CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

REGION 4, LOS ANGELES REGION

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ORDER NO. R4-2012-0181
NPDES NO. CA0059099

WASTE DISCHARGE REQUIREMENTS FOR THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS MALIBU MESA WATER RECLAMATION PLANT

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 Water Reclamation Plant and its associated wastewater collection system and outfalls (POTW)**
Facility Address	**3863 Malibu Country Drive**
	Malibu, CA 90265
	Los Angeles County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a **minor** discharge.	

The discharge by the Los Angeles County 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 effluent	34º, 02', 02" N	118º, 42', 30" W	Marie Canyon Creek
002	Tertiary treated effluent	34º, 02', 01" N	118º, 42', 40" W	Unnamed canyon west of Marie Canyon Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**December 6, 2012**
This Order shall become effective on:	**January 25, 2013**
This Order shall expire on:	**November 10, 2017**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	**180 days prior to the Order expiration date**

I, Samuel Unger, 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 December 6, 2012.

Samuel Unger

Samuel Unger, P.E., Executive Officer

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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 Water Reclamation Plant and its associated wastewater collection system and outfalls (POTW)
Facility Address	3863 Malibu Country Drive
	Malibu, CA 90265
	Los Angeles County
Facility Contact, Title, and Phone	Jeffrey Bouse, Senior Civil Engineer, (626) 300-3373
Mailing Address	900 South Fremont Avenue, Alhambra, CA 91803
Type of Facility	Publicly-Owned Treatment Works
Facility Design Flow	0.20 million gallons per day

II. FINDINGS

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

A. Background. The Los Angeles County Department of Public Works (Discharger) is currently discharging pursuant to Order No. R4-2007-0002 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0059099. The Discharger submitted a Report of Waste Discharge, dated June 9, 2011, and applied for an NPDES permit renewal to discharge up to 0.20 million gallons per day (mgd) of treated wastewater from Malibu Mesa Water Reclamation Plant (Malibu Mesa WRP). The application was deemed complete on July 5, 2011.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility Description. The Discharger owns and operates a publicly-owned treatment works (POTW) comprised of Malibu Mesa WRP and its associated wastewater collection system and outfalls. The treatment system consists of headworks with comminutor, activated sludge and aeration, secondary clarification, coagulation, rapid mix, flocculation, sand filtration, and ultraviolet disinfection. Wastewater is discharged from Discharge Points 001and 002 (see Table 2 on the cover page) to Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek, respectively, both waters of the United States. 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) (commencing with section 13370). It shall serve as an 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, division 7 of the CWC (commencing with section 13260).

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, monitoring and reporting reports, and other available information. The Fact Sheet (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 I are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Under CWC section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

F. Technology-based Effluent Limitations (TBELs). Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of

Federal Regulations (CFR)[1], require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR part 133 and 40 CFR part 125.3. A detailed discussion of the TBELs development is included in the Fact Sheet (Attachment F).

G. Water Quality-Based Effluent Limitations (WQBELs). Section 301(b) of the CWA and 40 CFR part 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements for biochemical oxygen demand (BOD) and total suspended solids (TSS), expressed as technology equivalence requirements, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed in the Fact Sheet (Attachment F).

40 CFR part 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR part 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (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, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

Beneficial Uses of Surface Waters

The Facility discharges into Marie Canyon Creek. Marie Canyon Creek is one of the waterbodies that does not have specific beneficial uses identified in the Basin Plan. According to the Basin Plan, those waters not specifically listed (generally small tributaries) are designated with the same beneficial uses as the streams, lakes, or

[1] All further statutory references are to title 40 of the CFR unless otherwise indicated.

reservoirs to which they are tributary. This is commonly referred to as the "tributary rule." Given that Marie Canyon Creek discharges to the Pacific Ocean, the beneficial uses assigned to Marie Canyon Creek during the previous permit cycles were derived using the beneficial uses of the similar and adjacent watershed of Puerco Canyon Creek. These beneficial uses are as follows: MUN(I*), REC-1(I), REC-2(I), WARM(I), and WILD.

Under federal law, all waters are assumed to be "fishable" and "swimmable" unless a Use Attainability Analysis (UAA) has been done to justify the unattainability of these uses. This would apply REC-1(I), REC-2(I), WARM(I), and WILD.

Additionally, the Discharger conducted a reach-specific beneficial use study of Marie Canyon Creek to comply with the Regional Water Board's Times Schedule Order R4-2007-0003. The results of this study are contained in the report titled, *Final Report: Marie Canyon Beneficial Uses Survey*, dated October 2009. The study was conducted within the 1,400 linear feet of natural creek from Pacific Coast Highway to Malibu Road. Based on results of the study, the existing beneficial uses applicable to Marie Canyon Creek are: WARM, WILD, REC-1, and REC-2. Based on the results of the study, there is no evidence that Marie Canyon Creek provides the beneficial uses of MUN directly or indirectly through groundwater recharge (GWR); therefore, this use is not applicable.

The results of the beneficial uses study for Marie Canyon Creek are not currently identified in the Basin Plan. However, as noted above, in order to protect the existing beneficial uses, even if not identified in the Basin Plan, the Regional Water Board is required under section 301(b)(1)(C) of the Federal Clean Water Act (CWA) and its implementing regulations (40 CFR part 122.4(a); 40 CFR part 122.4(d); 40 CFR part 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. The federal antidegradation policy (40 CFR part 131.12(a)(1)) requires that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." As defined in 40 CFR part 131.3(e), "[e]xisting uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards" (emphasis added). Therefore, the beneficial uses applicable to Marie Canyon Creek (and an unnamed canyon west of Marie Canyon Creek) are as follows:

Table 5. Basin Plan Beneficial Uses – Surface Waters

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 and 002	Marie Canyon Creek and Unnamed canyon west of Marie Canyon Creek	Existing: Water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); and wildlife habitat (WILD)

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 and 002	Amarillo Beach	Existing: Navigation (NAV); (REC-1); (REC-2); commercial and sport fishing (COMM); marine habitat (MAR); (WILD); and shellfish harvesting (SHELL) Potential: Spawning, reproduction, and/or early development (SPWN)

Beneficial Uses of the Receiving Groundwaters

State Water Resources Control Board (SWRCB) Resolution No. 88-63, *Adoption of Policy Entitled "Sources of Drinking Water"* followed by Regional Water Board Resolution No. 89-03, *Incorporation of "Sources of Drinking Water" Policy into the Water Quality Control Plans (Basin Plans)* states that all surface and groundwaters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Water Board with the exception of surface and groundwaters where:

1. *The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 µS/cm, electrical conductivity) and it is not reasonably expected by Regional Water Boards to supply public water system;*

2. *There is contamination, either by natural processes or by human activity (unrelated to the specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or*

3. *The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.*

Marie Canyon Creek is not listed in the Basin Plan as being within a designated groundwater basin. Previous measurements of the TDS in the groundwater in Marie Canyon Creek range from 3,300 mg/L to 8,500 mg/L. Marie Canyon Creek, therefore, appears to fit within an exception set forth in the Sources of Drinking Water Policy.

Furthermore, based on the investigation of watershed topography, groundwater, surface water, and water quality, Marie Canyon Creek does not provide the beneficial uses of municipal and domestic water supply (MUN) directly or indirectly through groundwater recharge (GWR).

The following factors were considered in deriving these conclusions:

1. Relatively impervious soil with underlying bedrock creates low infiltration potential for groundwater recharge.

2. The unlined natural creek is too steep and short for substantial percolation, in fact, the creek is a gaining stream receiving seepages from the shallow groundwater supply.

3. The surface water and potential water sources from groundwater consistently show high TDS (or electrical conductivity). Furthermore, the field data collected in April 2009 for TDS in Marie Canyon Creek was 3,576 and 3,198 mg/L.

4. The potential for domestic or municipal water wells being located this close to the ocean is unfeasible due to salt water intrusion for any type of pumping well.

Consistent with the Basin Plan, the Regional Water Board is not required to include effluent limits until the results of the study are addressed in a Basin Plan Amendment. Since Marie Canyon Creek does not support MUN and GWR beneficial use, Title 22-based effluent limitations will not be applied in this Order.

Basin Plan Amendments

Requirements of this Order implement the Basin Plan and subsequent amendments including the following:

1. **Ammonia Water Quality Objectives (WQOs) –** Table 3-1 through Table 3-4 of the 1994 Basin Plan provided WQOs for ammonia to protect aquatic life. Those ammonia WQOs 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 (OAL), and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. On December 1, 2005, Resolution No. 2005-014, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Revise the Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life,* was adopted by the Regional Water Board. Resolution No. 2005-014 was approved by the State Water Board, OAL, and USEPA on July 19, 2006, August 31, 2006, and April 5, 2007, respectively. On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan-Los Angeles Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds.* This amendment to the Basin Plan incorporates site-specific 30-day average objectives for ammonia along with corresponding site-specific early life stage implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. The State Water Board, OAL, and USEPA approved this Basin Plan amendment on January 15, 2008, May 12, 2008, and March 30, 2009, respectively.

2. **Chloride WQOs –** The effluent discharge from the Malibu Mesa WRP flows into Marie Canyon Creek and into Other Miscellaneous Los Angeles County Coastal Streams. Page 3-13 of the Basin Plan indicates that there is no waterbody-specific objective for TDS, chloride, sulfate or boron for Marie Canyon Creek or Miscellaneous Los Angeles Coastal Streams. Although there are no specific objectives, Table 3-8 (page 3-14) of the Basin Plan provides recommended objectives for these minerals. In order to protect the most sensitive receiving water beneficial use (WARM), a chloride effluent limitation of 230 mg/L is included in this Order.

3. **Integrated Report –** The State Water Board proposed the California 2008-2010 Integrated Report from a compilation of the adopted Regional Water Boards' Integrated Reports containing 303(d) List of Impaired Waters and 305(b) Reports following recommendations from the Regional Water Boards and information solicited from the public and other interested parties. The Regional Water Boards' Integrated Reports were used to revise their 2006 303(d) List. On August 4, 2010, the State Water Board adopted the California 2008-2010 Integrated Report. On November 12, 2010, the USEPA approved California 2008-2010 Integrated Report Section 303(d) List of Impaired Waters requiring TMDLs for the Los Angeles Region.

   Neither Marie Canyon Creek nor Miscellaneous Los Angeles County Coastal Streams were included as being impaired in the 2008-2010 Integrated Report. However, the beach that Marie Canyon Creek drains to, Amarillo Beach, is in California 2008-2010 Integrated Report. The following pollutants were identified as impacting the receiving waters:

   a. **Amarillo Beach –** Calwater Watershed 40431000

      Pollutants – DDT (fish consumption advisory), PCBs (fish consumption advisory).

4. **TMDL -** A TMDL is a determination of the amount of a pollutant from point, nonpoint, and natural background sources plus a margin of safety, which may be discharged to a water quality-limited water body. Section 303(d) of the CWA established the TMDL process. The statutory requirements are codified at 40 CFR part 130.7. TMDLs must be developed for the pollutants of concern which impact the water quality of water bodies on the 303(d) list. According to the TMDL schedule under an amended consent decree (Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et al. (March 22, 1999)), all TMDLs for the Los Angeles River have been approved by the Regional Water Board.

   Santa Monica Bay TMDLs for DDTs and PCBs. Consistent with 40 CFR 130.2 and 130.7, section 303(d) of the CWA and USEPA guidance for developing TMDLs in California (USEPA, 2000a), the USEPA issued the *Santa Monica Bay TMDLs for DDTs and PCBs* on March 26, 2012, including WLAs for DDT and PCBs for point sources that includes the Malibu Mesa WRP.

I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

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 CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

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 WQO. This Order does not include compliance schedules or interim effluent limitations for CTR-based pollutants. However, an interim limit and compliance schedule for non-CTR-based pollutant ammonia nitrogen provided in a separate Time Schedule Order No. R4-2012-YYYY.

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. section 131.21; 65 Federal Register 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. Title 22 of the California Code of Regulations (Title 22). The California Department of Public Health established primary and secondary maximum contaminant levels

(MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as the basis for effluent limitations in WDRs and NPDES permits to protect groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that "Groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."

N. Stringency of Requirements for Individual Pollutants. This Order contains both TBELs and WQBELs for individual pollutants. The TBELs consist of restrictions on BOD, TSS, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS, and pH are discussed in section IV.B. of the Fact Sheet (Attachment F). This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal WQS. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR part 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants 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 WQS for purposes of the CWA" pursuant to 40 CFR part 131.21(c)(1).

This Order contains pollutant restrictions that are more stringent than applicable federal requirements and standards. Specifically, this Order includes effluent limitations for BOD and TSS that are more stringent than applicable federal standards, but that are nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in Section IV.B. of the Fact Sheet.

O. Sources of Drinking Water Policy (SODW Policy). On May 19, 1988, the State Water Board adopted Resolution No. 88-63, *Sources of Drinking Water Policy*, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with State Water Board's SODW policy, on March 27, 1989, the Regional Water Board adopted Resolution No. 89-03, *Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B).* This policy declares that all waters of the State, with certain exceptions, are to be protected as existing or potential sources of municipal and domestic supply. Exceptions include, but are not limited to, waters with existing total dissolved solids greater than 3,000 mg/L (5,000 µS/cm, electrical conductivity). (See

Finding H, above). This issue will be fully considered when a Basin Plan amendment is prepared to add beneficial uses for Marie Canyon Creek.

Consistent with Regional Water Board Resolution No. 89-03 and State Water Board Resolution No. 88-63, in 1994 the Regional Water Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional designation in the 1994 Basin Plan included the following implementation provision: "no new effluent limitations will be placed in WDRs as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Water Board's enabling resolution] until the Regional Water Board adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Water Board's enabling resolution]." On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Water Board finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.

P. Antidegradation Policy. The Regional Water Board is required under CWA section 301(b)(1)(C) and its implementing regulations (40 CFR part 122.4(a); 40 CFR part 122.4(d); 40 CFR part 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. The federal antidegradation policy (40 CFR part 131.12(a)(1)) requires that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." As defined in 40 CFR part 131.3(e), "[e]xisting uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards" (emphasis added).

40 CFR part 131.12 requires that the state WQS 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. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

As discussed in detail in the Fact Sheet (Attachment F), the permitted discharge is consistent with the antidegradation provision of section 131.12 and Resolution No. 68-16.

Q. Anti-Backsliding Requirements. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at title 40 CFR part 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.

R. Endangered Species Act (ESA). This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California ESA (Fish and Game Code sections 2050 to 2097) or the Federal ESA (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable ESA.

S. Monitoring and Reporting. 40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 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 Monitoring and Reporting Program is provided in Attachment E.

T. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR part 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR part 122.42 are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR part 122.42. 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 (Attachment F).

U. Water Rights. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

V. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs 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 (Attachment F) of this Order.

W. 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 (Attachment F) of this Order.

THEREFORE, IT IS HEREBY ORDERED, that this Order supercedes Order No. R4-2007-0002 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder, and the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of wastewater at a location different from that described in this Order is prohibited.

B. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Standard Provisions.

C. The monthly average effluent dry weather discharge flow rate from the facility shall not exceed the design capacity.

D. The Discharger shall not cause degradation of any water supply, except as consistent with State Water Board Resolution No. 68-16.

E. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in section 13050, subdivision (l) and (m) of the CWC.

F. The discharge of any substances in concentrations toxic to animal or plant is prohibited.

G. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

H. The discharge shall not exceed 0.20 mgd and shall only consist of disinfected tertiary treated wastewater. The point of discharge shall only be at Discharge Point No. 001 or 002, as described in the Findings. For discharges to Discharge Point No. 002, the Discharger shall submit to the Regional Water Board, prior to discharge, the reasons and supporting documentation for the necessity to discharge at this point. Discharge shall only commence when approval has been obtained from the Executive Officer.

I. Discharge of treated wastewater is prohibited from April 16 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.K.

J. Discharge shall be limited to 10 days per year, unless authorized in writing by the Executive Officer upon demonstration of necessity under emergency conditions.

K. 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 cannot 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 Water 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 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.

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

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

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Effluent Limitations Applicable to Discharge Points 001 and 002

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Points 001 and 002, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E).

Table 6. Effluent Limitations Applicable to Discharge Points 001 and 002

Parameter	Units	Effluent Limitations					
		Average Annually	Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
$BOD_5$20ºC	mg/L		20	30	45		
	lbs/day[2]		33	50	75		
Total Suspended Solids (TSS)	mg/L		15	40	45		
	lbs/day[2]		25	67	75		
pH	standard units		--	--	--	6.5	8.5
Oil and Grease	mg/L		10	--	15		
	lbs/day[2]		17	--	25		
Settleable Solids	ml/L		0.1	--	0.3		
Chloride	mg/L		230	--	--		
	lbs/day[2]		384	--	--		
MBAS	mg/L		0.5	--	--		
	lbs/day[2]		0.8	--	--		
Ammonia Nitrogen	mg/L		3.5[3]	--	15[3]		
	lbs/day[2]		5.8	--	25		
Copper	µg/L		24	--	52		
	lbs/day[2]		0.040	--	0.087		
Bis(2-Ethylhexyl)Phthalate	µg/L		5.9	--	16		
	lbs/day[2]		0.0098	--	0.027		

[2] The mass emission rates are based on the plant design flow rate of 0.20 mgd, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day, or Flow (MGD) x Concentration (µg/L) x 0.00834 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

[3] The ammonia nitrogen effluent limitation is the translated effluent limitation based on the water quality objective for ammonia in the current Basin Plan, Table 3-1 and Table 3-2, which resulted from Resolution No. 2002-011, and 2005-014 adopted by the Regional Water Board on April 25, 2002, and December 1, 2005, respectively. This effluent limitation is derived according to the Implementation Section of Resolution No. 2002-011.

Parameter	Units	Effluent Limitations					
		Average Annually	Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
DDT[4]	µg/L		0.00022	--	0.00044		
	g/yr	0.061	--	--	--		
PCBs as arochlors[5]	µg/L		0.000064	--	0.00013		
	g/yr	0.019	--	--	--		

2. Other Effluent Limitations Applicable to Discharge Points 001 and 002

a. The average monthly removal of BOD 5-day 20ºC and total suspended solids shall not be less than 85 percent.

b. The temperature of wastes discharged shall not exceed 86°F except as a result of external ambient temperature.

c. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

d. 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 total coliform bacteria in the disinfected effluent does not exceed an MPN or CFU of 2.2 per 100 milliliters, and the number of total coliform bacteria does not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period. No sample shall exceed an MPN or CFU of 240 total coliform bacteria per 100 milliliters. 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.

e. 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 any of the following: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24-hour period; (b) 5 NTUs more than 5 percent of the time (72 minutes) within a 24-hour period; and (c) 10 NTU at any time.

[4] DDT means the sum of 4,4′-DDT, 2,4′-DDT, 4,4′-DDE, 2,4′-DDE, 4,4′-DDD, and 2,4′-DDD.

[5] PCBs mean the sum of Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260 when monitoring using USEPA method 608.

f. To protect the underlying ground water basins, pollutants shall not be present in the wastes discharged at concentrations that pose a threat to groundwater quality.

g. 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 renewal 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.2.g.a.(i) or IV.A.2.g.a.(ii) is not met, the Discharger shall conduct six additional tests, approximately every two weeks, over a 12-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 5 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 - MRP.

h. 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.

B. Reclamation Specifications – Discharge Point 001

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, CI-5689. All treated wastewater at the facility is reused for irrigation at Pepperdine University campus.

2. The reuse of the reclaimed water by Pepperdine University is also regulated under a separate Waste Discharge Requirements and Water Recycling Requirements for Las Virgenes Municipal Water District and Pepperdine University, Malibu Campus, Order No. 94-055, File No. 64-104 and File No. 70-060, CI-5752.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on WQOs contained in the Basin Plan and on the *Final Report: Marie Canyon Beneficial Uses Survey* (dated October 2009) and are a required part of this Order. The discharge shall not cause the following in Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek:

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 and shall not be raised above 86°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.

   If the receiving water temperature, downstream of the discharge, exceeds 86°F as a result of the following:

   a. High temperature in the ambient air; or,

   b. High temperature in the receiving water upstream of the discharge,

   then the exceedance shall not be considered a violation.

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 Escherichia coli (E. coli) 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.

   b. Single Sample Limits

      i. E.coli density shall not exceed 235/100 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 cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.

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.

17. Acute Toxicity Receiving WQO

    a. There shall be no acute toxicity in ambient waters as a result of wastes discharged.

    b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

    c. The acute toxicity of the receiving water, at monitoring location RSW-001 located immediately downstream of the discharge, shall be such that: (i) the average survival in the undiluted receiving water for any three (3) consecutive 96-hour static, static-renewal, or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival. Static-renewal bioassay tests may be used, as allowed by the most current USEPA test method for measuring acute toxicity.

    d. If the upstream acute toxicity of the receiving water is greater than the downstream acute toxicity but the effluent acute toxicity is in compliance, acute toxicity accelerated monitoring in the receiving water according to the MRP, section V.A.2.d does not apply.

18. Chronic Toxicity Receiving WQO

    a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.

    b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

    c. If the chronic toxicity in the receiving water at the monitoring station immediately downstream of the discharge, exceeds the monthly median of 1.0 TU_c trigger in a critical life stage test and the toxicity cannot be attributed to upstream toxicity, as assessed by the Discharger, then the Discharger shall immediately implement an accelerated chronic toxicity testing according to MRP CI 6599, section V.B.3. If two of the six tests exceed a 1.0 TU_c trigger, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan.

    d. If the chronic toxicity of the receiving water upstream of the discharge is greater than the downstream and the TUc of the effluent chronic toxicity test is less than or equal to a monthly median of 1 TU_c trigger, then accelerated monitoring need not be implemented.

19. Receiving waters shall not exceed 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 an nitrite-nitrogen (NO_2-N).

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded, 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 Regional Water Board-specific Standard Provisions as follows:

   a. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.

   b. 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.

   c. The Discharger shall coordinate with Pepperdine University such that the Discharger shall not continue filling the storage reservoirs so as to cause overflows.

   d. In coordination with the Pepperdine University, the Discharger shall take every precaution necessary to ensure that any discharges that occur are of an emergency nature only, as described in Discharge Prohibitions, sections III.I and III.J. 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 e-mail or facsimile to the Regional Water 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. In the event of discharge to surface waters, the Discharger shall immediately notify the Regional Water Board by telephone and provide a written report within five working days detailing the reasons.

f. In the event of discharge to surface waters, the Discharger shall begin sampling procedures to ensure compliance with Effluent Limitations and with the MRP requirements.

g. 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.

h. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.

i. 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.

j. 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.

k. 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.

l. 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.

m. 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.

n. Discharge of wastes to any point other than specifically described in this Order is prohibited, and constitutes a violation thereof.

o. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the CWA and amendments thereto.

p. 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.

q. 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.

r. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

s. 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.

t. 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.

u. 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.

v. 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.

w. 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.

x. 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.

y. 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.

z. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

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 Watershed Regulatory Section Chief at the Regional Water Board by telephone (213) 576-6616, or electronically dhung@waterboards.ca.gov within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water 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.

bb. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (CWC section 1211)

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, 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; and,

(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 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.

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 Regional Water 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 Discharger for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

f. This Order may be modified, in accordance with the provisions set forth in 40 CFR parts 122 to 124, to include new Minimum Levels.

g. 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 applicable to Marie Canyon Creek watershed.

h. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.

i. This Order may be reopened and modified to revise the chronic toxicity effluent limitation, and/or total residual chlorine limitations, to the extent necessary, to be consistent with State Water Board precedential decisions, new policies, new laws, or new regulations.

j. This Order may be reopened to modify final effluent limits, if at the conclusion of necessary studies conducted by the Discharger, the Regional Water Board determines that dilution credits or a mixing zone, attenuation factors, water effects ratio, site specific objectives, or metal translators are warranted.

2. Special Studies, Technical Reports, and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

The Discharger shall update its existing initial investigation Toxicity Reduction Evaluation (TRE) workplan and submit a copy of the revised initial investigation 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) or most current version as guidance. 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, each test done approximately every two weeks, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within 5 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 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).

b. 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.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP) Not Applicable

b. Spill Clean-up Contingency Plan (SCCP)

Within 90 days, the Discharger is required to submit a Spill Clean-up Contingency Plan, which describes the activities and protocols, to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the Discharger's collection system or treatment facilities, that reach water bodies, including dry channels and beach sands. At a minimum, the interim Plan shall include sections on spill clean-up and containment measures, public notification, and monitoring. The Discharger shall review and amend the Plan as appropriate after each spill from the facility or in the service area of the facility. The Discharger shall include a discussion in the annual summary report of any modifications to the Plan and the application of the Plan to all spills during the year.

c. Pollutant Minimization Program (PMP)

Reporting protocols in the MRP, 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;

(4) 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 CWC).

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. Sludge Disposal Requirements

(1) All sludge generated at the wastewater treatment plant will be disposed of, treated, or applied to land in accordance with Federal Regulations 40 CFR part 503. 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 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 Water Board or other Regional Water Board, with respect to municipal sludge or biosolids.

b. **Pretreatment Requirements (Not Applicable)**

6. Spill Reporting Requirements

1. Initial Notification

Although State and Regional Water Board staff do not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows and bypasses, the Discharger shall make notifications as required below:

a. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the State as soon as possible, but no later than two (2) hours after becoming aware of the release.

b. In accordance with the requirements of Water Code section 13271, the Discharger shall provide notification to the California Emergency Management Agency (Cal EMA) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the State as soon as possible, but not later than two (2) hours after becoming aware of the release. The California Code of Regulations, Title 23, section 2250, defines a reportable amount of sewage

as being 1,000 gallons. The phone number for reporting these releases to the Cal EMA is (800) 852-7550**.**

c. The Discharger shall notify the Regional Water Board of any unauthorized release of sewage from its POTWs that causes, or probably will cause, a discharge to a water of the State as soon as possible, but not later than **two (2)** hours after becoming aware of the release. This initial notification does not need to be made if the Discharger has notified Cal EMA and the local health officer or the director of environmental health with jurisdiction over the affected waterbody. The phone number for reporting these releases of sewage to the Regional Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of releases of sewage to the Regional Water Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Regional Water Board:

(i) The location, date, and time of the release.

(ii) The water body that received or will receive the discharge.

(iii) An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification.

(iv) If ongoing, the estimated flow rate of the release at the time of the notification.

(v) The name, organization, phone number and email address of the reporting representative.

2. **Monitoring**

For spills, overflows and bypasses reported under section VI.C.6.1.c, the Discharger shall monitor as required below:

a. To define the geographical extent of spill's impact the Discharger shall obtain grab samples (if feasible, accessible, and safe) for spills, overflows or bypasses of any volume that reach receiving waters. The Discharger shall analyze the samples for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible and safe). This monitoring shall be done 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 the County Department of Public Health authorizes cessation of monitoring.

b. The Discharger shall obtain a grab sample (if feasible, accessible, and safe) for spills, overflows or bypasses of any volume that flowed to

receiving waters, entered a shallow ground water aquifer, or have the potential for public exposure; and for all spills, overflows or bypasses of 1,000 gallons or more. The Discharger shall characterize the sample for total and fecal coliforms or E. coli, and enterococcus, and analyze relevant pollutants of concern depending on the area and nature of spills or overflows if feasible, accessible and safe.

3. **Reporting**

The Regional Water Board initial notification required under section VI.C.6.1.a shall be followed by:

a. As soon as possible, but **not later than twenty four (24) hours** after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the discharger shall submit a statement to the Regional Water Board by email at aanijielo@waterboards.ca.gov . If the discharge is 1,000 gallons or more, this statement shall certify that Cal EMA has been notified of the discharge in accordance with Water Code section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:

(i) Agency, NPDES No., Order No., and MRP CI No., if applicable.

(ii) The location, date, and time of the discharge.

(iii) The water body that received the discharge.

(iv) A description of the level of treatment of the sewage or other waste discharged.

(v) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water.

(vi) The Cal EMA control number and the date and time that notification of the incident was provided to Cal EMA.

(vii) The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).

b. A written preliminary report five working days after disclosure of the incident (submission to the Regional Water Board of the California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement). Within 30 days after submitting the preliminary report, the Discharger shall submit the final

written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies, may be submitted to the Regional Water Board to satisfy this requirement.) The written report shall document the information required in paragraph D below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.

c. The Discharger shall include a certification in the annual summary report (due according to the schedule in the MRP) that states—the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's Preventive Maintenance Plan. Any deviations from or modifications to the Plan shall be discussed.

4. **Records**

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 upon request and a spill summary shall be included in the annual summary report. The records shall contain:

a. The date and time of each spill, overflow or bypass;

b. The location of each spill, overflow or bypass;

c. The estimated volume of each spill, overflow or bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section VI.C.6.2;

d. The cause of each spill, overflow or bypass;

e. 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;

f. Mitigation measures implemented;

g. Corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,

h. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSO WDR.

5. **Activities Coordination**

In addition, Regional Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, including the Pretreatment Program, (ii) a MS4 NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSO WDR.

6. **Consistency with Sanitary Sewer Overflows WDR (SSO WDR)**

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 Water Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems, (WQ Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSO to the State Water Board's online SSOs database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the Publicly Owned Treatment Works (POTW) that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR 122.41 (e)), report any non-compliance (40 CFR 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR 122.41(d)).

The requirements contained in this Order in sections VI.C.3.b (Spill Contingency Plan Section), VI.C.4 (Construction, Operation and Maintenance Specifications Section), and VI.C.6 (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of State Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supercede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

7. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

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 Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data

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 (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger may 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). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge

occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL.

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 may collect up to four additional samples within the same calendar month. All analytical results shall be reported in the monitoring report for that month. The concentration of pollutant (an arithmetic mean or a median) in these samples 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 with respect to the AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

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 with respect to the MDEL.

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 effluent 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:
Percent Removal (%) = $[1-(C_{Effluent}/C_{Influent})] \times 100$ %
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 may be considered 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 Reporting Level (RL).

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. 'Qi' and 'Ci' 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, 'Ci' is the concentration measured in the composite sample and 'Qi' 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. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' 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:

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

   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 part 136 (revised May 18, 2012), unless alternate methods have been approved by USEPA pursuant to 40 CFR part 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 Table 1A of 40 CFR part 136 (revised May 18, 2012) or 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

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.

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.

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.

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.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

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.

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 USEPA 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.

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).

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 title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 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.

Not Detected (ND) are those sample results less than the laboratory's MDL.

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 State Water Board's California Ocean Plan.

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

Pollutant Minimization Program (PMP) 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. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based 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 Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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 State or Regional Water Board.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

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

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

where:

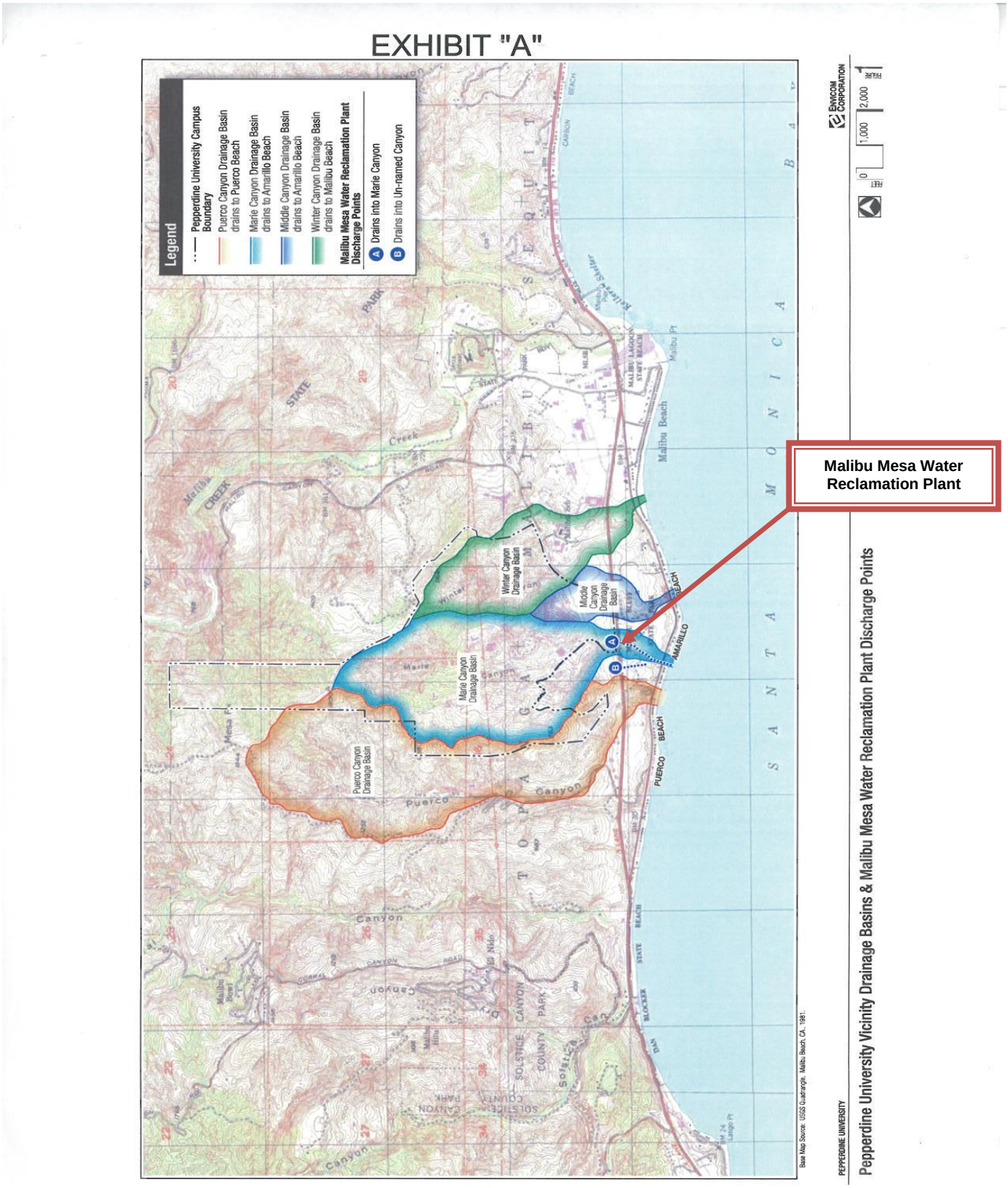
x is the observed value;

μ is the arithmetic mean of the observed values; and

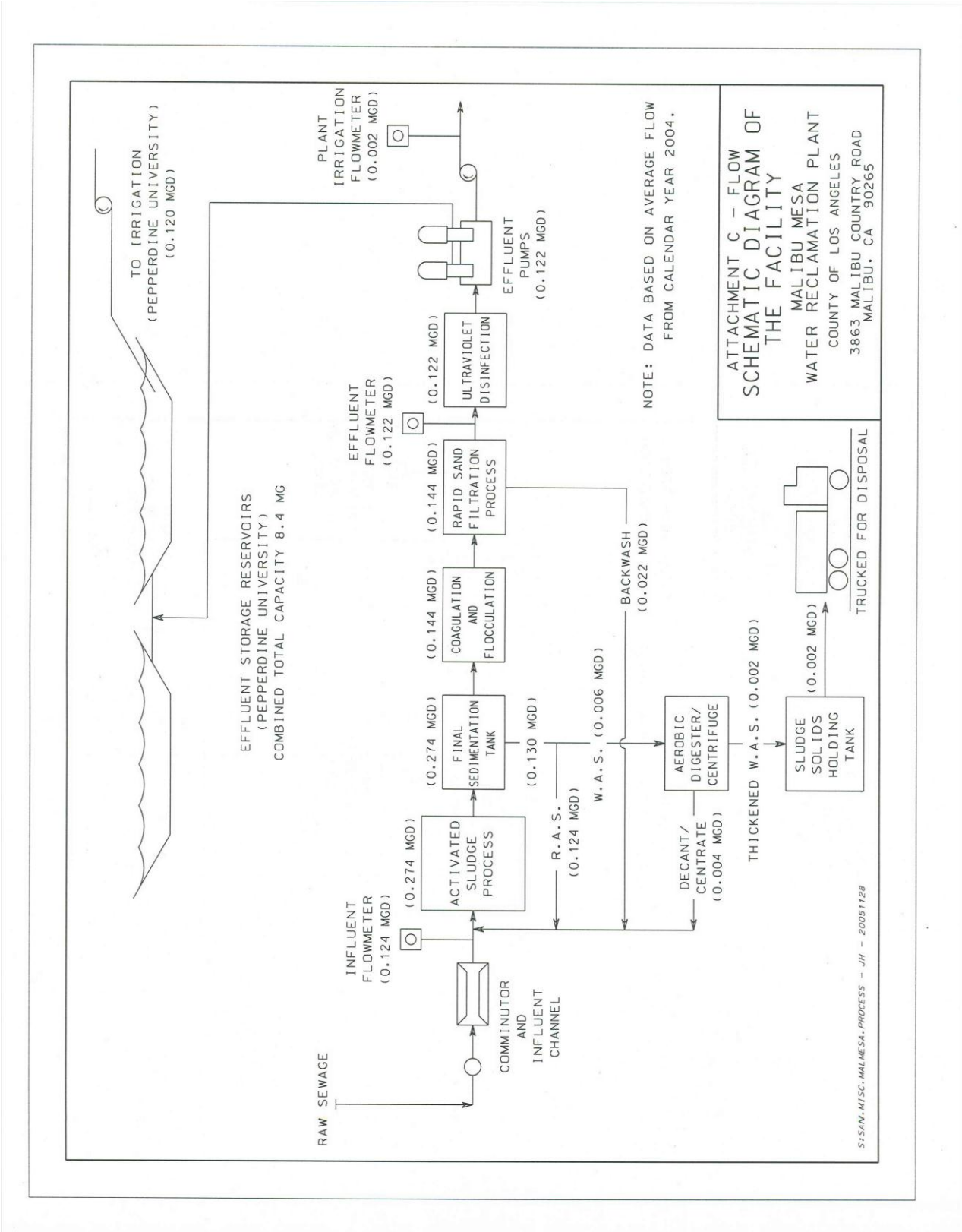
n is the number of samples.

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.)

ATTACHMENT B – MAP



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 modification; or denial of a permit renewal application. (40 CFR part 122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA 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 yet been modified to incorporate the requirement. (40 CFR part 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 part 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 part 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 part 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR part 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 part 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 part 122.41(i); CWC section 13383):

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 part 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 part 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 part 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR part 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 part 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 part 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 part 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 part 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR part 122.41(m)(4)(i)(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 part 122.41(m)(4)(i)(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 part 122.41(m)(4)(i)(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 part 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 part 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 part 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 Discharger. 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 part 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 part 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 part 122.41(n)(3)):

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR part 122.41(n)(3)(i));

   b. The permitted facility was, at the time, being properly operated (40 CFR part 122.41(n)(3)(ii));

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR part 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 part 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 part 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 part 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 part 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 Water Code. (40 CFR part 122.41(l)(3); part 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 part 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 part 122.41(j)(4); part 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 part 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR part 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 CFR part 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 CFR part 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 CFR part 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 CFR part 122.41(j)(3)(v)); and

6. The results of such analyses. (40 CFR part 122.41(j)(3)(vi).)

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

1. The name and address of any permit applicant or Discharger (40 CFR part 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 CFR part 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 part 122.41(h); Wat. Code, § 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 part 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 part 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 part 122.22(b)(1));

   b. The authorization specifies 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 part 122.22(b)(2)); and

   c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR part 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 and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR part 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 part 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR part 122.22(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 part 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 part 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 part 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 part 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 part 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 part 122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR part 122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 CFR part 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 part 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 part 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 section 122.29(b) (40 CFR part 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 that are not subject to effluent limitations in this Order. (40 CFR part 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 part 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 part 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 part 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 part 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 Water Code, including, but not limited to, sections 13385, 13386, and 13387.

B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who *knowingly* violates such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who *knowingly* violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be

subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions (40 CFR 122.41(a)(2)).

C. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000. (40 CFR 122.41(a)(3))

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. (40 CFR 122.41(j)(5)).

E. The CWA provides that 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 permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both. (40 CFR 122.41(k)(2)).

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 part 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 part 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 part 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 part 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP), CI-6599

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code 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. The Discharger is limited to discharging the treated effluent into the receiving water as necessary to 10 days per year and only during the wet season, unless otherwise authorized by the Executive Officer. When a qualifying discharge is necessary, the Discharger shall perform effluent analysis once per discharge event as described in section IV of the MRP. In this permit, a discharge event is defined as an event when the Facility necessitates discharging to surface waters and has satisfied the requirements and conditions of an emergency discharge in sections III.I, III.J, and III.K of the Order. Results of analyses shall be reported in the monthly monitoring report following the analysis.

B. Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations (CFR) parts 136.3, 136.4, and 136.5 (revised May 18, 2012); or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health 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 (revised May 18, 2012). 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 Water 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 United States Environmental Protection Agency (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 California Department of Public Health 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), and the Reporting Level (RL) [the applicable minimum level (ML) or reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (State Implementation Policy or SIP),* February 9, 2005, 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 and obtains approval for a higher ML from the Executive Officer, as provided for in section J, below. 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 J, below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

J. In accordance with section 2.4.3 of the SIP, the Regional Water Board Executive Officer, in consultation with the State Water 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 Water 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 18, 2012);

   c. When a discharger agrees to use an ML that is lower than those listed in Appendix 4 of the SIP;

d. When a discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 in the SIP 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 Water 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 SIP, the provisions stated in the SIP (section 2.4) shall prevail.

K. 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 MRP 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.

L. 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 Water Board upon request and a spill summary shall be included in the annual summary report.

M. For all bacteriological 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.

a. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136 (revised May 18, 2012), unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR part 136.

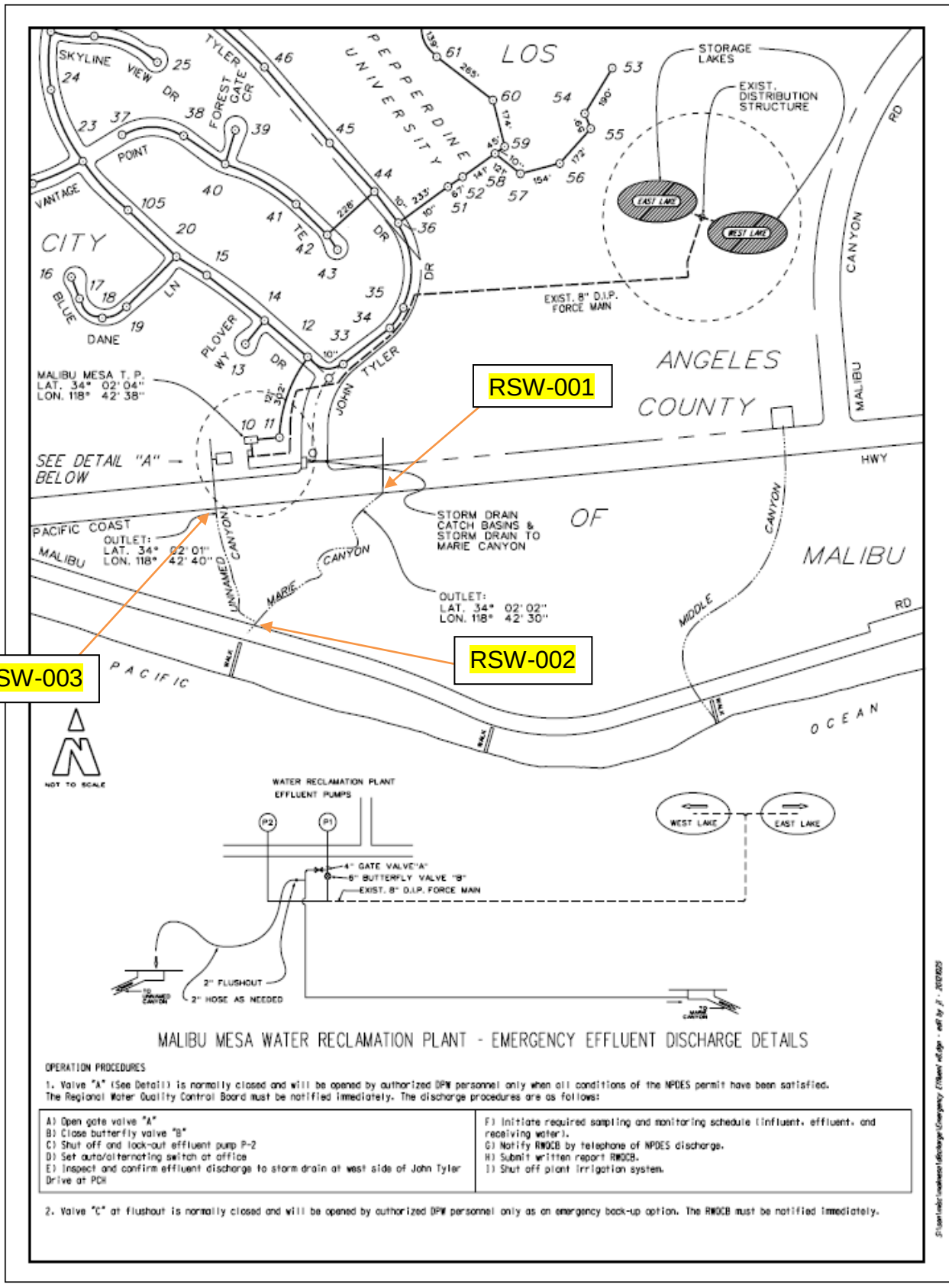
b. Detection methods used for enterococcus shall be those presented in Table 1A of 40 CFR part 136 (revised May 18, 2012) or in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure*, or any improved method determined by the Regional Water 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
Influent Monitoring Station		
--	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.
Effluent Monitoring Stations		
001 & 002	EFF-001	The effluent sampling station shall be located downstream of any in-plant return flows and after final disinfection process, where representative samples of the effluent can be obtained.
Receiving Water Monitoring Stations		
--	RSW-001	Marie Canyon Creek, about 300 feet downstream of the discharge point (south of Pacific Coast Highway).
--	RSW-002	Marie Canyon Creek, 10 feet upstream of the culvert under Malibu Road.
--	RSW-003	Unnamed creek west of Marie Canyon Creek.



Malibu Mesa WRP Receiving Water Stations

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	continuous[1]	[1]
pH	pH unit	grab	daily	[2]
Total suspended solids	mg/L	24-hour composite	daily	[2]
BOD_5 20°C	mg/L	24-hour composite	1/Discharge event	[2]
Remaining EPA priority pollutants[3] excluding asbestos	µg/L	24-hour composite/grab for VOCs and Chromium VI	1/Discharge event	[2]

If a discharge event continues for seven days or longer, the required minimum sampling for BOD will be weekly.

If a discharge event continues for 30 days or longer, the required minimum sampling for all remaining constituents and EPA priority pollutants will be monthly.

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.
- Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

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[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] Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

[3] Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423. PCB as arochlors shall be analyzed using method EPA 608 and PCB as congeners shall be analyzed using method EPA 1668c.

A. Monitoring Location EFF-001

1. The Discharger is limited to discharging the treated effluent into the receiving water as necessary to 10 days per year and only during the wet season, unless otherwise authorized by the Executive Officer. When a qualifying discharge is necessary, the Discharger shall monitor the discharge of tertiary-treated effluent at EFF-001. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

   In this permit, a discharge event is defined as an event when the Facility necessitates discharging to surface waters and has satisfied the requirements and conditions of an emergency discharge in sections III.I, III.J, and III.K of the Order. Any pause or break in the discharge shall be considered the end of a discharge event. If there is no discharge to surface waters, then no monitoring is required. In the corresponding monitoring report, the Discharger will indicate under statement of perjury that no effluent was discharged to surface water.

Table 3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Total waste flow	mgd	recorder	continuous[4]	[5]
Turbidity	NTU	recorder	continuous[4]	[5]
Total coliform	MPN/ 100mL or CFU/100ml	grab	1/Discharge event	[5]
Fecal coliform	MPN/ 100mL or CFU/100ml	grab	1/Discharge event	[5]
E.coli	MPN/ 100mL or CFU/100ml	grab	1/Discharge event	[5]
Temperature	°F	grab	daily	[5]
pH	pH units	grab	daily	[5]
Settleable solids	mL/L	grab	daily	[5]
Total suspended solids	mg/L	24-hour composite	daily	[5]
BOD_5 20°C	mg/L	24-hour composite	1/Discharge event	[5]
Oil and grease	mg/L	grab	1/Discharge event	[5]
Dissolved oxygen	mg/L	grab	1/Discharge event	[5]
Chloride	mg/L	24-hour composite	1/Discharge event	[5]

[4] Where continuous monitoring of a constituent is required, the following shall be reported:
Total waste flow – Total daily and peak daily flow (24-hr basis);
Turbidity – Maximum daily value, total amount of time each day the turbidity exceeded five turbidity units, flow-proportioned average daily value. Grab sample can be used to determine compliance with the 5 NTU limit.

[5] Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Ammonia Nitrogen	mg/L	24-hour composite	1/Discharge event	[5]
Nitrite nitrogen	mg/L	24-hour composite	1/Discharge event	[5]
Nitrate nitrogen	mg/L	24-hour composite	1/Discharge event	[5]
Organic nitrogen	mg/L	24-hour composite	1/Discharge event	[5]
Total nitrogen	mg/L	24-hour composite	1/Discharge event	[5]
Surfactants (MBAS)	mg/L	24-hour composite	1/Discharge event	[5]
Surfactants (CTAS)	mg/L	24-hour composite	1/Discharge event	[5]
Total hardness ($CaCO_3$)	mg/L	24-hour composite	1/Discharge event	[5]
Chronic toxicity	TUc	24-hour composite	1/Discharge event	[5]
Chronic toxicity (narrative effluent limit reporting)[6]	Passed / Triggered	24-hour composite	1/Discharge event	[5]
Acute toxicity	% Survival	24-hour composite	1/Discharge event	[5]
Copper	µg/L	24-hour composite	1/Discharge event	[5]
Bis(2-Ethylhexyl)Phthalate	µg/L	24-hour composite	1/Discharge event	[5]
Nickel	µg/L	24-hour composite	1/Discharge event	[5]
2,3,7,8-TCDD[7]	pg/L	24-hour composite	1/Discharge event	[5]
Perchlorate	µg/L	grab	1/Discharge event	[8]
1,4-Dioxane	µg/L	grab	1/Discharge event	[8]
1,2,3-Trichloropropane	µg/L	grab	1/Discharge event	[8]
Methyl tert-butyl-ether (MTBE)	µg/L	grab	1/Discharge event	[8]
DDTs[9]	µg/L	24-hour composite	1/Discharge event	[5]
PCBs as arochlors[10]	µg/L	24-hour composite	1/Discharge event	[5, 11]

[6] For narrative chronic toxicity effluent limit reporting, "Passed" is reported when chronic toxicity effluent results do not trigger accelerated testing by exceeding the monthly median trigger of 1.0 TU_c = 100/NOEC. "Triggered" is reported when chronic toxicity effluent results trigger accelerated testing by exceeding the monthly median trigger of 1.0 TU_c = 100/NOEC.

[7] 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 RSW-001, located downstream of the discharge point 001. 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 Toxicity Equivalence Factor (TEF_i)., (i.e., $TEQ_i = C_i \times TEF_i$). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_i) = \sum_{1}^{17}(C_i)(TEF_i)$$

[8] Emerging chemicals include 1,4-dioxane (USEPA 8270M test method), perchlorate (USEPA 314 test method, or USEPA method 331 if a detection limit of less than 6 µg/L is achieved), 1,2,3-trichloropropane (USEPA 504.1, 8260B test method, or USEPA 524.2 in SIM mode), and methyl tert-butyl ether (USEPA 8260B test method or USEPA method 624 if a detection level of less than 5 µg/L is achieved, and if the Discharger received ELAP certification to run USEPA method 624).

[9] DDT means the sum of 4,4′-DDT, 2,4′-DDT, 4,4′-DDE, 2,4′-DDE, 4,4′-DDD, and 2,4′-DDD.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
PCBs as congeners[12]	µg/L	24-hour composite	1/Discharge event	[5, 11]
Remaining EPA priority pollutants[13] excluding asbestos	µg/L	24-hour composite; grab for VOCs	1/Discharge event	[5]

If a discharge event continues for seven days or longer, the required minimum sampling for BOD, oil and grease, total coliform, fecal coliform, and E. coli will be weekly.

If a discharge event continues for 30 days or longer, the required minimum sampling for all remaining constituents and EPA priority pollutants will be monthly.

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 renewal 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 24-hr composite 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*

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[10] PCBs mean the sum of Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260 when monitoring using USEPA method 608.

[11] USEPA recommends that until USEPA proposed method 1668c for PCBs is incorporated into 40 CFR 136, dischargers should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608 for monitoring data, reported as arochlor results, that will be used for assessing compliance with WQBELs established using the WLAs in Table 6-2, and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes for the established TMDL.

[12] PCBs mean the sum of 41 congeners when monitoring using USEPA proposed method 1668c. PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105,110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified.

[13] Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

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.

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 96 hours of the chronic toxicity test as the results of the acute toxicity test, but only if the Discharger uses USEPA's October 2002 protocol (EPA-821-R-02-013) and fathead minnow is used to conduct the chronic toxicity test.

d. **Acute Toxicity Accelerated Monitoring.** If either of the effluent or receiving water acute toxicity requirements in Section IV.A.2.g.a.(i) and (ii), and Section V.A.17.c., respectively, of this Order is not met, the Discharger shall conduct six additional tests, approximately every two weeks, over a 12-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 5 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 extent of the acute toxicity of the receiving water upstream of the discharge is greater than the downstream and the results of the effluent acute toxicity test comply with acute toxicity limitation, the accelerated monitoring need not be implemented for the receiving water.

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 and 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). The Discharger shall conduct static renewal tests in accordance with the 2002 freshwater chronic methods manual for water flea and fathead minnow. For Selenastrum, use a static non-renewal test protocol.

b. **Frequency**

1. **Screening and Monitoring**. - The Discharger shall conduct the first chronic toxicity test screening for three consecutive months in 2013. 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, TUc, where,

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

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 the chronic toxicity of the effluent or the receiving water downstream the discharge exceeds the monthly trigger median of 1.0 TU_c, the Discharger shall conduct six additional tests, approximately every two weeks, over a 12-week period. 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 5 business days of the receipt of the result. However, if the chronic toxicity of the receiving water upstream of the discharge is greater than the downstream and the TUc of the effluent chronic toxicity test is less than or equal to a monthly median of 1.0 TU_c trigger, then accelerated monitoring need not be implemented for the receiving water.

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 TRE workplan.

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.

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 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 TRE and 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 shall 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 until six additional tests, approximately every two weeks, over a 12-week period are in compliance. At that time, the Discharger may resume regular monthly testing.

c. If the results of two of the six tests exceed the $1TU_C$ trigger, 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 by 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 (% Survival) 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 third 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, chlorine).

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. RECLAMATION MONITORING REQUIREMENTS

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

VII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location RSW-001, RSW-002 and RSW-003

1. The Discharger shall monitor Marie Canyon Creek and an unnamed canyon west of Marie Canyon at RSW-001, RSW-002 and RSW-003 as follows:

Table 4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total flow	cfs	calculation	1/Discharge event	--
Turbidity	NTU	grab	1/Discharge event	[14]
E.coli	MPN/100ml or CFU/100ml	grab	1/Discharge event	[14]
Temperature	°F	grab	daily	[14]
pH	pH units	grab	daily	[14]
Settleable solids	mL/L	grab	daily	[14]
Total suspended solids	mg/L	grab	daily	[14]
BOD_5 20°C	mg/L	grab	1/Discharge event	[14]
Total organic carbon	mg/L	grab	1/Discharge event	[14]
Oil and grease	mg/L	grab	1/Discharge event	[14]
Dissolved oxygen	mg/L	grab	1/Discharge event	[14]
Conductivity	μmhos/cm	grab	1/Discharge event	[14]
Chloride	mg/L	grab	1/Discharge event	[14]
Ammonia nitrogen	mg/L	grab	1/Discharge event	[14]
Nitrate nitrogen	mg/L	grab	1/Discharge event	[14]
Nitrite nitrogen	mg/L	grab	1/Discharge event	[14]
Organic nitrogen	mg/L	grab	1/Discharge event	[14]
Total nitrogen	mg/L	grab	1/Discharge event	[14]
Total kjeldahl nitrogen (TKN)	mg/L	grab	1/Discharge event	[14]
Total phosphorus	mg/L	grab	1/Discharge event	[14]
Orthophosphate-P	mg/L	grab	1/Discharge event	[14]
Surfactants (MBAS)	mg/L	grab	1/Discharge event	[14]
Surfactants (CTAS)	mg/L	grab	1/Discharge event	[14]
Total hardness ($CaCO_3$)	mg/L	grab	1/Discharge event	[14]
Chronic toxicity	TUc	grab	1/Discharge event	[14]
Acute toxicity	% Survival	grab	1/Discharge event	[14]
Copper	µg/L	grab	1/Discharge event	[14]
Nickel	µg/L	grab	1/Discharge event	[14]
Bis(2-Ethylhexyl)Phthalate	µg/L	grab	1/Discharge event	[14]
Methyl tert-butyl-ether (MTBE)	µg/L	grab	1/Discharge event	[15]

[14] Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

[15] Emerging chemicals include 1,4-dioxane (USEPA 8270M test method), perchlorate (USEPA 314 test method, or USEPA method 331 if a detection limit of less than 6 µg/L is achieved), 1,2,3-trichloropropane (USEPA 504.1, 8260B test method, or USEPA 524.2 in SIM mode), and methyl tert-butyl ether (USEPA 8260B test method or USEPA method 624 if a detection level of less than 5 µg/L is achieved, and if the Discharger received ELAP certification to run USEPA method 624).

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Perchlorate	µg/L	grab	1/Discharge event	[15]
1,2,3-Trichloropropane	µg/L	grab	1/Discharge event	[15]
1,4-Dioxane	µg/L	grab	1/Discharge event	[15]
2,3,7,8-TCDD[16]	pg/L	grab	1/Discharge event	[14]
DDTs[17]	µg/L	grab	1/Discharge event	[14]
PCBs as arochlors[18]	µg/L	grab	1/Discharge event	[14, 19]
PCBs as congeners[20]	µg/L	grab	1/Discharge event	[14, 19]
Chemical oxygen demand (COD)	mg/L	grab	1/Discharge event	[14]
Remaining EPA priority pollutants[21] excluding asbestos	µg/L	grab	1/Discharge event	[14]

If a discharge event continues for seven days or longer, the required minimum sampling for BOD, oil and grease, total coliform, fecal coliform, and E. coli will be weekly.

If a discharge event continues for 30 days or longer, the required minimum sampling for all remaining constituents and EPA priority pollutants will be monthly.

Receiving water samples shall not be taken when the conditions at the creek are deemed unsafe. Sampling may be rescheduled at receiving water stations if weather and/or flow conditions would endanger personnel collecting receiving water samples. The monthly monitoring report shall note such occasions.

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[16] 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 RSW-001 located downstream of the discharge point 001. 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 Toxicity Equivalence Factor (TEF_i)., (i.e., $TEQ_i = C_i \times TEF_i$). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_i) = \sum_{1}^{17}(C_i)(TEF_i)$$

[17] DDT means the sum of 4,4′-DDT, 2,4′-DDT, 4,4′-DDE, 2,4′-DDE, 4,4′-DDD, and 2,4′-DDD.

[18] PCBs mean the sum of Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260 when monitoring using USEPA method 608.

[19] USEPA recommends that until USEPA proposed method 1668c for PCBs is incorporated into 40 CFR 136, dischargers should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608 for monitoring data, reported as arochlor results, that will be used for assessing compliance with WQBELs established using the WLAs in Table 6-2, and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes for the established TMDL.

[20] PCBs mean the sum of 41 congeners when monitoring using USEPA proposed method 1668c. PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105,110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified.

[21] Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

VIII. OTHER MONITORING REQUIREMENTS

A. Regional Monitoring Program

1. Pursuant to the 40 CFR parts 122.41(j) and 122.48(b), the monitoring program for a discharger receiving an NPDES permit must be designed to determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.

   Since compliance monitoring focuses on the effects of a point source discharge, it is not designed to assess impacts from other sources of pollution (e.g., non-point source run-off, aerial fallout) or 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 Creek 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.

B. Tertiary Filter Treatment Bypasses

1. During any day that filters are bypassed, the Discharger shall monitor the effluent for BOD, suspended solids, settleable solids, and oil and grease, on daily basis, until it is demonstrated that the filter “bypass” has not caused an adverse impact on the receiving water.

2. The Discharger shall maintain chronological log of tertiary filter treatment process bypasses, to include the following:

   a. Date and time of bypass start and end;
   b. Total duration time; and,
   c. Estimated total volume bypassed

3. The Discharger shall notify Regional Water Board staff by telephone within 24 hours of the filter bypass event.

4. The Discharger shall submit a written report to the Regional Water Board, according to the corresponding monthly self monitoring report schedule. The report shall include, at a minimum, the information from the chronological log. Results from the daily effluent monitoring, required by VII.C.1. above, shall be submitted to the Regional Water Board as the results become available.

IX. 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 Water 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). 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 VIII. The Discharger shall submit monthly, quarterly, semiannual, 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 (other than for process/operational control, startup, research, or equipment testing), 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:

Table 5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
1/Discharge event (Daily)	First discharge event after the effective date of this Order	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Discharge event (Weekly)	First discharge event after the effective date of this Order	Sunday through Saturday	Submit with monthly SMR

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/Discharge event (Monthly)	First discharge event after the effective date of this Order	1st day of calendar month through last day of calendar month.	By the 15th day of the second month after the month of sampling

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML), for those constituents where the SIP specifies MLs, and the applicable reported Reporting Level (RL), for all other constituents as appropriate, and the current Method Detection Limit (MDL), as determined by the procedure in 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 (± 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 SMRs 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). Paper SMRs should be converted to a Portable Document Format (PDF). Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed 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

Dischargers who have been certified to only submit electronic SMRs to CIWQS should continue doing so, as previously required.

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 Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

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 will not be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

1. Annual Summary Report

By April 15 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 monitoring data. The annual report shall 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 IX.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 Water Board requires the Discharger to file with the Regional Water 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.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to the Los Angeles County Department of Public Works (Discharger). Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

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 Water Reclamation Plant and its associated wastewater collection system and outfalls (POTW)
FACILITY ADDRESS	3863 Malibu Canyon Drive
	Malibu, California 90265
	Los Angeles County
Facility Contact, Title and Phone	Jeffrey Bouse, Senior Civil Engineer, (626) 300-3373 Rhiannon Bailard, Assistant Vice President, Regulatory Affairs, Pepperdine University (310) 506-4702
Authorized Person to Sign and Submit Reports	Rajesh Patel, Assistant Deputy Director, (626) 300-3304 Martin Moreno, Principal Engineer, (626) 300-3312 Jeffrey Bouse, Senior Civil Engineer, (626) 300-3373 Patrick Dolan, Wastewater Treatment Plant Operator Supervisor, (310) 779-0867
Mailing Address	900 South Fremont Avenue, Alhambra, CA 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	Marie Canyon Creek
Receiving Water	Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek
Receiving Water Type	Inland surface water

A. The Los Angeles County Department of Public Works (Discharger) owns and operates a publicly-owned treatment works (POTW) comprised of Malibu Mesa WRP and its associated wastewater collection system and outfalls. Pepperdine University located at 24255 Pacific Coast Highway, Malibu, California, 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.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges wastewater to Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek, both waters of the United States, and is currently regulated by Order No. R4-2007-0002 adopted on January 11, 2007. 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 June 9, 2011. A site visit was conducted on April 19, 2012, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

The Facility is located at 3863 Malibu Country Drive, Malibu, California (Figure 1). The Facility's design capacity is 0.20 mgd and serves a population of approximately 4,300 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 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 Facility.

Under normal operation, the recycled water is discharged into two landscape impoundments 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 Water 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 Facility provides primary, secondary, and tertiary treatment, with disinfection by an ultraviolet system.

2. Primary treatment consists of a headwork with comminutor, 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 Discharger began using ultraviolet disinfection on June 12, 1998. The California Department of Public Health Services (CDPH) 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 Plant located at 6100 Woodley Avenue, Van Nuys, California.

5. In the event of upsets or other operational emergencies at the 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 Plant for treatment. In the event of a power failure the Facility 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 34º 02' 02" North, Longitude 118º 42' 30" West, flows to Marie Canyon Creek.

Discharge Point No. 002: (Latitude 34º 02' 01" North, Longitude 118º 42' 40" West) flows to an unnamed canyon west of Marie Canyon Creek.

Both Marie Canyon Creek and the unnamed canyon west of Marie Canyon Creek flow to Amarillo Beach, a water of the United States. The upper end of Marie Canyon Creek is located approximately one quarter of a mile away from Amarillo Beach.

In previous permits, the Discharger was also allowed to discharge into the unnamed canyon (Discharge Point No. 002) adjacent to the Facility. The Discharger has not used this Outfall for at least 15 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 Discharger 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 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows: (Note that the facility has not discharged during the current term of this permit (2007-2011). The Table below is the only recent available data and was therefore used in the calculation of effluent limitations.)

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
$BOD_5 20^oC$ (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**
Detergents [as Methylene blue activated substances (MBAS)] (mg/L)	0.5		--	ND<0.05 – ND<0.05
Mercury (µg/L)	--		--	ND<0.5 – ND<1

Parameter (units)	Effluent Limitation			Monitoring Data (From January 2001 To December 2005)
	Average Monthly	Average Weekly	Maximum Daily	Range of Reported Concentrations
Seleneum (µg/L)	--		--	ND<1 – ND<5
Cyanide (µg/L)	--		--	ND<10 - ND<10
Benzidine (µg/L)	--		--	ND<3 – ND<3
Benzo(a)Anthracene (µg/L)	--		--	ND<1 – ND<3
Benzo(a)Pyrene (µg/L)	--		--	ND<1 – ND<3
Dibenzo(a,h)Anthracene (µg/L)	--		--	ND<1 – ND<3
Benzo(b)Fluoranthene (µg/L)	--		--	ND<1 – ND<3
Chrysene (µg/L)	--		--	ND<1 – ND<3
Indeno(1,2,3-cd)Pyrene (µg/L)	--		--	ND<1 – ND<3
Bis(2-Ethylhexyl)Phthalate (µg/L)	5.9		16	ND<3 – **21.8**
3,3-Dichlorobenzidine (µg/L)	--		--	ND<3 – ND<3
1,2-Diphenylhydrazine (µg/L)	--		--	ND<5 – ND<5
4-4'-DDT (µg/L)	--		--	ND<0.1 – ND<100
4-4'-DDE (µg/L)	--		--	ND<0.1 – ND<100
4-4'-DDD (µg/L)	--		--	ND<0.1 – ND<100
Aldrin (µg/L)	--		--	ND<0.05 – ND<50
Chlordane (µg/L)	--		--	ND<0.05 – ND<50
Dieldrin (µg/L)	--		--	ND<0.1 – ND<100
Endrin (µg/L)	--		--	ND<0.1 – ND<100
alpha-BHC (µg/L)	--		--	ND<0.05 – ND<50
beta-BHC (µg/L)	--		--	ND<0.05 – ND<50
alpha-Endosulfan (µg/L)	--		--	ND<0.1 – ND<0.1
beta-Endosulfan (µg/L)	--		--	ND<0.1 – ND<100
Heptachlor (µg/L)	--		--	ND<0.05 – ND<50
Heptachlor Epoxide (µg/L)	--		--	ND<0.05 – ND<50
Toxaphene (µg/L)	--		--	ND<0.05 – ND<100
Hexachlorobenzene (µg/L)	--		--	ND<0.5 – ND<3
PCB 1016 (µg/L)	--		--	ND<0.5 – ND<50
PCB 1221 (µg/L)	--		--	ND<0.5 – ND<50
PCB 1232 (µg/L)	--		--	ND<0.5 – ND<50
PCB 1242 (µg/L)	--		--	ND<0.5 – ND<50
PCB 1248 (µg/L)	--		--	ND<0.5 – ND<50
PCB 1254 (µg/L)	--		--	ND<0.5 – ND<50
PCB 1260 (µg/L)	--		--	ND<0.5 – ND<50
Arsenic (µg/L)	--		--	**0.52 – 1.7**
Beryllium (µg/L)	--		--	ND<0.5 – ND<1
Cadmium (µg/L)	--		--	ND<0.25 – **0.1**
Chromium VI (µg/L)	--		--	ND<1 – ND<5
Copper (µg/L)	24		52	ND<5 – **36.3**
Lead (µg/L)	--		8	ND<0.5 – **3.65**
Nickel (µg/L)	65		142	**3.5 – 11.8**
Silver (µg/L)	--		--	ND<0.25 – ND<10

Parameter (units)	Effluent Limitation			Monitoring Data (From January 2001 To December 2005)
	Average Monthly	Average Weekly	Maximum Daily	Range of Reported Concentrations
Thallium (µg/L)	--		--	ND<1 – ND<10
Zinc (µg/L)	--		--	**34.4 –74.2**
Chloroform (µg/L)	--		--	ND<0.5 – **2.3**
1,2-Dichloroethane (µg/L)	--		--	ND<0.5 – ND<0.5
Tetrachloroethylene (µg/L)	--			ND<0.5 – ND<0.5
Trichloroethylene (µg/L)	--			ND<0.5 – ND<1
Vinyl Chloride (µg/L)	--			ND<0.5 – ND<1
Bis(2-Chloroethyl)Ether (µg/L)	--			ND<1 – ND<3
2,4-Dinitrotoluene (µg/L)	--			ND<0.5 – ND<3
Fluoranthene (µg/L)	--			ND<1 – ND<3
Hexachlorobutadiene (µg/L)	--			ND<1 – ND<3
N-Nitrosodimethylamine (µg/L)	--			ND<3 – ND<3
N-Nitrosodiphenylamine (µg/L)	--			ND<3 – ND<3
Ammonia nitrogen	25.4		--	**ND<1 – 26.6**

D. Compliance Summary

The Discharger has not discharged any effluent water into Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek. The treated wastewater from the treatment plant is diverted into the storage ponds for recycling and reuse at Pepperdine University. 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, CI-5689.

E. Planned Changes

The Discharger plans to upgrade/replace the facility that is capable of reducing the amount of nitrogen compounds from the effluent discharge.

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 (commencing with section 13370). It shall serve as an 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, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Quality Control Board (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 (WQOs), and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

   Beneficial uses of surface waters

   The Facility discharges into Marie Canyon Creek. Marie Canyon Creek is one of the waterbodies that does not have specific beneficial uses identified in the Basin Plan. According to the Basin Plan, those waters not specifically listed (generally small tributaries) are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary. This is commonly referred to as the "tributary rule." Given that Marie Canyon Creek discharges to the Pacific Ocean, the beneficial uses assigned to Marie Canyon Creek during the previous permit cycles were derived using the beneficial uses of the similar and adjacent watershed of Puerco Canyon Creek. These beneficial uses are as follows: MUN(I*), REC-1(I), REC-2(I), WARM(I), and WILD.

   Under federal law, all waters are assumed to be "fishable" and "swimmable" unless a Use Attainability Analysis (UAA) has been done to justify the unattainability of these uses. This would apply REC-1(I), REC-2(I), WARM(I), and WILD.

   Additionally, the Discharger conducted a reach-specific beneficial use study of Marie Canyon Creek to comply with the Regional Water Board's Times Schedule Order R4-2007-0003. The results of this study are contained in the report titled, *Final Report: Marie Canyon Beneficial Uses Survey*, dated October 2009. The study was conducted within the 1,400 linear feet of natural creek from Pacific Coast Highway to Malibu Road. Based on results of the study, the existing beneficial uses applicable to Marie Canyon Creek are: WARM, WILD, REC-1, and REC-2. Based on the results of the study, there is no evidence that Marie Canyon Creek provides the beneficial uses of MUN directly or indirectly through groundwater recharge (GWR); therefore, this use is not applicable.

The results of the beneficial uses study for Marie Canyon Creek are not currently identified in the Basin Plan. However, as noted above, in order to protect the existing beneficial uses, even if not identified in the Basin Plan, the Regional Water Board is required under section 301(b)(1)(C) of the CWA and its implementing regulations (40 CFR part 122.4(a); 40 CFR part 122.4(d); 40 CFR part 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. The federal antidegradation policy (40 CFR part 131.12(a)(1)) requires that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." As defined in 40 CFR part 131.3(e), "[e]xisting uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards" (emphasis added).

Therefore, the beneficial uses applicable to Marie Canyon Creek (and an unnamed canyon west of Marie Canyon Creek) are as follows:

Table 3. Basin Plan Beneficial Uses – Receiving Waters

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 and 002	Marie Canyon Creek and Unnamed canyon west of Marie Canyon Creek	Existing: Water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); and wildlife habitat (WILD)
001 and 002	Amarillo Beach	Existing: 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) Potential: Spawning, reproduction, and/or early development (SPWN)

Beneficial Uses of the Receiving Groundwaters

SWRCB Resolution No. 88-63, *Adoption of Policy Entitled "Sources of Drinking Water"* followed by Regional Water Board Resolution No. 89-03, *Incorporation of "Sources of Drinking Water" Policy into the Water Quality Control Plans (Basin Plans)* states that all surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Water Board with the exception of surface and groundwaters where:

1. *The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 µS/cm, electrical conductivity) and it is not reasonably expected by Regional Water Boards to supply public water system;*

2. *There is contamination, either by natural processes or by human activity (unrelated to the specific pollution incident), that cannot reasonably be*

treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or

3. *The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.*

Marie Canyon Creek is not listed in the Basin Plan as being a designated groundwater basin. Previous measurements of the TDS in the groundwater in Marie Canyon Creek range from 3,300 mg/L to 8,500 mg/L. Marie Canyon Creek, therefore, fits within exception set forth in the Sources of Drinking Water Policy.

Furthermore, based on the investigation of watershed topography, groundwater, surface water, and water quality, Marie Canyon Creek does not provide the beneficial uses of municipal and domestic water supply (MUN) directly or indirectly through groundwater recharge (GWR).

The following factors were considered in deriving these conclusions:

1. Relatively impervious soil with underlying bedrock creates low infiltration potential for groundwater recharge.

2. The unlined natural creek is too steep and short for substantial percolation, in fact, the creek is a gaining stream receiving seepages from the shallow groundwater supply.

3. The surface water and potential water sources from groundwater consistently show high TDS (or electrical conductivity). Furthermore, the field data collected in April 2009 for TDS in Marie Canyon Creek was 3,576 and 3,198 mg/L.

4. The potential for domestic or municipal water wells being located this close to the ocean is unfeasible due to salt water intrusion for any type of pumping well.

Consistent with the Basin Plan, the Regional Water Board is not required to include effluent limits until the results of the study are addressed in a Basin Plan amendment. Since Marie Canyon Creek does not support MUN and GWR beneficial use, Title 22-based effluent limitations will not be applied in this Order.

Basin Plan Amendments

Requirements of this Order implement the Basin Plan and subsequent amendments including the following:

a. **Ammonia WQOs –** Table 3-1 through Table 3-4 of the 1994 Basin Plan provided WQOs for ammonia to protect aquatic life. Those ammonia WQOs

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 (OAL), and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. On December 1, 2005, Resolution No. 2005-014, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Revise the Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life,* was adopted by the Regional Water Board. Resolution No. 2005-014 was approved by the State Water Board, OAL, and USEPA on July 19, 2006, August 31, 2006, and April 5, 2007, respectively. On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan-Los Angeles Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds.* This amendment to the Basin Plan incorporates site-specific 30-day average objectives for ammonia along with corresponding site-specific early life stage implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. The State Water Board, OAL, and USEPA approved this Basin Plan amendment on January 15, 2008, May 12, 2008, and March 30, 2009, respectively.

b. **Chloride WQOs –** The effluent discharge from the Malibu Mesa WRP flows into Marie Canyon Creek, and into Other Miscellaneous Los Angeles County Coastal Streams. Page 3-13 of the Basin Plan indicates that there is no waterbody-specific objective for TDS, chloride, sulfate, or boron for Marie Canyon Creek or Miscellaneous Los Angeles County Coastal Streams. Although there are no specific objectives, Table 3-8 (page 3-14) of the Basin Plan provides recommended objectives for these minerals. In order to protect the most sensitive receiving water beneficial use (WARM), a chloride effluent limitation of 230 mg/L is included in this Order.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

3. **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 CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQSs) become effective for CWA purposes (40 CFR part 131.21, 65 Fed. Reg. 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.

5. **Antidegradation Policy.** The Regional Water Board is required under CWA section 301(b)(1)(C) and its implementing regulations (40 CFR part 122.4(a); 40 CFR part 122.4(d); 40 CFR part 122.44(d)) to establish conditions in NPDES permits that ensure compliance with state WQSs, including antidegradation requirements. The federal antidegradation policy (40 CFR part 131.12(a)(1)) requires that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." As defined in 40 CFR part 131.3(e), "[e]xisting uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards" (emphasis added).

   40 CFR part 131.12 requires that the state WQSs 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. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

   The permitted discharge is consistent with the antidegradation provision of 40 CFR part 131.12 and Resolution No. 68-16.

   1. <u>Applicability of State Antidegradation Policy, Resolution No. 68-16</u>

      The State Water Resources Control Board developed Administrative Procedures Update, APU No. 90-004, to provide guidance for implementing Resolution No. 68-16 and 40 CFR part 131.12. The following discussion, conforms with the guidelines set forth by APU No. 90-004.

Based on an evaluation of all available pertinent information and best professional judgment, the Regional Water Board determined that it is not necessary to perform a complete antidegradation analysis for the discharge of treated wastewater from the Malibu Mesa WRP. The seasonal and intermittent discharge of treated wastewater will not be adverse to the intent of the State and Federal antidegradation policies. A small change in water quality that will not result in significant water quality degradation does not require a complete antidegradation analysis. The following discussion documents the basis for performing a simple antidegradation analysis:

A. Any discharge of treated wastewater, will only occur during the wet season when the soils are saturated, a wet weather event (i.e., storm) is forecasted by the National Weather Service, and storage reservoirs are at their maximum storage capacity. Any discharge, will be spatially localized and limited to the 1,400 feet of natural creek at Marie Canyon Creek.

B. Based on data provided by the Discharger, any immediate reduction in water quality will not result in long-term deleterious effects on water quality. Due to the steep slope (approximately 8.5%) of the natural creek, stream discharges are swift and will cease when the storm event is over and the discharge of treated wastewater from the facility is terminated.

Table 4. Receiving Water Monitoring Data During Discharge

Constituents	Units	Analytical Results									
Sampling Date		1/10/2005		1/18/2005		2/18/2005		3/1/2005		3/8/2005	
Sampling Location		R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2
Estimated Creek Flow	cfs	48	48	-	-	3.3	3.3	2.0	2.0	-	-
Temperature	^{o}F	59	59	-	-	59	59	62	62	-	-
pH	pH Units	7.49	7.56	7.92	7.91	7.37	7.22	8.00	7.96	8.48	8.46
Nitrate-N (as N)	mg/L	0.781	0.808	11.3	11	0.438	0.396	6.68	6.66	9.96	9.96
Nitrite-N (as N)	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Ammonia-N (as N)	mg/L	0.166	0.149	<0.1	0.118	<0.1	<0.1	<0.1	<0.1	0.111	0.128

Table 5. Receiving Water Monitoring Data During No Discharge

Constituents	Units	Analytical Results									
Sampling Date		7/24/2001		10/30/2001		2/12/2002		6/04/2002		9/10/2002	
Sampling Location		R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2
Estimated Creek Flow	cfs	--	--	--	--	--	--	--	--	--	--
Temperature	^{o}F	--	--	--	--	--	--	--	--	--	--
pH	pH	8.32	--	7.1	--	7.81	--	7.89	--	7.78	--

Constituents	Units	Analytical Results									
Sampling Date		7/24/2001		10/30/2001		2/12/2002		6/04/2002		9/10/2002	
	Units										
Nitrate-N (as N)	mg/L	5.37	--	5.98	--	1.35	--	3.09	--	3.79	--
Nitrite-N (as N)	mg/L	<0.03	--	2.58	--	<0.03	--	<0.03	--	<0.03	--
Ammonia-N (as N)	mg/L	0.14	--	0.39	--	<0.1	--	0.19	--	<0.1	--

C. Table 4 and Table 5, above, present constituents measured in Marie Canyon Creek when the Malibu Mesa Facility is and is not discharging, respectively. The average nitrate concentration is 5.8 mg/L when Malibu Mesa WRP is discharging effluent and 3.9 mg/L when it is not. The average nitrite and ammonia nitrogen concentrations have not been significantly affected by whether or not Malibu Mesa WRP is discharging. The data demonstrates that any discharge from Malibu Mesa WRP is of short duration and has not resulted in a significant reduction in the water quality of the creek.

2. Applicability of Federal Antidegradation Policy, 40 CFR part 131.12

The Facility discharges in Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek during wet weather only. The "tributary rule" as it applies to Marie Canyon Creek is discussed in section C.1 – Water Quality Control Plans of the Fact Sheet. In the past, consideration of Clean Water Act requirements and the beneficial uses of the adjacent watershed, i.e., Puerco Canyon Creek were applied to Marie Canyon Creek. These beneficial uses are as follows: MUN(I*), REC-1(I), REC-2(I), WARM(I), and WILD.

This Order does not adversely impact the existing beneficial uses (based on the results of the study contained in the report titled, *Final Report: Marie Canyon Beneficial Uses Survey*, dated October 2009) of the receiving water or downstream of the receiving water. Note: the study concluded that MUN is not an existing beneficial use of the receiving water. However, the results of the study indicate that Marie Canyon Creek does not provide MUN or GWR beneficial uses. Under federal law, all waters are assumed "fishable" and "swimmable" unless a Use Attainability Analysis (UAA) has been done to justify the unattainability of these uses. This would apply REC-1(I), REC-2(I), WARM(I), and WILD. All existing beneficial uses will be maintained and protected.

A. Tier 1 Designation: Existing instream water uses and level of quality necessary to protect the existing uses shall be maintained and protected. The existing beneficial uses, based on the results of the study are; REC-1, REC-2, WARM, and WILD. The effluent limitations associated with this Order will be fully protective of the above existing beneficial uses.

Potential beneficial use or beneficial use that carries asterisk (*), is not viewed by the USEPA as (legally) designated beneficial. Furthermore, the results of the study support the conclusion that MUN and GWR are not existing or potential beneficial uses in Marie Canyon Creek.

B. Tier 2 Designation: Where the quality of waters exceed the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

C. Tier 3 Designation: Marie Canyon is not listed as an Outstanding National Resources Water.

Based on the preceding discussions, the Facility's discharge to Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek is consistent with antidegradation requirements.

6. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at title 40 CFR part 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, unless in compliance with one of the exceptions to backsliding. Section 303(d)(4)(B) provides that a permittee may backslide from a water quality-based effluent limitation where water quality meets or exceeds applicable water quality standards, if the revision is consistent with a State's approved antidegradation policy (see 40 CFR part 131.12). Marie Canyon Creek and the underlying groundwater do not support MUN beneficial use. Because Marie Canyon Creek does not have the beneficial use of MUN, water quality based effluent limits are not required to protect MUN and therefore effluent limits for nitrate plus nitrite as nitrogen, nitrate-nitrogen, and nitrite-nitrogen have been removed from this Order. Based on this information there is no reasonable potential to cause or contribute to an exceedance of a water quality standard for protection of MUN. In order to assure protection of the existing beneficial uses, including aquatic life, nitrate plus nitrite as nitrogen, nitrate-nitrogen, and nitrite-nitrogen water quality objectives are included as receiving water limits rather than applied as final effluent limitations applied at end-of-pipe. This Order is consistent with the antidegradation provision of 40 CFR part 131.12 and State Water Board Resolution No. 68-16 because the permit does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The final limitations in this Order hold the Discharger to performance levels that will not cause or contribute to water quality impairment or degradation of water quality.

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

The State Water Board proposed the California 2008-2010 Integrated Report from a compilation of the adopted Regional Water Boards' Integrated Reports containing 303(d) List of Impaired Waters and 305(b) Reports following recommendations from the Regional Water Boards and information solicited from the public and other interested parties. The Regional Water Boards' Integrated Reports were used to revise their 2006 303(d) List. On August 4, 2010, the State Water Board adopted the California 2008-2010 Integrated Report. On November 12, 2010, the USEPA approved California 2008-2010 Integrated Report Section 303(d) List of Impaired Waters requiring TMDLs for the Los Angeles Region.

Neither Marie Canyon Creek nor Miscellaneous Los Angeles County Coastal Streams were included as being impaired in the 2008-2010 Integrated Report. However, the beach that Marie Canyon Creek drains to, Amarillo Beach, is in California 2008-2010 Integrated Report. The following pollutants were identified as impacting the receiving waters:

a. **Amarillo Beach –** Calwater Watershed 40431000

Pollutants – DDT (fish consumption advisory), PCBs (fish consumption advisory).

E. Other Plans, Polices and Regulations

1. **Sources of Drinking Water Policy**. On May 19, 1988, the State Water Board adopted Resolution No. 88-63, *Sources of Drinking Water (SODW) Policy*, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with State Water Board's SODW policy, on March 27, 1989, the Regional Water Board adopted Resolution No. 89-03, *Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B).* This policy declares that all waters of the State, with certain exceptions, are to be protected as existing or potential sources of municipal and domestic supply. Exceptions include, but are not limited to, waters with existing total dissolved solids greater than 3,000 mg/L (5,000 µS/cm, electrical conductivity). (See Finding H of the Order). This issue will be fully considered when a Basin Plan amendment is prepared to add beneficial uses for Marie Canyon Creek.

   Consistent with Regional Water Board Resolution No. 89-03 and State Water Board Resolution No. 88-63, in 1994 the Regional Water Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional designation in the 1994 Basin Plan included the following implementation provision: "no new effluent limitations will be placed in Waste Discharge Requirements as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Water Board's enabling resolution] until the Regional Water Board

adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Water Board's enabling resolution]." On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Water Board finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.

2. **Secondary Treatment Regulations**. 40 CFR part 133 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 or to prevent backsliding.

3. **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 part 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water 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 Water Board Order No. 97-03-DWQ to regulate storm water discharges associated with industrial activity.

   Because the Facility's design flow capacity is 0.20 MGD, it is not required to comply with Water Quality Order No. 97-03-DWQ (NPDES General Permit No. CAS000001).

4. **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 Water Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems, (WQ Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the Publicly Owned Treatment Works (POTW) that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR 122.41 (e)), report any non-compliance (40 CFR 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR 122.41(d)).

The requirements contained in this Order in sections VI.C.3.b (Spill Contingency Plan Section), VI.C.4 (Construction, Operation and Maintenance Specifications Section), and VI.C.6 (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of State Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supercede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

5. **Watershed Management -** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region following the USEPA guidance in *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective of the WMA is to provide a more comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. The accompanying Order fosters the implementation of this approach by protecting beneficial uses in the watershed and requiring the Discharger to participate in the development and implementation of the watershed-wide monitoring program.

6. **Relevant TMDLs -** Section 303(d) of the Clean Water Act requires states to identify water bodies that do not meet water quality standards and then to establish TMDLs for each waterbody for each pollutant of concern. TMDLs identify the maximum amount of pollutants that can be discharged to waterbodies without causing violations of water quality standards.

   a. **Santa Monica Bay TMDLs for DDTs and PCBs** – Consistent with 40 CFR 130.2 and 130.7, section 303(d) of the CWA and USEPA guidance for developing TMDLs in California (USEPA, 2000a), the USEPA issued the *Santa Monica Bay TMDLs for DDTs and PCBs* on March 26, 2012, including WLAs for the Malibu Mesa WRP.

7. **Title 22 of the California Code of Regulations (Title 22).** The California Department of Public Health (CDPH) established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is

prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."

8. **Water Rights.** Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers 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 in the CFR part 122.44(a) requires that permits include applicable technology-based limitations and standards; and part 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.

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, USEPA guidance and regulations, and best practicable waste treatment technology. This order authorizes the discharge of tertiary-treated wastewater from Discharge Points 001 and 002 only. It does not authorize any other types of discharges.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level--referred to as "secondary treatment" --that all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that EPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR part 133. These technology- based regulations apply

to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of $BOD_5 20^oC$, total suspended solids, and pH.

2. Applicable Technology-Based Effluent Limitations

This facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of $BOD_5 20^oC$, TSS, and pH. However, all technology-based effluent limitations from the previous Order R4-2007-0002 are based on tertiary-treated wastewater treatment standards. These effluent limitations have been carried over from the previous Order to avoid backsliding. Further, mass-based effluent limitations are based on a design flow rate of 0.20 MGD. The following Table summarizes the technology-based effluent limitations applicable to the Facility:

Table 6. Summary of Technology-based Effluent Limitations for Discharge Points 001 and 002

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5 20^oC$	mg/L	20	30	45		
	lbs/day[1]	33	50	75		
Total Suspended Solids (TSS)	mg/L	15	40	45		
	lbs/day[1]	25	67	75		
pH	standard units	--	--	--	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	--	--		

This Facility is also subject to technology-based effluent limitations contained in similar NPDES permits, for similar facilities, based on the treatment level achievable by tertiary-treated wastewater treatment systems. These effluent limitations are consistent with the State Water Board precedential decision, State Water Board Order No. WQ 2004-0010 for the City of Woodland.

[1] The mass emission rates are based on the plant design flow rate of 0.20 mgd, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 CFR part 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed starting from Section IV.C.2.

40 CFR part 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a WQS, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR part 122.44(d)(1)(vi).

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 any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. The Basin Plan establishes the beneficial uses for surface water bodies in the Los Angeles region. The beneficial uses of the Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek are summarized in section III.C.1.of the Fact Sheet.

b. The Basin Plan also specifies narrative and numeric water quality objectives applicable to surface water as shown in the following discussions.

i. **$BOD_5 20^oC$ and TSS**

$BOD_5 20^oC$ 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 resupply 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 $BOD_5 20^oC$ and TSS, as:

- The 30-day average shall not exceed 30 mg/L, and
- The 7-day average shall not exceed 45 mg/L.

The Malibu Mesa WRP provides tertiary treatment, as such, the BOD and suspended solids limits in the permit are more stringent than secondary treatment requirements and are based on Best Professional Judgment (BPJ). The Plant achieves solids removal that is better than secondary-treated wastewater by adding a polymer (Alum) to enhance the precipitation of solids, and by filtering the effluent.

The monthly average, the 7-day average, and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. Those limits were all included in the previous permit Order R4-2007-0002 and the Malibu Mesa WRP has been able to meet all three limits (monthly average, the 7-day average, and the daily maximum), for both $BOD_5 20^oC$ and TSS.

In addition to having mass-based and concentration-based effluent limitations for BOD and suspended solids, the Malibu Mesa WRP also has a percent removal requirement for these two constituents. In accordance with 40 CFR parts 133.102(a)(3) and 133.102(b)(3), the 30-day average 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.

ii. **pH**

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. Minor changes from natural conditions can harm aquatic life. In accordance with 40 CFR section 133.102(c), the effluent values for pH shall be maintained within the limits of 6.0 to 9.0 unless the POTW demonstrates that: (1) Inorganic chemicals are not added to the waste stream as part of the treatment process; and (2) contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0. The effluent limitation for pH in this permit requiring that 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.”

iii. **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. The monthly average and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit Order R4-2007-0002 and the Malibu Mesa WRP has been able to meet both limits.

iv. **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 a visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. Both limits were included in the previous permit Order R4-2007-0002 and the Malibu Mesa WRP has been able to meet both limits.

v. **Residual Chlorine**

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

It is impracticable to use a 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.

vi. **Total Dissolved Solids, Chloride, Sulfate, and Boron**

The effluent discharge from the Malibu Mesa WRP flows to Marie Canyon Creek, and to Miscellaneous Los Angeles County Coastal Streams. Page 3-13 of the Basin Plan indicates that there are no waterbody- specific objectives for TDS, chloride, sulfate and boron. Although there are no specific objectives 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 limitations will not be included in this Order.

vii. **Methylene Blue Activated Substances (MBAS)**

The existing permit effluent limitation of 0.5 mg/l for MBAS was developed based on the Basin Plan incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water MUN beneficial use. Given the nature of the facility which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS WQO and the narrative WQO for the prohibition of floating material such as foams and scums. Therefore an effluent limitation is required.

viii. **Nitrogen Compounds/Nutrient Compounds**

(a). **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.

Based on the results of the beneficial uses study conducted by the Discharger, the receiving water and the underlying groundwater do not support MUN beneficial use. The 2007 permit assumes that intermittent MUN beneficial use is applicable to Marie Canyon Creek and an unnamed creek west of Marie Canyon Creek.

The 2007 permit places a 10 mg/L effluent limit for nitrate + nitrite as nitrogen based on generally applicable Basin Plan requirements. However, based on the study's conclusions regarding Marie Canyon Creek's beneficial use designations, this 10 mg/L should not apply to the Plant because without the MUN designation, the nitrogen limit is not applicable. With respect to receiving water nitrogen limits, the Basin Plan provides that "[w]aters shall not exceed 10 mg/L nitrogen *as* nitrate-nitrogen plus nitrite-nitrogen (NO_3-N + $N0_2$-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.**" of the Basin Plan at page 3-11 (emphasis added).

Basin Plan Table 3-8, *Water Quality Objectives for Selected Constituents in Inland Surface Waters,* establishes the appropriate water quality objectives for specific inland streams. Marie Canyon Creek is not specifically listed in Table 3-8; therefore, it is included within the category of "Miscellaneous Los Angeles County Coastal Streams," for which Table 3-8 does not provide any waterbody-specific objectives. To determine the applicable objectives, it is necessary to consult footnote "f", which provides a list of standards that apply depending upon the specific beneficial use for the stream. Footnote "f" states: "Site-specific objectives have not been determined for these reaches at this time. These areas are often impaired (by high levels of minerals) and there is not sufficient historic data to designate objectives based on natural background conditions." Basin Plan at 3-14, Table 3-8, footnote f.

The footnote provides a table intended to serve as a guide for establishing effluent limits for coastal streams that do not have designated water quality objectives. The footnote further states: "the most sensitive beneficial use(s) would be the determining criteria in the selection of effluent limits." *Id.* Based on the Beneficial Use Study, the most sensitive beneficial use applicable to Marie Canyon Creek is WARM. WARM is included within the category of beneficial uses identified in the footnote table as AQ LIFE (Frshwtr), which notes that "Aquatic life includes a variety of Beneficial Uses including WARM, COLD, SPWN, MIGR, and RARE." *Id.* The AQ LIFE category establishes objectives for chloride, which it sets at "230 (4 day average continuous concentration)," but does not include any objectives for nitrogen. Basin Plan Table 3-8, footnote f, does contain a default nitrogen limit for those waters with a MUN beneficial use; however, because the Study determined that MUN beneficial uses do not apply to Marie Canyon Creek, the default nitrate + nitrite as nitrogen, nitrate-nitrogen, and nitrite-nitrogen limit shall not apply as final effluent (end-of-pipe) limitations instead, these nutrients water quality objectives will be applied as receiving water limitations.

ix. **Total ammonia**

(a). 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. 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.

(b). Tables 3-1 through Tables 3-4 of the 1994 Basin Plan contained WQOs for ammonia to protect aquatic life. 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*. Resolution No. 2002-011 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, and is now in effect. On December 1, 2005, Resolution No. 2005-014, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Revise the Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life,* was adopted by the Regional Water Board. Resolution No. 2005-014 was approved by the State Water Board, the Office of Administrative Law, and USEPA on July 19, 2006, August 31, 2006, and April 5, 2007, respectively. On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan-Los Angeles Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds.* This amendment to the Basin Plan incorporates site-specific 30-day average objectives for ammonia along with corresponding site-specific early life stage implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. The State Water Board, OAL, and USEPA approved this Basin Plan amendment on January 15, 2008, May 12, 2008, and March 30, 2009, respectively.

(c). **Applicable Ammonia Objectives**

The Regional Water Board has adopted NPDES permits recently using an approach for calculating both the end-of-pipe limitations for ammonia, as well as receiving water limitations that address site-specific characteristics of effluent, as well as the receiving water. The procedures for calculating the ammonia nitrogen effluent limitation based on Basin Plan amendment is discussed below:

(1) **One-Hour Average Objective**

Based on the Discharger's beneficial uses study, the Facility's immediate receiving waterbody has no "COLD" or "MIGR" beneficial use designation. There are no coldwater fish present in the receiving water. Therefore, the receiving water will be designated as "Waters not Designated Cold or MIGR." The one-hour average objective is pH dependent and fish species salmonids present but not temperature.

For waters not designated COLD or MIGR, the one-hour average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-1 (amended on April 25, 2002) of the Basin Plan or as 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 90th percentile of effluent pH is 7.35. Use of the 90th percentile pH to set effluent limitations is appropriate because of the shorter time scale of the one-hour average. It is conservative, because it is overprotective 90% of the time. Additionally, there is little variability in the effluent pH data. Using the pH value of 7.35 in the formula above, the resulting One-hour Average Objective is equal to 24.58 mg/L.

(2) **30-Day Average Objective**

Early life stage of fish is presumptively present and must be protected at all times of the year unless the water body is listed in Table 3-X of the Basin Plan (in Resolution No. 2005-014) or unless a site-specific study is conducted, which justifies applying the ELS absent condition or a seasonal ELS present condition. Malibu Mesa WRP discharges into Marie Canyon Creek and an unnamed canyon west of Marie Canyon Creek and are not listed in Table 3-X. Therefore, these receiving waters will be designated having an "ELS Present" condition. For freshwaters subject to the "Early Life

Stage Present" condition, the thirty-day average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-2 of the Basin Plan or as described in the equation below:

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

Where T = temperature expressed in ºC.
The 30-day average objective[1] is dependent on pH, temperature, and the presence or absence of early life stages of fish. The 50th percentile of effluent pH and temperature is 7.0 pH and 20°C, respectively. Use of the 50th percentile pH and temperature is appropriate to set the 30-day average objective, because the 30-day average represents more long-term conditions. Additionally, there is little variability in the effluent pH data, and the 30-day objective is primarily dependent upon pH. Using the Discharger's monitoring data in the formula above, the resulting 30-Day Average Objective is equal to 4.15 mg/L.

(3) **Translation of Ammonia Nitrogen Objectives into Effluent Limitations**

In order to translate the water quality objectives for ammonia as described in the preceding discussions into effluent limitations, the Implementation Provisions of the 2002 Basin Plan Amendment, Section 5 – Translation of Objectives into Effluent Limits, was followed and was discussed below. This method is similar to the method contained in "Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2000). The method is also consistent with that outlined in the US EPA "Technical Support Document for Water Quality-based Toxics Control (1991).

[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 Water Quality Control Board on April 25, 2002. It was amended by Resolution No. 2005-014, adopted by the Regional Water Board on December 1, 2005 and was approved by the USEPA on April 5, 2007. This new Resolution implements ELS Provision as described under "implementation", subparagraph 3. In this Resolution, the Discharger's receiving waterbody is designated as ELS present.

For Discharge Points 001 and 002

Step 1 – Identify applicable water quality criteria.

Effluent pH and temperature are used to calculate effluent ammonia limits. This is appropriate when using the translation procedure, because the translation procedure uses variability in ammonia effluent concentrations to set the limits from the objectives. Additionally, conditions in the effluent may be significantly different than conditions in the receiving water. Use of effluent data to set effluent ammonia limits will ensure that ammonia water quality objectives are met in the effluent at all times, even in the case where effluent conditions are less favorable than receiving water conditions. Additional receiving water monitoring and compliance determinations will be required in addition to the effluent limits, to ensure that ammonia water quality objectives are met in the receiving water at all times.

From the Discharger's effluent, the following data are summarized below:

pH = 7.35 at 90th percentile
pH = 7.00 at 50th percentile
Temperature = 20°C

The receiving water is classified as Waters Not Designated COLD and/or MIGR.

From Table 3-1 of the Basin Plan, when pH is equal to 7.35;

One-hour Average Objective = 24.58 mg/L

From Table 3-2 of the Basin Plan, when pH = 7.0 and temperature = 20°C;

30-day Average Objective = 4.15 mg/L

From Basin Plan amendment;

4-day Average Objective = 2.5 times the 30-day average objective.
4-day Average Objective = 2.5 X 4.15 = 10.38 mg/L

Ammonia Water Quality Objectives (WQO) Summary:

One-hour Average = 24.58 mg/L
Four-day Average = 10.38 mg/L
30-day Average = 4.15 mg/L

Step 2 – For each water quality objective, calculate the effluent concentration allowance (ECA) using the steady-state mass balance model. Since mixing has not been allowed by the Regional Water Board, this equation applies:

ECA = WQO

Step 3 – Determine the Long-Term Average discharge condition (LTA) by multiplying each ECA with a factor (multiplier) that adjust for variability. By using Table 3-6, calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

ECA multiplier when CV = 1.32

One-hour Average = 0.160
Four-day Average = 0.296
30-day Average = 0.592

Using the LTA equations:

$LTA_{1\text{-hour/99}} = ECA_{1\text{-hour}} \times ECA\ multiplier_{1\text{-hour99}} = 24.58 \times 0.160 = 3.9324$ mg/L

$LTA_{4\text{-day/99}} = ECA_{4\text{-day}} \times ECA\ multiplier_{4\text{-day99}} = 10.38 \times 0.296 = 3.0712$ mg/L

$LTA_{30\text{-day/99}} = ECA_{30\text{-day}} \times ECA\ multiplier_{30\text{-day99}} = 4.15 \times 0.592 = 2.4570$ mg/L

Step 4 – Select the (most limiting) of the LTAs derived in Step 3 (LTA_{min})

$LTA_{min} = 2.457$ mg/L

Step 5 – Calculate water based effluent limitation MDEL and AMEL by multiplying LTA_{min} as selected in Step 4, with a factor (multiplier) found in Table 3-7.

Monthly sampling frequency (n) is 30 times per month or less, and the minimum LTA is the $LTA_{30\text{-day/99}}$, therefore n = 30, CV = 1.32

MDEL multiplier = 6.245
AMEL multiplier = 1.437

$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 2.457 \times 6.245 = 15.34$ mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 2.457 \times 1.437 = 3.53$ mg/L

Table 7. Translated Ammonia Effluent Limitations

Constituent	AMEL (mg/L)	MDEL (mg/L)
Ammonia Nitrogen	3.5	15

x. **Coliform**

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

(a). Effluent Limitations

- The 7-day median number of total coliform bacteria at some point in the disinfected effluent must not exceed an MPN or CFU of 2.2 per 100 milliliters;

- The number of total coliform bacteria must not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period; and

- No sample shall exceed an MPN of CFU of 240 total coliform bacteria per 100 milliliters.

These limits for coliform must be met at the point of the treatment train immediately following disinfection. The disinfection and filtration processes reduce the likelihood of having pathogens in the discharger's effluent. Most of the time the coliform analyses results are reported as less than 1 MPN/100 mL. Therefore, the technology-based effluent limitation is also protective of water quality.

(b). Receiving Water Limitations

- Geometric Mean Limitations

  - E.coli density shall not exceed 126/100 mL.

- Single Sample Limitations

  - E.coli density shall not exceed 235/100 mL.

These receiving water limitations are based on Resolution No. R10-005, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Freshwaters Designated*

for Water Contact Recreation by Removing the Fecal Coliform Objective, adopted by the Regional Water Board on July 8, 2010, and became effective on December 5, 2011.

xi. **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 (NTU); (b) 5 NTU more than 5 percent of the time (72 minutes) during any 24 hour period; and (c) 10 NTU at any time" is based on the Basin Plan (page 3-17) and Section 60301.320 of Title 22, Chapter 3, "Filtered Wastewater" of the California Code of Regulations.

xii. **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 MUN beneficial use. However, the Regional Water Board has new information about the appropriate designated uses for the water body, and based on the current designated uses, a limit for radioactivity is unnecessary and inappropriate unless discharge is to a reach used for groundwater recharge, where Title 22-based limits apply. As discussed in the Beneficial uses of the receiving groundwater section beginning at F-10 of this Fact Sheet, it was determined that the receiving groundwater has no GWR beneficial use designation. Therefore, the accompanying Order will not contain effluent limitations for radioactivity.

xiii. **Temperature**

USEPA document, *Quality Criteria for Water 1986* [EPA 440/5-86-001, May 1, 1986], also referred to as the *Gold Book*, discusses temperature and its effects on beneficial uses, such as recreation and aquatic life.

(a). The Federal Water Pollution Control Administration in 1967 called temperature "a catalyst, a depressant, an activator, a restrictor, a stimulator, a controller, a killer, and one of the most important water quality characteristics to life in water." The suitability of water for total body

immersion is greatly affected by temperature. Depending on the amount of activity by the swimmer, comfortable temperatures range from 20°C to 30°C (68 °F to 86 °F).

(b). Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.

(c). Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases, assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

The Basin Plan lists temperature requirements for the receiving waters. Based on the requirements of the Basin 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 Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, 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. It is impracticable to use a 7-day average or a 30-day average limitation for temperature, because it is not as protective as of beneficial uses as a daily maximum limitation is. A daily maximum limitation is necessary to protect aquatic life and is consistent with the fishable/swimmable goals of the CWA.

Section IV.A.2.b. of the Order contains the following effluent limitation for temperature:

> "The temperature of wastes discharged shall not exceed 86ºF as a result of external ambient temperature."

The above effluent limitation for temperature has been quoted in all recent NPDES permits adopted by this Regional Water Board.

Section V.A.1. of the Order explains how compliance with the receiving water temperature limitation will be determined.

c. **CTR and SIP**

The California Toxic Rule (CTR) and State Implementation Policy (SIP) specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct a reasonable potential analysis (RPA) to determine the need for effluent limitations for priority and non-priority pollutants.

3. Determining the Need for WQBELs

Priority pollutant water quality criteria in the CTR are applicable to Marie Canyon Creek. 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 part 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 Marie Canyon Creek.

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 Creek or to unnamed canyon west of Marie Canyon Creek. Since all of the receiving water hardness data are greater than 400 mg/L as $CaCO_3$, 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.

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted an RPA 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, WQOs specified in the Basin Plan. To conduct the RPA, the Regional Water Board staff identified the maximum effluent concentration (MEC) and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger. The monitoring data used are the available data from the previous permit Order No. R4-2007-0002.

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.

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 and bis(2-ethylhexyl)phthalate. Copper and bis(2-ethylhexyl)phthalate show reasonable potential because (B) and MEC are greater than (C). The following Table summarizes results from RPA.

Table 8. 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	7.31	0.1	1.39	No	C>B, C>MEC
5a	Chromium III	644.2	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	18.58	3.65	ND<5	No	C>B, C>MEC
8	Mercury	0.051	<0.5	ND<1	No	C>B, C>MEC
9	Nickel	168.54	11.8	93.0	No	C>B, C>MEC
10	Selenium	5	<5	6.29	No[2]	C>MEC, B>C
11	Silver	44.05	ND<10	ND<10	No	C>B, C>MEC
12	Thallium	6.3	ND<10	ND<10	No	C>B, C>MEC

[2] Step 6 of SIP, page 4, states that if B is greater that 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
13	Zinc	388	74.2	51.2	No	C>B, C>MEC
14	Cyanide	5.2	ND<10	--	No	C>MEC
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
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

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
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
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

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
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
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

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
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. **Calculation Options**. Once RPA has been conducted using either the TSD or the SIP methodologies, WQBELs are calculated. Alternative procedures for calculating WQBELs include:

i. Use WLA from applicable TMDL
ii. Use a steady-state model to derive Maximum Daily Effluent Limits and Average Monthly Effluent Limits.
iii. Where sufficient data exist, use a dynamic model which has been approved by the State Water Board.

b. **Santa Monica Bay DDTs and PCBs Calculation Procedure**.

Malibu Mesa WRP discharges to inland surface waters that flow indirectly to Santa Monica Bay (Table 6-2 of the TMDL). For this discharge, USEPA has established concentration-based WLAs for DDTs and PCBs based on CWA Section 304(a) criterion for human health. Federal regulations require that NPDES permits incorporate WQBELs consistent with the requirements and assumptions of any available WLAs.

USEPA also recommends that the concentration-based WLAs for inland discharges (i.e., Tapia WRF and Malibu Mesa WRP) which are based on CWA Section 304(a) criterion for human health be implemented in permits using the human health WQBEL calculation procedure in the SIP to set monthly average and daily maximum WQBELs.

USEPA recommends that the all mass-based WLAs be directly implemented as annual average WQBELs in permits (in g/yr) for discharges listed in Table 6-2 be calculated and reported as the sum of monthly emissions on a calendar year basis and computed as follows:

Annual Mass Emission, g/year = $\sum(Monthy\ Mass\ Emission\ Rates, g/month)$

or, for discharges with less frequent DDT and PCBs monitoring than monthly, the annual mass emission (in g/yr) should be calculated using the arithmetic average of available monthly mass emissions as follows:

Annual Mass Emission, g/year:

$$= \left(\frac{\sum Monthly\ Mass\ Emission, g/mo}{Number\ of\ Monthly\ Mass\ Emissions\ Calculated} \right) * 12\ mo/year$$

where:

Monthly Mass Emission, kg/mo:

$$= \left(\frac{3{,}785}{N}\right) * \left(\sum_{i=1}^{N} QiCi\right) * 30.5 \ = \frac{0.1154425}{N} * \left(\sum_{i=1}^{N} QiCi\right)$$

and where:

C_i = DDT or PCBs concentration of each individual sample, ng/L
Q_i = discharger flow rate on date of sample, million gallons per day (mgd)
N = number of samples collected during the month
0.003785 = conversion factor to convert (ng/L) x (mgd) into g/day
30.5 = number of days in standard month
0.1154425 = product of (conversion factor) (number of standard days per month)

and where Q_i for intermittent discharges (dischargers who do not discharge every day in a calendar month, or have no discharge for an entire month (Q_i=0)) should be calculated as follows:

$$Qi = \left(\frac{\sum_{d=1}^{D} Qd}{30.5} \right)$$

where:

Qd = is the total flow for the day when discharge occurred, million gallons per day (mgd)
D = total number of days where discharge occurred in a month
30.5 = number of days in a standard month

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

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

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

Sample calculation for Copper:

Step 1: Identify applicable water quality criteria.

From California Toxics Rule (CTR), we can obtain the Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC).

Freshwater Aquatic Life Criteria:
CMC = 51.68 µg/L
CCC = 30.50 µg/L and
Human Health Criteria for Organisms only = none (CTR page 31712, column D2).

Step 2: Calculate effluent concentration allowance (ECA)

ECA = Criteria in CTR, since no dilution is allowed.

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

i. Calculate CV:

CV = Standard Deviation/Mean
= 0.73

ECA Multipliers when CV =0.73, then:

ECA Multiplier $_{acute}$ = 0.271 and
ECA Multiplier $_{chronic}$ = 0.468

LTA $_{acute}$ = ECA $_{acute}$ x ECA Multiplier $_{acute}$
= 51.68 µg/L x 0.271 = 14.01 µg/L

LTA $_{chronic}$ = ECA $_{chronic}$ x ECA Multiplier $_{chronic}$
= 30.50 µg/L x 0.468 = 14.27 µg/L

Step 4: Select the lowest LTA

LTA $_{min}$ = 14.01 µg/L

Step 5: Calculate the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for AQUATIC LIFE

i. Find the multipliers. You need to know CV and n (frequency of sample collection per month). If effluent samples are collected 4 times a month or less, then n = 4. CV was determined to be 0.73 in the previous step.

AMEL Multiplier = 1.68
MDEL Multiplier = 3.69

ii. AMEL $_{\text{aquatic life}}$ = lowest LTA (from Step 4) x AMEL Multiplier
= 14.01 µg/L x 1.68 = 23.53 µg/L

iii. MDEL $_{\text{aquatic life}}$ = lowest LTA (from Step 4) x MDEL Multiplier
= 14.01 µg/L x 3.69 = 51.68 µg/L

Step 6: Find the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for HUMAN HEALTH

N/A, no numeric human health criteria.

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

i. Lowest AMEL = 23.53 µg/L (Based on aquatic life protection)

ii. Lowest MDEL = 51.68 µg/L (Based on aquatic life protection)

d. **Impracticability Analysis**

Federal NPDES regulations contained in 40 CFR part 122.45 continuous dischargers, states that all permit limitations, standards, and prohibitions, including those to achieve water quality standards, shall unless impracticable be stated as maximum daily and average monthly discharge limitations for all dischargers other than POTWs.

As stated by USEPA in its long standing guidance for developing water quality-based effluent limitations (WQBELs) average alone limitations are not practical for limiting acute, chronic, and human health toxic effects.

For example, a POTW sampling for a toxicant to evaluate compliance with a 7-day average limitation could fully comply with this average limit, but still be discharging toxic effluent on one, two, three, or up to four of these seven days and not be meeting 1-hour average acute criteria or 4-day average chronic criteria. For these reason, USEPA recommends daily maximum and 30-day average limits for regulating toxics in all NPDES discharges. For the purposes of protecting the acute effects of discharges containing toxicants (CTR human health for the ingestion of fish), daily maximum limitations have been established

in this NPDES permit for mercury because it is considered to be a carcinogen, endocrine disruptor, and is bioaccumulative.

A 7-day average alone would not protect one, two, three, or four days of discharging pollutants in excess of the acute and chronic criteria. Fish exposed to these endocrine disrupting chemicals will be passed on to the human consumer. Endocrine disrupters alter hormonal functions by several means. These substances can:

- mimic or partly mimic the sex steroid hormones estrogens and androgens (the male sex hormone) by binding to hormone receptors or influencing cell signaling pathways.
- block, prevent and alter hormonal binding to hormone receptors or influencing cell signaling pathways.
- alter production and breakdown of natural hormones.
- modify the making and function of hormone receptors.

e. **Mass-based limits**. 40 CFR part 122.45(f)(1) requires that except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR part 122.45(f)(2) allows the permit writer, at its discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents.

Table 9. Summary of Water Quality-based Effluent Limitations for Discharge Points 001 and 002

Parameter	Units	Effluent Limitations					
		Average Annually	Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
Copper	µg/L		24	--	52		
	lbs/day[3]		0.040	--	0.087		

[3] The mass emission rates are based on the plant design flow rate of 0.20 mgd, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day, or Flow (MGD) x Concentration (µg/L) x 0.00834 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

Parameter	Units	Effluent Limitations					
		Average Annually	Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
Bis(2-Ethylhexyl)Phthalate	µg/L		5.9	--	16		
	lbs/day[3]		0.0098	--	0.027		
Ammonia Nitrogen	µg/L		3.5	--	15		
	lbs/day[3]		5.8	--	25		
DDTs[4]	µg/L	--	0.00022	--	0.00044		
	g/yr	0.061	--	--	--		
PCBs as arochlors[5]	µg/L	--	0.000064	--	0.00013		
	g/yr	0.019	--	--	--		

5. Whole Effluent Toxicity (WET)

Because of the nature of industrial discharges into the POTW sewershed, it is possible that other toxic constituents could be present in the Malibu Mesa WRP effluent, or could have synergistic or additive effects. Also, because numeric limits for certain toxic constituents that did not show RP have been removed, the acute toxicity limit may provide a backstop to preventing the discharge of toxic pollutants in toxic amounts. As such, the permit contains effluent limitations for toxicity.

The toxicity numeric effluent limitations are based on:

a. 40 CFR part 122.44(d)(v) – limits on whole effluent toxicity are necessary when chemical-specific limits are not sufficient to attain and maintain applicable numeric or narrative water quality standards;

b. 40 CFR part 122.44(d)(vi)(A) – where a State has not developed a water quality criterion for a specific pollutant that is present in the effluent and has reasonable potential, the permitting authority can establish effluent limits using numeric water quality criterion;

c. Basin Plan objectives and implementation provisions for toxicity;

d. Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;

e. Whole Effluent Toxicity (WET) Control Policy July 1994; and,

f. Technical Support Document (several chapters and Appendix B).

However, the circumstances warranting a numeric chronic toxicity effluent limitation

[4] DDT means the sum of 4,4′-DDT, 2,4′-DDT, 4,4′-DDE, 2,4′-DDE, 4,4′-DDD, and 2,4′-DDD.

[5] PCBs mean the sum of Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260 when monitoring using USEPA method 608.

when there is reasonable potential were under review by the State Water Resources Control Board (State Water Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Water Board adopted Order No. 2003-0012 deferring the issue of numeric chronic toxicity effluent limitations until a subsequent Phase of the SIP is adopted. In the mean time, the State Water Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar narrative chronic toxicity effluent limitation, with a numeric trigger for accelerated monitoring. Phase II of the SIP has been adopted, however, the toxicity control provisions were not revised.

On January 17, 2006, the State Water Board Division of Water Quality held a California Environmental Quality Act (CEQA) scoping meeting to seek input on the scope and content of the environmental information that should be considered in the planned revisions of the Toxicity Control Provisions of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). However, the Toxicity Control Provisions of the SIP continue unchanged.

This Order contains a reopener to allow the Regional Water Board to modify the permit, if necessary, consistent with any new policy, law, or regulation. Until such time, this Order will have toxicity limitations that are consistent with the State Water Board's precedential decision.

a. Acute Toxicity Limitation:

   The Dischargers may test for acute toxicity by using 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). Acute toxicity provisions in the accompanying Order are derived from the Basin Plan's toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate acute toxicity monitoring and take further actions to identify the source of toxicity and to reduce acute toxicity.

b. Chronic Toxicity Limitation and Requirements:

   Chronic toxicity provisions in the accompanying Order are derived from the Basin Plan's toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate chronic toxicity monitoring and take further actions to identify the source of toxicity and to reduce chronic toxicity. The monthly median trigger of 1.0 TU_c for chronic toxicity is based on *USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity (WET) Programs* Final May 31, 1996 (Chapter 2 – Developing WET Permitting Conditions, page 2-8). In cases where effluent receives no dilution or where mixing zones are not allowed, the I.0 TU_c chronic criterion should be expressed as a monthly median. The "median" is defined as the middle value in a distribution, above which and below which lie an

equal number of values. For example, if the results of the WET testing for a month were 1.5, 1.0, and 1.0 TU_c, the median would be 1.0 TU_c.

The *USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity (WET) Programs* Final May 31, 1996 (Chapter 2 – Developing WET Permitting Conditions, page 2-8) recommends two alternatives for setting up maximum daily limit: using 2.0 TUc as the maximum daily limit; or using a statistical approach outlined in the TSD to develop a maximum daily effluent limitation. In this permit, a maximum daily limitation is not prescribed. However, a trigger for chronic toxicity is prescribed.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

Some effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitation for nickel, nitrate + nitrite as nitrogen, nitrate as nitrogen, and nitrite as nitrogen. The effluent limitation for nickel was deleted because it did not show reasonable potential to be in the effluent water. The nitrate + nitrite as nitrogen, nitrate as nitrogen, and nitrite as nitrogen were removed because there are no current applicable water quality standards based on MUN beneficial use. The removal of effluent limitations for these constituents are consistent with the anti-backsliding requirements of CWA section 303(d)4(B) because there is no reasonable potential to exceed the water quality standards and no lowering of water quality standard should result from the discharge of these constituents at currently monitored levels. (See Antidegradation Policy discussion starting on page F-13 of the Fact Sheet). This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

2. Satisfaction of Antidegradation Policy

On October 28, 1968, the State Water Board adopted Resolution No. 68-16, *Maintaining High Quality Water*, which established an antidegradation policy for State and Regional Water Boards. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy. Similarly, the CWA (section 304(d)(4)(B)) and USEPA regulations (40 CFR part 131.12) require that all permitting actions be consistent with the federal antidegradation policy. Together, the State and Federal policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. Discharges in conformance with the provisions of this Order will not result in a lowering of water quality and therefore conform to the antidegradation policies. This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The final limitations in this Order hold the Discharger to performance levels that will not cause or contribute to water quality impairment or degradation of water quality. Therefore, the permitted discharge is

consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, TSS, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS and pH are discussed in Section IV.B. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards.

Water quality-based effluent limitations have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs 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 section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and WQOs contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs 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 section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and the applicable water quality standards for purposes of the CWA.

Table 10. Summary of Final Effluent Limitations for Discharge Points 001 and 002

Parameter	Units	Effluent Limitations						Basis
		Average Annually	Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum	
$BOD_5 20^oC$	mg/L		20	30	45			Existing
	lbs/day[6]		33	50	75			
Total Suspended Solids (TSS)	mg/L		15	40	45			Existing
	lbs/day[6]		25	67	75			
pH	standard units		--	--	--	6.5	8.5	Existing

[6] The mass emission rates are based on the plant design flow rate of 0.20 mgd, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day, or Flow (MGD) x Concentration (µg/L) x 0.00834 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

Parameter	Units	Effluent Limitations						Basis
		Average Annually	Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum	
Removal Efficiency for BOD and TSS	%		85	--	--			Existing
Oil and Grease	mg/L		10	--	15			Existing
	lbs/day[6]		17	--	25			
Settleable Solids	ml/L		0.1	--	0.3			Existing
Chloride	mg/L		230	--	--			Existing
	lbs/day[6]		384	--	--			
MBAS	mg/L		0.5	--	--			Existing
	lbs/day[6]		0.8	--	--			
Ammonia Nitrogen	mg/L		3.5	--	15			Basin Plan
	lbs/day[6]		5.8	--	25			
Copper	µg/L		24	--	52			SIP/CTR
	lbs/day[6]		0.040	--	0.087			
Bis(2-Ethylhexyl)Phthalate	µg/L		5.9	--	16			SIP/CTR
	lbs/day[6]		0.0098	--	0.027			
DDTs[7]	µg/L	--	0.00022	--	0.00044			TMDL
	g/yr	0.061	--	--	--			
PCBs as arochlors[8]	µg/L	--	0.000064	--	0.00013			TMDL
	g/yr	0.019	--	--	--			

E. 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, CI-5689.

2. The reuse of the reclaimed water by Pepperdine University is also regulated under a separate Waste Discharge Requirements and Water Recycling Requirements for Las Virgenes Municipal Water District and Pepperdine University, Malibu Campus, Order No. 94-055, File No. 64-104 and File No. 70-060, CI-5752.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order.

[7] DDT means the sum of 4,4′-DDT, 2,4′-DDT, 4,4′-DDE, 2,4′-DDE, 4,4′-DDD, and 2,4′-DDD.

[8] PCBs mean the sum of Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260 when monitoring using USEPA method 608.

1. Discharges from the Reclamation Facility to Marie Canyon Creek are restricted to emergency conditions only. Discharges should be rare events. The Facility has not discharged treated wastewater into the creek for the last seven years of operation. If discharges do occur, they would be during storm events when there are high flows in Marie Canyon Creek, which would provide significant dilution; thus, there should be limited, if any, impacts on this waterbody from nutrients. Therefore, no WQBELs for nitrate-N, nitrite-N, and nitrate-N plus nitrite-N are prescribed in this Order.

   The Basin Plan surface water requirement for nitrogen shall be met at the Marie Canyon Creek. Receiving waters shall not exceed 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 an nitrite-nitrogen (NO_2-N).

B. Groundwater (Not Applicable)

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

Limitations in this Order must protect not only surface receiving water beneficial uses, but also, the beneficial uses of underlying groundwater where there is a recharge beneficial use of the surface water. However, sections of Marie Canyon Creek downstream of the discharge do not have GWR beneficial use. Therefore, this permit will not contain groundwater limitations.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), 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 MRP for this facility.

A. Influent Monitoring

This Order carries forward the treatment plant's influent monitoring requirements with the inclusion of cyanide.

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 (MRP) in Attachment E. This provision requires compliance with the MRP, and is based on 40 CFR parts 122.44(i), 122.62, 122.63, and 124.5. The MRP 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 MRP 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 MRP (Attachment E) and as required in the SIP.

The changes in the effluent monitoring are summarized in the following table.

Table 11. Effluent Monitoring Program Comparison Table

Parameter	Monitoring Frequency (2007 Permit)	Monitoring Frequency (2012 Permit)
Chronic Toxicity	annually	1/Discharge event
Acute Toxicity	annually	1/Discharge event
Chloride	weekly	1/Discharge event
Copper	quarterly	1/Discharge event
Nickel	quarterly	1/Discharge event
Bis(2-ethylhexyl)phthalate	quarterly	1/Discharge event
2,3,7,8-TCDD (Dioxin)	semiannually	1/Discharge event
Perchlorate	not required	1/Discharge event
1,4-Dioxane	not required	1/Discharge event
1,2,3-Trichloropropane	not required	1/Discharge event
Methyl-tert-butyl-ether (MTBE)	not required	1/Discharge event
Pesticide	not required	1/Discharge event
Ammonia nitrogen	weekly	1/Discharge event
Nitrate nitrogen	weekly	1/Discharge event
Nitrite nitrogen	weekly	1/Discharge event
Organic nitrogen	weekly	1/Discharge event
Total nitrogen	weekly	1/Discharge event
DDTs	not required	1/Discharge event
PCBs	not required	1/Discharge event

The Discharger is limited to discharging the treated effluent into the receiving water as necessary to 10 days per year and only during the wet season, unless otherwise authorized by the Executive Officer. During the last permit cycle (2007-2011), the Facility did not discharge treated effluent wastewater into the receiving water. Since the discharge of wastewater is intermittent and seasonal, the conventional monitoring frequency of weekly, monthly, quarterly, etc., is not appropriate for this type of discharge. The reduction/increase of monitoring frequencies for priority pollutants listed

in the above table cannot be determined because the Discharger never discharged during the permit cycle.

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.

2. Groundwater

This Order and Monitoring and Reporting Program do not include requirements for groundwater monitoring because no limitations are based upon the protection of MUN use of underlying groundwater. For constituents that have limitations, the limits are based upon Basin Plan and CTR and are also protective of the beneficial uses of groundwater.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR part 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR part 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR part 122.42.

40 CFR parts 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.

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. **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.

b. **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.

c. **Treatment Plant Capacity.** The treatment plant capacity study required by this Order shall serve as an indicator for the Regional Water Board regarding Facility's increasing hydraulic capacity and growth in the service area.

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

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

5. Special Provisions for Municipal Facilities (POTWs Only)

a. **Biosolids Requirements.** To implement CWA Section 405(d), on February 19, 1993, USEPA promulgated 40 CFR part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.

b. **Pretreatment Requirements. (Not Applicable)**

c. **Spill Reporting Requirements.** This Order established a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. The Discharger must comply with both the General Order and this Order.

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 Plant. 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 by posting notices at the Malibu Mesa WRP and at the Los Angeles County Department of Public Works office.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must 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 must be received at the Regional Water Board offices by **12:00 p.m. (noon) on November 5, 2012**.

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: **December 6, 2012**
Time: 9:00 AM
Location: City of Simi Valley Council Chambers
2929 Tapo Canyon Road
Simi Valley, California

Interested persons are invited to attend. At the public hearing, the Regional 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. Nature of Hearing

This will be a formal adjudicative hearing pursuant to section 648 et seq. of title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with section 11500 of the Government Code) will not apply to this proceeding.

Ex Parte Communications Prohibited: As a quasi-adjudicative proceeding, no board member may discuss the subject of this hearing with any person, except during the public hearing itself. Any communications to the Regional Water Board must be directed to staff.

E. Parties to the Hearing

The following are the parties to this proceeding:

- The applicant/permittee

Any other persons requesting party status must submit a written or electronic request to staff not later than 20 business days before the hearing. All parties will be notified if other persons are so designated.

F. Public Comments and Submittal of Evidence

Persons wishing to comment upon or object to the tentative waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to the above address. To be evaluated and responded to by staff, included in the Board's agenda folder, and fully considered by the Board, written comments must be received by **12:00 p.m. (noon) on November 5, 2012**. Comments or evidence received after that date will be submitted, ex agenda, to the Board for consideration, but only included in administrative record with express approval of the Chair during the hearing. Additionally, if the Board receives only supportive comments, the permit may be placed on the Board's consent calendar, and approved without an oral testimony.

G. Hearing Procedure

The meeting, in which the hearing will be a part of, will start at 9:00 a.m. Interested persons are invited to attend. Staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to 30 minutes maximum or less for each speaker, depending on the number of persons wishing to be heard. Parties or persons with similar concerns or opinions are encouraged to choose one representative to speak. At the conclusion of testimony, the Board will deliberate in open or close session, and render a decision.

Parties or persons with special procedural requests should contact staff. Any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of the California Code of Regulations. Objections to any procedure to be used during this hearing must be submitted in writing not later than close of 15 business days prior to the date of the hearing. Procedural objections will not be entertained at the hearing.

If there should not be a quorum on the scheduled date of this meeting, all cases will be automatically continued to the next scheduled meeting in February 7, 2013. A continuance will not extend any time set forth herein.

H. 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

I. Information and Copying

The ROWD, 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.

J. 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.

K. Additional Information

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