in the receiving water shall not exceed the following, 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.
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 concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.
9. The wastes discharged shall not contain substances that result in increases in BOD which adversely affect the beneficial uses of the receiving waters.
10. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
11. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.
12. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.
13. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.
14. The wastes discharged shall not result in visible floating particulates, foams, and oil and grease in the receiving waters.
15. 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.
16. 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.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. **Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:
 - a. The Discharger shall maintain a copy of this Order at the Reclamation Facility where it shall be available at all times to operating personnel or for inspection.
 - b. The discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
 - c. The Discharger shall coordinate with Pepperdine such that the Discharger shall not continue filling the storage reservoirs so as to cause overflows.
 - d. The Discharger shall, in coordination with the Pepperdine University, take every necessary precaution to ensure that any discharges that occur are of an emergency nature only as described in Discharge Prohibitions, Section III.D and III.E. The Discharger shall demonstrate to the satisfaction of the Executive Officer, through signed, contemporaneous logs, or other relevant evidence that any discharge is of an emergency nature only and the Discharger has confirmed that the storage reservoirs are filled to the maximum storage capacity. The log shall be transmitted via facsimile to the Regional Board as soon as it is determined that an emergency discharge is necessary and shall include, but is not limited to, verification of required conditions of: reservoir levels, soil moisture content and amount of actual or predicted precipitation.

As soon as it is determined that an emergency discharge is necessary, the Discharger shall notify the Los Angeles County Department of Health Services of the impending discharge and make arrangement for posting the beach and other appropriate places about the discharge.

- e. The Discharger shall immediately notify the Regional Board by telephone and provide a written report within 5 working days of each discharge event, detailing the reasons therefore.
- f. In the event of discharge to surface waters, the Discharger shall begin sampling procedures to ensure compliance with Effluent Limitations and with the Monitoring and Reporting Program requirements.
- g. 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 301, 302, 303(d), 304, 306, 307, 316 and 405 of the Clean Water Act and amendments thereto.

- h. This Order includes the attached “Standard Provisions” (Standard Provisions, Attachment D). If there is any conflict between provisions stated hereinbefore and the attached “Standard Provision”, those provisions attached hereinbefore prevail.
- i. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.
- j. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.
- k. All facilities used for collection, transport, treatment, or disposal of "wastes" shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.
- l. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.
- m. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board.
- n. The provisions of this order are severable. If any provision of this order is found invalid, the remainder of this Order shall not be affected.
- o. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.
- p. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities or penalties to which the discharger is or may be subject to under Section 311 of the CWA.
- q. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.
- r. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

- s. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
- t. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- u. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
- v. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify the Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.
- w. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations. Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- x. Under CWC 13387, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this order and is subject to a fine of not more than \$25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than \$25,000 per day of violation, or by imprisonment of not more than four years, or by both.
- y. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.
- z. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
 - (1) Name and general composition of the chemical,
 - (2) Frequency of use,
 - (3) Quantities to be used,

- (4) Proposed discharge concentrations, and
- (5) USEPA registration number, if applicable.

- aa. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, or receiving water limitation of this Order, the Discharger shall notify David Hung at the Regional Water Board by telephone (213) 576-6664 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

B. Monitoring and Reporting Program Requirements

The discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

- a. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:
 - (1) Violation of any term or condition contained in this Order;
 - (2) Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts;
 - (3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

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 noncompliances does not stay any condition of this Order.

- b. This Order may be reopened and modified, in accordance with SIP section 2.2.2.A to incorporate the results of revised reasonable potential analyses to be conducted upon receipt of additional data from the interim monitoring program.
- c. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 and 124 to include requirements for the implementation of the watershed protection management approach.

- d. 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.
- e. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR, Parts 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, 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 District 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.
- f. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 to 124, to include new MLs.
- g. If applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.
- h. The waste discharged shall not cause a violation of any applicable water quality standard for receiving waters. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such standards.
- i. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, or the adoption of a TMDL for the Puerco Beach, Santa Monica Bay, and Santa Monica Beach.
- j. This Order may be reopened and modified to revise the chronic toxicity effluent limitation, to the extent necessary, to be consistent with State Board precedential decisions, new policies, new laws, or new regulations.
- k. 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, Water Effects Ratio (WER), attenuation factors, or metal translators are warranted.
- l. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and

monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Treatment Plant Capacity

The Discharger shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the “30-day (monthly) average” daily dry-weather flow equals or exceeds 75 percent of the design capacity of waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter, which transmits that report and certifies that the discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

- (1) The average daily flow for the month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;
- (2) The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and
- (3) A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

This requirement is applicable to those facilities which have not reached 75 percent of capacity as of the effective date of this Order. For those facilities that have reached 75 percent of capacity by that date but for which no such report has been previously submitted, such report shall be filed within 90 days of the issuance of this Order.

b. Toxicity Reduction Requirements.

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days from the date in which it was received, the workplan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the initial investigation TRE workplan must contain the provisions in Attachment G. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

- (1) A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

- (2) 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 the operation of the facility; and,
- (3) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

If the effluent toxicity test result exceeds the limitation, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests, approximately every two weeks, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within 3 days of receipt of the test results exceeding the toxicity limitation.

If the results of any two of the six tests (any two tests in a 12-week period) exceed the limitation, the Discharger shall initiate a Toxicity Reduction Evaluation (TRE).

If results of the implementation of the facility's initial investigation TRE workplan (as described above) indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE.

Detailed toxicity testing and reporting requirements are contained in Section V of the MRP, Attachment E.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP)

Within 90 days of the effective date of this Order the Discharger shall submit an updated SWPPP that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State to the Regional Water Board. The SWPPP shall be developed in accordance with the requirements in *Storm Water Pollution Prevention Plan Requirements* (Attachment H). If all storm water is captured and treated on-site and no storm water is discharged or allowed to run off-site from the Facility, the Discharge shall provide certification with descriptions of on-site storm water management to the Regional Water Board.

b. Spill Contingency Plan (SCP)

The Discharger shall maintain a SCP for the Malibu Mesa WRF and its sanitary sewage collection system in an up-to-date condition and shall amend the SCP whenever there is a change (e.g. in the design, construction, operation, or maintenance of the sewage system or sewage facilities) which materially affects the potential for spills. The Discharger shall review and amend the SCP as appropriate after each spill from the Malibu Mesa WRF or in the service area of the Facility. Upon request of the Regional Water Board, the Discharger shall submit the SCP and any amendments to the Regional Water Board. The

Discharger shall ensure that the up-to-date SCP is readily available to the sewage system personnel at all times and that the sewage system personnel are familiar with it.

c. Pollutant Minimization Program (PMP)

Reporting protocols in the Monitoring and Reporting Program, Attachment E, Section X.B.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a Pollution Minimization Program (PMP) as follows:

The Discharger shall be required to develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

- (1) The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or
- (2) The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, 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 Regional Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC Section 13263.3(d), shall be considered to fulfill the PMP requirements.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

- (1) An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- (2) Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;
- (3) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

- (3) Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and
- (5) An annual status report that shall be sent to the Regional Water Board including:
 - (a) All PMP monitoring results for the previous year;
 - (b) A list of potential sources of the reportable pollutant(s);
 - (c) A summary of all actions undertaken pursuant to the control strategy; and
 - (d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

- a. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Chapter 3, Subchapter 14, Title 23 of the California Code of Regulations (Section 13625 of the California Water Code).
- b. The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Biosolids Requirements

- (1) All sludge generated at the wastewater treatment plant will be disposed of, treat, or applied to land in accordance with Federal Regulations 40 CFR Part 103. These requirements are enforceable by USEPA.
- (2) The Discharger shall ensure compliance with the requirements in SWRCB Order No. 2004- 10-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities” for those sites receiving the Discharger's biosolids which a Regional Water Quality Control Board has placed under this general order, and with the requirements in individual Waste Discharge Requirements (WDRs) issued by a Regional Water Board for sites receiving the Discharger's biosolids.

- (3) The Discharger shall comply, if applicable, with WDRs issued by other Regional Water Boards to which jurisdiction the biosolids are transported and applied.
- (4) The Discharger shall furnish this Regional Water Board with a copy of any report submitted to USEPA, State Board or other Regional Water Board, with respect to municipal sludge or biosolids.

b. Pretreatment Requirements – Not Applicable

c. Spill Reporting Requirements

- (1) The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Water Board and USEPA upon request. The Discharger shall submit to the Regional Water Board and USEPA a report listing all spills, overflows or bypasses occurring during the year. This report shall be included in the annual report. The reports shall provide:
 - the date and time of each spill, overflow or bypass;
 - the location of each spill, overflow or bypass;
 - the estimated volume of each spill, overflow or bypass including gross volume, amount recovered and amount not recovered;
 - the cause of each spill, overflow or bypass;
 - whether each spill, overflow or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;
 - mitigation measures implemented;
 - corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,
 - beneficial uses impacted.
- (2) For certain spills, overflows and bypasses of untreated or partially treated wastewater caused by a failure in the publicly owned portion of a sanitary sewer system, the Discharger shall make reports and conduct monitoring as required below:
 - (a) For any spills or overflows of any volume discharged where they are, or will probably be, discharged to water of the State, the Discharger shall immediately notify the local health agency in accordance with California Health and Safety Code section 5411.5, and if feasible the appropriate Regional Water Board staff within two hours of the spill reaching receiving water.
 - (b) For spills, overflows or bypasses of any volume that flowed to receiving waters or entered a shallow ground water aquifer or has public exposure, the Discharger shall report such spills to the Regional Water Board, by telephone or electronically as soon as possible but not later than 24 hours of knowledge of the incident. The following information shall be included in the report: location; date

and time of spill; volume and nature of the spill; cause(s) of the spill; mitigation measures implemented; and corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

- (c) For any spills or overflows of 1000 gallons or more discharged where they are, or probably will be discharged to waters of the State, the Discharger shall immediately notify the State Office of Emergency Services pursuant to Water Code section 13271.
- (d) For spills, overflows or bypasses of any volume that reach receiving waters, the Discharger shall obtain and analyze sufficient grab samples for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern, upstream and downstream, or upcoast and/or downcoast, of the point of entry of the spill (if feasible, accessible and safe) in order to define the geographical extent of impact of the spill. The first set of samples shall be collected as soon as possible if feasible, accessible, and safe. This monitoring shall be at least on a daily basis from time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or cessation of monitoring is authorized by the County Department of Health Services.
- (e) For spills, overflows or bypasses of any volume that reach receiving waters or have the potential to enter a shallow ground water aquifer, and all spills, overflows and bypasses of 1,000 gallons or more, the Discharger shall analyze a grab sample of the spill or overflow for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern depending on the area and nature of spills or overflows if feasible, accessible and safe.
- (f) The Regional Water Board notification shall be followed by a written preliminary report five working days after verbal notification of the incident. (Within 30 days after submitting preliminary report, the Discharger shall submit the final written report to this Regional Water Board). The written report shall document the information required in subparagraphs (b) and (d) above, monitoring results and any other information required in Provision V.E.1 of the Standard Provisions (Attachment D). An extension for submittal of the final written report can be granted by the Executive Officer for just cause. A copy of the final report already submitted by the Discharger pursuant to California Water Code Section 13193, or pursuant to a Statewide General Waster Discharge Requirements for Wastewater Collection System Agencies may be submitted to the Regional Board, may satisfy this requirement.
- (g) In addition, Regional Board expects that the municipal departments that have responsibilities to implement this Order, the MS4 NPDES permit, and other individual permits that may contain spill prevention, sewer maintenance, pretreatment programs, and the SSO WDR will coordinate their compliance activities for consistency and efficiency.

6. Other Special Provisions – Not Applicable

7. Compliance Schedules

a. Pollutant Minimization Plan (PMP)

The Discharger shall develop a PMP to maintain effluent concentrations of bis(2-ethylhexyl) phthalate, and ammonia at or below the effluent limitations specified in Final Effluent Limitations Section IV.A.1.a of this Order. The PMP shall include the following:

- i. Annual review and quarterly monitoring of the potential sources of bis(2-ethylhexyl) phthalate, and ammonia ;
- ii. Submittal of a control strategy designed to proceed toward the goal of maintaining effluent concentrations at or below the effluent limitation;
- iii. Implementation of appropriate cost-effective control measures consistent with the control strategy;
- iv. An annual status report that shall be sent to the Regional Water Board at the same time the annual summary report is submitted in accordance with Section X.D. of the MRP No. 6599 (Attachment E), and include:
 - 1) All PMP monitoring results for the previous year;
 - 2) A list of potential sources of bis(2-ethylhexyl) phthalate, and ammonia;
 - 3) A summary of all actions undertaken pursuant to the control strategy; and,
 - 4) A description of actions to be taken in the following year.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Appendix A of this Order. Dischargers shall be deemed out of compliance with effluent limitations if the concentration of the monitoring sample is greater than the effluent limitation and greater than or equal to the reported minimum level (ML).

B. Multiple Sample Data Reduction.

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the Discharger will have demonstrated compliance with the AMEL for each day of that month for that parameter.

If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any parameter, the Discharger shall collect up to four additional weekly samples. All analytical results shall be reported in the monitoring report for that month, or the subsequent month. The concentration of pollutant (an arithmetic mean or a median) estimated from the “Multiple Sample Data Reduction” Section above, will be used for compliance determination.

In the event of noncompliance with an AMEL, the sampling frequency for that parameter shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

D. Average Weekly Effluent Limitation (AWEL).

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

A calendar week will begin on Sunday and end on Saturday. Partial weeks consisting of four or more days at the end of any month will include the remaining days of the week, which occur in the following month in order to calculate a consecutive seven-day average. This value will be reported as a weekly average or seven-day average on the SMR for the month containing the partial week of four or more days. Partial calendar weeks consisting of less than four days at the end of any month will be carried forward to the succeeding month and reported as a weekly average or a seven-day average for the calendar week that ends with the first Saturday of that month.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. Six-month Median Effluent Limitation.

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median limitation.

I. Percent Removal.

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

$$\text{Percent Removal (\%)} = [1 - (\text{CEffluent}/\text{CInfluent})] \times 100 \%$$

When preferred, the Discharger may substitute mass loadings and mass emissions for the concentrations.

J. Mass and Concentration Limitations

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

K. Compliance with single constituent effluent limitations

Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant (see Section B "Multiple Sample Data Reduction" above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the RML.

L. Compliance with effluent limitations expressed as a sum of several constituents

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

M. Mass Emission Rate.

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Q_i' and 'C_i' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be taken in any calendar day. If a composite sample is taken, 'C_i' is the concentration measured in the composite sample and 'Q_i' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Q_i' and 'C_i' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Q_t' is the total flow rate of the combined waste streams.

N. Bacterial Standards and Analysis.

1. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \dots \times C_n)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.
3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR 136 (revised May 14, 1999), unless alternate methods have been approved by

USEPA pursuant to 40 CFR 136, or improved methods have been determined by the Executive Officer and/or USEPA.

4. Detection methods used for enterococcus shall be those presented in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

O. Single Operational Upset

A single operational upset (SOU) that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

1. A single operational upset is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Provision V.E.2(b) of Attachment D – Standard Provisions.
3. For purpose outside of CWC Section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum “Issuance of Guidance Interpreting Single Operational Upset” (September 27, 1989).
4. For purpose of CWC Section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC Section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Acutely Toxic Conditions, as used in the context of mixing zones, refers to lethality that occurs to mobile aquatic organisms that move or drift through the mixing zone.

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and
 n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Biologically-Based Receiving Water Flow refers to the method for determining receiving water flows developed by the U.S. EPA Office of Research and Development which directly uses the averaging periods and exceedance frequencies specified in the acute and chronic aquatic life criteria for individual pollutants (e.g., 1 day and 3 years for acute criteria, and 4 days and 3 years for the chronic criteria). Biologically-based flows can be calculated using the program DFLOW.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Completely-Mixed Discharge condition means not more than a 5 percent difference, accounting for analytical variability, in the concentration of a pollutant exists across a transect of the water body at a point within two stream/river widths from the discharge point.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Dilution Ratio is the critical low flow of the upstream receiving water divided by the flow of the effluent discharged.

Discharger-Specific WER is a WER that is applied to individual pollutant limits in an NPDES permit issued to a particular permit holder. A discharger-specific WER applies only to the applicable limits in the discharger's permit. Discharger-specific WERs are distinguished from WERs that are developed on a waterbody or watershed basis as part of a water quality standards action resulting in adoption of an SSO.

Dynamic Models used for calculating effluent limitations predict the effects of receiving water and effluent flow and of concentration variability. The outputs of dynamic models can be used to base effluent limitations on probability estimates of receiving water concentrations rather than critical conditions (which are used in the steady-state model). The three dynamic modeling techniques recommended by the U.S. EPA for calculating effluent limitations are continuous simulation, Monte Carlo simulation, and lognormal probability modeling.

Effluent Concentration Allowance (ECA) is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper

and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code Section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger means any discharger that is not a new discharger. An existing discharger includes an “increasing discharger” (i.e., an existing facility with treatment systems in place for its current discharge that is or will be expanding, upgrading, or modifying its existing permitted discharge after the effective date of this Policy).

Four-Day Average of Daily Maximum Flows is the average of daily maximums taken from the data set in four-day intervals.

Harmonic Mean flows are expressed as $Q_{hm} = (n)/(\sum_{i=1}^n 1/x_i)$, where x_i = specific data values and n = number of data values.

Incompletely-Mixed Discharge is a discharge that contributes to a condition that does not meet the meaning of a completely-mixed discharge condition.

Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Load Allocation (LA) is the portion of a receiving water's total maximum daily load that is allocated to one of its nonpoint sources of pollution or to natural background sources.

Long-Term Arithmetic Mean Flow is at least two years of flow data used in calculating an arithmetic mean as defined in this appendix.

Maximum Daily Flow is the maximum flow sample of all samples collected in a calendar day.

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of May 14, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Mutagenic pollutants are substances that are known to cause a mutation (i.e., change in a gene or chromosome) in living organisms.

Mutual Water Company is defined in the Public Utilities Code, section 2725 as: “any private corporation or association organized for the purpose of delivering water to its stockholders and members at cost, including use of works for conserving, treating and reclaiming water”.

New Discharger includes any building, structure, facility, or installation from which there is, or may be, a discharge of pollutants, the construction of which commenced after the effective date of this Policy.

Objectionable Bottom Deposits are an accumulation of materials or substances on or near the bottom of a water body, which creates conditions that adversely impact aquatic life, human health, beneficial uses, or aesthetics. These conditions include, but are not limited to, the accumulation of pollutants in the sediments and other conditions that result in harm to benthic organisms, production of food chain organisms, or fish egg development. The presence of such deposits shall be determined by RWQCB(s) on a case-by-case basis.

Ocean Waters are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the SWRCB's California Ocean Plan.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses.

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code Section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the SWRCB or RWQCB.

Process Optimization means minor changes to the existing facility and treatment plant operations that optimize the effectiveness of the existing treatment processes.

Public Entity includes the federal government or a state, county, city and county, city, district, public authority, or public agency.

Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a RWQCB basin plan.

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = \left(\frac{\sum[(x - \mu)^2]}{(n - 1)} \right)^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Teratogenic pollutants are substances that are known to cause structural abnormalities or birth defects in living organisms.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A

Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Use Attainability Analysis is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological and economic factors as described in 40 CFR 131.10(g) (40 CFR 131.3, revised as of July 1, 1997).

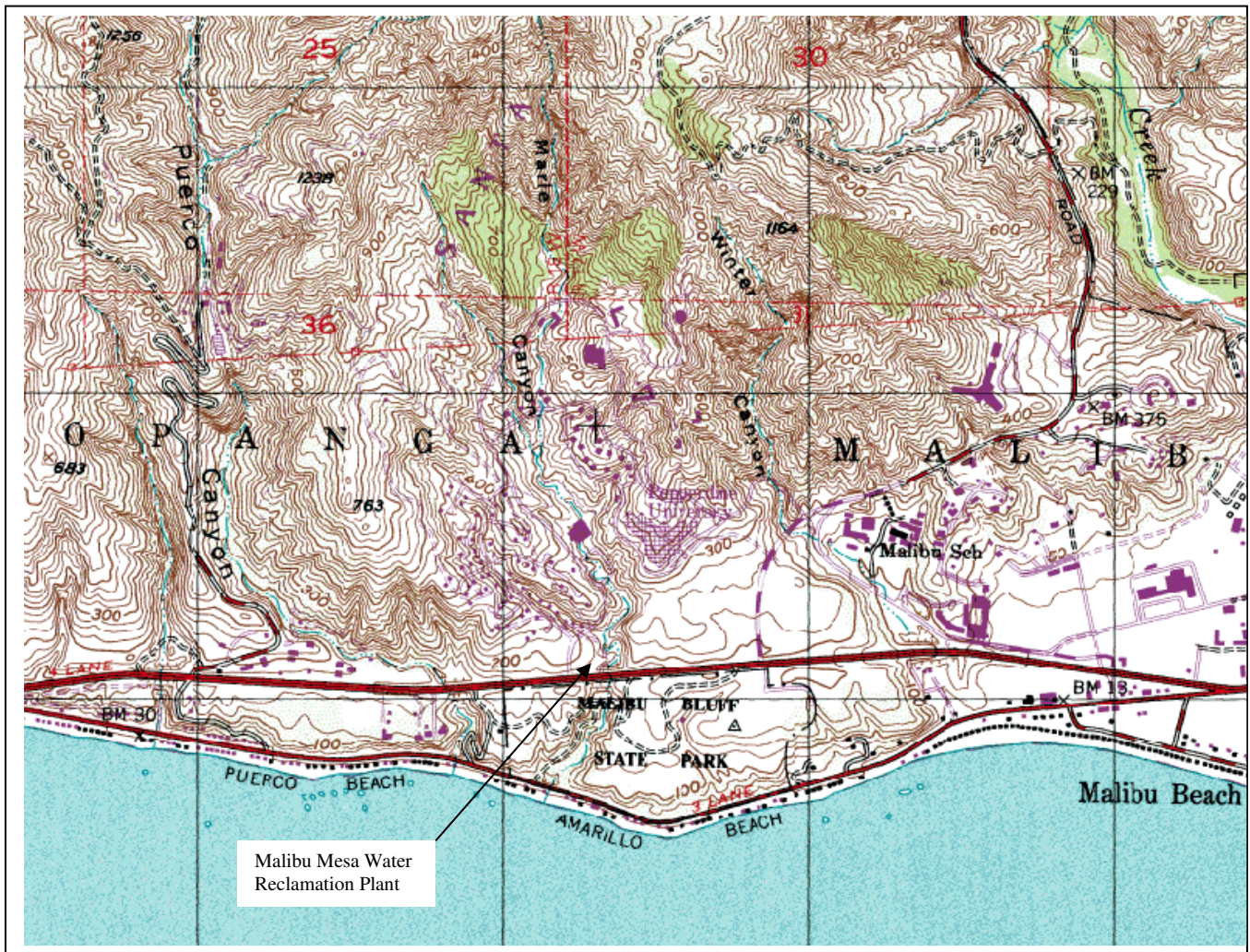
Water Effect Ratio (WER) is an appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

1Q10 is the lowest flow that occurs for one day with a statistical frequency of once every 10 years.

7Q10 is the average low flow that occurs for seven consecutive days with a statistical frequency of once every 10 years.

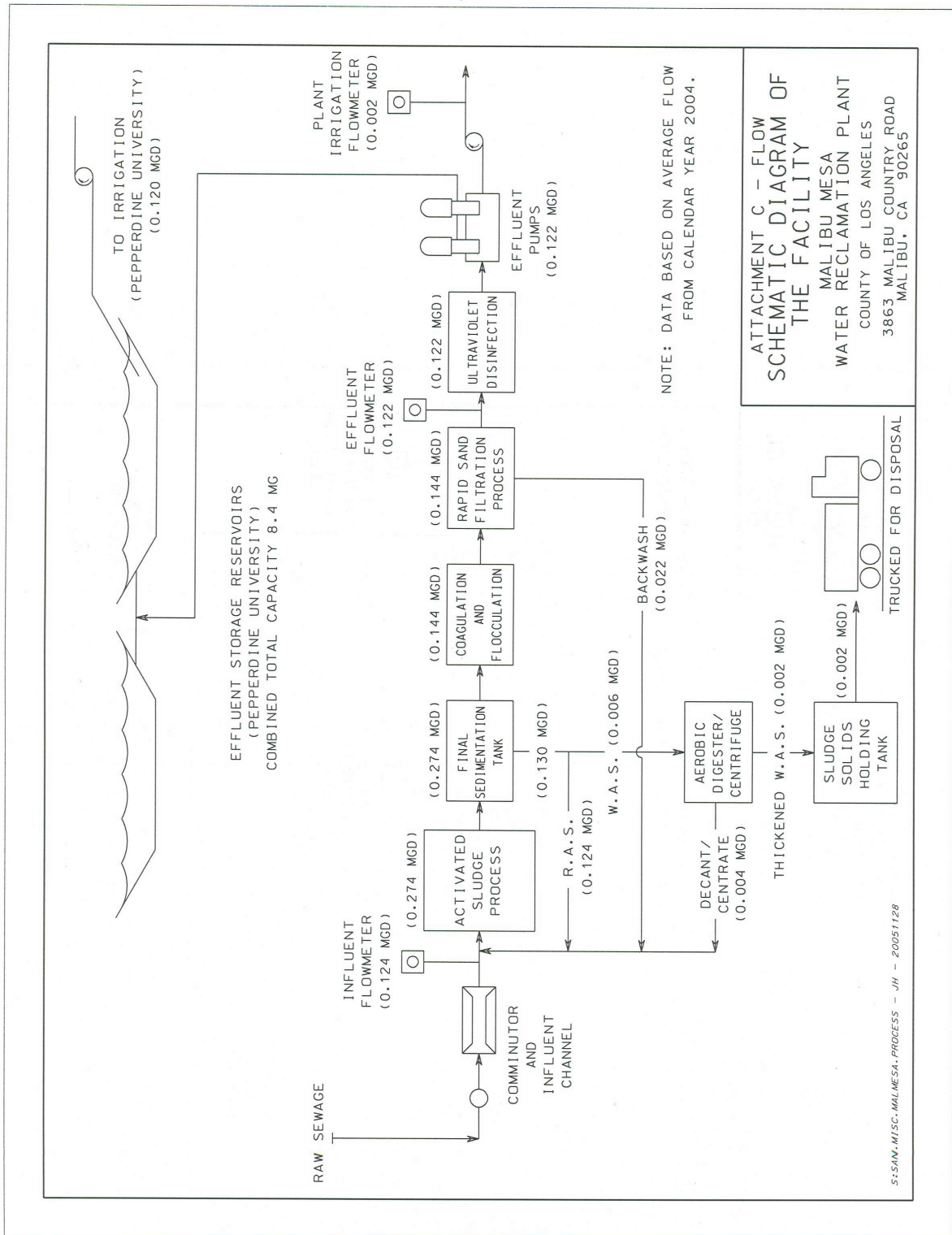
90th Percentile of Observed Data is the measurement in the ordered set of data (lowest to highest) where 90 percent of the reported measurements are less than or equal to that value.

ATTACHMENT B – MAP



MALIBU MESA WASTEWATER RECLAMATION FACILITY
3863 Malibu Country Drive
Malibu, CA 90265

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [*40 CFR Section 122.41(a)*].
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement [*40 CFR Section 122.41(a)(1)*].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [*40 CFR Section 122.41(c)*].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [*40 CFR Section 122.41(d)*].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [*40 CFR Section 122.41(e)*].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [*40 CFR Section 122.41(g)*].
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [*40 CFR Section 122.5(c)*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR Section 122.41(i)] [CWC 13383(c)]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR Section 122.41(i)(1)];
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR Section 122.41(i)(2)];
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR Section 122.41(i)(3)];
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [40 CFR Section 122.41(i)(4)].

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [40 CFR Section 122.41(m)(1)(i)].
 - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 CFR Section 122.41(m)(1)(ii)].
2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below [40 CFR Section 122.41(m)(2)].
3. Prohibition of bypass – Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [40 CFR Section 122.41(m)(4)(i)]:

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR Section 122.41(m)(4)(A)];
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR Section 122.41(m)(4)(B)]; and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below [40 CFR Section 122.41(m)(4)(C)].
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [40 CFR Section 122.41(m)(4)(ii)].
5. Notice
- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR Section 122.41(m)(3)(i)].
 - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice) [40 CFR Section 122.41(m)(3)(ii)].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 CFR Section 122.41(n)(1)].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR Section 122.41(n)(2)].
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR Section 122.41(n)(3)]:

- a. An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR Section 122.41(n)(3)(i)*];
 - b. The permitted facility was, at the time, being properly operated [*40 CFR Section 122.41(n)(3)(i)*];
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) [*40 CFR Section 122.41(n)(3)(iii)*]; and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR Section 122.41(n)(3)(iv)*].
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [*40 CFR Section 122.41(n)(4)*].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [*40 CFR Section 122.41(f)*].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [*40 CFR Section 122.41(b)*].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR Section 122.41(l)(3)*] [*40 CFR Section 122.61*].

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR Section 122.41(j)(1)].
- B. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [40 CFR Section 122.41(j)(4)] [40 CFR Section 122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 CFR Section 122.41(j)(2)].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [40 CFR Section 122.41(j)(3)(i)];
2. The individual(s) who performed the sampling or measurements [40 CFR Section 122.41(j)(3)(ii)];
3. The date(s) analyses were performed [40 CFR Section 122.41(j)(3)(iii)];
4. The individual(s) who performed the analyses [40 CFR Section 122.41(j)(3)(iv)];
5. The analytical techniques or methods used [40 CFR Section 122.41(j)(3)(v)]; and
6. The results of such analyses [40 CFR Section 122.41(j)(3)(vi)].

C. Claims of confidentiality for the following information will be denied [40 CFR Section 122.7(b)]:

1. The name and address of any permit applicant or Discharger [40 CFR Section 122.7(b)(1)]; and
2. Permit applications and attachments, permits and effluent data [40 CFR Section 122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [40 CFR Section 122.41(h)] [CWC 13267].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below [40 CFR Section 122.41(k)].
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [40 CFR Section 122.22(a)(3)].
3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above [40 CFR Section 122.22(b)(1)];
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [40 CFR Section 122.22(b)(2)]; and
 - c. The written authorization is submitted to the Regional Water Board, State Water Board, or USEPA [40 CFR Section 122.22(b)(3)].
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board, State Water Board or USEPA

prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR Section 122.22(c)].

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations” [40 CFR Section 122.22(d)].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [40 CFR Section 122.41(l)(4)].
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [40 CFR Section 122.41(l)(4)(i)].
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [40 CFR Section 122.41(l)(4)(ii)].
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 CFR Section 122.41(l)(4)(iii)].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [40 CFR Section 122.41(l)(5)].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of

noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [*40 CFR Section 122.41(l)(6)(i)*].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR Section 122.41(l)(6)(ii)*]:
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order [*40 CFR Section 122.41(l)(6)(ii)(A)*].
 - b. Any upset that exceeds any effluent limitation in this Order [*40 CFR Section 122.41(l)(6)(ii)(B)*].
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [*40 CFR Section 122.41(l)(6)(iii)*].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [*40 CFR Section 122.41(l)(1)*]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Section 122.29(b) [*40 CFR Section 122.41(l)(1)(i)*]; or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this Order. [*40 CFR Section 122.41(l)(1)(ii)*].
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [*40 CFR Section 122.41(l)(1)(iii)*].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [*40 CFR Section 122.41(l)(2)*].

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above [*40 CFR Section 122.41(l)(7)*].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information [*40 CFR Section 122.41(l)(8)*].

VI. STANDARD PROVISIONS – ENFORCEMENT

- A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [*40 CFR Section 122.42(b)*]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [*40 CFR Section 122.42(b)(1)*]; and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [*40 CFR Section 122.42(b)(2)*].
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [*40 CFR Section 122.42(b)(3)*].

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR Section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. All samples shall be representative of the waste discharge under conditions of peak load.
- B. Pollutants shall be analyzed using the analytical methods described in 40 CFR, Part 136.3, 136.4, and 136.5 (revised May 14, 1999); or where no methods are specified for a given pollutant, by methods approved by this Regional Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.
- C. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR, Part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.
- D. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
- E. For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- F. Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP.”
- G. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), the minimum level (ML) and the reported Minimum Level (RML) for each pollutant. The MLs are those published by the State Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, March 2, 2000, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical

procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported minimum level.

- H. The Discharger shall select the analytical method that provides a ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR, Part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in III.E. of this section. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Discharge must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.
- I. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section 5, below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.
- J. For the purpose of reporting compliance with numerical effluent limitations and receiving water limitations, analytical data shall be reported using the following reporting protocols:
 - a. Sample results greater than or equal to the RML must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample); or
 - b. Sample results less than the RML, but greater than or equal to the laboratory's MDL, must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to Est. Conc.); or
 - c. Sample results less than the laboratory's MDL must be reported as "Not-Detected", or ND.
- K. In accordance with Section 2.4.3 of the SIP, the Regional Board Executive Officer, in consultation with the State Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the discharger's permit in any of the following situations:
 - a. When the pollutant under consideration is not included in Appendix 4, SIP;
 - b. When the discharger and the Regional Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR, Part 136 (revised as of May 14, 1999);
 - c. When a discharger agrees to use an ML that is lower than those listed in Appendix 4;

- d. When a discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,
- e. When the discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the discharger, the Regional Board, and the State Water Resources Control Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

If there is any conflict between foregoing provisions and the State Implementation Policy (SIP), the provisions stated in the SIP (Section 2.4) shall prevail.

- L. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this Program using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.
- M. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Board upon request and a spill summary shall be included in the annual summary report.
- N. For all bacteriological analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000. The detection methods used for each analysis shall be reported with the results of the analyses.

Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR, Part 136 (revised May 14, 1999), unless alternate methods have been approved in advance by the United State Environmental Protection Agency (USEPA) pursuant to 40 CFR Part 136.

Detection methods used for enterococcus shall be those presented in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Regional Board to be appropriate.

II. Monitoring Locations

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table 1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
--	INF-001	Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained.
001	M-001	The effluent sampling station shall be located downstream of any inplant return flows and after the final disinfection process, where representative samples of the effluent can be obtained.
002	M-001	The effluent sampling station for Discharge Point 002 is the same sampling station as Discharge Point 001.
--	R-001	Marie Canyon, about 300 feet downstream of the discharge point (underneath Pacific coast Highway.
--	R-002	Marie Canyon, 10 feet upstream of the culvert under Malibu Road.

III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the facility at INF-001 as follows:

Table 2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	recorder/totalizer	continuous ¹	1
pH	pH unit	grab	quarterly ²	3
Total suspended solids	mg/L	grab	quarterly ²	3
BOD ₅ 20°C	mg/L	grab	quarterly ²	3

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

- Determine compliance with NPDES permit conditions and water quality standards.
- Assess plant performance, identify operational problems and improve plant performance.

A. Monitoring Location M-001

1. The Discharger shall monitor the discharge of tertiary-treated effluent at M-001 as follows. If more than one analytical test method is listed for a given parameter, the discharger may select from the listed methods and associated Reporting Level:

¹ Total daily flow and instantaneous peak daily flow (24-hr basis). Actual monitored flow shall be reported (not the maximum flow, i.e., design capacity).
² To be monitored once per discharge day but not more than once per quarter.
³ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board.

Table 3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Total waste flow	mgd	recorder/totalizer	continuous ⁴	4
Temperature	°F	grab	weekly ⁵	6
pH	pH units	grab	weekly ⁵	6
BOD ₅ 20°C	mg/L	grab	quarterly ⁷	6
Total suspended solids	mg/L	grab	quarterly ⁷	6
Settleable solids	mL/L	grab	quarterly ⁷	6
Turbidity	NTU	recorder	continuous	6
Oil and grease	mg/L	grab	quarterly ⁷	6
Surfactants (MBAS)	mg/L	grab	quarterly ⁷	6
Total coliform	MPN/ 100mL	grab	weekly ^{5,8}	6
Fecal coliform	MPN/ 100mL	grab	weekly ^{5,8}	6
E.coli	MPN/ 100mL	grab	quarterly ^{7,8}	6
Copper	µg/L	grab	quarterly ⁷	6
Nickel	µg/L	grab	quarterly ⁷	6
Bis(2-ethylhexyl)phthalate	µg/L	grab	quarterly ⁷	6
Chloride	mg/L	grab	weekly ⁵	6
Ammonia Nitrogen	mg/L	grab	weekly ⁵	6
Nitrite nitrogen	mg/L	grab	weekly ⁵	6
Nitrate nitrogen	mg/L	grab	weekly ⁵	6
Organic nitrogen	mg/L	grab	weekly ⁵	6
Total nitrogen	mg/L	grab	weekly ⁵	6
Orthophosphate-P	mg/L	grab	weekly ⁵	6
Total phosphorus	mg/L	grab	weekly ⁵	6
Total hardness (CaCO ₃)	mg/L	grab	weekly ⁵	6
Chronic toxicity	TUc	grab	annually ⁹	6
Acute toxicity	% Survival	grab	annually ⁹	6
2,3,7,8-TCDD ¹⁰	µg/L	grab	semi-annually ¹¹	6

⁴ Actual monitored flow from the discharge point(s) shall be reported (not the maximum permitted flow).

⁵ To be monitored once per discharge day but not more than once per seven days.

⁶ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board.

⁷ To be monitored once per discharge day but not more than once per quarter.

⁸ If the analysis of these parameters in the effluent exceed bathing standards (fecal = 200 MPN/100ml, enterococci = 104 density/100ml), the Discharger shall then collect and analyze samples of the receiving water near the terminus of the canyon at a depth of 10 feet, nearshore of Puerco Beach.

⁹ To be monitored once per discharge day but not more than once per year.

¹⁰ In accordance with the SIP, the Discharger shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station R-001, located downstream of the discharge point. The Discharger shall use the appropriate Toxicity Equivalence Factor (TEF) to determine Toxic Equivalence (TEQ). Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Remaining EPA priority pollutants ¹² excluding asbestos	µg/L	24-hr (except VOCs)	semi-annually ¹¹	⁶

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. Definition of Acute Toxicity

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

- a. 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
- b. No single test shall produce less than 70% survival.

2. Acute Toxicity Effluent Monitoring Program

- a. **Method.** The Discharger shall conduct acute toxicity tests on 100% effluent and receiving water grab samples by methods specified in 40 CFR Part 136, which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October, 2002 (EPA-821-R-02-012) or a more recent edition to ensure compliance.
- b. **Test Species.** The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. However, if the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), the Discharger may have the option of using the inland silverside, *Menidia beryllina*, instead of the topsmelt. The method for topsmelt is found in USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October, 2002 (EPA-821-R-02-012).

Toxicity Equivalence Factor (TEF_i), (i.e., TEQ_i = C_i x TEF_i). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_1^{17} (\text{TEQ}_i) = \sum_1^{17} (C_i)(\text{TEF}_i)$$

¹¹ To be monitored once per discharge day but not more than once per six months.

¹² Priority pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment.

- c. **Alternate Reporting.** In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test, but only if the Discharger uses USEPA's August 1993 protocol (EPA/600/4-90/027F) to conduct the chronic toxicity test.
- d. **Acute Toxicity Accelerated Monitoring.** If either of the effluent or receiving water toxicity requirements in Section IV.A.1.h.a.(i) or IV.A.1.h.a.(ii) of this Order is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test are received by the Discharger 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.
- e. **Toxicity Identification Evaluation (TIE).**
 - 1. 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.
 - 2. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan. Once the sources are identified the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

B. Chronic Toxicity Testing

1. Definition of Chronic Toxicity

Chronic toxicity is a measure of adverse sub-lethal effects in plants, animals, or invertebrates in a long-term test. The effects measured may include lethality or decreases in fertilization, growth, and reproduction.

2. Chronic Toxicity Effluent Monitoring Program

- a. **Test Methods.** The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 % effluent samples or receiving water grab samples in accordance with EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, October 2002 (EPA-821-R-02-013) or EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, October 2002 (EPA-821-R-02-014), or current version.

b. Frequency

1. **Screening and Monitoring.** - The Discharger shall conduct the first chronic toxicity test screening for three consecutive months beginning on the date of initial discharge. The Discharger shall conduct short-term tests with the cladoceran, water flea (*Ceriodaphnia dubia* - survival and reproduction test), the fathead minnow (*Pimephales promelas* - larval survival and growth test), and the green alga (*Selenastrum capricornutum* - growth test) as an initial screening process for a minimum of three, but not to exceed, five suites of tests to account for potential variability of the effluent / receiving water. After this screening period, monitoring shall be conducted using the most sensitive species.
2. **Re-screening** is required every 24 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.
3. Regular toxicity tests - After the screening period, monitoring shall be conducted monthly using the most sensitive species.

- c. **Toxicity Units.** The chronic toxicity of the effluent shall be expressed and reported in Chronic 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.

3. Accelerated Monitoring

If toxicity is detected as defined in Section IV.A.1.h.c. of this Order, then the Discharger shall conduct six additional tests, approximately every 7 days, over a six-week period. The samples shall be collected and the tests initiated no less than 7 days apart. The Discharger shall ensure that they receive results of a failing chronic 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.

- a. If any three out of the initial test and the six additional tests results exceed $1.0 TU_c$ the Discharger shall immediately implement the Initial Investigation of the TRE.
- b. If implementation of the initial investigation TRE Workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the normal sampling frequency required in Table 3 and Table 4 of this MRP.

- c. If all of the six additional tests required above do not exceed 1 TUc, then the Discharger may return to the normal sampling frequency required in Table 3 and Table 4 of this MRP.
- d. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

C. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manual (EPA-821-R-02-012 and/or EPA-821-R-02-013), then the Discharger must re-sample and re-test within 14 days.
3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

D. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE Workplan must contain the provisions in Attachment G. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
2. 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 the operation of the facility; and,
3. If a toxicity identification evaluation (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 V.E.3. for guidance manuals.

E. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

1. If results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:
 - a. Further actions to investigate and identify the cause of toxicity;
 - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
 - c. A schedule for these actions.
2. The following section summarizes the stepwise approach used in conducting the TRE:
 - a. Step 1 includes basic data collection.
 - b. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and selection and use of in-plant process chemicals.
 - c. If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity.
 - d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options.
 - e. Step 5 evaluates in-plant treatment options.
 - f. Step 6 consists of confirmation once a toxicity control method has been implemented. Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity violations.
3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute manual, chronic manual, EPA/600/R-96-054 (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in Section V.D. of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer .
5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance, if appropriate.
6. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.
 - a. If all the results of the six additional tests are in compliance with the chronic toxicity limitation, the Discharger may resume regular monthly testing.
 - b. If the results of any of the six accelerated tests exceeds the limitation, the Discharger shall continue to monitor weekly until six consecutive weekly tests are in compliance. At that time, the Discharger may resume regular monthly testing.
 - c. If the results of two of the six tests, or any two tests in a six-week period, exceed the limitation, the Discharger shall initiate a TRE.
 - d. If implementation of the initial investigation TRE workplan (see item D.3, above) indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the regular testing frequency.

F. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia *because of increasing test pH* when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.
 - a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
 - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
 - c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
 - d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

G. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month, as required by this permit. Test results shall be reported in Acute Toxicity Units (TUa) or Chronic Toxicity Units (TUc), as required, with the self-monitoring report (SMR) for the month in which the test is conducted. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Section V.A.2.d. and V.B.3., then those results also shall be submitted with the SMR for the period in which the Investigation occurred.

1. The full report shall be received by the Regional Water Board by the 15th day of the second month following sampling.
2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the toxicity limit; and, (4) printout of the toxicity program (ToxCalc or CETIS).
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test, as appropriate:
 - a. sample date(s)
 - b. test initiation date
 - c. test species
 - d. end point value(s) for each dilution (e.g. number of young, growth rate, percent survival)
 - e. NOEC values in percent effluent
 - f. TUc value(s), where $TU_c = \frac{100}{NOEC}$
 - g. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable)
 - h. NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s)

- i. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
- 4. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.
- 5. The Discharger shall notify this Regional Water Board immediately of any toxicity exceedance and in writing 14 days after the receipt of the results of an effluent limit. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable

VII. RECLAMATION MONITORING REQUIREMENTS

Malibu Mesa WRF is recycling wastewater under separate Water Recycling Requirements contained in Order No. 00-167.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Location R-001 and R-002

- 1. The Discharger shall monitor the Marie Canyon at R-001 and an unnamed canyon west of Marie Canyon at R-002 as follows:

Table 4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total waste flow	mgd	grab	weekly ¹³	13
pH	pH units	grab	weekly ¹³	14
Temperature	°F	grab	weekly ¹³	14
Total coliform	MPN/ 100mL	grab	weekly ¹³	14
Fecal coliform	MPN/ 100mL	grab	weekly ¹³	14

¹³ Grab samples shall be collected (concurrent with the discharge) at all the sampling stations once per discharge but not more that once per seven days.

¹⁴ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Quality Control Board or the State Board.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
E.coli	MPN/ 100mL	grab	weekly	¹⁴
Ammonia Nitrogen	mg/L	grab	weekly ¹³	¹⁴
Nitrite nitrogen	mg/L	grab	weekly ¹³	¹⁴
Nitrate nitrogen	mg/L	grab	weekly ¹³	¹⁴
Organic nitrogen	mg/L	grab	weekly ¹³	¹⁴
Total nitrogen	mg/L	grab	weekly ¹³	¹⁴
Dissolved oxygen	mg/L	grab	weekly ¹³	¹⁴
Total phosphorus	mg/L	grab	weekly ¹³	¹⁴
Orthophosphate-P	mg/L	grab	weekly ¹³	¹⁴
Algal biomass	mg/L	grab	weekly ¹³	¹⁴
Total hardness (CaCO ₃)	mg/L	grab	weekly ¹³	¹⁴
Chronic toxicity	TUc	grab	monthly	¹⁴
Acute toxicity	% Survival	grab	monthly	¹⁴
Remaining EPA priority pollutants ¹⁵ excluding asbestos	µg/L	grab	semiannually	¹⁴

2. In the event of a spill or bypass of raw or partially treated sewage into the canyon(s), total and fecal coliform analyses shall be made on grab samples collected from receiving water stations R-001 and R-002. Coliform samples shall be collected and analyzed from those same stations on the date of the spill or bypass, and for four days following the spill or bypass. Additional shore stations may be added as appropriate.
3. Concurrent with receiving water sampling, the following observations shall be made at each station, and the times of the observations shall be noted:
 - Estimate of creek flow (in cubic feet per second);
 - Weather conditions;
 - Color and odor of receiving water and extent of any visual turbidity or color patches due to discharge.
 - Appearance and location of floating solids, oil and grease, scum or foam;
 - Appearance and location deposits on the creek bank or bottom, or the beach;
 - Presence of any aquatic plant growth, sessile or floating;
 - Presence or absence of mosquitoes, gnats, midges or other insects, including mosquito larvae and pupae; and,
 - Any unusual occurrences.
4. Receiving water samples shall be taken during the discharge within the first four hour of discharge. If samples are not taken for safety reasons, samples shall be taken when it is safe

¹⁵ Priority pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment.

to do so. Document in the monitoring report the reason(s) why samples are not taken during the first hour of discharge.

IX. OTHER MONITORING REQUIREMENTS

A. Regional Monitoring Program

Pursuant of 40 CFR 122.41(j) and 122.48(b), the monitoring program for a Discharger receiving an NPDES Permit must determine compliance with NPDES permit terms and conditions, and demonstrate that water quality standards are met.

Compliance monitoring focuses only on the quality of the discharge, it is not designed to assess the impact of the discharge on the receiving water in combination with other point source discharges or with any other sources of pollution (e.g., non-point source runoff, aerial fallout). Likewise, it is not designed to evaluate the current status of important ecological resources on a regional basis. However, to support the Watershed Approach, a watershed-wide Regional Monitoring Program may be designed for the Marie Canyon sub-watershed, with input of stakeholders, to determine: compliance with receiving water objectives; trends in surface water quality; impacts to beneficial uses; and data needs for modeling contaminants of concern.

Once this Regional Monitoring Program has been designed, the Executive Officer may require the Discharger to participate in the Regional Program and/or revise the existing monitoring program.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water

Board’s California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs in accordance with the requirements described in subsection B.5 below. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. Additionally, the Discharger shall report in the SMR the results of any **special studies**, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. of this Order. The Discharger shall submit monthly and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	By the 15 th day of the second month after the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 15 February 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The *estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
 - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
5. The Discharger shall submit hard copy SMRs (with an original signature) when required by subsection B.1 above in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
 - c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below: (Reference the reports to Compliance File No. 6599 to facilitate routing to the appropriate staff and file.)

California Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Attention: Information Technology Unit

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

D. Other Reports

1. Annual Summary Report

By April 1 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results and receiving water bacterial monitoring data. The annual report shall contain graphical and tabular summaries of the monitoring analytical data. The annual report shall also contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Discharger shall submit a hard copy annual report to the Regional Water Board in accordance with the requirements described in subsection B.5 above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential;
 - b. The Basin Plan or CTR criteria that was exceeded for each given pollutant;
 - c. The concentration of the pollutant(s);
 - d. The test method used to analyze the sample; and,
 - e. The date and time of sample collection.
2. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could

affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

3. The Regional Board requires the Discharger to file with the Regional Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:
 - a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.
 - b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.
 - c. Describe facilities and procedures needed for effective preventive and contingency plans.
 - d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	4B190107048
Discharger	Los Angeles County Department of Public Works
Name of Facility	Malibu Mesa Wastewater Reclamation Facility
Facility Address	3863 Malibu Canyon Drive
	Malibu, California 90265
	Los Angeles County
Facility Contact, Title and Phone	Michael Orcutt, Wastewater Treatment Plant Operator Supervisor, (626) 300-3348
	Rhiannon Pregitzer, Director of Regulatory Affairs, Pepperdine University (310) 506-4702
Authorized Person to Sign and Submit Reports	Manuel del Real, Assistant Deputy Director, (626) 300-3300
	Keith Lehto, Principal Engineer, (626) 300-3304
	Jeffrey Bouse, Senior Civil Engineer, (626) 300-3373
	Hu Yi, Civil Engineer, (626) 300-3374
	Michael Orcutt, Wastewater Treatment Plant Operator Supervisor, (626) 300-3348
Mailing Address	900 South Fremont Avenue, Alhambra, California 91803
Billing Address	SAME
Type of Facility	POTW
Major or Minor Facility	Minor
Threat to Water Quality	1
Complexity	B
Pretreatment Program	N
Reclamation Requirements	Producer/User
Facility Permitted Flow	0.20 million gallons per day
Facility Design Flow	0.20 million gallons per day
Watershed	Santa Monica Bay
Receiving Water	Marie Canyon and an unnamed canyon west of Marie Canyon to Puerco Beach
Receiving Water Type	Creek

- A. Los Angeles County Department of Public Works is the owner and operator of Malibu Mesa Wastewater Reclamation Facility, POTW. Pepperdine University is located at 24255 Pacific Coast Highway, Malibu, California. Los Angeles County Department of Public Works is hereinafter referred to as Discharger. Pepperdine University hereinafter referred to as User, uses the treated (recycled) wastewater for landscape impoundment and irrigation at the Pepperdine

University campus. The landscape impoundment (also known as storage reservoirs) and the irrigation facilities are owned, operated, and maintained by the Pepperdine University.

- B.** The Facility discharges wastewater to Marie Canyon and an unnamed canyon west of Marie Canyon. Both canyon discharges flow to Puerco Beach, a water of the United States and is currently regulated by Order 00-166 which was adopted on November 9, 2000 and expired on October 10, 2005. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.
- C.** The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on April 6, 2005. Supplemental Information was requested on November 9, 2005 and received on December 19, 2005. A site visit was conducted on June 7, 2006, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

The Reclamation Facility is located at 3863 Malibu Country Drive, Malibu, California (Figure 1). The Reclamation Facility's design capacity is 0.20 mgd and serves a population of approximately 3,360 persons at Pepperdine University and the community of Malibu Country Estates. The average plant effluent is approximately 0.177 mgd. All domestic wastewater generated by Pepperdine University is collected at the flow equalization station. The majority of the wastewater is sent to the Reclamation Facility and any portion of wastewater over 0.165 mgd is sent to the Las Virgenes Municipal Water District (Las Virgenes), Tapia Water Reclamation Facility (Tapia). Domestic wastewater generated by Malibu Country Estates flows directly to the Reclamation Facility.

Under normal operation, the recycled water is discharged into two landscape impoundments (also known as reservoirs) at the Pepperdine University campus. The recycled water is then used for irrigation of approximately 141 acres of the approximately 282 developed acres of the Pepperdine University campus. The User operates the storage reservoirs and the landscape irrigation facilities. Operation of the reservoirs and irrigation facilities are regulated under a separate Waste Discharge Requirements and Water Reclamation Requirements (WRRs) contained in Order No. 00-167 adopted by the Regional Board on November 9, 2000. The reservoirs have double 20-mil polyvinyl chloride liners to prevent percolation. From the reservoirs, the recycled water is pumped into the irrigation distribution system. With the addition of the graduate campus, the distribution system is now divided into three pressure zones, a lower zone, a middle zone, and an upper zone. The lower zone irrigates the lower portion of the campus through four pumps. In the middle zone, the recycled water is pumped to a 100,000-gallon storage tank located at the top of Drescher Graduate campus, and then distributed by gravity flow to the irrigation system for the middle portion of campus. A 10,000-gallon underground tank provides additional recycled water storage for irrigating the middle zone. The upper zone, the area within 100 feet elevation from the 100,000-gallon storage tank at the top of the campus, is irrigated through a pump.

A. Description of Wastewater and Biosolids Treatment or Controls

1. The Reclamation Facility provides primary, secondary, and tertiary treatment, with disinfection by an ultraviolet system.
2. Primary treatment consists of a headwork with comminutor, and a bypass channel with bar screen. An influent flow meter is located after the bypass channel. Secondary treatment consists of the Walker Process packaged activated sludge plant that includes an aeration basin with coarse bubble diffusers, two aeration blowers (one of which is a standby), an aerobic digester, and a secondary sedimentation basin. Return activated sludge and waste activated sludge is pumped by airlift pumps. Tertiary treatment is provided through coagulation, rapid mix, flocculation, and sand filtration. Filtration consists of three continuous backwash Dynasand® filters. No chlorine is added to the system.
3. Disinfection is provided by four ultraviolet lamps in series. The LACDPW began using ultraviolet disinfection on June 12, 1998. The California Department of Health Services (CDHS) approved the use of the ultraviolet disinfection system in a letter dated February 5, 1998.
4. The waste activated sludge is aerobically digested and pumped to a centrifuge for partial dewatering. The dewatered, digested sludge is stored in a 10,000-gallon underground storage tank prior to hauling to the Donald C. Tillman Water Reclamation Facility located at 6100 Woodley Avenue, Van Nuys, California.
5. In the event of upsets or other operational emergencies at the Reclamation Facility, wastewater from Pepperdine University can be pumped to Tapia for treatment under an agreement between Pepperdine University and Las Virgenes. The wastewater from Malibu Country Estates can be diverted to the sludge storage tank and hauled to the Donald C. Tillman Water Reclamation Facility for treatment. In the event of a power failure the Recycler has an emergency diesel-powered generator onsite to prevent the discharge of raw or inadequately-treated sewage.
6. All laboratory waste generated by Pepperdine University is stored in 55-gallon drums and hauled offsite to a legal point of disposal.

B. Discharge Points and Receiving Waters

During the wet season (November 1 through April 15 of each year) when irrigated areas are saturated with water and the storage reservoirs are in imminent danger of overtopping, the recycled water may be discharged to surface water through two discharge points. Discharge point No. 001 (Latitude 34° 02' 02" North, Longitude 118° 42' 30" West) flows to Marie Canyon, while Discharge Point 002 (Latitude 34° 02' 01" North, Longitude 118° 42' 40" West) flows to an unnamed canyon west of Marie Canyon. Both Marie Canyon and the unnamed canyon flow to Puerco Beach, Malibu, and are tributary to the Santa Monica Bay, Pacific Ocean, water of the United States. The upper end of Marie Canyon is located approximately one quarter of a mile away from Puerco Beach.

In previous permits, the LACDPW was also allowed to discharge into the unnamed canyon (Discharge Point No. 002) adjacent to the facility. LACDPW has not used this Outfall for at least 10 years. However, Discharge Point No. 002 will be maintained as an alternative point of discharge when Discharge Point No. 001 is not feasible because of environmental concerns or geological instability. Therefore, this Order only allows the LACDPW to use Discharge Point No. 002 with prior approval of the Executive Officer.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 and 002 (Monitoring Location M-001) and representative monitoring data from the term of the existing Order are as follows:

Table 2. Historic Effluent Limitations and Monitoring Data

Parameter (units)	Effluent Limitation			Monitoring Data (From January 2001 To December 2005)
	Average Monthly	Average Weekly	Maximum Daily	Range of Reported Concentrations
BOD ₅ 20°C (mg/L)	20	30	45	ND<1 – 106.5
Suspended Solids (mg/L)	15	40	45	ND<1 – 32
Oil and Grease (mg/L)	10		15	ND<1 – 8.3
Settleable Solids (mg/L)	0.1		0.3	ND<1 – 8
Residual Chlorine (mg/L)			0.1	NS
Detergents [as Methylene blue activated substances (MBAS)] (mg/L)			0.5	ND<0.05 – ND<0.05
Mercury (µg/L)	0.051		0.102	ND<0.5 – ND<1
Selenium (µg/L)	4.08		8.2	ND<1 – ND<5
Cyanide (µg/L)	4.2		8.43	ND<10 – ND<10
Benzidine (µg/L)	0.00054		0.0011	ND<3 – ND<3
Benzo(a)Anthracene (µg/L)	0.049		0.098	ND<1 – ND<3
Benzo(a)Pyrene (µg/L)	0.049		0.098	ND<1 – ND<3
Dibenzo(a,h)Anthracene (µg/L)	0.049		0.098	ND<1 – ND<3
Benzo(b)Fluoranthene (µg/L)	0.049		0.098	ND<1 – ND<3
Chrysene (µg/L)	0.049		0.098	ND<1 – ND<3
Indeno(1,2,3-cd)Pyrene (µg/L)	0.049		0.098	ND<1 – ND<3
Bis(2-Ethylhexyl)Phthalate (µg/L)	5.9		11.86	ND<3 – 21.8
3,3-Dichlorobenzidine (µg/L)	0.077		0.155	ND<3 – ND<3
1,2-Diphenylhydrazine (µg/L)	0.054		0.1085	ND<5 – ND<5
4-4'-DDT (µg/L)	0.00059		0.0012	ND<0.1 – ND<100
4-4'-DDE (µg/L)	0.00059		0.0012	ND<0.1 – ND<100
4-4'-DDD (µg/L)	0.00084		0.0169	ND<0.1 – ND<100
Aldrin (µg/L)	0.00014		0.0003	ND<0.05 – ND<50
Chlordane (µg/L)	0.0035		0.0012	ND<0.05 – ND<50
Dieldrin (µg/L)	0.00014		0.0003	ND<0.1 – ND<100

Parameter (units)	Effluent Limitation			Monitoring Data (From January 2001 To December 2005)
	Average Monthly	Average Weekly	Maximum Daily	Range of Reported Concentrations
Endrin (µg/L)	0.043		0.0858	ND<0.1 – ND<100
alpha-BHC (µg/L)	0.013		0.0261	ND<0.05 – ND<50
beta-BHC (µg/L)	0.046		0.0925	ND<0.05 – ND<50
alpha-Endosulfan (µg/L)	0.0457		0.0918	ND<0.1 – ND<0.1
beta-Endosulfan (µg/L)	0.0457		0.0918	ND<0.1 – ND<100
Heptachlor (µg/L)	0.00021		0.0004	ND<0.05 – ND<50
Heptachlor Epoxide (µg/L)	0.0001		0.0002	ND<0.05 – ND<50
Toxaphene (µg/L)	0.0002		0.0003	ND<0.05 – ND<100
Hexachlorobenzene (µg/L)	0.0008		0.00155	ND<0.5 – ND<3
PCB 1016 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
PCB 1221 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
PCB 1232 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
PCB 1242 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
PCB 1248 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
PCB 1254 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
PCB 1260 (µg/L)	0.00017		0.00034	ND<0.5 – ND<50
Arsenic (µg/L)	8		32	0.52 – 1.7
Beryllium (µg/L)	0.033			ND<0.5 – ND<1
Cadmium (µg/L)	1		4	ND<0.25 – 0.1
Chromium VI (µg/L)	2		8	ND<1 – ND<5
Copper (µg/L)	3		12	ND<5 – 36.3
Lead (µg/L)	2		8	ND<0.5 – 3.65
Nickel (µg/L)	5		20	3.5 – 11.8
Silver (µg/L)	0.7		2.8	ND<0.25 – ND<10
Thallium (µg/L)	14			ND<1 – ND<10
Zinc (µg/L)	20		80	34.4 – 74.2
Chloroform (µg/L)	130			ND<0.5 – 2.3
1,2-Dichloroethane (µg/L)	130			ND<0.5 – ND<0.5
Tetrachloroethylene (µg/L)	99			ND<0.5 – ND<0.5
Trichloroethylene (µg/L)	27			ND<0.5 – ND<1
Vinyl Chloride (µg/L)	36			ND<0.5 – ND<1
Bis(2-Chloroethyl)Ether (µg/L)	0.045			ND<1 – ND<3
2,4-Dinitrotoluene (µg/L)	2.6			ND<0.5 – ND<3
Fluoranthene (µg/L)	15			ND<1 – ND<3
Hexachlorobutadiene (µg/L)	14			ND<1 – ND<3
N-Nitrosodimethylamine (µg/L)	7.3			ND<3 – ND<3
N-Nitrosodiphenylamine (µg/L)	2.5			ND<3 – ND<3

D. Compliance Summary

Data submitted revealed the following effluent limitation violations during the permit term.

Table 3. Summary of Compliance History

Date	Monitoring Period	Parameter	Violation Type	Reported Value	Permit Limitation	Units
3/26/2002	1Q 2002	Sewer Overflow	Prohibition	300	0	gallons
1/11/2005	1Q 2005	BOD5 @ 20C (Effluent)	Daily Maximum	48.1	45	mg/L
1/11/2005	1Q 2005	BOD5 @ 20C (Effluent)	7-day Average	48.1	30	mg/L
1/11/2005	1Q 2005	BOD5 @ 20C (Effluent)	Monthly Average	48.1	20	mg/L
1/18/2005	1Q 2005	Fecal Coliform (Effluent)	Not Sampled	N/A	N/A	N/A
1/18/2005	1Q 2005	Nitrate (Effluent)	Not Sampled	N/A	N/A	N/A
1/18/2005	1Q 2005	Nitrite (Effluent)	Not Sampled	N/A	N/A	N/A
2/22/2005	1Q 2005	Turbidity (Effluent)	Daily Average	3.4	2	NTU
2/22/2005	1Q 2005	Turbidity (Effluent)	Above 5 NTU	280	72	NTU
2/23/2005	1Q 2005	Turbidity (Effluent)	Daily Average	2.6	2	NTU
3/8/2005	1Q 2005	Turbidity (Effluent)	Daily Average	2.3	2	NTU
3/9/2005	1Q 2005	Turbidity (Effluent)	Daily Average	3.5	2	NTU
3/10/2005	1Q 2005	Turbidity (Effluent)	Daily Average	4.5	2	NTU

The summary of compliance history above indicated that the effluent limitation for BOD, settleable solids, and turbidity has been exceeded. The Discharger failed to sample for fecal coliform, nitrate, and nitrite during the monitoring period indicated in the Table.

On March 26, 2002, sewage overflowed from the sludge holding tank while pumping sludge from the digester into the sludge holding tank. Approximately 300 gallons of digested sludge entered the storm drain. The affected area was cleaned up and the recovered sewage spill was returned to the treatment plant. The Discharger applied corrective actions to the faulty float switch in order to prevent reoccurrence of the incident.

Based on the review of effluent monitoring data submitted by the Discharger for the period from January 2001 to December 2005 (see Table 2), the Discharger has exceeded effluent limitations for copper, lead, nickel and zinc. These exceedances were not actual violations because there is no discharge made during the monitoring period indicated. These monitoring data are collected in compliance with interim monitoring to gather data for SIP/CTR reasonable potential analysis.

E. Planned Changes

The Discharger stated that there are no plans to expand or modify the treatment facility.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under the CWA section 402.

B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

C. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies that do not have beneficial uses listed in the Basin Plan.

The Basin Plan at page 2-4 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan does not specifically identify beneficial uses for Marie Canyon and an unnamed canyon west of Marie Canyon, but does identify present and potential uses for Puerco Canyon Creek and Puerco Beach. Puerco Canyon Creek is the nearest canyon to Marie Canyon that has beneficial uses listed in the Basin Plan. Puerco Canyon also flows to Puerco Beach. These beneficial uses are wildlife habitat, municipal and domestic supply, water contact and non-contact water recreation, warm freshwater habitat, navigation, commercial and sport fishing, marine habitat, wildlife habitat, shellfish harvesting, spawning, reproduction, and/or early development. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Thus,

beneficial uses applicable to Marie Canyon and an unnamed canyon west of Marie Canyon are as follows:

Table 4. Basin Plan Beneficial Uses

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

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 and 002	Puerco Canyon Creek	<u>Existing:</u> Wildlife habitat (WILD). <u>Intermittent:</u> Municipal and domestic supply (MUN), water contact recreation (REC-1), non-contact water recreation (REC-2), and warm freshwater habitat (WARM).
	Puerco Beach	<u>Existing:</u> Navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), marine habitat (MAR), wildlife habitat (WILD) and shellfish harvesting (SHELL). <u>Potential:</u> Spawning, reproduction, and/or early development (SPWN).

b. The beneficial uses of the groundwater: Marie Canyon is not listed in the Basin Plan as within the designated groundwater basin. Previous measurements of the total dissolved solids (TDS) in the groundwater in Marie Canyon ranges from 3,300 mg/L to 8,500 mg/L. Such use of groundwater as MUN is precluded because of saltwater intrusion in the area. Since Marie Canyon has no GWR beneficial use designation, Title 22-based limits will not be applied in this Order.

c. **Ammonia Water Quality Objective.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The ammonia Basin Plan amendment was approved by the State Water Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA’s 1999 ammonia criteria update.

2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
4. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the California Toxics Rule. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP includes procedures for determining the need for and calculating QBELs, and requires Dischargers to submit data sufficient to do so. The provision for compliance schedules sunsets on May 18, 2005. After this date, the provisions of the SIP allow for schedules of compliance not to exceed 5 years from permit issuance or May 1, 2011, whichever is sooner.
5. **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 CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA 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.
6. **Stringency of Requirements for Individual Pollutants.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on BOD₅, TSS, pH, and percent removal of BOD and TSS. Restrictions on BOD₅, TSS, and pH are specified in federal regulations as discussed in 40 CFR § 125.3(a)(1), and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's

restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

- 7. Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR Section 131.12 and State Water Board Resolution No. 68-16.
- 8. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR Section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All conventional and non-conventional pollutants effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order. Majority of the priority pollutants from the previous Order was deleted because they did not show reasonable potential to be in the effluent water. New information on effluent and receiving monitoring data indicated that the following pollutants has no reasonable potential; mercury, selenium, cyanide, benzidine, benzo(a)anthracene, benzo(a)pyrene, dibenzo(a,h)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, 3,3-dichlorobenzidine, 1,2-diphenylhydrazine, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, aldrin, chlordane, dieldrin, endrin, alpha-BHC, beta-BHC, alpha-endosulfan, beta-endosulfan, heptachlor, heptachlor epoxide, toxaphene, hexachlorobenzene, PCB 1016, PCB 1221, PCB 1232, PCB 1242, PCB 1248, PCB 1254, PCB 1260, arsenic, beryllium, cadmium, chromium VI, lead, silver, thallium, zinc, chloroform, 1,2-dichloroethane, tetrachloroethylene, trichloroethylene, vinyl chloride, bis(2-chloroethyl)ether, 2,4-dinitrotoluene, fluoranthene, hexachlorobutadiene, N-nitrosodimethylamine, and N-nitrosodipheylamine. For copper, nickel, and bis(2-ethylhexyl)phthalate, the numeric effluent limit became less stringent than the previous Order because of the new information that are used in determining reasonable potential analysis. As discussed in this Fact Sheet, this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.
- 9. Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

D. Impaired Water Bodies on CWA 303(d) List

Marie Canyon Creek and an unnamed creek west of Marie Canyon both discharge into Puerco Beach. The 2002 USEPA 303(d) list of impaired waters classifies Puerco Beach and Santa

Monica Bay Beach as impaired by beach closures, high coliform count, DDT (fish consumption advisory for DDT), and PCBs (fish consumption advisory for PCBs). Santa Monica Bay is impaired by chlordane (sediment), DDT (tissue and sediment, centered on Palos Verdes Shelf), debris, fish consumption advisory, PAHs (sediment), PCBs (tissue and sediment), and sediment toxicity.

On December 12, 2002, an amendment to the Basin Plan for the Los Angeles Region to incorporate implementation provisions for the Region's bacteria objectives and to incorporate a wet-weather total maximum daily load for bacteria at Santa Monica Bay beaches was adopted. Requirements in this Order are consistent with the TMDL.

E. Other Plans, Policies and Regulations

1. **Secondary Treatment Regulations.** Section 133 of 40 CFR establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations.
2. **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 to regulate storm water discharges associated with industrial activity.

Sewage treatment works with a design flow of 1.0 MGD or greater are required to comply with Water Quality Order No. 97-03-DWQ (NPDES General Permit No. CAS000001). The Facility's design flow capacity is 0.20 MGD. Therefore, the Discharger is not required to comply with the abovementioned general storm water permit. However, the Discharger shall comply with the storm water requirement contained in Section VI.C.3.a. – Storm Water Pollution Prevention Plan (SWPPP) of the Order.

3. **Sanitary Sewer Overflows.** The Clean Water Act prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 U.S.C. §§1311, 1342). The State Board adopted Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 on May 2, 2006, to provide a consistent, statewide regulatory framework to address Sanitary Sewer Overflows (SSOs). The WDR requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all SSOs to the State Water Board's online SSO database.

The requirements contained in this Order in Section VI.C.5.c. are intended to be consistent with the requirements in the SSO WDR. The Regional Board recognizes that there are areas of overlapping interest between the NPDES permit conditions and the SSO WDR

requirements. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of WQ Order N0. 2006-0003). The Regional Board will accept the documentation prepared by the Permittee under the SSO WDR for compliance purposes, as satisfying the requirements in Section VI.C.5.c., provided for any more specific or stringent provisions enumerated in this Order, have also been addressed.

4. **Watershed Management** - 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 Santa Monica Bay Watershed and other watersheds in the region can be obtained from the Regional Board's web site at <http://www.waterboards.ca.gov/losangeles> and clicking on the word "Watersheds".

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR Section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR Section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, three options exist to protect water quality: 1) 40 CFR Section 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

Effluent and receiving water limitations in this Board Order are based on the Federal Clean Water Act, Basin Plan, State Water Board 's plans and policies, U. S. Environmental Protection Agency guidance and regulations, and best practicable waste treatment technology. While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information were used:

1. EPA NPDES Application Forms 1, 2A, and related attachments.
2. Code of Federal Regulations – Title 40
3. Water Quality Control Plan for the Los Angeles Region (as amended to date).
4. Regional Water Board files related to Malibu Mesa Water Reclamation Facility NPDES permit CA0059099.

A. Discharge Prohibitions

Effluent and receiving water limitations in this Board Order are based on the Federal Clean Water Act, Basin Plan, State Water Board 's plans and policies, U. S. Environmental Protection Agency guidance and regulations, and best practicable waste treatment technology.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR Section 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR Section 125.3.

Regulations promulgated in 40 CFR Section 125.3(a)(1) require technology-based effluent limitations for municipal Dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section

301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD₅), total suspended solids (TSS), and pH.

2. Applicable Technology-Based Effluent Limitations

- a. This facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of BOD₅20°C, TSS, and pH as summarized in Table F-5. Previous Order No. 00-166 established technology-based effluent limits to meet applicable secondary treatment standards. These effluent limitations have been carried over from the previous Order. Further, mass-based effluent limitations are based on a design flow rate of 0.20 MGD.

**Summary of Technology-based Effluent Limitations
Discharge Point 001 and 002**

Table 5. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD ₅ 20°C	mg/L	20	30	45		
	lbs/day	33	50	75		
Total Suspended Solids (TSS)	mg/L	15	40	45		
	lbs/day	25	67	75		
pH	standard units	--	--	--	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	--	--		

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR Section 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or water quality criteria contained in the CTR and NTR. The specific procedures for determining reasonable potential for discharges from the Malibu Mesa WWRf, and if necessary for calculating WQBELs, are contained in the SIP.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles River (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Marie Canyon Creek and an unnamed canyon west of Marie Canyon are summarized in Section III.C.1. of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

a. Biochemical Oxygen Demand (BOD) and Suspended Solids

Biochemical oxygen demand (BOD) is a measure of the quantity 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:

- i. the monthly average shall not exceed 30 mg/L; and,
- ii. the 7-day average shall not exceed 45 mg/L.

The Malibu Mesa WRF provides tertiary treatment, as such, the limits in the permit are more stringent than secondary treatment requirements. The Plant achieves solids removal that are better than secondary-treated wastewater by adding chemical coagulants to enhance the precipitation of solids, and by filtering the effluent.

In addition to having mass-based and concentration-based effluent limitations for BOD and suspended solids, the Malibu Mesa WRF also has a percent removal requirement for

these two constituents. In accordance with 40 CFR, Sections 133.102(a)(3) and 133.102(b)(3), the 30-day 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 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

b. 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 7-day average limitation, because short term spikes of settleable solid levels that would be permissible under a 7-day average scheme would not be adequately protective of all beneficial uses.

c. 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 7-day average limitation, because spikes that occur under a 7-day average scheme could cause visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses.

d. Residual chlorine

Disinfection of wastewaters with chlorine produces 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 7-day average or a 30-day average limitation, because it is not as protective as of beneficial uses as a daily maximum limitation is. Chlorine is very toxic to aquatic life and short-term exposures of chlorine may cause fish kills.

The Facility uses UV lamps to disinfect the effluent. As such, chlorine is not used at the Facility. Therefore, there will be no effluent limitation for residual chlorine.

e. Total Dissolved Solids, Chloride, Sulfate, and Boron

The effluent discharge from the Malibu Mesa WRF flows into Miscellaneous Los Angeles County Coastal Streams. Page 3-13 of the Basin Plan indicates that there is no waterbody specific objectives for TDS, chloride, sulfate and boron. Although there is no specific objective for these minerals, Table 3-8 of the Basin Plan also provides recommended objectives for mineral or nutrient on page 3-14. The receiving water has beneficial use for aquatic life (freshwater) as WARM. In order to protect the most sensitive beneficial use of the receiving water, chloride effluent limitation of 230 mg/L will be included in this Order. TDS, sulfate, and boron effluent limitation will not be included in this Order.

f. Methylene Blue Activated 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 washwater 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 based upon Best Professional Judgement.

g. Total inorganic nitrogen ($NO_2 + NO_3$ as N)

Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Nitrogen is also considered a nutrient. Excessive amounts of nutrients can lead to other water quality impairments, ex. algae. Based on Basin Plan page 3-11, the Discharger will have to meet the 10 mg/L WQO at the end-of-pipe, since no dilution credit is appropriate at this time.

h. Nitrite as Nitrogen

Chapter 3 of the Basin Plan (page 3-11) contains the following water quality objective, "Waters shall not exceed the 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen ($NO_3-N + NO_2-N$), 45 mg/L as nitrate (NO_3), 10 mg/L as nitrate-nitrogen (NO_3-N), or 1 mg/L as nitrite-nitrogen (NO_2-N) or as otherwise designated in Table 3-8." The Discharger will have to meet the 1 mg/L WQO at the end-of-pipe, since no dilution credit is appropriate at this time.

i. Ammonia as Nitrogen

Ammonia is a pollutant routinely found in the wastewater effluent of Publicly Owned Treatment Works (POTWs), in landfill-leachate, as well as in run-off from agricultural fields where commercial fertilizers and animal manure are applied. Ammonia exists in two forms – un-ionized ammonia (NH_3) and the ammonium ion (NH_4^+). They are both toxic, but the neutral, un-ionized ammonia species (NH_3) is much more toxic, because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. There is no groundwater recharge in this reach. Ammonia also combines with chlorine (often both are present in POTW treated effluent discharges) to form chloramines – persistent toxic compounds that extend the effects of ammonia and chlorine downstream.

The 1994 Basin Plan contained water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board, with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with Beneficial Use designations for protection of Aquatic Life*. Resolution No. 2002-011 was approved by the State Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively, and are now in effect.

As previously discussed in Section III.C.1. of the Fact Sheet, the Basin Plan does not specifically identify beneficial uses for Marie Canyon and an unnamed canyon west of Marie Canyon but does identify present and potential uses for Puerco Canyon Creek and Puerco Beach. Puerco Canyon Creek is the nearest canyon to Marie Canyon that has beneficial use listed in the Basin Plan. Puerco Canyon also flows into Puerco Beach. Both coastal streams are naturalized streams with no man-made concrete channels that maintain natural stream flow into riparian habitat. This assignment of beneficial use is consistent with the Basin Plan “tributary rule” stating that “Those waters not specifically listed (generally smaller tributaries) are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary.” Table 4. Basin Plan Beneficial Uses of this Fact Sheet summarizes the applicable beneficial uses for the receiving water body. This Table indicates that there is no “COLD” or “MIGR” beneficial use. The receiving water body has a potential “SPWN” beneficial use. These aforementioned beneficial use designations for the receiving water body will be applied to the foregoing derivation of ammonia nitrogen effluent limitations.

i. **Criteria Maximum Concentration (CMC)**

The Facility discharges into a receiving waterbody that has no “COLD” and/or “MIGR” beneficial use designation. It is assumed that salmonids may be present in

waters designated in the Basin Plan as “COLD” or “MIGR” and that salmonids are absent in water not designated in the Basin Plan as “COLD” or “MIGR,” in the absence of additional information to the contrary. Since the receiving water has no “COLD and/or “MIGR” designation, it will be assumed that salmonids are not present in the water.

The one-hour average objective according to the Basin Plan amendment will be set as the CMC or equivalent to the Maximum Daily Effluent Limitation (MDEL) for ammonia nitrogen in mg/L. For waters not designated COLD and/or MIGR, the CMC or MDEL shall not exceed the values described in the equation below:

$$\text{One-hour Average Concentration} = \frac{0.411}{1 + 10^{7.204 - pH}} + \frac{58.4}{1 + 10^{pH - 7.204}}$$

The one-hour average objective is pH dependent but not temperature dependent. According to the monitoring data submitted by the Discharger, the maximum pH is 7.43. The maximum pH is selected in order to provide the most stringent calculated effluent limitation and to protect the most sensitive species. Using the pH value of 7.43 in the formula below, the resulting MDEL is equal to 22.02 mg/L.

ii. Criteria Continuous Concentration (CCC)

The 30-day average objective according to the Basin Plan amendment Resolution No. 2002-011 will be set as the CCC or equivalent to the Average Monthly Effluent Limitation (AMEL) for ammonia nitrogen in mg/L. The Facility discharges into a receiving water that has a “SPWN” beneficial use designation. For freshwaters designated SPWN, the thirty-day average concentration of total ammonia as nitrogen (in mg/L) shall not exceed the values described in the equation below:

$$\text{30-day Average Concentration} = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * \text{MIN} \left(2.85, 1.45 * 10^{0.028 * (25 - T)} \right)$$

Where T = temperature expressed in °C.

The 30-day average objective¹ is dependent on pH and temperature. At lower

¹ This is the current Basin Plan definition of the 30-day average objective, according to the Ammonia Basin Plan Amendment, Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with Beneficial Use designations for protection of “Aquatic Life,”* adopted by the Los Angeles Regional Board on April 25, 2002. It will be superceded by Resolution No. 2005-014, adopted by the Regional Board on December 1, 2005, following State Board, Office of Administrative Law, and USEPA approval of the Ammonia Basin Plan Amendment. This new Resolution will implement ELS Provision as described under “implementation”, subparagraph 3. Currently, the Discharger’s receiving waterbody is designated as ELS already. Whether the new Resolution No. 2005-014 would be approve or disapprove by EPA, the calculated effluent limitation based upon Resolution No. 2002-011 definition of the 30-day average objective will remain the same until the receiving water is reclassified as being “ELS Absent” condition.

temperatures, the 30-day average objective also is dependent on the presence or absence of early life stages of fish (ELS). Water bodies with Basin Plan designation of "SPWN" support high quality aquatic habitats suitable for reproduction and early development of fish and, therefore waterbodies are designated as ELS present waters.

According to the monitoring data submitted by the Discharger, the maximum pH is 7.43 and temperature is 20°C. The maximum pH and temperature are selected in order to provide the most stringent calculated effluent limitation and to protect the most sensitive species. Using the Discharger's monitoring data in the formula above, the resulting AMEL is equal to 3.15 mg/L.

j. Coliform/Bacteria

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:

i. Effluent Limitations:

- The 7 day median number of coliform organisms at some point in the treatment process must not exceed 2.2 Most Probable Number (MPN) per 100 milliliters, and
- The number of coliform organisms must not exceed 23 MPN per 100 milliliters in more than one sample within any 30-day period.

These disinfection-based effluent limitations for coliform are for human health protection and are consistent with requirements established by the Department of Health Services. These limits for coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

ii. Receiving Water Limitation

- Geometric Mean Limits
 - * E.coli density shall not exceed 126/100 mL.
 - * Fecal coliform density shall not exceed 200/100 mL.
- Single Sample Limits
 - * E.coli density shall not exceed 235/100 mL.
 - * Fecal coliform density shall not exceed 400/100 mL.

These receiving water limitations are based on Resolution No. 01-018, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Water Bodies Designated for Water Contact Recreation, adopted by the Regional Board on October 25, 2001. The Resolution was approved by State Board, OAL, and USEPA, on July 18, 2002, September 19, 2002, and September 25, 2002, respectively.

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 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.

m. Temperature

The temperature requirement of 86°F is based on a white paper that was prepared by a Regional Board scientist and comments previously received from staff of California Department of Fish and Game. The temperature limit is consistent with the limits in other POTW permits in the region.

m. 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 effluent limitation for turbidity which reads, “For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 2 Nephelometric turbidity units (NTUs); and (b) 5 NTUs more than 5 percent of the time (72 minutes) during any 24 hour period,” is based on the Basin Plan (page 3-17).

n. 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 existing 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 incorporation of Title 22, *Drinking Water Standards*, by reference, to protect the surface water beneficial use and human health.

Priority pollutant water quality criteria in the CTR are applicable to Marie Canyon Creek/Puerco Beach. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply in accordance with 40 CFR § 131.38(c)(3): freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this condition occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for freshwater or human health for consumption of organisms, whichever is most stringent, are used to prescribe the effluent limitations in the tentative Order to protect the beneficial uses of Puerco Beach.

Some water quality criteria are hardness dependent. The Discharger provided hardness data for Marie Canyon Creek and the effluent. The receiving water hardness values ranged from 690 to 1595 mg/L. Discharges from the facility are restricted to emergency conditions only. If discharges do occur, they would be during storm events or high flows at Marie Canyon or to unnamed canyon west of Marie Canyon. Since all of the receiving water hardness data are greater than 400 mg/L as CaCO₃, in accordance with the SIP/CTR procedures, the 400 mg/L hardness cap will be used in calculating metals criteria for evaluation of reasonable potential.

The following Table summarizes the applicable water quality criteria for priority pollutants reported in detectable concentrations in the effluent or receiving water. These criteria were used in conducting the Reasonable Potential Analysis for the tentative Order.

Table 6 – Applicable Water Quality Criteria

CTR No.	Constituent	Most Stringent Criteria μg/L	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
			μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
6	Copper	30.50	51.68	30.50	N/A		--	
9	Nickel	82.13	738.67	82.13	N/A		4,600	
68	Bis(2-Ethylhexyl) Phthalate	5.9	--	--	N/A		5.9	

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that demonstrate reasonable potential, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives

specified in the Basin Plan. To conduct the RPA, the Regional Water Board identified the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.

Trigger 2 – If background water quality (B) > C and the pollutant is detected in the effluent, a limitation is needed.

Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, then best professional judgment is used to determine that a limit is needed.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

In accordance with section 13267 of the CWC, the Regional Water Board required the Discharger to conduct an interim monitoring program of the effluent and the receiving water from January 2001 to April 2003 on a quarterly basis. At least nine data sets for effluent and receiving water monitoring for the period from January 2001 through April 2003 were available. In addition, samples for certain priority pollutants were collected as required by the existing MRP; these data were also used to complete the RPA.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Based on the RPA, pollutants that demonstrate reasonable potential are copper, nickel, and bis(2-ethylhexyl)phthalate. Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

Table 7 – Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L	RPA Result - Need Limitation?	Reason
1	Antimony	4300	ND<6	ND<10	No	C>B, C>MEC
2	Arsenic	150	1.7	5.41	No	C>B, C>MEC
3	Beryllium	Narrative	ND<1	ND<1	No	C>B, C>MEC
4	Cadmium	3.75	0.1	1.39	No	C>B, C>MEC
5a	Chromium III	321	ND<10	--	No	C>MEC
5b	Chromium VI	11.4	ND<5	12.6	No	C>MEC, B>C
6	Copper	30.5	36.3	124.0	Yes	B>C, MEC>C
7	Lead	6.3	3.65	ND<5	No	C>B, C>MEC
8	Mercury	0.051	<0.5	ND<1	No	C>B, C>MEC
9	Nickel	82.13	11.8	93.0	Yes	B>C, C>MEC
10	Selenium	5	<5	6.29	No ²	C>MEC, B>C
11	Silver	10.21	ND<10	ND<10	No	C>B, C>MEC
12	Thallium	6.3	ND<10	ND<10	No	C>B, C>MEC
13	Zinc	188.77	74.2	51.2	No	C>B, C>MEC
14	Cyanide	5.2	ND<10	--	No	C>B
15	Asbestos	7x10 ⁶ fibers/L	No sample	No sample	No	N/A
16	2,3,7,8-TCDD (Dioxin)	1.4x10 ⁻⁰⁸	7.7x10 ⁻⁰⁹	4.9x10 ⁻⁰⁹	No	C>B, C>MEC
17	Acrolein	780	<2.5	<0.5	No	C>B, C>MEC
18	Acrylonitrile	0.66	<1	<0.5	No	C>B, C>MEC
19	Benzene	71	<0.5	<0.5	No	C>B, C>MEC
20	Bromoform	360	9.1	<1	No	C>B, C>MEC
21	Carbon Tetrachloride	4.4	<0.5	<0.5	No	C>B, C>MEC
22	Chlorobenzene	21,000	<0.5	<0.5	No	C>B, C>MEC
23	Dibromochloromethane	34	15.2	<0.5	No	C>B, C>MEC
24	Chloroethane	No criteria	<1	<1	No	No criteria
25	2-chloroethyl vinyl ether	No criteria	<2.5	<0.5	No	No criteria
26	Chloroform	No criteria	2.3	1	No	No criteria
27	Dichlorobromomethane	46	6.1	<0.5	No	C>B, C>MEC
28	1,1-dichloroethane	No criteria	<0.5	<0.5	No	No criteria
29	1,2-dichloroethane	99	<0.5	<0.5	No	C>B, C>MEC
30	1,1-dichloroethylene	3.2	<0.5	<0.5	No	C>B, C>MEC
31	1,2-dichloropropane	39	<0.5	<0.5	No	C>B, C>MEC
32	1,3-dichloropropylene	1,700	<0.5	<0.5	No	C>B, C>MEC
33	Ethylbenzene	29,000	<1	<0.5	No	C>B, C>MEC
34	Methyl bromide	4,000	<1	<1	No	C>B, C>MEC
35	Methyl chloride	No criteria	<1	<1	No	No criteria
36	Methylene chloride	1,600	<1	3.92	No	C>B, C>MEC

² Step 6 of SIP, page 4, states that if B is greater than C and the pollutant was not detected in any of the effluent samples, effluent limitation is not required.

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L	RPA Result - Need Limitation?	Reason
37	1,1,2,2-tetrachloroethane	11	<0.5	0.5	No	C>B, C>MEC
38	Tetrachloroethylene	8.85	<0.5	<0.5	No	C>B, C>MEC
39	Toluene	200,000	<0.5	<0.5	No	C>B, C>MEC
40	Trans 1,2-Dichloroethylene	140,000	<0.5	<0.5	No	C>B, C>MEC
41	1,1,1-Trichloroethane	200	<0.5	<0.5	No	C>B, C>MEC
42	1,1,2-Trichloroethane	42	<0.5	<0.5	No	C>B, C>MEC
43	Trichloroethylene	81	<1	<0.5	No	C>B, C>MEC
44	Vinyl Chloride	525	<1	<1	No	C>B, C>MEC
45	2-chlorophenol	400	<3	<3	No	C>B, C>MEC
46	2,4-dichlorophenol	790	<3	<3	No	C>B, C>MEC
47	2,4-dimethylphenol	2,300	<3	<3	No	C>B, C>MEC
48	4,6-dinitro-o-resol(aka 2-methyl-4,6-Dinitrophenol)	765	<3	<3	No	C>B, C>MEC
49	2,4-dinitrophenol	14,000	<3	<3	No	C>B, C>MEC
50	2-nitrophenol	No criteria	<3	<3	No	No criteria
51	4-nitrophenol	No criteria	<3	<3	No	No criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No criteria	<3	<3	No	No criteria
53	Pentachlorophenol	8.2	<3	<3	No	C>B, C>MEC
54	Phenol	4,600,000	<3	<3	No	C>B, C>MEC
55	2,4,6-trichlorophenol	6.5	<3	<3	No	C>B, C>MEC
56	Acenaphthene	2,700	<3	<3	No	C>B, C>MEC
57	Acenaphthylene	No criteria	<3	<3	No	No criteria
58	Anthracene	110,000	<3	<3	No	C>B, C>MEC
59	Benzidine	0.00054	<3	<3	No	C>B, C>MEC
60	Benzo(a)Anthracene	0.049	<3	<3	No	C>B, C>MEC
61	Benzo(a)Pyrene	0.049	<3	<3	No	C>B, C>MEC
62	Benzo(b)Fluoranthene	0.049	<3	<3	No	C>B, C>MEC
63	Benzo(ghi)Perylene	No criteria	<3	<3	No	No criteria
64	Benzo(k)Fluoranthene	0.049	<3	<3	No	C>B, C>MEC
65	Bis(2-Chloroethoxy) methane	No criteria	<3	<3	No	No criteria
66	Bis(2-Chloroethyl)Ether	1.4	<3	<3	No	C>B, C>MEC
67	Bis(2-Chloroisopropyl) Ether	170,000	<3	<3	No	C>B, C>MEC
68	Bis(2-Ethylhexyl)Phthalate	5.9	21.8	18.1	Yes	B>C, MEC>C
69	4-Bromophenyl Phenyl Ether	No criteria	<3	<3	No	No criteria

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L	RPA Result - Need Limitation?	Reason
70	Butylbenzyl Phthalate	5,200	<3	<3	No	C>B, C>MEC
71	2-Chloronaphthalene	4,300	<3	<3	No	C>B, C>MEC
72	4-Chlorophenyl Phenyl Ether	No criteria	<3	<3	No	No criteria
73	Chrysene	0.049	<3	<3	No	C>B, C>MEC
74	Dibenzo(a,h) Anthracene	0.049	<3	<3	No	C>B, C>MEC
75	1,2-Dichlorobenzene	17,000	<3	<3	No	C>B, C>MEC
76	1,3-Dichlorobenzene	2,600	<3	<3	No	C>B, C>MEC
77	1,4-Dichlorobenzene	2,600	<3	<3	No	C>B, C>MEC
78	3-3'-Dichlorobenzidine	0.077	<3	<3	No	C>B, C>MEC
79	Diethyl Phthalate	120,000	<3	<3	No	C>B, C>MEC
80	Dimethyl Phthalate	2,900,000	<3	<3	No	C>B, C>MEC
81	Di-n-Butyl Phthalate	12,000	<3	<3	No	C>B, C>MEC
82	2-4-Dinitrotoluene	9.1	<3	<3	No	C>B, C>MEC
83	2-6-Dinitrotoluene	No criteria	<3	<3	No	No criteria
84	Di-n-Octyl Phthalate	No criteria	<3	<3	No	No criteria
85	1,2-Diphenylhydrazine	0.54	<3	<3	No	C>B, C>MEC
86	Fluoranthene	370	<3	<3	No	C>B, C>MEC
87	Fluorene	14,000	<3	<3	No	C>B, C>MEC
88	Hexachlorobenzene	50	<3	<3	No	C>B, C>MEC
89	Hexachlorobutadiene	50	<3	<3	No	C>B, C>MEC
90	Hexachlorocyclopentadiene	17,000	<3	<3	No	C>B, C>MEC
91	Hexachloroethane	8.9	<3	<3	No	C>B, C>MEC
92	Indeno(1,2,3-cd)Pyrene	0.049	<1	<3	No	C>B, C>MEC
93	Isophorone	600	<3	<3	No	C>B, C>MEC
94	Naphthalene	No criteria	<3	<3	No	No criteria
95	Nitrobenzene	1,900	<3	<3	No	C>B, C>MEC
96	N-Nitrosodimethylamine	8.1	<3	<3	No	C>B, C>MEC
97	N-Nitrosodi-n-Propylamine	1.4	<3	<3	No	C>B, C>MEC
98	N-Nitrosodiphenylamine	16	<3	<3	No	C>B, C>MEC
99	Phenanthrene	No criteria	<3	<3	No	No criteria
100	Pyrene	11,000	<3	<3	No	C>B, C>MEC
101	1,2,4-Trichlorobenzene	No criteria	<3	<3	No	No criteria
102	Aldrin	0.00014	<0.05	<50	No	C>B, C>MEC
103	Alpha-BHC	0.013	<0.05	<50	No	C>B, C>MEC
104	Beta-BHC	0.046	<0.05	<50	No	C>B, C>MEC
105	Gamma-BHC (aka Lindane)	0.063	<0.05	<50	No	C>B, C>MEC
106	delta-BHC	No criteria	<0.05	<50	No	No criteria

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L	RPA Result - Need Limitation?	Reason
107	Chlordane	0.00059	<0.05	<50	No	C>B, C>MEC
108	4,4'-DDT	0.00059	<0.1	<50	No	C>B, C>MEC
109	4,4'-DDE	0.00059	<0.1	<50	No	C>B, C>MEC
110	4,4'-DDD	0.00084	<0.1	<50	No	C>B, C>MEC
111	Dieldrin	0.00014	<0.1	<50	No	C>B, C>MEC
112	Alpha-Endosulfan	0.056	<0.1	<50	No	C>B, C>MEC
113	Beta-Endosulfan	0.056	<0.1	<50	No	C>B, C>MEC
114	Endosulfan Sulfate	240	<0.1	<50	No	C>B, C>MEC
115	Endrin	0.036	<0.1	<50	No	C>B, C>MEC
116	Endrin Aldehyde	0.81	<0.1	<50	No	C>B, C>MEC
117	Heptachlor	0.00021	<0.05	<50	No	C>B, C>MEC
118	Heptachlor Epoxide	0.00011	<0.05	<50	No	C>B, C>MEC
119	PCB 1016	0.00017	<0.5	<50	No	C>B, C>MEC
120	PCB 1221	0.00017	<0.5	<50	No	C>B, C>MEC
121	PCB 1232	0.00017	<0.5	<50	No	C>B, C>MEC
122	PCB 1242	0.00017	<0.05	<50	No	C>B, C>MEC
123	PCB 1248	0.00017	<0.05	<50	No	C>B, C>MEC
124	PCB 1254	0.00017	<0.05	<50	No	C>B, C>MEC
125	PCB 1260	0.00017	<0.05	<50	No	C>B, C>MEC
126	Toxaphene	0.00075	<0.05	<50	No	C>B, C>MEC

4. WQBEL Calculations

- a. Water quality-based effluent limits (final) are based on monitoring results and following the calculation process outlined in Section 1.4 of the California Toxics Rule and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California. A table providing the calculation for all applicable WQBELs for this Order is provided in Attachment J of this Order.

b. WQBELs Calculation Example

Using copper as an example, the following demonstrates how WQBELs based on human health criterion were established for this Order. The process for developing these limits is in accordance with Section 1.4 of the SIP. Attachment I summarizes the development and calculation of all WQBELs for this Order using the process described below.

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criteria determine the effluent concentration allowance (ECA) using the following steady state equation:

$$ECA = C + D(C-B) \quad \text{when } C > B, \text{ and}$$

$$ECA = C \quad \text{when } C \leq B,$$

where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a hardness value of 400 mg/L (as CaCO₃) was used for development of hardness-dependent criteria.

D = The dilution credit, and

B = The ambient background concentration

For this Order, dilution was not allowed due to nature of the receiving water and quantity of the effluent, therefore:

$$ECA = C$$

For copper, the applicable water quality criteria are:

$$ECA_{\text{acute}} = 51.68 \mu\text{g/L}$$

$$ECA_{\text{chronic}} = 30.5 \mu\text{g/L}$$

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{\text{acute}} = ECA_{\text{acute}} \times \text{Multiplier}_{\text{acute}}$$

$$LTA_{\text{chronic}} = ECA_{\text{chronic}} \times \text{Multiplier}_{\text{chronic}}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported non-detect, the CV shall be set equal to 0.6.

For copper, the following data was used to develop the acute and chronic LTA using Table 1 of the SIP:

<u>No. of Samples</u>	<u>CV</u>	<u>Multiplier_{acute}</u>	<u>Multiplier_{chronic}</u>
14	0.73	0.2707	0.4676

$$LTA_{\text{acute}} = 51.68 \mu\text{g/L} \times 0.2707 = 13.99 \mu\text{g/L}$$

$$LTA_{\text{chronic}} = 30.5 \mu\text{g/L} \times 0.4676 = 14.26 \mu\text{g/L}$$

Step 3: Select the most limiting (lowest) of the LTA.

$$LTA = \text{most limiting of } LTA_{\text{acute}} \text{ or } LTA_{\text{chronic}}$$

For copper, the most limiting LTA was the LTA_{acute}

$$LTA = 13.99 \mu\text{g/L}$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitation (MDEL). The multiplier is statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is monthly or daily limit. Table 2 of the SIP provides the pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{\text{aquatic life}} = LTA \times AMEL_{\text{multiplier}}$$

$$MDEL_{\text{aquatic life}} = LTA \times MDEL_{\text{multiplier}}$$

AMEL multipliers are based on 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For copper, the following data was used to develop the AMEL and MDEL for aquatic life using Table 2 of the SIP.

<u>No. of Samples</u>	<u>CV</u>	<u>Multiplier_{MDEL}</u>	<u>Multiplier_{AMEL}</u>
14	0.73	3.6937	1.6807

$$AMEL_{\text{aquatic life}} = 13.99 \times 1.6807 = 23.51 \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = 13.99 \times 3.6937 = 51.67 \mu\text{g/L}$$

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{\text{human health}}$

$$AMEL_{\text{human health}} = ECA_{\text{human health}}$$

For copper:

$$AMEL_{\text{human health}} = \text{NONE}$$

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the Multiplier_{MDEL} to Multiplier_{AMEL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

A copper MDEL_{human health} could not be calculated because a copper AMEL_{human health} was not available. However, for illustrative purposes, if a AMEL_{human health} was available, the following data and equation would have been used to develop the MDEL_{human health}:

No. of Samples Per Month	CV	Multiplier _{MDEL}	Multiplier _{AMEL}	Ratio
14	0.73	3.6937	1.6807	2.1977

$$\text{MDEL}_{\text{human health}} = \text{AMEL}_{\text{human health}} \times \text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}}$$

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health water quality based effluent limit for this Order.

For copper:

<u>AMEL</u> _{aquatic life} 23.51 µg/L	<u>MDEL</u> _{aquatic life} 51.67 µg/L	<u>AMEL</u> _{human health} Not available	<u>MDEL</u> _{human health} Not available
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The lowest (most restrictive) effluent limits, those based on aquatic life criteria, were incorporated into this Order. Due to rounding of digits in the abovementioned calculation, the final limit for copper in this exercise is slightly different than the limit derived using the SIP spreadsheet, in which the numbers are not rounded off.

A. Final WQBELs

Summaries of the WQBELs required by this Order are described in Table 8 below. Mass-based effluent limitations are based on a design capacity of 0.20 MGD.

**Summary of Water Quality-based Effluent Limitations
 Discharge Point No. 001 & 002**

Table 8. Summary of Water Quality-based Effluent Limitations

Constituent	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper	µg/L	23.53	51.68
	lbs/day	0.039	0.086
Nickel	µg/L	64.57	141.83
	lbs/day	0.10770	0.23657
Bis(2-Ethylhexyl)Phthalate	µg/L	5.90	16.30
	lbs/day	0.00984	0.027188
Ammonia	mg/L	3.15	22.02
	lbs/day	5.25	36.73

B. WQBELs based on Basin Plan Objectives

The Basin Plan states that the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge. Based on the requirements of the Basin Plan an instantaneous minimum limitation of 6.5 and an instantaneous maximum limitation of 8.5 for pH are included in the tentative permit.

The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*, a maximum effluent temperature limitation of 86 °F is included in the tentative Order. The white paper evaluated the optimum temperatures for steelhead, topmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100°F temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective.

Ammonia-N, other Nitrogen Species – Reasonable potential analysis (RPA) was conducted for Ammonia, Nitrate plus Nitrite as Nitrogen, and Nitrite Nitrogen using the Discharger’s effluent data from their self monitoring reports. The RPA compares the effluent data with the Basin Plan WQOs. The Discharger’s effluent exceeded the Basin Plan WQOs for Ammonia, Nitrate plus Nitrite as Nitrogen, and Nitrite Nitrogen, during the last permit cycle. Based on this information, 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 Ammonia, Nitrate plus Nitrite as Nitrogen, and Nitrite Nitrogen.

The discharge of waste from the facility drains into Miscellaneous Los Angeles County Coastal Streams. The Basin Plan indicates that effluent limitations for total dissolved solids (TDS), sulfate, chloride, and boron are not applicable to this receiving water. Although there is no specific objective for these minerals, Table 3-8 of the Basin Plan also provides recommended objectives for mineral or nutrient. The receiving water has beneficial use for aquatic life (freshwater) as WARM. In order to protect the most sensitive beneficial use of the receiving water, chloride effluent limitation of 230 mg/L will be included in this Order. TDS, sulfate, and boron effluent limitation will not be included in this Order.

The Basin Plan states that any discharge to a waterbody with a REC-1 designated use shall not have an Escherichia coli (E. coli) concentration in excess of a log mean of Most Probable Number (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters. Effluent limitations for E.coli are incorporated in this Order.

The effluent limitation for total residual chlorine is discontinued since the Discharge implements a UV disinfection system and chlorine is not used in the treatment system. Therefore, total residual chlorine is not expected to be present in the discharge from the Facility.

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative “no toxics in toxic amounts” criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Therefore, in accordance with the SIP, this Order requires the Discharger to conduct chronic toxicity testing for discharges to Marie Canyon Creek and an unnamed canyon west of Marie Canyon. Also, this Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity identification evaluation (TIE) studies.

D. Final Effluent Limitations

Table 9, below, summarizes the proposed effluent limitations for the discharge point 001 and 002. Proposed effluent limitations are based on secondary treatment standards, CTR, and Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

Mass-based effluent limitations are established using the following formula:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

where: Mass = mass limitation for a pollutant (lbs/day)
 Effluent limitation = concentration limit for a pollutant (mg/L)
 Flow rate = discharge flow rate (MGD)

**Summary of Final Effluent Limitations
 Discharge Point 001 and 002**

Table 9 - Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
BOD ₅ 20°C	Mg/L	20	30	45			Existing
	lbs/day	33	50	75			
Total Suspended Solids (TSS)	Mg/L	15	40	45			Existing
	lbs/day	25	67	75			
pH	pH units				6.5	8.5	Existing
Removal Efficiency for BOD and TSS	%	85	--	--	--	--	Existing
Oil and Grease	mg/L	10	--	15			Existing
	lbs/day	17	--	25			
Settleable Solids	ml/L	0.1	--	0.3			Existing
Detergents [(as Methylene Blue Activated Substances (MBAS)]	mg/L	0.5	--	--			Existing
	lbs/day	0.8	--	--			
Ammonia Nitrogen	mg/L	3.15		22.02			Basin Plan
	lbs/day	5.25		36.73			
Nitrate + Nitrite as Nitrogen	mg/L	10		--			Basin Plan
	lbs/day	16.68		--			
Nitrite-N (as N)	mg/L	1		--			Basin Plan
	lbs/day	1.67		--			
Chloride	mg/L	230		--			Basin Plan
	lbs/day	383.64		--			
Copper	µg/L	23.53		51.68			CTR, SIP
	lbs/day	0.039		0.086			

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Nickel	µg/L	64.57		141.83			CTR, SIP
	lbs/day	0.10770		0.23657			
Bis(2-Ethylhexyl)Phthalate	µg/L	5.90		16.30			CTR, SIP
	lbs/day	0.00984		0.027188			

- a. There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentration which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Water Board.
- b. Wastewater discharged to the Marie Canyon and an unnamed canyon west of Marie Canyon shall not have an Escherichia coli (E. coli) concentration in excess of a log mean of Most Probable (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five sample for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters.

E. Interim Effluent Limitations

Interim limits have been set as follows:

1. The governing WQC for bis(2-ethylhexyl) phthalate is 5.90 µg/L, the human health criteria for consumption of organisms only contained in the CTR. Bis(2-ethylhexyl) phthalate has reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 5.90 µg/L AMEL and 16.30 µg/L MDEL. Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC and calculated AMEL values shows that the Discharger may be unable to consistently comply with the AMEL established in this Order for bis(2-ethylhexyl) phthalate. As a result, the tentative Order contains interim limitations for bis(2-ethylhexyl) phthalate.

There are insufficient data to statistically evaluate performance of the facility. The Regional Water Board set the interim limitation equal to the MEC value of 21.80 µg/L for bis(2-ethylhexyl) phthalate. This interim limit is based on the best professional judgment of the Regional Water Board staff.

Section 131.38(e) of 40 CFR provides conditions under which interim effluent limitations and compliance schedules may be issued. The SIP allows inclusion of an interim limitation with a specific compliance schedule included in an NPDES permit for priority pollutants if the limitation for the priority pollutant is CTR-based. Because the CTR-based effluent limitations for bis(2-ethylhexyl) phthalate appear infeasible for the Discharger to achieve at this time, interim limitations are contained in the tentative Order.

The SIP requires that the Regional Water Board establish other interim requirements such as requiring the discharger to develop a pollutant minimization plan and/or source control measures and participate in the activities necessary to achieve the final effluent limitations. These interim limitations shall be effective until May 17, 2010, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

2. The governing WQC for nickel is 82.13 µg/L, the freshwater aquatic life criteria contained in the CTR. Nickel has reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 64.57 µg/L AMEL and 141.83 µg/L MDEL. As indicated in the SIP calculation in the attached spreadsheet, it was the concentration of the background receiving water that triggered the reasonable potential. The MEC of nickel is 11.80 µg/L, which is much less than both the final AMEL and MDEL. Therefore, interim limits for nickel are not required for the facility.
3. Malibu Mesa WWRf may not be able to achieve immediate compliance with the new non-CTR-based limits for ammonia nitrogen prescribed in this Order. Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC (27.1 mg/L) and calculated AMEL (3.15 mg/L) and MDEL (22.02 mg/L) values shows that the Discharger may not be able to consistently comply with the AMEL and MDEL established in this Order for ammonia nitrogen. For non-CTR-based limits based on Basin Plans WQO, for which the Discharger will not be able to meet immediately, interim limits and compliance dates are provided in the accompanying Time Schedule Order R4-2007-0003.

4. Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC (31.24 mg/L) and the Basin Plan WQO for nitrate + nitrite as nitrogen (10 mg/L), shows that the Discharger may be unable to consistently comply with the Basin Plan WQO established in this Order for nitrate + nitrite as nitrogen. For non-CTR-based limits based on Basin Plans WQO, for which the Discharger will not be able to meet immediately, interim limits and compliance dates are provided in the accompanying Time Schedule Order R4-2007-0003.

Table 10 – Summary of Interim Effluent Limitations

Parameter	Unit	Date Effluent Limit Becomes Effective	Maximum Daily Effluent Limit	Average Monthly Effluent Limit
Bis(2-Ethylhexyl) Phthalate (Interim)	µg/L	January 11, 2007	--	21.8 ¹
	lbs/day ²	January 11, 2007	--	0.0364
Bis(2-Ethylhexyl) Phthalate (Final)	µg/L	May 18, 2010	16.30	5.90
	lbs/day ²	May 18, 2010	0.0272	0.0098

F. Land Discharge Specifications (NOT APPLICABLE)

G. Reclamation Specifications (NOT APPLICABLE)

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR § 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in the tentative Order are included to ensure protection of beneficial uses of the receiving water.

B. Groundwater (NOT APPLICABLE)

¹ Interim effluent limits are usually derived statistically at 95% confidence level for monthly averages, using the P-limit software, which is based on Appendix E of the TSD. However, there were insufficient data from January 2001 to December 2005, to statistically calculate an interim limit. Therefore, the monthly average interim limit was set at the maximum effluent concentration detected.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program for this facility.

A. Influent Monitoring

This Order carries forward the treatment plant influent monitoring requirements without change.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed Monitoring and Reporting Program (Attachment E). This provision requires compliance with the Monitoring and Reporting Program, and is based on 40 CFR 122.44(i), 122.62, 122.63, and 124.5. The Monitoring and Reporting Program is a standard requirement in almost all NPDES permits (including the proposed Order) issued by the Regional Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board policies. The Monitoring and Reporting Program also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, a periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

Monitoring for those pollutants expected to be present in the discharge from the facility, will be required as shown on the proposed Monitoring and Reporting Program (Attachment E) and as required in the SIP.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

This requirement establishes conditions and protocol by which compliance with the Basin Plan narrative water quality objective for toxicity will be demonstrated and in accordance with Section 4.0 of the SIP. Conditions include required monitoring and evaluation of the effluent for

acute and chronic toxicity and numerical values for chronic toxicity evaluation to be used as 'triggers' for initiating accelerated monitoring and toxicity reduction evaluation(s).

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Basin Plan. Requirements are unchanged from the previous Order.

2. Groundwater – (NOT APPLICABLE)

E. Other Monitoring Requirements

1. Biosolids/Sludge Monitoring

This section establishes monitoring and reporting requirements for the storage, handling and disposal practices of sludge generated from the operation of this Facility.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR Sections 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

Title 40 CFR Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR Section 123.25(a)(12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with Section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR Sections 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR Part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

- a. **Toxicity Identification Evaluation or Toxicity Reduction Evaluations.** This provision is based on the SIP, Section 4, Toxicity Control Provisions.
- b. **Translator Study.** This provision is based on the SIP. This provision allows the Discharger to conduct an optional translator study, based on the SIP at the Discharger's discretion. This provision is based on the need to gather site-specific information in order to apply a different translator from the default translator specified in the CTR and SIP. Without site-specific data, the default translators are used with the CTR criteria.
- c. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** This provision is based on the State Water Resources Control Board Resolution No. 68-16, which requires the Regional Water Board in regulation the discharge of waste to maintain high quality waters of the State, the Discharger must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Discharger to clarify it has increase plant capacity through the addition of new treatment system(s) to obtain alternative effluent limitations for the discharge from the treatment system(s). This provision requires the Discharger to report specific time schedules for the plants projects. This provision requires the Discharger to submit report to the Regional Water Board for approval.
- d. **Operations Plan for Proposed Expansion.** This provision is based on Section 13385(j)(1)(D) of the CWC and allows a time period not to exceed 90 days in which the Discharger may adjust and test the treatment system(s). This provision requires the Discharger to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting and testing to prevent violations.

3. Best Management Practices and Pollution Prevention

- a. **Pollutant Minimization Program.** This provision is based on the requirements of Section 2.4.5 of the SIP.

4. Construction, Operation, and Maintenance Specifications

- a. This provision is based on the requirements of 40 CFR 122.41(e) and the previous Order.

5. Special Provisions for Municipal Facilities (POTWs Only)

- a. **Sludge Disposal Requirements.** Requirements are based on previous Order and 40 CFR Part 403.

6. Other Special Provisions

7. Compliance Schedules

- a. This Order establishes final effluent limitations for copper, nickel, and bis(2-ethylhexyl) phthalate. Interim limit for copper and nickel is not necessary because the monitoring data indicate that discharger can consistently comply with the final effluent limitation. This Order contains interim effluent limitations and a compliance schedule for bis(2-ethylhexyl) phthalate that provides the Discharger time to bring their facility into compliance with the final effluent limit.

The provision for compliance schedule is based on Section 2.1 (Compliance Schedules) of the SIP. The proposed permit allows the Discharger until May 17, 2010, to be in compliance with the final effluent limitations for bis(2-ethylhexyl) phthalate. Based on Regional Water Board's best professional judgment, this schedule is sufficient for the Discharger to achieve the final effluent limitations for the pollutants. The Discharger is required to develop and submit a Compliance Plan. The Discharger is also required to develop and implement a pollution minimization plan to ensure the Discharger achieves compliance with the final limitations within a time specified in Section IV.A.2. of this Order. Annual status report is required to inform the Regional Water Board about the progress made by the Discharger to achieve compliance with the final effluent limitations within specified time. During the interim period the Discharger is required to meet the interim limitations.

- b. This Order established final effluent limitations for ammonia nitrogen and nitrate + nitrite as nitrogen that are new limits for the Facility. For the aforementioned non-CTR-based pollutants, the interim limits and compliance dates are provided in the accompanying Time Schedule Order No. R4-2007-0003.

VIII. PUBLIC PARTICIPATION

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

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following newspapers: Los Angeles Times and/or Malibu local newspaper.

B. 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

the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on October 10, 2006.

C. Public Hearing

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

Date: January 11, 2007
Time: 9:00 a.m.
Location: Metropolitan Water District of Southern California Board Room
700 North Alameda Street
Los Angeles, California

Interested persons are invited to attend. At the public hearing, the Regional Water 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 <http://www.waterboards.ca.gov/losangeles/> where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

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

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

F. 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 Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Raul Medina at (213) 620-2160.