
Los Angeles Regional Water Quality Control Board

June 13, 2013

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
No. 7000 0600 0029 1196 8137

Ms. Katherine Rubin
Manager of Wastewater Quality and Compliance
City of Los Angeles Department of Water and Power
111 North Hope Street, Room 1213
Los Angeles, CA 90012

Dear Ms. Rubin:

TRANSMITTAL OF THE WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ORDER NO. R4-2013-0093) FOR CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER, CASTAIC POWER PLANT, CASTAIC, CA. (NPDES NO. CA0055824, CI NO. 6112)

Our letter dated May 21, 2013, transmitted the revised tentative waste discharge requirements (WDRs) for renewal of your permit to discharge wastewater to surface waters under the National Pollutant Discharge Elimination System (NPDES) Program.

Pursuant to Division 7 of the California Water Code, this Regional Water Board at a public hearing held on June 6, 2013, reviewed the revised tentative requirements, considered all factors in the case, and adopted Order No. R4-2013-0093.

Order R4-2013-0093 serves as an NPDES permit, and it expires on July 26, 2018. Section 13376 of the California Water Code requires that an application/Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date.

You are required to implement the Monitoring and Reporting Program (MRP) on the effective date (July 26, 2013) of Order No. R4-2013-0093. Your first monitoring report for the period of July 2013 through September 30, 2013 is due by November 1, 2013. Submit all monitoring and technical reports to the Regional Water Board, ATTN: Information Technology Unit.

The Regional Water Board is implementing a paperless office system to reduce paper use, increase efficiency and provide a more effective way for our staff, the public and interested parties to view water quality documents. Therefore, please convert all regulatory documents, submissions, data and correspondence that you would normally submit to us as hard copies to a searchable Portable Document Format (PDF). Documents that are less than 10 megabyte (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 above. If you need additional information regarding electronic submittal of documents please visit the Regional Water Board's website listed above and navigate to Paperless Office.

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File CI-6112 and NPDES No. CA0055824, which will assure that the reports, are directed to the appropriate file and staff. Please do not combine your discharge monitoring reports with other reports, such as technical reports. Submit each type of report as a separate document.

We are sending the paper copy of the Permit to the Discharger only. For those on the mailing list or other interested parties who would like access to a copy of the Permit, please go to the Regional Water Board's website at:

http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/by_permits_tools.shtml.

If you have any questions, please contact Rosario Aston at (213) 576-6653.

Sincerely,



Cassandra D. Owens, Chief
Industrial Permitting Unit (NPDES)

cc: See Mailing List

Enclosures: Order No. R4-2013-0093 - Waste Discharge Requirements
Attachment E - Monitoring and Reporting Program (MRP No. 6112)
Attachment F - Fact Sheet

Mailing List

Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
U.S. Army Corps of Engineers
NOAA, National Marine Fisheries Service
Department of Interior, U.S. Fish and Wildlife Service
NPDES Wastewater Unit, State water Resources Control Board, Division of Water Quality
Mr. William Paznokas, Department of Fish and Game, Region 5
Department of Public Health, Sanitary Engineering Section
California Coastal Commission, South Coast Region
South Coast Air Quality Management District
Water Replenishment District of Southern California
Los Angeles County, Department of Public Works, Waste Management Division
Ms. Leah G. Walker, Department of Public Health, Division of Drinking Water and
Environmental Management
City of Castaic
Ms. Kirsten James, Heal the Bay
Ms. Liz Crosson, Los Angeles WaterKeeper
Ms. Anna Kheyfets, Natural Resources Defense Council
Ms. Charlynn Rachell, City of Los Angeles, DWP
Mr. Jae Kim, Tetra Tech

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

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**ORDER NO. R4-2013-0093
NPDES NO. CA0055824**

**WASTE DISCHARGE REQUIREMENTS
FOR CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER
CASTAIC POWER PLANT**

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

Table 1. Discharger Information

Discharger	City of Los Angeles, Department of Water and Power
Name of Facility	Castaic Power Plant
Facility Address	37700 Templin Highway
	Castaic, CA 91384
	Los Angeles County

The discharge by the City of Los Angeles, Department of Water and Power 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
003	Non-contact cooling water and industrial use water	34° 35' 14" N	118° 39' 22" W	Elderberry Forebay
004	Oily wastewater and industrial use water			
005	Non-contact cooling water, industrial use water, other wastewater			
006	Potable treatment backwash Water			

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	June 6, 2013
This Order shall become effective on:	July 26, 2013
This Order shall expire on:	July 26, 2018
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.
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as follows:	Major discharge.

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 June 6, 2013.



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	City of Los Angeles Department of Water and Power
Name of Facility	Castaic Power Plant
Facility Address	37700 Templin Highway
	Castaic, CA 91384
	Los Angeles County
Facility Contact, Title, and Phone	Katherine Rubin, Wastewater Quality & Compliance Manager (213) 367-0436
Mailing Address	111 N. Hope Street Room 1213 Lost Angeles, CA 90012
Type of Facility	Hydroelectric power plant
Facility Design Flow	393.590 million gallons per day (MGD) - Cooling water and other industrial wastewaters including potable treatment backwash water discharged to Elderberry Forebay.

II. FINDINGS

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

A. Background. The City of Los Angeles Department of Water and Power (hereinafter Discharger) is currently discharging pursuant to Order No. R4-2010-0181 (amending Order No. R4-2007-0025) and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0055824. The Discharger submitted a Report of Waste Discharge (ROWD), dated December 19, 2011, and applied for an NPDES permit renewal to discharge up to 13.241 million gallons per day (MGD) of cooling water and other industrial wastewaters, and potable backwash water to Elderberry Forebay from Castaic Power Plant, hereinafter Castaic or Facility. The application was deemed complete on December 21, 2011. On May 10, 2013, the Discharger submitted a modified ROWD (i.e. EPA Form 2C, and revised Schematic Flow Diagram and Map) to change the flow rates for Discharge Points 003, 004, and 005 based on the current discharges from the Facility. The new discharge flow rate from all discharge points (003, 004, 005, 006 and the underwater discharge points) is 393.590 MGD.

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 operates a hydroelectric, pump storage generating station located at 37700 Templin Highway (approximately five miles east of Interstate 5), Castaic, Los Angeles County, California. The Facility provides peak-load power, generated by the movement of water from Pyramid Lake down a gradient (through a 7.2-mile long tunnel and penstocks) to turn seven turbines, with eventual discharge to Elderberry Forebay. Approximately 2.6 billion gpd of water from Pyramid Lake is transferred to Elderberry Forebay during the production of electrical energy. During off-peak hours, water is pumped from Elderberry Forebay back to Pyramid Lake. Other uses for water at the Castaic Power Plant include generator cooling, turbine cooling, and industrial uses (i.e., fire suppression system and floor wash down activities). Source water for other uses is taken from Pyramid Lake, Elderberry Forebay, and ground water. Attachment B provides maps of the area around the Facility. Attachment C provides flow schematics of the Facility.

Following are descriptions of the wastewater from Castaic Power Plant:

- 1. Discharge Points 003, 004, 005, and 006** - These Outfalls discharge wastewater to Elderberry Forebay, a water of the United States.
 - a. Discharge Point 003** - Up to 380.00 MGD of *Unit 7 Tailrace* wastewater is discharged to Elderberry Forebay without treatment through this Outfall. The wastewater discharge from *Unit 7 Tailrace* (discharge channel) is composed of Unit 7 generator cooling water, industrial use water, and cooling water from air compressors. The generator and after cooler cooling systems are closed

systems that use non-contact cooling water. The industrial use water comes from sprinkler and fire suppressant systems and floor wash down water.

- b. Discharge Point 004** – Up to 179,505 gpd of treated wastewater from the *Oil Water Separator* is discharged to Elderberry Forebay through this Outfall. The oil water separator collects and treats the wastewater from the floor drain sump. Water leakage from the surrounding mechanical turbine shaft seals during the operation of the turbines to generate power is collected via drains throughout the facility and channeled to a floor drain sump. A portion (500 gpd) of the industrial use water, used for sprinkler and fire suppression systems and floor wash down water, is also directed to the floor drain sump.
- c. Discharge Point 005** – Up to 316,000 gpd of wastewater from the *Combined Discharge from Additional Cooling, Sump, and Industrial Use Waters* is discharged to Elderberry Forebay without treatment through this Outfall. The wastewater is comprised of wastes from cooling water from air compressors (302,400 gpd), industrial use (1,500) gpd), and compressor after cooler (3000 gpd), gallery drain, seal drain, and dewatering sumps (91,000 gpd). Castaic Power Plant uses compressed air to build pressure in the draft tubes in order to prime the pumps used to pump water from Elderberry Forebay back to Pyramid Lake. The compressed air and water is then released to a dewatering sump. A gallery drain sump is used as a drain system for the penstocks (intake tunnel). A seal drain sump collects water that leaks through the rubber seals connecting the three parts of the building.
- d. Discharge Point 006** – Up to 1,200 to 1,500 gpd of potable backwash water is discharged to Elderberry Forebay through this Outfall. The Facility has a domestic water system designed to provide up to 100,000 gallons of potable water for the Plant's personnel usage. The potable water system draws water from the Plant's penstocks. The water is treated primarily for the removal of solids via the addition of sediment-binding flocculants and the subsequent retention of this sediment in the system's clarifying units. The water is then pressurized, chlorinated, and delivered as potable supply. To maintain the delivery of high quality potable water and to remove the buildup of the sediment on the filter, the filter is routinely backwashed. The discharge of backwash water may occur three to four times a week, depending on the turbidity level of the raw water. The Discharger indicated in the cover letter accompanying the ROWD and permit renewal application that the potable water facility has not yet been put into service; however, the Discharger plans to use the system in the near future.
- e. Underwater Discharge Points - Waste Streams from Units 1, 2, 3, 4, 5, and 6 Generator Cooling** – The generator and turbine cooling water for power generating Units 1-6 is non-contact cooling water for power generation at Units 1-6. The associated discharges are at submerged locations at least 43 to 83 feet below the water surface of the Elderberry Forebay. In addition, the flow combines immediately with the Forebay water at a flow of 3358 gallons per minute (4.84 MGD) and a force of 300,000 foot-pounds per second. Due to the unsafe condition and location of these underwater points to Elderberry Forebay,

there is no designated Discharge Serial Number for these waste streams. These discharges are not monitored.

C. Discharge Points 001 and 002 – Order No. R4-2010-0181 (amending Order No. R4-2007-0025) and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0055824 included the following discharge points in addition to Discharge Points 003 to 006, described above.

1. **Discharge Point 001** - Approximately 1.1 billion gpd of water is pumped from Elderberry Forebay back to Pyramid Lake during off-peak hours through Discharge Point 001. Discharge Point 001 discharges to Pyramid Lake, a water of the United States. Pyramid Lake is tributary to the Santa Clara River via Piru Creek and Lake Piru.
2. **Discharge Point 002** - Discharge Point 002 discharges up 1.5 billion gpd of water from Elderberry Forebay to Castaic Lake for recharge purposes. Castaic Lake is tributary to the Santa Clara River via Castaic Creek.

Pursuant to 40 CFR 122.3(i) and the opinion of the Supreme Court of the United States in *South Florida Water Management Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95 (2004) (hereinafter, *Miccosukee*), discharges from discharge Points 001 and 002 do not require an NPDES permit.

Discharges from a water transfer are excluded from the NPDES permit program by 40 CFR 122.3, which states:

The following discharges do not require NPDES permits:

...

- (i) *Discharges from a water transfer. Water transfer means an activity that conveys or connects waters of the United States without subjecting the transferred water to intervening industrial, municipal, or commercial use. This exclusion does not apply to pollutants introduced by the water transfer activity itself to the water being transferred.*

The pumping of water from Elderberry Forebay to Pyramid Lake connects waters of the United States without subjecting the transferred water to intervening industrial, municipal, or commercial use. The Regional Board is not aware of any pollutants introduced by the water transfer activity itself to the water being transferred.

The Supreme Court stated in *Miccosukee* that the movement of water from one part to another of the same water body cannot constitute an “addition” of pollutants subject to regulation under the Clean Water Act. Elderberry Forebay and Castaic Lake are two parts of the same water body. Therefore, the discharge of water from Elderberry Forebay to Castaic Lake cannot constitute an “addition” of pollutants under the Clean Water Act and the discharge does not require an NPDES permit.

The Regional Board retains the authority to prescribe requirements as to the nature of any discharges from Discharge Points 001 and 002 pursuant to article 4, chapter 4, division 7 of the California Water Code.

- D. 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 (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).
- E. Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the Order's requirements, is hereby incorporated into and constitutes part of the Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.
- F. 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 21100-21177. In addition, this action is exempt from CEQA pursuant to 14 CCR 15301 (categorical exemption for existing facilities) because the action concerns the permitting of an existing facility and involves negligible or no expansion of the existing use.
- G. Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, Title 40 of the Code of Federal Regulations 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 Best Professional Judgment (BPJ) in accordance with 40 CFR section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).
- H. Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 CFR section 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 section 122.44(d)(1)(vi).

I. Drinking Water Policy. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet, at a minimum, maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

J. Watershed Management Approach and Total Maximum Daily Loads (TMDLs)

The Regional Board has implemented the Watershed Management Approach to address water quality issues in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, maintain, enhance, and restore water quality and beneficial uses. To achieve this goal, the Watershed Management Approach integrates the Regional Water Board's many diverse programs, particularly TMDLs with NPDES permitting, to better assess cumulative impacts of pollutants from all point and nonpoint sources. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis to establish water quality based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards. This process facilitates the development of watershed-specific solutions that balance the environmental and economic impacts within the watershed. The TMDLs establish waste load allocations (WLAs) and load allocations (LAs) for point and non-point sources that will achieve water quality standards for the waterbody.

Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses. These receiving waters are classified as impaired on the 2010 303(d) list and are scheduled for TMDL development. The USEPA approved California's 2010 303(d) list of impaired waters on November 12, 2010.

The Facility discharges to Pyramid Lake, Castaic Lake and Elderberry Forebay. Pyramid Lake, Elderberry Forebay, and Castaic Lake are located in the northeastern portion of the Los Angeles Basin in the Santa Clara River watershed. Pyramid Lake is tributary to the Santa Clara River (Reach 11) via Piru Creek. Elderberry Forebay is tributary to Castaic Lake, which is tributary to the Santa Clara River (Reach 5) via Castaic Creek. The 2010 State Board's California 303(d) List does not classify Elderberry Forebay as impaired. The 2010 303(d) list, classifies Pyramid Lake and Castaic Lake as impaired for mercury. It also classifies Piru Creek (from gaging station below Santa Felicia Dam to Headwaters) as impaired for chloride and pH. The Santa Clara River (Reach 11 – Piru Creek, from confluence with Santa Clara River Reach 4 to gaging station below Santa Felicia Dam) is impaired for boron, specific conductance, sulfates, and total dissolved solids. No TMDLs have been established for the Santa Clara River Reach 11 and Piru

Creek. The Santa Clara River [Reach 5 – Blue Cut gaging station to West Pier Highway 99 Bridge, and was named Santa Clara River Reach 7 on 2002 303(d) list] is impaired for chloride, coliform bacteria and iron.

The following are summaries of the TMDLs for the Santa Clara River that include Reach 5:

- 1. Upper Santa Clara River Watershed Chloride TMDL:** On October 24, 2002, the Regional Water Board adopted Resolution R4-2002-018 which amended the Basin Plan to incorporate a TMDL for chloride. On February 19, 2003, the State Water Board adopted Resolution R4-2003-0014, which remanded the chloride TMDL and directed the Regional Water Board to revise the implementation provisions of the TMDL. On July 10, 2003, the Regional Water Board reconsidered Resolution No. 2002-018, in light of Resolution R4-2003-0014. The Regional Water Board adopted Resolution No. 2003-008, which modified the chloride TMDL implementation provisions.

On May 6, 2004, the Regional Water Board adopted Resolution No. 2004-004, further modifying the chloride TMDL by revising the chloride interim limits. The Upper Santa Clara River Chloride TMDL was approved by the State Water Board, Office of Administrative Law (OAL), and USEPA on July 22, 2004, November 15, 2004, and April 28, 2005, respectively. It became effective on May 4, 2005.

On August 3, 2006, the Regional Water Board adopted Resolution No. R4-2006-016, *Amendment to the Water Quality Control Plan for the Los Angeles Region through revision of the Implementation Plan for the Upper Santa Clara River Chloride TMDL*. The Resolution proposed to shorten the compliance period for the chloride TMDL by two years, requiring compliance with the chloride final waste load allocation within 11 years from the effective date of the TMDL, rather than 13 years. Resolution No. R4-2006-016 was approved by the State Water Board and OAL on May 22, 2007, and August 5, 2007, respectively. The TMDL compliance schedule provisions contained in Resolution No. R4-2006-016 did not to be acted upon by USEPA because USEPA considers TMDL compliance schedule provisions to have been authorized by the State Water Board's Compliance Schedule Policy, Resolution No. 2008-0025, Resolution No. R4-2006-016 became effective on June 12, 2008.

On December 11, 2008, the Regional Water Board adopted Resolution No. R4-2008-012, *Reconsideration of the Upper Santa Clara River Chloride TMDL Implementation Plan and Revise Chloride Water Quality Objectives*. The Resolution incorporated site specific objectives (SSOs) for chloride in Reaches 4B, 5, and 6 of the Santa Clara River and the groundwater basins underlying those reaches. Resolution No. R4-2008-012 was approved by the State Water Board on October 20, 2009, and OAL January 26, 2010. Resolution No. R4-2008-012 was approved by USEPA on April 6, 2010, and it became effective on that date.

2. **Santa Clara River Watershed Nitrogen Compounds TMDL:** On August 7, 2003, the Regional Water Board adopted Resolution No. R4-2003-011, which incorporated a TMDL and waste load allocations (WLAs) into the Basin Plan for ammonia and nitrate plus nitrite within the Santa Clara River at USEPA Reach 7 (corresponds to Basin Plan Reach 5). The State Water Board and OAL approved the TMDL on November 19, 2003, and February 27, 2004, respectively. The USEPA approved the TMDL on March 18, 2004, and it became effective on March 23, 2004.
3. **Santa Clara River Bacteria TMDL:** On July 8, 2010, the Regional Water Board adopted Resolution No. R4-2010-006 (Bacteria TMDL), which amended the Basin Plan to incorporate a TMDL for indicator bacteria in the Santa Clara River Estuary and Reaches 3, 5, 6, and 7. The Basin Plan amendment was approved by the State Water Board on October 4, 2011, OAL on December 19, 2011, and USEPA on January 13, 2012. The Bacteria TMDL became effective on March 21, 2012.

The Bacteria TMDL, included numeric targets based on the bacteria water quality objectives (single sample and geometric mean) for marine and freshwaters designated for water contact recreation (REC-1). The numeric targets for E. coli (single sample – 235/100ml; geometric mean – 126/100ml) apply to the Santa Clara River (Reach 5). These numeric targets are expressed as “allowable exceedance days”. The TMDL assigned WLAs of zero (0) allowable exceedance days of the single sample targets for both dry and wet weather (defined as days with 0.1 inch of rain or greater and the three days following the rain events) and no exceedances of the geometric mean targets.

The Basin Plan on Page 2-4 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Facility discharges to Elderberry Forebay, a tributary to Castaic Lake, which is tributary to the Santa Clara River (Reach 5) via Castaic Creek. To protect the beneficial uses of the Santa Clara River (Reach 5), this permit includes the chloride, bacteria, and nitrogen compounds TMDLs as discussed Section IV.C.5 in the Fact Sheet.

- K. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements 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 applicable to Pyramid Lake, Castaic Lake, and Elderberry Forebay are listed in the Table below:

Table 5. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Use(s)
001	Pyramid Lake	<p><u>Existing:</u> Municipal and domestic supply (MUN); industrial service supply (IND); industrial process supply (PROC); agricultural supply (AGR); ground water recharge (GWR); hydropower generation (POW); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); rare, threatened, or endangered species (RARE).</p> <p><u>Potential:</u> Freshwater replenishment (FRESH)</p>
002	Castaic Lake	<p><u>Existing:</u> Municipal and domestic supply (MUN); industrial service supply (IND); industrial process supply (PROC); agricultural supply (AGR); ground water recharge (GWR); freshwater replenishment (FRESH); hydropower generation (POW); water contact recreation (REC-1); noncontact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); spawning, reproduction, and/or early development (SPAWN).</p> <p><u>Intermittent:</u> Cold freshwater habitat (COLD).</p>
003, 004, 005, 006	Elderberry Forebay	<p><u>Existing:</u> Municipal and domestic supply (MUN); industrial service supply (IND); industrial process supply (PROC); agricultural supply (AGR); ground water recharge (GWR); freshwater replenishment (FRESH); hydropower generation (POW); water contact recreation (REC-1); noncontact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); spawning, reproduction, and/or early development (SPAWN).</p>

Requirements of this Order implement the Basin Plan.

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

Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. The ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface*

Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life. The amendment reflects the revised water quality criteria developed by USEPA in the "1999 Update of Ambient Water Quality Criteria for Ammonia," December 1999. The 1999 Update contains USEPA's most recent freshwater aquatic life criteria for ammonia and supersedes all previous freshwater aquatic life criteria for ammonia. The ammonia Basin Plan amendment was approved by the State Water Board, OAL, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA's 1999 ammonia criteria update.

- L. 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. CTR contains water quality criteria for priority pollutants.
- M. 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.
- N. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 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.
- O. 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, total suspended solids (TSS), oil and grease, settleable solids, and turbidity. Restrictions on these pollutants are discussed in section IV of the Fact Sheet (Attachment F). This

Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

The WQBELs consist of restrictions on pH, acute toxicity, temperature, chloride, total ammonia (as nitrogen), nitrate plus nitrite (as nitrogen), copper, lead, zinc, aldrin, bis(2-ethylhexyl)phthalate, N-nitrosodimethylamine, heptachlor epoxide, dichlorobromomethane, and methylene blue active substances (MBAS). Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order (specifically bacteria and ammonia) were approved by USEPA on September 25, 2002, and May 19, 2005, respectively. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

- P. Antidegradation Policy.** 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. 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 the permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.
- Q. Anti-Backsliding Requirements.** Section 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. Section 402(o)(1) prohibits the relaxation of effluent limits (1) when a permittee seeks to revise a technology-based effluent limitation based on best professional judgment to reflect a subsequently promulgated effluent guideline which is less stringent, and (2) when a permittee seeks relaxation of an effluent limitation which is based upon a state treatment standard or water quality standard. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) outlines specific exceptions to the general prohibition against establishment of less stringent effluent limitations.

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. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with the exception of dieldrin. The effluent limitations for dieldrin have been removed based on the results of the reasonable potential analysis. The discharge monitoring data collected during the existing permit term (past 5 years) indicated dieldrin did not demonstrate reasonable potential to exceed the water quality standards. Therefore, no effluent limitations for dieldrin are included in this Order. The removal of effluent limitations for dieldrin is consistent with the anti-backsliding requirements of CWA sections 402(o)(1)/303(d)(4) because: the quality of the receiving water with respect to dieldrin equals or exceeds levels necessary to protect beneficial uses; there is no reasonable potential for dieldrin in the discharge to cause the receiving water to exceed water quality standards; levels of dieldrin in the discharge are not expected to increase during this permit term; no lowering of receiving water quality should result from the discharge of dieldrin at currently monitored levels; and the removal of effluent limitations for dieldrin is consistent with state and federal antidegradation policies. This relaxation of effluent limitations is consistent with the exceptions to the anti-backsliding requirements of the CWA and federal regulations.

Because discharge points 001 and 002 do not require an NPDES permit, the effluent limitations in the previous permit applicable to those discharge points are not included in this Order. The discharge of wastewater from these discharge points does not constitute the discharge of a pollutant under section 301 of the CWA. Therefore, the removal of the effluent limitations associated with these discharge points does not violate anti-backsliding requirements.

- R. Endangered Species Act.** 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 Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (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, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- S. Monitoring and Reporting.** 40 CFR section 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 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 section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 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 section 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.

U. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

V. 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.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R4-2007-0025 as amended by Order No. R4-2010-0181 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement actions for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

- A.** Wastes discharged shall be limited to a maximum of 393.590 million gallons per day (MGD) (i.e., 380.00 MGD at Discharge Point 003; 0.180 MGD at Discharge Point 004; 0.316 MGD at Discharge Point 005; 1,500 gallons per day at Discharge Point 006; and 13.090 MGD at Underwater Discharge Points) of cooling water, industrial use water, floor drain sump water, potable treatment backwash water.
- B.** The discharge of wastewater at a location other than specifically described in this Order is prohibited, and constitutes a violation of the Order. The discharge of wastes from accidental spills or other sources is prohibited.
- C.** Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, Elderberry Forebay, or other waters of the State, are prohibited.
- D.** The discharge of designated waste or hazardous waste, as defined in California Water Code Section 13173 and Title 23 CCR Section 2521(a), respectively, is prohibited.
- E.** Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.
- F.** Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
- G.** The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303

of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

- H.** The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- I.** Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations – Discharge Point 003

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 003 with compliance measured at Monitoring locations EFF-003 as described in the attached MRP (Attachment E):

Table 6a. Final Effluent Limitations - Discharge Point 003

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instant. Minimum	Instant. Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Total Suspended Solids (TSS)	mg/L	50	75	--	--
	lbs/day ¹	258,460	237,690	--	--
BOD	mg/L	--	10	--	--
	lbs/day ¹	--	31,692	--	--
Oil and Grease	mg/L	10	15	--	--
	lbs/day ¹	31,692	47,538	--	--
Settleable Solids	ml/L	0.1	0.3	--	--
Turbidity ²	NTU	5	25	--	--
Chloride	mg/L	--	100	--	--
	lbs/day ¹	--	316,920	--	--
Ammonia , Total (as N)	mg/L	1.75	5.2	--	--
	lbs/day ¹	5,546	16,480	--	--
Nitrate Plus Nitrite (as N)	mg/L	6.8	--	--	--
	lbs/day ¹	21,551	--	--	--

¹ Mass-based effluent limitations are based on the maximum discharge 380.00 MGD.

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

2. Final Effluent Limitations – Discharge Point 004

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 004 with compliance measured at Monitoring locations EFF-004 as described in the attached MRP (Attachment E):

Table 6b. Final Effluent Limitations – Discharge Point 004

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instant. Minimum	Instant. Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
BOD	mg/L	--	10	--	--
	lbs/day ¹	--	15	--	--
Oil and Grease	mg/L	10	15	--	--
	lbs/day ¹	15	23	--	--
Total Suspended Solids (TSS)	mg/L	50	75	--	--
	lbs/day ¹	75	113	--	--
Settleable Solids	ml/L	0.1	0.3	--	--
Turbidity ²	NTU	5	25	--	--
Copper	µg/L	6.5	13.1	--	--
	lbs/day ¹	0.01	0.02	--	--
Aldrin	µg/L	0.00013	0.00026	--	--
	lbs/day ¹	2.0 E-7	4.0 E-7	--	--
Chloride	mg/L	--	100	--	--
	lbs/day ¹	--	150	--	--
Ammonia , Total (as N)	mg/L	1.75	5.2	--	--
	lbs/day ¹	2.6	7.8	--	--
Nitrate Plus Nitrite (as N)	mg/L	6.8	--	--	--
	lbs/day ¹	10.2	--	--	--

¹ The mass-based effluent limitations are based upon a discharge of 179,505 gpd (0.180 MGD).

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

3. Final Effluent Limitations – Discharge Point 005

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 005 with compliance measured at Monitoring locations EFF-005 as described in the attached MRP (Attachment E):

Table 6c. Final Effluent Limitations – Discharge Point 005

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instant. Minimum	Instant. Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Total Suspended Solids (TSS)	mg/L	50	75	--	--
	lbs/day ¹	132	198	--	--
BOD	mg/L	--	10	--	--
	lbs/day ¹	--	26	--	--
Oil and Grease	mg/L	10	15	--	--
	lbs/day ¹	26	40	--	--
Bis(2-ethylhexyl)phthalate	µg/L	1.8	3.6	--	--
	lbs/day ¹	0.005	0.01	--	--
N-Nitrosodimethylamine	µg/L	0.00069	0.00138	--	--
	lbs/day ¹	1.8 E-6	3.6 E-6	--	--
Heptachlor epoxide	µg/L	0.00010	0.00020	--	--
	lbs/day ¹	2.6 E-7	5.3 E-7	--	--
Settleable Solids	ml/L	0.1	0.3	--	--
Turbidity ²	NTU	5	25	--	--
Chloride	mg/L	--	100	--	--
	lbs/day ¹	--	264	--	--
Ammonia , Total (as N)	mg/L	1.75	5.2	--	--
	lbs/day ¹	4.6	13.7	--	--
Nitrate Plus Nitrite (as N)	mg/L	6.8	--	--	--
	lbs/day ¹	18	---	--	--

¹ The mass-based effluent limitations are based upon a discharge of 316,000 gpd (0.316 MGD).

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

4. Final Effluent Limitations – Discharge Point 006

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 006 with compliance measured at Monitoring locations EFF-006 as described in the attached MRP (Attachment E):

Table 6d. Final Effluent Limitations – Discharge Point 006

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instant. Minimum	Instant. Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
BOD	mg/L	--	10	--	--
	lbs/day ¹	--	0.12	--	--
Oil and Grease	mg/L	10	15	--	--
	lbs/day ¹	0.12	0.19	--	--
Total Suspended Solids (TSS)	mg/L	50	75	--	--
	lbs/day ¹	0.63	0.94	--	--
Residual Chlorine	mg/L	--	0.1		
	lbs/day ¹	--	0.0012		
MBAS	mg/L	--	0.5	--	--
	lbs/day ¹	--	0.0062	--	--
Copper	µg/L	9.33	14	--	--
	lbs/day ¹	0.00012	0.00018	--	--
Lead	µg/L	3.2	82	--	--
	lbs/day ¹	0.00004	0.001	--	--
Zinc	µg/L	120	120	--	--
	lbs/day ¹	0.0015	0.0015	--	--
Dichloro-bromomethane	µg/L	--	0.56	--	--
	lbs/day ¹	--	0.000007	--	--
Settleable Solids	ml/L	0.1	0.3	--	--
Turbidity ²	NTU	5	25	--	--
Chloride	mg/L	--	100	--	--
	lbs/day ¹	--	1.25	--	--
Ammonia , Total (as N)	mg/L	1.75	5.2	--	--
	lbs/day ¹	0.02	0.07	--	--
Nitrate Plus Nitrite (as N)	mg/L	6.8	--	--	--
	lbs/day ¹	0.09	---	--	--
Acute Toxicity	% Survival	3			

1 The mass-based effluent limitations are based upon a discharge of 1,500 gpd.

2 During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

- 3 **Acute toxicity:** There shall be no acute toxicity in the discharge. The acute toxicity of the effluent shall be such that:
 - i. The average monthly survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90 % and
 - ii. No single test producing less than 70 % survival.

Compliance with the toxicity objectives will be determined by the method described in section V of the MRP No. 6571 (Attachment E). The Discharger shall conduct acute toxicity monitoring as specified in the MRP.

5. Final Effluent Limitations – Discharge Points 003, 004, 005, and 006

- a. The Discharger shall maintain compliance with the following effluent limitations as described in the attached MRP (Attachment E):

Bacteria TMDL Numeric Targets

Numeric Targets	Santa Clara River (Freshwater REC-1)
Single Sample:	
E.coli	235/100ml
Geometric Mean:	
E.coli	126/100ml

The Bacteria TMDL assigned WLAs of zero (0) allowable exceedance days of the single sample targets for both dry and wet weather and no exceedances of the geometric mean targets. Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

B. Land Discharge Specifications

Not applicable

C. Reclamation Specifications

Not applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Elderberry Forebay.

- 1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.

2. Surface water temperature to rise greater than 5°F above the natural temperature of the receiving waters at any time or place. At no time shall the temperature of these WARM-designated waters be raised above 80° F as a result of waste discharged.

3. State/Regional Water Board Water Contact Water Standards

In fresh waters designated for Water Contact Recreation (REC-1), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water:

- a. Geometric Mean Limits

- i. E. coli density shall not exceed 126/100 ml.
- ii. Fecal coliform density shall not exceed 200/100 ml.

- b. Single Sample Maximum (SSM) Limits

- i. E. coli density shall not exceed 235/100 ml.
- ii. Fecal coliform density shall not exceed 400/100 ml.

4. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.
5. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2002-011. Resolution No. 2002-011 revised the ammonia water quality objectives for inland surface waters characteristic of freshwater in the 1994 Basin Plan, to be consistent with the "1999 Update of Ambient Water Quality Criteria for Ammonia". Adopted on April 28, 2002, Resolution No. 2002-011 was approved by State Water Board, Office of Administrative Law (OAL) and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect.
6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
7. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.
8. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
9. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
10. Accumulation of bottom deposits or aquatic growths.

11. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
12. The presence of substances that result in increases of BOD that adversely affect beneficial uses.
13. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.
14. Alteration of turbidity, or apparent color beyond present natural background levels.
15. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.
16. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.
17. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
18. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
19. Create nuisance, or adversely affect beneficial uses of the receiving water.
20. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

B. Groundwater Limitations

Not applicable

VI. PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. Regional Water Board Standard Provisions. The Discharger shall comply with the following provisions:
 - a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 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.

- b.** 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.
- c.** Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- d.** 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, 318, 405, and 423 of the Federal CWA and amendments thereto.
- e.** 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.
- f.** 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.
- g.** After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - i.** Violation of any term or condition contained in this Order;
 - ii.** Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - iii.** A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- h.** 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.

- i.** The Discharger shall notify the Regional Water Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.
- j.** 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.
- k.** All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.
- l.** In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this 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.
- m.** The Water Code provides that any person who violates a waste discharge requirement or a provision of the Water Code 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.

- n.** The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- o.** 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.
- p.** The Discharger shall notify the Executive Officer in writing no later than 6 months prior to the 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:

- i. Name and general composition of the chemical,
 - ii. Frequency of use,
 - iii. Quantities to be used,
 - iv. Proposed discharge concentrations, and
 - v. USEPA registration number, if applicable.
- q. 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.
- r. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, average monthly effluent limitation, maximum daily effluent limitation, instantaneous minimum effluent limitation, instantaneous maximum effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (213) 576-6600 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.
- s. 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. (Wat. Code § 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. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.
- c. This Order may be reopened and modified, in accordance with the provisions set forth in Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new MLs.
- d. This Order may be reopened and modified to incorporate provisions as a result of future Basin Plan Amendments, such as a new or revised water quality objective or the adoption of a TMDL, including the program of implementation.
- e. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- f. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected, and should include at a minimum:
 - i. A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency;

- ii. A description of the facility's method of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility;
- iii. 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) (Section V of the MRP, Attachment E, provides references for the guidance manuals that should be used for performing TIEs).

3. Best Management Practices and Pollution Prevention

- a. The Discharger shall submit, within 90 days of the effective date of this Order:
 - i. A storm water pollution prevention plan (SWPPP) that clearly describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The updated SWPPP shall accurately reflect current Facility conditions and incorporate changes in discharge practices. The BMPs shall address the following specific areas of concern: chemical storage and maintenance areas. The SWPPP shall be developed in accordance with the requirements in Attachment G.
 - ii. A Best Management Practice Plan (BMPP) includes site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPP shall be consistent with the general guidance contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.
 - iii. A Spill Contingency Plan (SCP) that describes the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The SCP shall be reviewed at a minimum once per year and updated as needed. Any changes or revisions shall be summarized in the annual summary report.

Each plan shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material.

The Discharger shall implement the SWPPP, BMPP, and Spill Contingency Plan **within 10 days** of the approval by the Executive Officer or **no later than 90 days** after submission to the Regional Water Board, whichever comes first. The plans shall be reviewed annually and at the same time. Updated information shall be submitted to the Regional Water Board within **30 days** of revision.

4. Construction, Operation and Maintenance Specifications

- a. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this order.

5. Special Provisions for Municipal Facilities (POTWs Only)

Not applicable

6. Other Special Provisions

Not applicable

7. Compliance Schedules

Not applicable

VII. COMPLIANCE DETERMINATION

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

A. Single Constituent Effluent Limitation.

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), then the Discharger is out of compliance.

B. Effluent Limitations Expressed as a Sum of Several Constituents.

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

C. 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 "Not Detected" (ND) or "Detected, but Not Quantified" (DNQ), the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

D. Multiple Sample Data.

When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless 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.

F. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection E 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 will be considered out of compliance for each day of that month for that

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

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for that month;
2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

3. In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.
4. If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL, then the Discharger is in violation of the AMEL.

G. Maximum Daily Effluent Limitations (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.

H. 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).

I. 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).

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.

Best Management Practices (BMPs)

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

Bioaccumulative

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)

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)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit

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)

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

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

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries

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 part 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger

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

Inland Surface Waters

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)

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

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)

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)

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

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)

Sample results which are less than the laboratory's MDL.

Ocean Waters

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

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

Pollutant Minimization Program (PMP)

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

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)

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

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

Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ)

Standard Deviation 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)

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.)

ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	<i>Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties</i>
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 °C
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	City of Los Angeles Department of Water and Power
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Castaic Power Plant
gpd	gallons per day
IC	Inhibition Coefficient
IC ₁₅	Concentration at which the organism is 15% inhibited
IC ₂₅	Concentration at which the organism is 25% inhibited
IC ₄₀	Concentration at which the organism is 40% inhibited
IC ₅₀	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards

NTR	National Toxics Rule
OAL	Office of Administrative Law
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
Ocean Plan	<i>Water Quality Control Plan for Ocean Waters of California</i>
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SIP	State Implementation Policy (<i>Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California</i>)
SMR	Self-Monitoring Reports
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	<i>Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California</i>
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solid
TU _c	Chronic Toxicity Unit
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELs	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

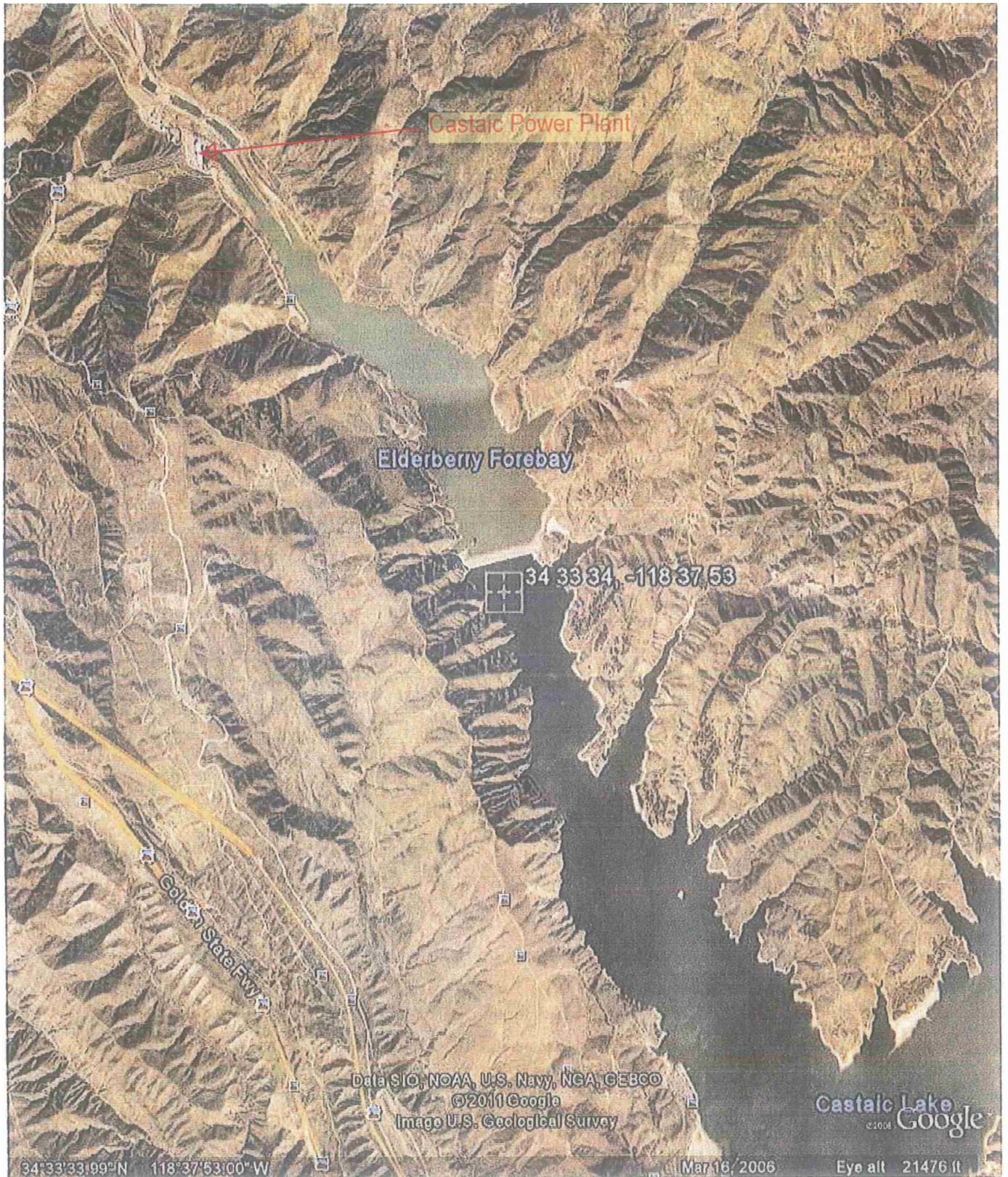
ATTACHMENT B – MAPS



Aerial view of Pyramid Lake and Discharge Point S001 with approximate coordinates.

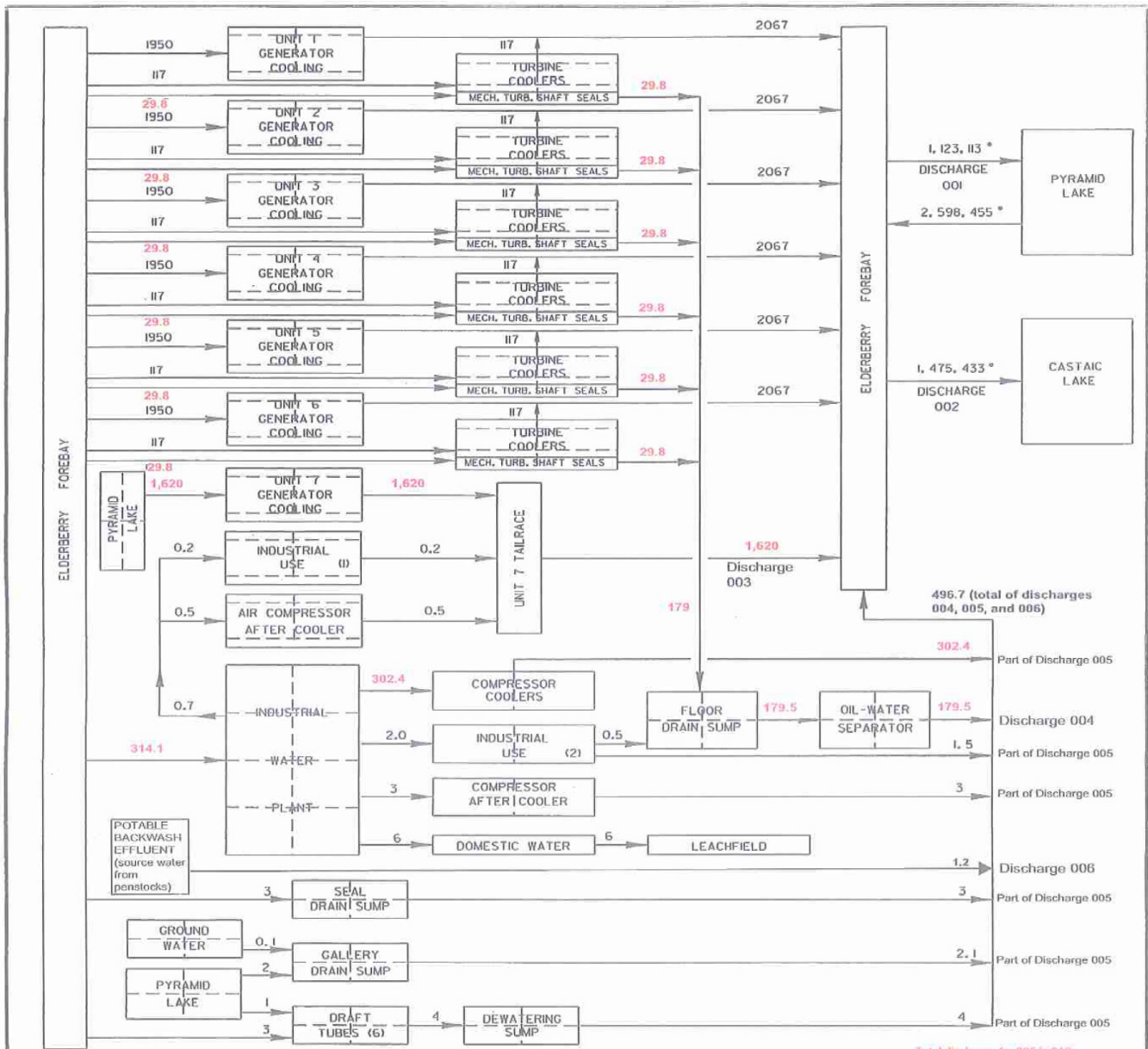


Aerial View Showing Castaic Power Plant and Elderberry Forebay. Approximate coordinates are shown.



Aerial View of Elderberry Forebay and Castaic Lake.

ATTACHMENT C – FLOW SCHEMATICS



Notes:
 All flows are in thousands of gallons per day.
 *Includes design flows through the turbine/generators.

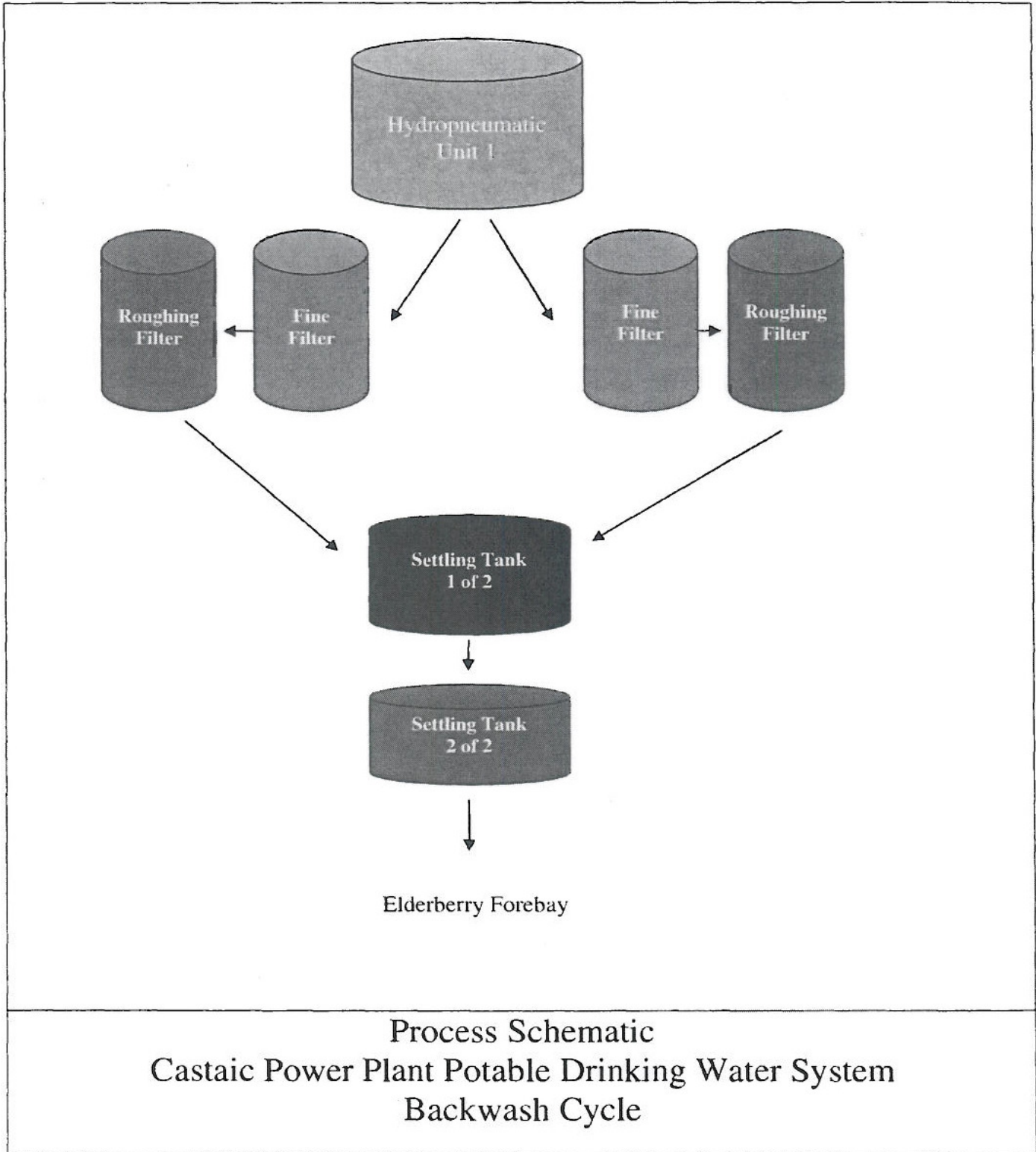
Total discharge for 005 is 316 thousand gpd.

REVISION			SCHEMATIC OF WATER FLOW CASTIAC POWER PLANT		
NO 2	DRN KCC	CKD DS			
Mark J. Sedlacz ENGINEERING APPROVAL			Bruce J. McFairland ENGINEERING APPROVAL		
Susan M. Damron FINAL APPROVAL RELEASE SIGNATURE		10-9-91 DATE	JCM DRN	JOB CKD	J. W. Schumann FINAL APPROVAL RELEASE SIGNATURE
D07II;CHA24 MISC. REV.			POWER SYSTEM DEPARTMENT OF WATER AND POWER CITY OF LOS ANGELES		
			DRAWING NUMBER PA-CD509		

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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 and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [40 CFR section 122.41(a)].
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the 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 section 122.41(a)(1)].

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [40 CFR section 122.41(g)].

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations [40 CFR section 122.5(c)].

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR_section 122.41(i)] [Water Code 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 section 122.41(i)(1)];
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR section 122.41(i)(2)];
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR section 122.41(i)(3)]; 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 section 122.41(i)(4)].

G. Bypass

1. Definitions

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

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [40 CFR section 122.41(m)(4)(i)]:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR section 122.41(m)(4)(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 section 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 section 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 section 122.41(m)(4)(ii)].
5. Notice
 - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR section 122.41(m)(3)(i)].
 - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice) [40 CFR section 122.41(m)(3)(ii)].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the 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 section 122.41(n)(1)].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was

caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR section 122.41(n)(2)].

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR section 122.41(n)(3)]:
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 CFR section 122.41(n)(3)(i)];
 - b. The permitted facility was, at the time, being properly operated [40 CFR section 122.41(n)(3)(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 section 122.41(n)(3)(iii)]; and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [40 CFR section 122.41(n)(3)(iv)].
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [40 CFR section 122.41(n)(4)].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR section 122.41(j)(1)].
- B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order [40 CFR sections 122.41(j)(4) and 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 Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 CFR section 122.41(j)(2)].
- B. Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements [40 CFR section 122.41(j)(3)(i)];
 - 2. The individual(s) who performed the sampling or measurements [40 CFR section 122.41(j)(3)(ii)];
 - 3. The date(s) analyses were performed [40 CFR section 122.41(j)(3)(iii)];
 - 4. The individual(s) who performed the analyses [40 CFR section 122.41(j)(3)(iv)];
 - 5. The analytical techniques or methods used [40 CFR section 122.41(j)(3)(v)]; and
 - 6. The results of such analyses [40 CFR section 122.41(j)(3)(vi)].
- C. **Claims of confidentiality for the following information will be denied** [40 CFR section 122.7(b)]:
 - 1. The name and address of any permit applicant or Discharger [40 CFR section 122.7(b)(1)]; and
 - 2. Permit applications and attachments, permits and effluent data [40 CFR section 122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below [40 CFR section 122.41(k)].
2. All permit applications shall be signed by either a principal executive officer or ranking elected official [40 CFR section 122.22(a)(3)].
3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above [40 CFR section 122.22(b)(1)];
 - b. The authorization 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 section 122.22(b)(2)]; and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board [40 CFR section 122.22(b)(3)].
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR section 122.22(c)].

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

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order [40 CFR section 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 section 122.41(l)(4)(i)].
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [40 CFR section 122.41(l)(4)(ii)].
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 CFR section 122.41(l)(4)(iii)].

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

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

F. Planned Changes

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

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in part 122.29(b) [40 CFR section 122.41(l)(1)(i)]; or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [40 CFR section 122.41(l)(1)(ii)].
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 CFR section 122.41(l)(1)(iii)].

G. Anticipated Noncompliance

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

H. Other Noncompliance

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

I. Other Information

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

VI. STANDARD PROVISIONS – ENFORCEMENT

- A.** The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the 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 one (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 two (2) years, or both. Any person who knowingly violates such sections, or 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 three (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 six (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 section 122.41(a)(2)] [*Water Code sections 13385 and 13387*].

- C. Any person may be assessed an administrative penalty by the Regional Water Board 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 section 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 section 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 Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 CFR section 122.41(k)(2)].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [40 CFR section 122.42(a)]:

- 1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR section 122.42(a)(1)]:
 - a. 100 micrograms per liter ($\mu\text{g/L}$) [40 CFR section 122.42(a)(1)(i)];
 - b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 CFR section 122.42(a)(1)(ii)];
 - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR section 122.42(a)(1)(iii)]; or

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 6112)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 6112

Title 40 of 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.** Effluent sampling stations shall be established for the points of discharge and shall be located where representative samples of effluent can be obtained.
- B.** Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.
- C.** The Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- D.** Pollutants shall be analyzed using the analytical methods described in sections 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.

- 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 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 reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water

limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or
2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment H) 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*, February 24, 2005.

- H.** Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment H to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment H;
2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in Part 136 (revised May 18, 2012);
3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment H, and proposes an appropriate ML for their matrix; or,
5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the 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 Board shall agree

on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

- I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.
- J. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- K. 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.
- L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there is fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from to finish. A similar frequency shall be maintained for analyzing spiked samples.
- M. When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.
- N. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.
- O. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
 - 1. Types of wastes and quantity of each type;

2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
3. Location of the final point(s) of disposal for each type of waste.

If no wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

- P. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
- Q. Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

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 E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location
001	EFF-001	Location prior to discharge from Discharge Point 001 [33°38'49" 118°45'43"]
002	EFF-002	Location prior to discharge from Discharge Point 002 [34°33'34" 118°37'53"]
003	EFF-003	Location prior to discharge from Discharge Point 003 [34°35'14" 118°39'22"]
004	EFF-004	Location prior to discharge from Discharge Point 004 [34°35'14" 118°39'22"]
005	EFF-005	Location prior to discharge from Discharge Point 005 [34°35'14" 118°39'22"]
006	EFF-006	Location prior to discharge from Discharge Point 006 [34°35'14" 118°39'22"]
--	RSW-001	Location in Pyramid Lake 50 feet above the most upstream discharge point

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations EFF-001, and 002

1. The Discharger shall monitor authorized flows prior to discharge through EFF-001, and EFF-002 as follows. 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:

Table E-2. Effluent Monitoring Locations EFF-001, 002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Metered	1/Day	1
Temperature	°F	Grab	1/Week	1
pH	s.u.	Grab	1/Week	1
Dissolved Oxygen ²	mg/L	Grab	1/Week	1
Total Suspended Solids ²	mg/L	Grab	1/Quarter	1
Settleable Solids	ml/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Quarter	1
Chlordane ²	µg/L	Grab	1/Quarter	1
Priority Pollutants ^{3,4}	µg/L	Grab	1/Year	1
TCDD Equivalents ⁵	µg/L	Grab	1/year	1
Acute Toxicity ⁶	% survival	Grab	1/permit term (During the first year of this permit)	1
Chronic Toxicity ⁶	TU _c	Grab	1/permit term (During the first year of this permit)	1

For Footnotes, see pages E-9 and E-10.

B. Monitoring Location EFF-003

1. The Discharger shall monitor authorized flows prior to discharge through EFF-003 as follows. 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:

Table E-2. Effluent Monitoring Locations EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Metered	1/Day	1
Temperature	°F	Grab	1/Week	1
pH	s.u.	Grab	1/Week	1
Dissolved Oxygen ²	mg/L	Grab	1/Week	1
E.coli	MPN/100ml	Grab	Quarter ^{1a}	1
BOD ₅ 20°C ²	mg/L	Grab	1/Month	1
Total Suspended Solids ²	mg/L	Grab	1/Quarter	1
Settleable Solids	ml/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Quarter	1
Chloride ²	mg/L	Grab	1/Quarter	1
Ammonia, Total (as N) ²	mg/L	Grab	1/Quarter	1
Nitrate Plus Nitrite (as N) ²	mg/L	Grab	1/Quarter	1
Priority Pollutants ³	µg/L	Grab	1/Year	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
TCDD Equivalents ⁵	µg/L	Grab	1/year	1
Acute Toxicity ⁶	% survival	Grab	1/year	1
Chronic Toxicity ⁶	TU _c	Grab	1/year	1

For Footnotes, see pages E-9 and E-10.

C. Monitoring Location EFF-004

1. The Discharger shall monitor authorized flows prior to discharge at EFF-004 as follows. 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:

Table E-4. Effluent Monitoring Location EFF-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Metered	1/Day	1
Temperature	°F	Grab	1/Week	1
pH	s.u.	Grab	1/Week	1
E.coli	MPN/100ml	Grab	Quarter ^{1a}	1
BOD ₅ 20°C ²	mg/L	Grab	Month	1
Oil and Grease ²	mg/L	Grab	1/Quarter	1
Total Suspended Solids ²	mg/L	Grab	1/Quarter	1
Settleable Solids	ml/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Quarter	1
Copper ²	µg/L	Grab	1/Quarter	1
Aldrin ²	µg/L	Grab	1/Quarter	1
Chloride ²	mg/L	Grab	1/Quarter	1
Ammonia, Total (as N) ²	mg/L	Grab	1/Quarter	1
Nitrate Plus Nitrite (as N) ²	mg/L	Grab	1/Quarter	1
Priority Pollutants ³	µg/L	Grab	1/Year	1
2,3,7,8'-TCDD ⁵	µg/L	Grab	1/Year	1
Acute Toxicity ⁶	% survival	Grab	1/Year	1
Chronic Toxicity ⁶	TU _c	Grab	1/year	1

For Footnotes, see pages E-9 and E-10.

D. Monitoring Location EFF-005

1. The Discharger shall monitor authorized flows prior to discharge at EFF-005 as follows. 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:

Table E-4. Effluent Monitoring Location EFF-005

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Metered	1/Day	1
Temperature	°F	Grab	1/Week	1
pH	s.u.	Grab	1/Week	1
E.coli	MPN/100ml	Grab	Quarter ^{1a}	1
BOD ₅ 20°C ²	mg/L	Grab	Month	1
Oil and Grease ²	mg/L	Grab	1/Quarter	1
Total Suspended Solids ²	mg/L	Grab	1/Quarter	1
Dissolved Oxygen ²	mg/L	Grab	1/Quarter	1
Settleable Solids	ml/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Quarter	1
Chloride ²	mg/L	Grab	1/Quarter	1
Ammonia, Total (as N) ²	mg/L	Grab	1/Quarter	1
Nitrate Plus Nitrite (as N) ²	mg/L	Grab	1/Quarter	1
Bis(2-ethylhexyl)phthalate ²	µg/L	Grab	1/Quarter	1
N-nitrosodimethylamine ²	µg/L	Grab	1/Quarter	1
Heptachlor epoxide ²	µg/L	Grab	1/Quarter	1
Priority Pollutants ³	µg/L	Grab	1/Year	1
2,3,7,8'-TCDD ⁵	µg/L	Grab	1/year	1
Acute Toxicity ⁶	% survival	Grab	1/Year	1
Chronic Toxicity ⁶	TU _c	Grab	1/year	1

For Footnotes, see pages E-9 and E-10.

E. Monitoring Location EFF-006

1. The Discharger shall monitor authorized flows prior to discharge at EFF-006 as follows. 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:

Table E-5. Effluent Monitoring Location EFF-006

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Metered	1/Day	1
Temperature	°F	Grab	1/Week	1
pH	s.u.	Grab	1/Week	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
E.coli	MPN/100ml	Grab	Quarter ^{1a}	1
BOD ₅ 20°C ²	mg/L	Grab	Month	1
Oil and Grease ²	mg/L	Grab	1/Quarter	1
Total Suspended Solids ²	mg/L	Grab	1/Quarter	1
Settleable Solids	ml/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Quarter	1
Chloride ²	mg/L	Grab	1/Quarter	1
Ammonia, Total (as N) ²	mg/L	Grab	1/Quarter	1
Nitrate Plus Nitrite (as N) ²	mg/L	Grab	1/Quarter	1
Residual Chlorine ²	mg/L	Grab	1/Quarter	1
MBAS ²	µg/L	Grab	1/Quarter	1
Copper, Total Recoverable ²	µg/L	Grab	1/Quarter	1
Lead, Total Recoverable ²	µg/L	Grab	1/Quarter	1
Zinc, Total Recoverable ²	µg/L	Grab	1/Quarter	1
Dichlorobromomethane ²	µg/L	Grab	1/Quarter	1
Priority Pollutants ³	µg/L	Grab	1/Year	1
2,3,7,8'-TCDD ⁵	µg/L	Grab	1/year	1
Acute Toxicity ⁶	% survival	Grab	1/year	1
Chronic Toxicity ⁶	TU _c	Grab	1/year	1

Footnotes:

- 1 Pollutants shall be analyzed using the analytical methods described in Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP. Where no methods are specified for a given pollutant, methods shall be approved by this Regional Water Board or the State Water Board.
- 1a The quarterly sampling frequency for E.coli includes monitoring once per week for five weeks each quarter. This provides the number of samples required to calculate the geometric mean and determine compliance with the applicable criteria.
- 2 The mass emission (lbs/day) for the discharge shall be reported and calculated using the limitation concentration and the actual flow rate measured at the time of discharge, using the formula:

$$M = 8.34 \times C_e \times Q$$
 Where: M = Mass discharge for a pollutant, lbs/day
 C_e = Limitation concentration for a pollutant, mg/L
 Q = Actual discharge flow rate, MGD
- 3 Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.J of the Limitations and Discharge Requirements of this Order. PCBs must be sampled once during Year 1 of the permit term. For **mercury analysis, method 1631E** shall be used.
- 4 Priority pollutant monitoring is only required for Discharge Points 001.
- 5 TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs) are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to **zero**. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD Equivalents)} = \sum(C_x \times \text{TEF}_x)$$

where: C_x = concentration of, dioxin or furan congener x
 TEF_x = TEF for congener x

Minimum Levels, Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity Equivalency Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

⁶ Monitoring shall be conducted in accordance with Section V. of this MRP.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Definition of Toxicity

1. 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. Chronic Toxicity

Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. Chronic toxicity shall be measured in TU_c , where $TU_c = 100/NOEC$. 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.

- (a) A chronic testing toxicity limit defined as an exceedance of 1.0 TU_c in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed, 1 TU_c in a critical life stage test.)

3. Accelerated Monitoring

If either of the above requirements is not met, the Discharger shall conduct six additional tests over a 6-week period. The discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with the toxicity limitation, the Discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than the stipulated requirements, 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 objective.

If the initial test and any of the additional six acute toxicity bioassay test result is less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.

B. Acute Toxicity Effluent Monitoring Program

1. Effluent samples shall be collected if applicable after all treatment processes and before discharge to the receiving water.
2. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in Section 136 which cites USEPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.
3. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges.
4. In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.

C. Chronic Toxicity Effluent Monitoring Program

1. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.
2. Test Species and Methods:
 - a. The Discharger shall conduct critical life stage chronic toxicity tests on grab effluent samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater*

Organisms, Fourth Edition, October 2002 (EPA/21-R-02-013), or a more recent edition.

- b. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.
- c. 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 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.
- d. The presence of chronic toxicity may be estimated as specified in USEPA's *Short-Term Methods for Estimating Chronic Toxicity of Effluent and Receiving Waters Freshwater Organism*, Fourth Edition, October 2002 (EPA/821-R-02-013, or a more recent edition.

D. Quality Assurance

1. Testing with a reference toxicant shall be conducted consistent with EPA/821-R-02-013 or current protocols. 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 manuals (EPA/600/4-91/002 and EPA/821-R-02-013), then the Discharger must re-sample and re-test at the earliest time possible.
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.

E. Accelerated Monitoring and Initial Investigation Toxicity Reduction Evaluation (TRE) Limit

1. If toxicity exceeds the limitations (as defined in Section V.A.1, and V.A.2. above), then the Discharger shall immediately implement accelerated testing, as specified at Section V.A.3. above. The discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 3 business days of receipt of the results or at the first opportunity of discharge. If the accelerated testing shows consistent toxicity, the discharger shall immediately implement the Initial Investigation of the TRE Workplan.

2. If implementation of the initial investigation TRE workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger may discontinue the TIE.
3. The first step in the initial Investigation TRE Workplan for downstream receiving water toxicity can be a toxicity test protocol designed to determine if the effluent causes or contributes to the measured downstream chronic toxicity. If this first step TRE testing shows that the outfall effluent does not cause or contribute to downstream chronic toxicity, using EPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002 (EPA/821-R-02-013). Then a report on this testing shall be submitted to the Board and the TRE will be considered to be completed. Routine testing in accordance with the MRP shall be continued thereafter.

F. Toxicity Reduction Evaluation (TRE)/ Toxicity Identification Evaluation (TIE) Limit

1. If the accelerated testing shows consistent toxicity as defined below:
 - a. **Acute Toxicity:**
 - i. If the results of any two of the six accelerated tests are less than 90% survival, or
 - ii. If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70% survival
 - b. **Chronic Toxicity**
 - i. If the results of two of the six accelerated tests exceed 1.0 TU_c

then, the Discharger shall immediately implement the Toxicity Reduction Evaluation (TRE) as described below.

G. Steps in TRE and TIE Procedures

1. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's Initial Investigation TRE workplan. At a minimum, the Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. The Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of the trigger, which will 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;
 - c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,

d. A schedule for these actions.

2. The following is a stepwise approach in conducting the TRE:

- a. Step 1 - Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;
- b. Step 2 - Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;
- c. Step 3 – If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) by employing all reasonable efforts and using currently available TIE methodologies. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;
- d. Step 4 – Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
- e. Step 5 evaluates in-plant treatment options; and,
- 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 implementation of these control measures 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 is no longer toxicity (or six consecutive chronic toxicity test results are less than or equal to 1.0 TU_c or six consecutive acute toxicity test results are greater than 90% survival).

3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the EPA acute and chronic manuals, EPA/600/6 91/005F (Phase I)/EPA/600/R 96 054 (for marine), 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 schedule required by this permit, 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 determination, if appropriate.

6. The Regional 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 Regional Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

H. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia *because of* increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH-sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.
 - a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
 - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
 - c. Conduct graduated pH tests as specified in the TIE 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.

I. Reporting

1. 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 as % survival for acute toxicity test results and as TU_c for chronic toxicity test results with the self-monitoring reports (SMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.

- a. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
 - b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger; and (4) printout of the ToxCalc or CETIS (Comprehensive Environmental Toxicity Information System) program results.
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:
 - a. Sample date(s);
 - b. Test initiation date;
 - c. Test species;
 - d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e. NOEC value(s) in percent effluent;
 - f. IC₁₅, IC₂₅, IC₄₀ and IC₅₀ values in percent effluent;
 - g. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
 - h. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
 - i. NOEC and LOEC values for reference toxicant test(s);
 - j. IC25 value for reference toxicant test(s);
 - k. Any applicable charts; and
 - l. 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, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify by telephone or electronically, this Regional Board of any toxicity exceedance of the limit within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any

actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable

VII. RECLAMATION MONITORING REQUIREMENTS

Not Applicable

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location RSW-001 (Upstream)

1. The Discharger shall monitor Pyramid Lake at RSW-001 as follows:

Table E-6. Receiving Water Monitoring Requirements – RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	Grab	1/Year	1, 2
Hardness	mg/L	Grab	1/Year	1, 2
Temperature	°F	Grab	1/Year	1, 2
Dissolved Oxygen	mg/L	Grab	1/Year	1, 2
Priority Pollutants ^{3, 4}	µg/L	Grab	1/Year	1, 2

¹ Pollutants shall be analyzed using the analytical methods described in Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, provided as Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

² Receiving water pH, hardness, and temperature shall be analyzed at the same time the samples are collected for Priority Pollutants analysis.

³ Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.J of the Limitations and Discharge Requirements of this Order. For **mercury analysis, method 1631E** shall be used.

⁴ TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs) are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to **zero**. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD Equivalents)} = \sum(C_x \times \text{TEF}_x)$$

where: C_x = concentration of, dioxin or furan congener x
 TEF_x = TEF for congener x

Minimum Levels, Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity Equivalency Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05

Congeners	Minimum Levels (pg/L)	Toxicity Equivalency Factor (TEF)
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

The Discharger may submit priority pollutant data as results of the analyses of water samples collected from Pyramid Lake by the Department of Water Resources (DWR), the Metropolitan Water District (MWD), and/or other entities acting in behalf of agencies collecting data as required in the NPDES program, in lieu of conducting the receiving water monitoring of the priority pollutants listed above. The laboratory analytical data shall include applicable analytical methods used, minimum levels, method detection limits, quality assurance/quality control (QA/QC) data, chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

B. Visual Monitoring

In addition to the requirements for monitoring the receiving water described above, the Discharger is required to perform general observations of the receiving water when discharges occur and report the observations in the quarterly monitoring report. The receiving water monitoring program shall consist of periodic surveys of receiving water and shall include studies of those physical-chemical characteristics of the receiving water that may be impacted by the discharge.

Receiving Water Observations. General observations of the receiving water shall be made at each discharge point on a monthly basis and shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported.

Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

1. Time, and date of monitoring
2. Weather conditions
3. Color of water
4. Appearance of oil films or grease, or floatable materials
5. Extent of visible turbidity or color patches
6. Description of odor, if any, of the receiving water
7. Presence and activity of California Least Tern and California Brown Pelican.

IX. OTHER MONITORING REQUIREMENTS

A. SWPPP, BMPP, and SCP Status and Effectiveness Report

1. As required under Special Provision VI.C.3 of this Order, the Discharger shall submit an updated SWPPP, BMPP, and SCP to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit.
2. Annually the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, and SCP required under Special Provision VI.C.3 of this Order. The SWPPP, BMPP, SCP, and Status and Effectiveness shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the Facility are addressed in the SWPPP, BMPP, and SCP Status and Effectiveness Report. All changes or revisions to the SWPPP, BMPs, and MMP Status will be summarized in the Fourth Quarter Report required under Attachment E, Monitoring and Reporting, Section X.C.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge to surface waters during any reporting period, the Discharger will indicate under statement of perjury that no effluent was discharged to surface water during the reporting period in the corresponding monitoring report.
3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and 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 waste 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.
5. The Discharger shall report the results of acute and chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.F.

B. Self-Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit SMRs as searchable PDF

documents. SMR 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. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

California Regional Water Quality Control Board
 Los Angeles Region
 320 W. 4th Street, Suite 200
 Los Angeles, CA 90013

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1 / Day	On permit effective date.	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	May 1 August 1 November 1 February 1
1/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	May 1 August 1 November 1 February 1
1/ Quarter	On permit effective date.	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / Year	On permit effective date.	January 1 through December 31	February 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.
5. 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 reported ML 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.
6. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above 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).
7. Multiple Sample Data. When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless 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:
- a. 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.
 - b. 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.

8. 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. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - 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. 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, 15 th 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. The Discharger shall report the results of any acute toxicity testing and TRE/TIE, SWPPP, BMPP, and SCP required by Special Provisions – VI.C. 2 and 3 of the Order. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

2. Within **90 days** of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:
 - a. Initial Investigation TRE Workplan
 - b. Updated SWPPP
 - c. Updated BMPP
 - d. Updated SCP

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 this 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 F-1. Facility Information

WDID	4A193500005
Discharger	City of Los Angeles Department of Water and Power
Name of Facility	Castaic Power Plant
Facility Address	37700 Templin Highway
	Castaic, California
	Los Angeles County
Facility Contact, Title and Phone	Katherine Rubin, Wastewater Quality & Compliance Manager (213) 367-0436
Authorized Person to Sign and Submit Reports	John C. Kokoska, Power System Internal Generation Manager
Mailing Address	111 N. Hope Street, Room 1213 Los Angeles, CA 90012
Billing Address	Same
Type of Facility	Hydroelectric Power Plant
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	B
Pretreatment Program	Not applicable
Reclamation Requirements	Not applicable
Facility Permitted Flow	393.590 million gallons per day (MGD) - Cooling water and other industrial wastewaters including backwash water discharged to Elderberry Forebay
Facility Design Flow	Same as above
Watershed	Santa Clara River Watershed
Receiving Water	Elderberry Forebay
Receiving Water Type	Inland surface water

A. The City of Los Angeles Department of Water and Power (hereinafter Discharger) operates the Castaic Power Plant (hereinafter Facility), a hydroelectric generating

station located at 37700 Templin Highway (approximately five miles east of Interstate 5), Castaic, Los Angeles County, California.

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 cooling water and other wastewaters from the facility to Elderberry Forebay, a water of the United States, and is currently regulated by Order R4-2007-0025 as amended by R4-2010-0181 which was adopted on October 7, 2010. The Orders are scheduled to expire on April 10, 2012. The terms and conditions of the current Orders have been continued as per 40 Code Federal Regulations (CFR) art 122.6 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 (ROWD) and applied for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on December 19, 2011. On May 10, 2013, the Discharger submitted a modified ROWD (i.e., EPA Form 2C, and revised Schematic Flow Diagram and Map) to change the flow rates for Discharge Points 003, 004, and 005 based on the current discharges from the Facility. The new discharge flow rate from all discharge points (003, 004, 005, 006 and the underwater discharge points) is 393.590 MGD.

A site visit was conducted on December 14, 2011, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

Castaic Power Plant is a hydroelectric generating station located at 37700 Templin Highway (approximately five miles east of Interstate 5), Castaic, Los Angeles County, California. The Facility provides peak-load power, generated by the movement of water from Pyramid Lake down a gradient (through a 7.2 mile long tunnel and penstocks) to turn seven turbines, with eventual discharge to Elderberry Forebay. Source water for power generation is taken from Pyramid Lake. Approximately 2.6 billion gallons per day (gpd) of water from Pyramid Lake is transferred to Elderberry Forebay during the production of electrical energy. During off-peak hours, water is pumped back from Elderberry Forebay to Pyramid Lake. Other uses for water at the Castaic Power Plant include generator cooling, turbine cooling, and industrial uses (i.e., fire suppression system and floor wash down activities). Source water for other uses is taken from Pyramid Lake, Elderberry Forebay, and ground water.

A. Description of Wastewater Treatment or Controls

This Order permits discharges of cooling water and other wastewaters from the Facility.

According to the previous Order (Order No. R4-2007-0025 as amended by Order No. R4-2010-0025), Castaic Power Plant discharges up to 13.2 million gallons per day (MGD) of

wastewater to Elderberry Forebay. Based on the modified ROWD, Castaic Power Plant discharges up to 393.590 MGD of wastewater, as shown below:

Wastewater Type	Volume (gpd)
Generator and turbine cooling water - Units 1, 2, 3, 4, 5, and 6	12,402,000
Air Compressor after-cooling water	691,200
Generator cooling water- Unit 7	380,000,000
Mechanical turbine shaft seals - Units 1, 2, 3, 4, 5, and 6	179,505
Draft tubes dewatering sump water	4,000
Compressor after cooler	3,000
Seal drain sump water	3,000
Industrial use water	1,500
Gallery drain sump water	2,100
Cooling water from air compressors	302,400
Backwash water from potable water system	1200 to 1500
Total wastewater discharge	393,590,205

The ROWD included the following operations contributing flow to the Outfalls or Discharge Points 001, 002, 003, 004, 005, 006, and the Underwater Discharge Points. The waste streams resulting from the operations are discussed below.

Outfall/Discharge Point No.	Operations	Flow	Description/Treatment
001 (NPDES permit not required)	Pump back	1.1 billion gallons per day (gpd)	Pump back water from Elderberry Forebay to Pyramid Lake / untreated water.
002 (NPDES permit not required)	Recharge Water	1 .5 billion gpd	Recharge water from Elderberry Forebay to Castaic Lake / untreated water.
Outfall/Discharge Points that discharges to Elderberry Forebay:			
003	Unit 7 Tailrace	380 MGD	No treatment.
004	Oil water separator	179,505 gpd	Oil water separator.
005	Dewatering, gallery, seal drain sumps	9,100 gpd	No treatment.
	Compressor after cooler	3,000 gpd	No treatment.
	Cooling water from air compressors	302,400 gpd	No treatment
	Industrial use water	1,500 gpd	No treatment
006	Backwash water from potable water system	1200 to 1500 gpd	Settling basin
1	Generator and turbine cooling water - Units 1, 2, 3, 4, 5, and 6	12,402,000 gpd	No treatment
1	Air Compressor after-cooling water	691,200 gpd	No treatment
Total discharges to Elderberry Forebay		393,590,205 gpd or 393.590 MGD	

¹ No designated Outfalls/Discharge Serial Number because the waste streams are discharge through underwater discharge points to Elderberry Forebay. These waste streams are not included in the ROWD.

However, these are discharged to Elderberry Forebay and were included in Order No. R4-2007-0025. Therefore, this Order also includes these waste streams to the permitted flow.

Following are descriptions of wastewaters discharged from Castaic Power Plant:

1. **Discharge Point 001** - Approximately 1.1 billion gpd of water is pumped from Elderberry Forebay back to Pyramid Lake during off-peak hours through Discharge Point 001. Discharge Point 001 discharges to Pyramid Lake, a water of the United States. Pyramid Lake is tributary to the Santa Clara River via Piru Creek and Lake Piru. An NPDES permit is not required for discharges from Discharge Point 001.
2. **Discharge Point 002** - Up 1.5 billion gpd of water from Elderberry Forebay is released from Discharge Point 002 downstream to Castaic Lake for recharge purposes. Castaic Lake is tributary to the Santa Clara River via Castaic Creek. An NPDES permit is not required for discharges from Discharge Point 002.
3. **Discharge Points 003, 004, 005, and 006** - These Outfalls discharge wastewater to Elderberry Forebay, a water of the United States. Elderberry Forebay is tributary to Castaic Lake, which is tributary to the Santa Clara River via Castaic Creek.
 - a. **Discharge Point 003** - Up to 380.00 MGD of *Unit 7 Tailrace* wastewater is discharged to Elderberry Forebay without treatment through this Outfall. The wastewater discharge from *Unit 7 Tailrace* (discharge channel) is composed of Unit 7 generator cooling water, industrial use water, and cooling water from air compressors. The generator and after cooler cooling systems are closed systems that use non-contact cooling water. The industrial use water comes from sprinkler and fire suppressant systems and floor wash down water.
 - b. **Discharge Point 004** – Up to 179,505_gpd of treated wastewater from the *Oil Water Separator* is discharged to Elderberry Forebay through this Outfall. The oil water separator collects and treats the wastewater from the floor drain sump. Water leakage from the surrounding mechanical turbine shaft seals during the operation of the turbines to generate power is collected via drains throughout the facility and channeled to a floor drain sump. A portion (500 gpd) of the industrial use water, used for sprinkler and fire suppression systems and floor wash down water, is also directed to the floor drain sump.
 - c. **Discharge Point 005** – Up to 316,000 gpd of wastewater from the *Combined Discharge from Additional Cooling, Sump, and Industrial Use Waters* is discharged to Elderberry Forebay without treatment through this Outfall. The wastewater is comprised of wastes from cooling water from air compressors (302,400 gpd), industrial use (1,500 gpd), and compressor after cooler (3000 gpd), gallery drain, seal drain, and dewatering sumps (91,000 gpd). Castaic Power Plant uses compressed air to build pressure in the draft tubes in order to prime the pumps used to pump water from Elderberry Forebay back to Pyramid Lake. The compressed air and water is then released to a dewatering sump. A gallery drain sump is used as a drain system for the penstocks (intake tunnel). A seal drain sump collects water that leaks through the rubber seals connecting the three parts of the building.

- d. Discharge Point 006** – Up to 1,200 to 1,500 gpd of potable backwash water is discharged to Elderberry Forebay through this Outfall. The Facility has a domestic water system designed to provide up to 100,000 gallons of potable water for the Plant's personnel usage. The potable water system draws water from the Plant's penstocks. The water is treated primarily for the removal of solids via the addition of sediment-binding flocculants and the subsequent retention of this sediment in the system's clarifying units. The water is then pressurized, chlorinated, and delivered as potable supply. To maintain the delivery of high quality potable water and to remove the buildup of the sediment on the filter, the filter is routinely backwashed. The discharge of backwash water may occur three to four times a week, depending on the turbidity level of the raw water. The Discharger indicated in the cover letter accompanying the ROWD and permit renewal application that the potable water facility has not yet been put into service; however, the Discharger plans to use the system in the near future.
- e. Underwater Discharge Points - Waste Streams from Units 1, 2, 3, 4, 5, and 6 Generator Cooling** – The generator and turbine cooling water for power generating Units 1-6 is non-contact cooling water for power generation at Units 1-6. The associated discharges are at submerged locations at least 43 feet to 83 feet below the water surface of the Elderberry Forebay. In addition, the flow combines immediately with the Forebay water at a flow of 3358 gallons per minute (GPM) or 4.84 million gallons per day (MGD) and a force of 300,000 foot-pounds per second. Due to the unsafe condition and location of these underwater points to Elderberry Forebay, there is no designated Discharge Serial Number for these waste streams. Hence, these discharges are not monitored.

B. Discharge Points and Receiving Waters

Discharge Point 001 [34°38'49" North, 118°45'43" West] discharges to Pyramid Lake, a water of the United States. Pyramid Lake is tributary to the Santa Clara River via Piru Creek and Lake Piru. Discharge Point 002 [34°33'34" North, 118°37'53" West] discharges to Castaic Lake, a water of the United States. Castaic Lake is tributary to the Santa Clara River via Castaic Creek. The discharges from Discharge Points 001 and 002 originate from Elderberry Forebay, not from the Castaic Power Plant. Discharges from Discharge Points 001 and 002 do not require an NPDES permit. Discharge Points 003, 004, 005, and 006 [34°35'14" North, 118°39'22" West] discharge to Elderberry Forebay, a water of the United States. Elderberry Forebay is tributary to Castaic Lake, which is tributary to the Santa Clara River via Castaic Creek.

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

The existing Order contains the following effluent limitations and representative monitoring data from the term of the previous Order are as follows:

Table F-2a Historic Effluent Limitations and Monitoring Data-Discharge Points 001, 002, 003, 005

Parameter	Units	Effluent Limitations				Monitoring Data
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
pH	Standard units	--	--	6.5	8.5	6.5 – 9.3
Temperature	°F	--	--	--	86	47.3 – 87
Suspended Solids	mg/L	50	150	--	--	<0.1 – 16
Settleable Solids	ml/L	0.1	0.3	--	--	<0.1 – 0.1
Turbidity ¹	NTU	5	25	--	--	<1 - 10
Dieldrin ²	µg/L	0.00014	0.00028	--	--	<0.005 – 0.02 ³
Oil and Grease ⁴	mg/L	--	--	--	--	0.5 - 1
BOD ₅ 20°C ⁴	mg/L	--	--	--	--	2 - 16

¹ During periods of storm runoff where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20 percent. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10 percent.

² Only applies to discharges from Discharge Point 001.

³ Only detection of the permit term occurred through Discharge Point 002.

⁴ No limitations in the existing Order and only monitored at Discharge Point 005.

Table F-2b Historic Effluent Limitations and Monitoring Data – Discharge Point 004

Parameter	Units	Effluent Limitations				Monitoring Data
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
pH	Standard units	--	--	6.5	8.5	6.7 – 7.8
Temperature	°F	--	--	--	86	56.8 – 83.1
Oil and Grease	mg/L	10	15	--	--	0.9 – 6.8
BOD ₅ 20°C	mg/L	--	10	--	--	2 – 24
Suspended Solids ¹	mg/L	--	--	--	--	0.9 – 4.4
Settleable Solids ¹	ml/L	--	--	--	--	<0.1
Turbidity ¹	NTU	--	--	--	--	1.1 - 5

¹ No limitations in the Order but monitored at Discharge Point 004.

Table F-2c. Historic Effluent Limitations and Monitoring Data – Discharge Point 006

Parameter	Units	Effluent Limitations				Monitoring Data
		Average Monthly	Maximum Daily	Instant Minimum	Instant Maximum	
pH	Standard units	--	--	6.5	8.5	¹
Oil and Grease	mg/L	10	15	--	--	¹
BOD ₅ 20°C	mg/L	--	10	--	--	¹
Suspended Solids	mg/L	50	150	--	--	¹

Parameter	Units	Effluent Limitations				Monitoring Data
		Average Monthly	Maximum Daily	Instant Minimum	Instant Maximum	
Settleable Solids	ml/L	0.1	0.3	--	--	1
Turbidity	NTU	5	25	--	--	1
Residual Chlorine	mg/L	--	0.1	--	--	1
Methylene blue activated substances (MBAS)	mg/L	--	0.5	--	--	1
Copper	µg/L	9.33	14	--	--	1
Lead	µg/L	3.18	81.65	--	--	1
Zinc	µg/L	120	120	--	--	1
Dichlorobromomethane	µg/L	--	0.56	--	--	1
Acute toxicity	% survival	2				1

¹ No discharges occurred through Discharge Point 006 during the permit term. Sampling was conducted on a select number of parameters, but none of those that were limited in the Order.

² The acute toxicity of the effluent shall be such that (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90 percent; and (iii) no single test producing less than 70 percent survival.

D. Compliance Summary

A review of effluent monitoring data submitted during the permit term indicates the Discharger violated effluent limitations for pH, biochemical oxygen demand (BOD), and temperature established in Order No. R4-2007-0025 (as amended by Order No. R4-2010-0181) during the permit term.

Table F-3. Compliance Summary

Discharge Point	Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
002	5/10/2011	May 2011	Instantaneous Maximum	pH	9.3	8.5	Standard units
004	12/10/2010	December 2010	Daily Maximum	BOD	27	10	Mg/L
004	12/1/2010	December 2010	Daily maximum	BOD	16	10	Mg/L
002	5/20/2008	May 2008	Instantaneous Maximum	pH	9.2	8.5	Standard units
005	9/13/2007	September 2007	Instantaneous Maximum	Temperature	87	86	Degrees F

On February 9, 2012, the Assistant Executive Officer issued a Settlement Offer No. R4-2013-0030-M to participate in the Expedited Payment Program Relating to Violations of the NPDES Permit (Order Nos. 98-020, R4-2007-0025, and R4-2010-0181) with Mandatory Minimum Penalties against Los Angeles Department of Water and Power, Castaic Power Plant (LADWP Castaic), in the amount of \$3,000.00. The violations included effluent limitations exceedances for turbidity (3 - during the period of first Quarter 2003 at 001, first Quarter 2006 at 002, and 001), and biochemical oxygen demand (BOD) (2 - during the fourth Quarter 2010 at 004). On April 2, 2012, the

Regional Water Board received a signed waiver to a hearing from LADWP. A stipulated Order was issued on May 24, 2012. The Regional Water Board received the payment of \$3,000 on June 6, 2012, from LADWP.

E. Planned Changes

The Discharger is in the process of upgrading the generators at the Facility. During the site visit on December 14, 2011, five of the seven generators are in the process of upgrading. The generators upgrades are expected to be complete in 2014.

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 (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. In addition, this action is exempt from CEQA pursuant to 14 CCR 15301 (categorical exemption for existing facilities) because the action concerns the permitting of an existing facility and involves negligible or no expansion of the existing use.

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 Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, 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 applicable to Elderberry Forebay, Pyramid Lake and Castaic Lake are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Use(s)
001 (NPDES permit not required for discharge)	Pyramid Lake	<p><u>Existing:</u> Municipal and domestic supply (MUN); industrial service supply (IND); industrial process supply (PROC); agricultural supply (AGR); ground water recharge (GWR); hydropower generation (POW); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); rare, threatened, or endangered species (RARE).</p> <p><u>Potential:</u> Freshwater replenishment (FRESH)</p>
002 (NPDES permit not required for discharge)	Castaic Lake	<p><u>Existing:</u> Municipal and domestic supply (MUN); industrial service supply (IND); industrial process supply (PROC); agricultural supply (AGR); ground water recharge (GWR); freshwater replenishment (FRESH); hydropower generation (POW); water contact recreation (REC-1); noncontact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); spawning, reproduction, and/or early development (SPAWN).</p> <p><u>Intermittent:</u> Cold freshwater habitat (COLD).</p>
003, 004, 005, 006	Elderberry Forebay	<p><u>Existing:</u> Municipal and domestic supply (MUN); industrial service supply (IND); industrial process supply (PROC); agricultural supply (AGR); ground water recharge (GWR); freshwater replenishment (FRESH); hydropower generation (POW); water contact recreation (REC-1); noncontact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); spawning, reproduction, and/or early development (SPAWN).</p>

Requirements of this Order implement the Basin Plan, as amended.

2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. Requirements of this Order implement the Thermal Plan. Additionally, a white paper was 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*, evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and is included in this Order.

3. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia*

Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life. The amendment reflects the revised water quality criteria developed by USEPA in the “1999 Update of Ambient Water Quality Criteria for Ammonia,” December 1999. The 1999 Update contains USEPA’s most recent freshwater aquatic life criteria for ammonia and supersedes all previous freshwater aquatic life criteria for ammonia. The ammonia Basin Plan amendment was approved by the State Water Board, Office of Administrative Law (OAL), and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA’s 1999 ammonia criteria update.

- 4. 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. The CTR contains water quality criteria for priority pollutants.
- 5. 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.
- 6. 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 C.F.R. § 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.
- 7. Antidegradation Policy.** 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California’s antidegradation policy in State Water Board Resolution No. 68-16. 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 must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

- 8. Anti-Backsliding Requirements.** Section 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. Section 402(o)(1) prohibits the relaxation of effluent limits (1) when a permittee seeks to revise a technology-based effluent limitation based on best professional judgment to reflect a subsequently promulgated effluent guideline which is less stringent, and (2) when a permittee seeks relaxation of an effluent limitation which is based upon a state treatment standard or water quality standard. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40, Code Federal Regulations section 122.44(l) outlines specific exception to the general prohibition against establishment of less stringent effluent limitations.

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

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board plans to develop and adopt TMDLs that will specify wasteload allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

Certain receiving waters in the Los Angeles and Ventura Counties' watersheds do not fully support beneficial uses. These receiving waters are classified as impaired on the 2010 303(d) List and are scheduled for TMDL development. The USEPA approved the State Water Resources Control Board's (State Water Board) 2010 California 303(d) List of impaired water bodies on November 12, 2010.

The Facility discharges to Pyramid Lake, Castaic Lake and Elderberry Forebay. Pyramid Lake, Elderberry Forebay, and Castaic Lake are located in the northeastern portion of the Los Angeles Basin in the Santa Clara River watershed. Pyramid Lake is tributary to the Santa Clara River (Reach 11) via Piru Creek. Elderberry Forebay is tributary to Castaic Lake, which is tributary to the Santa Clara River (Reach 5) via Castaic Creek. The 2010 State Board's California 303(d) List does not classify Elderberry Forebay as impaired. The 2010 303(d) list, classifies Pyramid Lake and Castaic Lake as impaired for mercury. It also classifies Piru Creek (from gaging station below Santa Felicia Dam to Headwaters) as impaired for chloride and pH. The Santa Clara River (Reach 11 – Piru Creek, from confluence with Santa Clara River Reach 4 to gaging station below Santa Felicia Dam) is impaired for boron, specific conductance, sulfates, and total dissolved solids. No TMDLs have been established for the Santa Clara River Reach 11 and Piru Creek. The Santa Clara River [Reach 5 – Blue Cut gaging station to West Pier Highway 99 Bridge,

and was named Santa Clara River Reach 7 on 2002 303(d) list] is impaired for chloride, coliform bacteria and iron.

The following are summaries of the TMDLs for the Santa Clara River that include Reach 5:

- 1. Upper Santa Clara River Watershed Chloride TMDL:** On October 24, 2002, the Regional Water Board adopted Resolution R4-2002-018 which amended the Basin Plan to incorporate a TMDL for chloride. On February 19, 2003, the State Water Board adopted Resolution R4-2003-0014, which remanded the chloride TMDL and directed the Regional Water Board to revise the implementation provisions of the TMDL. On July 10, 2003, the Regional Water Board reconsidered Resolution No. 2002-018, in light of Resolution R4-2003-0014. The Regional Water Board adopted Resolution No. 2003-008, which modified the chloride TMDL implementation provisions.

On May 6, 2004, the Regional Water Board adopted Resolution No. 2004-004, further modifying the Chloride TMDL by revising the chloride interim limits. The Upper Santa Clara River Chloride TMDL was approved by the State Water Board, OAL, and USEPA on July 22, 2004, November 15, 2004, and April 28, 2005, respectively. It became effective on May 4, 2005.

On August 3, 2006, the Regional Water Board adopted Resolution No. R4-2006-016, *Amendment to the Water Quality Control Plan for the Los Angeles Region through revision of the Implementation Plan for the Upper Santa Clara River Chloride TMDL*. The Resolution proposed to shorten the compliance period for the chloride TMDL by two years, requiring compliance with the chloride final waste load allocation within 11 years from the effective date of the TMDL, rather than 13 years. Resolution No. R4-2006-016 was approved by the State Water Board and OAL on May 22, 2007, and August 5, 2007, respectively. The TMDL compliance schedule provisions contained in Resolution No. R4-2006-016 did not need to be acted upon by USEPA because USEPA considers TMDL compliance schedule provisions to have been authorized by the State Water Board's Compliance Schedule Policy, Resolution No. 2008-0025. Resolution No. R4-2006-016 became effective on June 12, 2008.

On December 11, 2008, the Regional Water Board adopted Resolution No. R4-2008-012, *Reconsideration of the Upper Santa Clara River Chloride TMDL Implementation Plan and Revise Chloride Water Quality Objectives*. The Resolution would incorporate site specific objectives (SSOs) for chloride in Reaches 4B, 5, and 6 of the Santa Clara River and the groundwater basins underlying those reaches. Resolution No. R4-2008-012 was approved by the State Water Board on October 20, 2009, and OAL January 26, 2010. Resolution No. R4-2008-012 was approved by USEPA on April 6, 2010, and it became effective on that day.

- 2. Santa Clara River Watershed Nitrogen Compounds TMDL:** On August 7, 2003, the Regional Water Board adopted Resolution No. R4-2003-011, which incorporated

a TMDL and waste load allocations (WLAs) into the Basin Plan for ammonia and nitrate plus nitrite within the Santa Clara River at USEPA Reach 7 (corresponds to Basin Plan Reach 5). The State Water Board and OAL approved the TMDL on November 19, 2003, and February 27, 2004, respectively. The USEPA approved the TMDL on March 18, 2004, and it became effective on March 23, 2004.

- 3. Santa Clara River Bacteria TMDL:** On July 8, 2010, the Regional Water Board adopted Resolution No. R4-2010-006 (Bacteria TMDL), which amended the Basin Plan to incorporate a TMDL for indicator bacteria in the Santa Clara River Estuary and Reaches 3, 5, 6, and 7. The Basin Plan amendment was approved by the State Water Board on October 4, 2011, the OAL on December 19, 2011, and the USEPA on January 13, 2012. The Bacteria TMDL became effective on March 21, 2012.

The Bacteria TMDL, included numeric targets based on the bacteria water quality objectives (single sample and geometric mean) for marine and freshwaters designated for water contact recreation (REC-1). The numeric targets for E. coli (single sample – 235/100ml; geometric mean – 126/100ml) apply to the Santa Clara River (Reach 5). These numeric targets are expressed as “allowable exceedance days”. The TMDL assigned WLAs of zero (0) allowable exceedance days of the single sample targets for both dry and wet weather (defined as days with 0.1 inch of rain or greater and the three days following the rain event) and no exceedances of the geometric mean targets.

The Basin Plan on Page 2-4 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Facility discharges to Elderberry Forebay, a tributary to Castaic Lake, which is tributary to the Santa Clara River (Reach 5) via Castaic Creek. To protect the beneficial uses of the Santa Clara River (Reach 5), this permit includes the chloride, bacteria, and nitrogen compounds TMDLs as discussed Section IV.C.5 in this Fact Sheet.

E. Plans, Policies and Regulations

Not applicable

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 Code of Federal Regulations, title 40: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

For cooling water discharges from the six main generators, the Unit 7 tailrace, and the compressor coolers, suspended solids, settleable solids, and turbidity are pollutants of

concern because materials may be present in the source water that may contribute solids and these materials may become concentrated throughout the process. The existing Order No. R4-2007-0025 as amended by Order No. R4-2010-0181 established effluent limits for these pollutants and effluent limitations for these parameters have been included in this Order.

Biochemical oxygen demand (BOD), and oil and grease are considered pollutants of concern in the discharge from the oil-water separator because there may be materials in the industrial use wastewater and water that has leaked through turbine shaft seals that may contribute BOD and oil and grease to the discharge. Effluent limitations for BOD and oil and grease have been included in this Order.

Temperature and dissolved oxygen (DO) may be parameters of concern for cooling water discharges from the six main generators (Units 1-6) and the Unit 7 tailrace, and the combined discharge from the compressor coolers, industrial use, and seal drain, gallery drain, and dewatering sumps due to potential temperature changes during the system cooling process. This Order includes a limit for temperature. It does not establish effluent limitations for DO, but continues to require monitoring.

Raw water from the penstock may contain settleable solids, and total suspended solids. During the filtration process, these constituents may settle in the filter tanks, and during the filter backwash process may become loosened from filter surfaces, and therefore, may be present in the discharge of backwash water. These constituents are considered pollutants of concern. The penstock water may also contribute to turbidity, and BOD; therefore, they are also considered pollutants of concern. Since the water system is chlorinated, there is potential for residual chlorine to be present in the discharge of backwash water. Effluent limitations for discharges of backwash water were established for BOD, turbidity, oil and grease, methylene blue activated substances (MBAS), settleable solids, suspended solids, pH, and residual chlorine. Furthermore, the previous Order included effluent limitations for copper, lead, zinc, and dichlorobromomethane (bromodichloromethane) because these pollutants had been considered pollutants of concern. The effluent limitations continue to be applicable to the Facility. This Order also includes limits for these constituents.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and previous permit provisions, and are consistent with the requirements set for other discharges to the Elderberry Forebay, that are regulated by an NPDES permit.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, 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. Effluent guidelines have not been established for cooling water and other wastewater discharges from hydropower generation facilities. Technology-based effluent limitations for conventional pollutants (TSS, oil and grease, and BOD) and nonconventional pollutants (settleable solids, and turbidity) have been carried over from the previous Order, and are based on the Regional Water Board's Best Professional Judgment (BPJ) implementing technology-based requirements for the discharges from the Castaic Power Plant. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR section 125.3.

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

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

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

Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point source discharges.

2. Applicable Technology-Based Effluent Limitations

- a. This Order includes technology-based effluent limitations based on BPJ in accordance with 40 CFR section 125.3. Effluent limitations for BOD, oil and grease, TSS, settleable solids, and turbidity are based on the existing Order No. R4-2007-0025 as amended by Order No. R4-2010-0181 utilizing BPJ. The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility.

Effluent limitations (maximum daily) for total suspended solids have been revised based on effluent limitations contained in similar discharge permits recently issued by the Regional Board (i.e., hydroelectric generating station discharging once-through cooling water, wastewater from a drainage sump, and potable backwash water in the Los Angeles Region). Effluent limitations for BOD, and oil and grease have been included for Discharge Points 003 and 005 because the industrial use water, wash down water, and other wastewater from the dewatering sump, gallery drain sump, and seal drain sump combines with non-contact cooling water from the compressor coolers discharged through these outfalls may contain these pollutants. In addition, BOD, and oil and grease were detected in the monitoring data during the existing permit term as shown in Table F-2a - Historic Effluent Limitations and Monitoring Data - Discharge Point 005. There were no monitoring data for BOD and oil and grease for Discharge Point 003. Effluent limitations for TSS, and turbidity have been included at Discharge Point 004 because these are considered pollutants of concern in the wastewater directed to the oil-water water separator. TSS and turbidity were detected in the monitoring data as shown in Table F-2b, Historic Effluent Limitations and Monitoring Data – Discharge Point 004.

Table F-6a. Summary of Technology-based Effluent Limitations Discharge Point 003

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Total Suspended Solids (TSS)	mg/L	50	75
	lbs/day ¹	258,460	237,690
BOD	mg/L	--	10
	lbs/day ¹	--	31,692
Oil and Grease	mg/L	10	15
	lbs/day ¹	31,692	47,538
Settleable Solids	ml/L	0.1	0.3
Turbidity ²	NTU	5	25

¹ Mass-based effluent limitations based upon a maximum authorized discharge of 380.00 MGD.

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

Table F-6b. Summary of Technology-based Effluent Limitations Discharge Point 004

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD	mg/L	--	10
	lbs/day ¹	--	15
Oil and Grease	mg/L	10	15
	lbs/day ¹	15	23
Total Suspended Solids (TSS)	mg/L	50	75
	lbs/day ¹	75	113
Settleable Solids	ml/L	0.1	0.3
Turbidity ²	NTU	5	25

¹ Mass-based effluent limitations based upon a maximum authorized discharge of 179,505 gpd (0.180 MGD).

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

Table F-6c. Summary of Technology-based Effluent Limitations Discharge Point 005

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Total Suspended Solids (TSS)	mg/L	50	75
	lbs/day ¹	5.96	8.95
BOD	mg/L	--	10
	lbs/day ¹	--	1.19
Oil and Grease	mg/L	10	15
	lbs/day ¹	1.19	1.79
Settleable Solids	ml/L	0.1	0.3
Turbidity ²	NTU	5	25

¹ Mass-based effluent limitations based upon a maximum authorized discharge of 316,000 gpd (0.316 MGD).

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

Table F-6d. Summary of Technology-based Effluent Limitations Discharge Point 006

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD	mg/L	--	10
	lbs/day ¹		0.13
Total Suspended Solids (TSS)	mg/L	50	75
	lbs/day ¹	0.63	0.94
Oil and Grease	mg/L	10	15
	lbs/day ¹	0.13	0.19
Settleable Solids	ml/L	0.1	0.3
Turbidity ²	NTU	5	25

¹ Mass-based effluent limitations based upon a maximum authorized discharge of 1,500 gpd.

² During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 CFR section 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 section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated beneficial 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.

The SIP contains specific procedures for determining reasonable potential and, if necessary, calculating WQBELs for the discharge of wastewater from the Castaic Power Plant.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in Section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Elderberry Forebay are summarized in Section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to Elderberry Forebay. 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 section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The CTR criteria for freshwater or human health for consumption of water and organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of Elderberry Forebay-

Per the previous Order, the Discharger submitted priority pollutant monitoring data for Pyramid Lake. This monitoring data has been used as the receiving water data for the RPAs for each Discharge Point.

Some water quality criteria are hardness dependent. As stated previously, the Discharger provided receiving water monitoring data and the minimum hardness concentration value was 93 mg/L, therefore, this value was used for evaluation of reasonable potential.

Table F-7 summarizes the applicable water quality criteria/objective for priority pollutants reported at least once in detectable concentrations in the effluent or receiving water for the individual outfalls evaluated based on data submitted to the Regional Water Board. These criteria were used in conducting the RPA for this Order.

Table F-7. Applicable Water Quality Criteria – Discharge Points 003, 004, 005 and 006

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	14	--	--	N/A		14	N/A
2	Arsenic	150	340	150			--	
4	Cadmium	2.33	4.16	2.33			--	
5a	Chromium (III)	195.04	1,636.31	195.04			--	
5b	Chromium (VI)	11.43	16.29	11.43			--	

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
6	Copper	8.77	13.07	8.77			1,300	
7	Lead	2.90	74.44	2.90			--	
9	Nickel	49.06	441.24	49.06			610	
10	Selenium	5	20	5			--	
11	Silver	3.58	3.58	--			--	
12	Thallium	1.7	--	--			1.7	
13	Zinc	112.67	112.67	112.67			--	
14	Cyanide	5.20	22	5.20			700	
15	Asbestos	NC	--	--			7,000,000 fibers/L	
16	2,3,7,8'-TCDD	1.30 E-08	--	--			1.3 E-08	
68	Bis(2-Ethylhexyl)Phthalate	5.9	--	--			1.8	
79	Diethyl Phthalate	23,000	--	--			23,000	
96	N-Nitrosodimethylamine	0.00069	--	--			0.00069	
102	Aldrin	0.00013	--	--			0.00013	
106	Delta BHC	NC	--	--			--	
107	Chlordane	0.00057	2.4	0.0043			0.00057	
111	Dieldrin	0.00014	0.24	0.056			0.00014	
112	Alpha Endosulphan	0.056	0.22	0.056			110	
116	Endrin Aldehyde	0.76	--	--			0.76	
118	Heptachlor Epoxide	0.00010	0.052	0.0038			0.00010	

"N/A" indicates the receiving water body is not characterized as saltwater, nor are the water quality criteria for the protection of human health for the consumption of organisms (only) applicable.
 "NC" indicates there are no criteria that are applicable to that particular pollutant.

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts a reasonable potential analysis (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 analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water

Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

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

- 1) Trigger 1 – If the MEC \geq C, a limit is needed.
- 2) Trigger 2 – If the background concentration (B) $>$ C and the pollutant is detected in the effluent, a limit is needed.
- 3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water 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. Adequate effluent data sets were available for all outfalls with the exception of Discharge Point 006 which had no discharges during the permit term. Monitoring data was submitted from a sample taken from the potential effluent from Discharge Point 006 but only for a small group of metals and pesticides. Based on the RPA, aldrin and copper demonstrated reasonable potential at Discharge Point 004; and bis(2-ethylhexyl)phthalate, N-nitrosodimethylamine, and heptachlor epoxide demonstrated reasonable potential at Discharge Point 005. Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

Table F-8a. Summary Reasonable Potential Analysis–Discharge Points 003

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	14	0.3	0.279	N	MEC & B < C
2	Arsenic	150	3.9	3.99	N	MEC & B < C
4	Cadmium	2.33	0.03	0.21	N	MEC & B < C
5a	Chromium (III)	195.04	1.8	13.2	N	MEC & B < C
5b	Chromium (VI)	11.43	0.9	0.9	N	MEC & B < C
6	Copper	8.77	2.2	3.82	N	MEC & B < C

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
7	Lead	2.90	0.5	0.12	N	MEC & B < C
9	Nickel	49.06	2.2	5.88	N	MEC & B < C
10	Selenium	5	0.4	0.38	N	MEC & B < C
12	Thallium	1.7	0.02	0.03	N	MEC & B < C
13	Zinc	112.67	59.4	30.1	N	MEC & B < C
15	Asbestos	7,000,000	8	26	N	MEC & B < C
79	Diethyl Phthalate	23,000	0.089	--	N	MEC & B < C
112	Alpha Endosulfan	0.056	0.014	--	N	MEC & B < C
116	Endrin Aldehyde	0.76	0.0089	--	N	MEC & B < C

"NC" indicates there are no criteria that are applicable to that particular pollutant.

"- -" indicates non-detect

Table F-8b. Summary Reasonable Potential Analysis –Discharge Points 004

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	14	0.2	--	N	MEC<C
2	Arsenic	150	3.4	--	N	MEC<C
4	Cadmium	2.33	0.09	--	N	MEC<C
5a	Chromium III	195.04	1	--	N	MEC<C
5b	Chromium VI	11.43	0.6	--	N	MEC<C
6	Copper	8.77	13	--	Y	MEC>C
7	Lead	2.90	1.9	--	N	MEC<C
9	Nickel	49.06	5.8	--	N	MEC<C
10	Selenium	5	0.45	--	N	MEC<C
11	Silver	3.58	0.04	--	N	MEC<C
12	Thallium	1.7	0.1	--	N	MEC<C
13	Zinc	112.67	65	--	N	MEC<C
14	Cyanide	5.20	2	--	N	MEC<C
15	Asbestos	7,000,000	3.1	--	N	NC
102	Aldrin	0.00013	0.0025	--	Y ¹	MEC>C

"NC" indicates there are no criteria that are applicable to that particular pollutant.

"- -" indicates non-detect

¹ RPA is established through single detection per SIP.

Table F-8c. Summary Reasonable Potential Analysis–Discharge Points 005

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	14	0.3	0.279	N	MEC & B<C
2	Arsenic	150	3.5	3.99	N	MEC & B<C
4	Cadmium	2.33	0.08	0.21	N	MEC & B<C
5a	Chromium (III)	195.04	2	13.2	N	MEC & B<C
5b	Chromium (VI)	11.43	0.9	0.9	N	MEC & B<C
6	Copper	8.77	3.8	3.82	N	MEC & B<C
7	Lead	2.90	1.8	0.12	N	MEC & B<C
9	Nickel	49.06	2.2	5.88	N	MEC & B<C
10	Selenium	5	0.5	0.38	N	MEC & B<C
11	Silver	3.58	2.5	1.3	N	MEC & B<C
12	Thallium	1.7	0.2	0.03	N	MEC & B<C
13	Zinc	112.67	15.9	30.1	N	MEC & B<C
14	Cyanide	5.20	2	2	N	MEC & B<C
15	Asbestos	7,000,000	29	26	N	MEC & B<C
68	Bis(2-Ethylhexyl)Phthalate	1.8	100	--	Y	MEC>C
96	N-Nitrosodimethylamine	0.00069	0.003	--	Y	MEC>C
118	Heptachlor Epoxide	0.00010	0.0087	--	Y	MEC>C

“NC” indicates there are no criteria that are applicable to that particular pollutant.

“ - ” indicates non-detect

Table F-8d. Summary Reasonable Potential Analysis–Discharge Points 006

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	14	0.28	0.279	N	MEC & B<C
2	Arsenic	150	3.4	3.99	N	MEC & B<C
4	Cadmium	2.33	0.01	0.21	N	MEC & B<C
5a	Chromium (III)	195.04	1.1	13.2	N	MEC & B<C
5b	Chromium (VI)	11.43	0.67	0.9	N	MEC & B<C
9	Nickel	49.06	1.6	3.82	N	MEC & B<C
10	Selenium	5	0.4	0.38	N	MEC & B<C
14	Cyanide	5.20	1	2	N	MEC & B<C
15	Asbestos	7,000,000	0.5	26	N	MEC & B<C

“NC” indicates there are no criteria that are applicable to that particular pollutant.

4. WQBEL Calculations

- a. If reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:
 - i. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
 - ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
 - iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.
- b. WQBELs for aldrin and copper have been established at Discharge Point 004. Aldrin was detected once in 5 data points with a concentration of 0.0025 µg/L which exceeded the water quality criteria of 0.00013 µg/L. Copper was detected 5 times (in 5 data points) with concentrations which ranged from 6.2 µg/L to 13 µg/L. Two data points of the detected concentrations exceeded the water quality criteria of 8.77 µg/L. WQBELs for bis(2-ethylhexyl)phthalate, N-Nitrosodimethylamine and heptachlor epoxide have been established at Discharge Point 005. Monitoring data indicated that bis(2-ethylhexyl)phthalate was detected twice (in 9 data points) with concentrations of 6.2 µg/L and 100 µg/L which exceeded the water quality criteria of 1.8 µg/L. N-Nitrosodimethylamine was detected once (in 5 data points) with a concentration of 0.003 µg/L which exceeded the water quality criteria of 0.00069 µg/L. Heptachlor epoxide was also detected once (in 5 data points) with a concentration of 0.0087 µg/L which exceeded the water quality criteria of 0.00010 µg/L. These water quality-based effluent limitations are based on monitoring results and following the procedure based on the steady-state model, available in Section 1.4 of the SIP.
- c. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is included. However, in accordance with the reopener provision in Section VI.C.1.e, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.
- d. WQBELs Calculation Example

Using copper as an example, the following demonstrates how WQBELs were established for this Order. The Tables in Attachment J summarize the development and calculation of all WQBELs for this Order using the process described below.

Concentration-Based Effluent Limitations

A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

Calculation of aquatic life AMEL and MDEL:

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

$$\begin{aligned} \text{ECA} &= C + D(C-B) \quad \text{when } C > B, \text{ and} \\ \text{ECA} &= C \quad \text{when } C \leq B, \end{aligned}$$

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a hardness value of 93 mg/L (as CaCO₃) was used for development of hardness-dependant criteria, and a pH of 6.9 s.u. was used for pH-dependant criteria.

D = The dilution credit, and

B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

$$\text{ECA} = C$$

For copper, the applicable water quality criteria are:

$$\text{ECA}_{\text{acute}} = 13.07 \mu\text{g/L}$$

$$\text{ECA}_{\text{chronic}} = 8.77 \mu\text{g/L}$$

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

$$\text{LTA}_{\text{acute}} = \text{ECA}_{\text{acute}} \times \text{Multiplier}_{\text{acute}}$$

$$LTA_{\text{chronic}} = ECA_{\text{chronic}} \times \text{Multiplier}_{\text{chronic } 99}$$

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

For copper, the following data was used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier _{acute 99}	ECA Multiplier _{chronic 99}
4	0.60	0.32	0.53

$$LTA_{\text{acute}} = 13.07 \mu\text{g/L} \times 0.32 = 4.20 \mu\text{g/L}$$

$$LTA_{\text{chronic}} = 8.77 \mu\text{g/L} \times 0.53 = 4.65 \mu\text{g/L}$$

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

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

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

$$LTA = 4.20 \mu\text{g/L}$$

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

$$AMEL_{\text{aquatic life}} = LTA \times \text{AMEL}_{\text{multiplier } 95}$$

$$MDEL_{\text{aquatic life}} = LTA \times \text{MDEL}_{\text{multiplier } 99}$$

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

For copper, the following data were used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier _{MDEL 99}	Multiplier _{AMEL 95}
4	0.60	3.11	1.55

$$AMEL_{\text{aquatic life}} = 4.20 \mu\text{g/L} \times 1.55 = 6.5 \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = 4.20 \mu\text{g/L} \times 3.11 = 13.1 \mu\text{g/L}$$

Calculation of human health AMEL and MDEL:

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

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

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

$$MDEL_{\text{human health}} = AMEL_{\text{human health}} \times (\text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}})$$

However, for copper, $ECA_{\text{human health}} = \text{Not Available}$. The CTR does not contain a numeric copper criterion protective of human health; therefore, it was not possible to develop a copper AMEL based on human health criteria.

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

For copper:

$AMEL_{\text{aquatic life}}$	$MDEL_{\text{aquatic life}}$	$AMEL_{\text{human health}}$	$MDEL_{\text{human health}}$
6.5 $\mu\text{g/L}$	13.1 $\mu\text{g/L}$	Not Applicable	Not Applicable

The lowest (most restrictive) effluent limits are based on aquatic toxicity and were incorporated into this Order. For copper, there is no human health criteria; therefore, the AMEL and MDEL based on aquatic life criteria are established as the WQBELs.

The WQBELs for bis(2-ethylhexyl)phthalate, N-nitrosodimethylamine, and heptachlor epoxide (Discharge Point 005) are based upon human health criteria as no aquatic life criteria exist.

WQBELs for dieldrin have been removed in this permit at Discharge Points 003, 004, and 005 because the monitoring data (7 data points for 003, 8 data points for 004, and 5 data points for 005) indicated non-detects from all discharge points during the previous permit term. The Discharger also submitted a source study which indicated that dieldrin is not present at the Facility nor has ever been used by the Discharger.

As stated previously, the potable water facility has not yet been put into service. Therefore, no monitoring data for Discharge Point 006 was reported during the permit term. However, WQBELs have been included for MBAS, copper, lead, zinc, and dichlorobromomethane for Discharge Point 006 because these pollutants demonstrated reasonable potential in the backwash water reported in the ROWD dated March 13, 2007, and the nature of the processes (chlorination). Thus, these constituents are considered pollutants of concern.

5. WQBELS based on Basin Plan Objectives

The Basin Plan Objectives applicable to the Discharger are identified in Table F-9. These objectives were evaluated with respect to effluent monitoring data and Facility operations.

Table F-9. Applicable Basin Plan Numeric Water Quality Objectives

Constituent	Units	Water Quality Objectives
pH	s.u.	The pH of bays and estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
Total Residual Chlorine	mg/L	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.
Dissolved Oxygen	mg/L	For all waters, the mean annual dissolved oxygen concentration shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
Turbidity	NTU	Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU increases shall not exceed 10%.
Temperature	°F	86
Bacteria	MPN/100 mL	See section f below.
Chloride	mg/L	100 ¹
Nitrate +Nitrite (as Nitrogen)	mg/L	6.8 ²
Total Ammonia (as Nitrogen)	mg/L	1.75 ² (Average Monthly) 5.2 ² (Maximum Daily)

¹ Based on TMDL, Resolution No. R4-2008-012

² Based on TMDL, Resolution No. R3-2003-011.

- a. **pH.** This Order includes effluent and receiving water limitations for pH to ensure compliance with the Basin Plan objectives.
- b. **Total Residual Chlorine.** The effluent limitation for total residual chlorine is carried over from Order No. R4-2007-0015 and is equal to the Basin Plan objective.
- c. **Dissolved Oxygen.** This Order applies the water quality objective for dissolved oxygen as a receiving water limitation.

Dissolved oxygen (DO) may be a parameter of concern for cooling water

- d. **Turbidity.** The Basin Plan requirements for turbidity are as follows:
 - i. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.
 - ii. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

In addition to technology-based effluent limitations for turbidity, this Order applies the water quality objective for turbidity as a receiving water limitation.

- e. **Temperature.** The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*, a maximum effluent temperature limitation of 86 °F is included in the permit.
- f. **Bacteria:** On July 8, 2010, the Regional Water Board adopted Resolution No. R4-2010-006, which amended the Basin Plan to incorporate a TMDL for indicator bacteria in the Santa Clara River Estuary and Reaches 3, 5, 6, and 7.

The Bacteria TMDL included both single sample and geometric mean targets for the Santa Clara River Reaches 3, 5, 6, and 7 for water designated REC-1. The numeric targets are:

Bacteria TMDL Numeric Targets

Numeric Targets	Santa Clara River (Freshwater REC-1)
Single Sample:	
E.coli	235/100ml
Geometric Mean:	
E.coli	126/100ml

The Bacteria TMDL assigned WLAs of zero (0) allowable exceedance days of the single sample targets for both dry and wet weather and no exceedances of the geometric mean targets. Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

- g. **Chloride.** The effluent limitation for chloride in this Order is based on Resolution No. R4-2008-012, *Amendment to the Water Quality Control Plan for the Los Angeles Region, Reconsideration of the Upper Santa Clara River Chloride TMDL Implementation Plan & Revise Chloride WQ Objectives* (Chloride TMDL), adopted by the Regional Water Board on December 11, 2008. The Resolution incorporates site specific objectives (SSOs) for chloride in Reaches 4B, 5, and 6 of the Santa Clara River and the groundwater basins underlying those reaches.

The discharge from the Facility is classified as a Major discharge by USEPA and the Regional Water Board. The Chloride TMDL states that "Other major NPDES discharges (as defined in Table 4-1 of the Basin plan) receive waste load allocations (WLAs) equal to 100 mg/L. The Regional Board may consider assigning conditional WLAs to other major dischargers based on an analysis of the downstream increase in net chloride loading to surface water and groundwater as a result of implementation of conditional WLAs." To date, no analysis has occurred. Therefore, the applicable effluent limitation for chloride in this permit is 100 mg/L

- h. **Total Ammonia as (N), and Nitrate plus Nitrite as (N).** This Order included effluent limitations for ammonia as N, and nitrate plus nitrite as N based on the final waste load allocation, as set forth in Resolution No. R4-2003-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to include a TMDL for Nitrogen Compounds in the Santa Clara River* [Reaches 3, 7, and 8. (Reach 7 in the 2002 303(d) list was Reach 5 in the Basin Plan)].

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 (SSO) 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. However, the ammonia nitrogen limitations contained in this Order do not reflect the ammonia SSO criteria.

Separate ammonia effluent limitations, incorporating the 30-day average SSO in the ammonia translation procedures (have not been included in the effluent limitations table at this time), because the Santa Clara River Watershed Nitrogen Compound TMDL (Resolution No. 03-011) has not been revised to incorporate the 30-day average SSO ammonia criteria into the WLAs. Therefore, this Order does contain a permit re-opener that would allow the permit to be reopened to incorporate an update of the objective when it is available.

Therefore, the monthly average effluent limit of 1.75 mg/L and the daily maximum effluent limit of 5.2 mg/L for total ammonia as nitrogen (NH₃-N), and the monthly

average effluent limit of 6.8 mg/L for nitrate plus nitrite as nitrogen (NO₂-N) are based on the Santa Clara River Watershed Nitrogen Compound TMDL Waste Load Allocations included in Resolution No. R4-2003-011.

6. Whole Effluent Toxicity (WET)

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

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

The Discharger has provided 5 years of data that indicate 100% survival for Discharge Points 003, 004, and 005 except for one discharge event that indicated 95% survival at Discharge Point 004. Therefore, no acute toxicity limitation applies to Discharge Points 003, 004, and 005. However, this Order continues to include monitoring for acute toxicity at these outfalls. The acute toxicity limitation established for Discharge Point 006 in Order No. R4-2007-0025 has also been included in this Order because of the nature of the processes (i.e., chlorination) and the presence of toxic pollutants (copper, lead, zinc, and bromodichloromethane) in the backwash water as reported in the ROWD and detected in the effluent. This Order requires acute toxicity monitoring once during the permit term for Discharge Points 001 and 002.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. This Order includes monitoring requirements for chronic toxicity at all discharge points.

7. Final WQBELs

Table F-10a. Summary of Water Quality-based Effluent Limitations – All Discharge Points

Parameter	Discharge Points	Peak Flow (mgd) ¹	WQBEL Units	Effluent Limitations			
				Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily
pH	All	--	s.u.	6.5	8.5	--	--
Temperature	All	--	°F	--	86	--	--

Table F-10b. Summary of Water Quality-based Effluent Limitations – Discharge Point 003

Parameter	Units	Effluent Limitations			
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily
Chloride	mg/L	--	--	--	100
	lbs/day ¹	--	--	--	316,920
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2
	lbs/day ¹	--	--	5,546	16,480
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--
	lbs/day ¹	--	--	21,551	--

¹ Mass-based effluent limitations based upon a maximum authorized discharge of 380.00 MGD.

Table F-10c. Summary of Water Quality-based Effluent Limitations – Discharge Point 004

Parameter	Units	Effluent Limitations			
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily
Copper	µg/L	--	--	6.5	13.1
	lbs/day ¹	--	--	0.01	0.02
Aldrin	µg/L	--	--	0.00013	0.00026
	lbs/day ¹	--	--	2.0 E-7	4.0 E-7
Chloride	mg/L	--	--	--	100
	lbs/day ¹	--	--	--	150
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2
	lbs/day ¹	--	--	2.6	7.8
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--
	lbs/day ¹	--	--	10.2	--

¹ Mass-based effluent limitations based upon a discharge of 179,505 gpd (0.180 MGD).

Table F-10d. Summary of Water Quality-based Effluent Limitations – Discharge Point 005

Parameter	Units	Effluent Limitations			
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily
Bis(2-ethylhexyl)phthalate	µg/L	--	--	1.8	3.6
	lbs/day ¹	--	--	0.005	0.01
N-Nitrosodimethylamine	µg/L	--	--	0.00069	0.00138
	lbs/day ¹	--	--	1.8 E-6	3.6 E-6
Heptachlor epoxide	µg/L	--	--	0.00010	0.00020
	lbs/day ¹	--	--	2.6 E-7	5.3 E-7
Chloride	mg/L	--	--	--	100
	lbs/day ¹	--	--	--	264
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2
	lbs/day ¹	--	--	4.6	13.7
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--
	lbs/day ¹	--	--	18	--

¹ Mass-based effluent limitations based upon a discharge of 316,000 gpd (0.316 MGD).

Table F-10e. Summary of Water Quality-based Effluent Limitations – Discharge Point 006

Parameter	Units	Effluent Limitations			
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily
MBAS	mg/L	--	--	--	0.5
	lbs/day ¹	--	--	--	0.0062
Copper	µg/L	--	--	9.33	14
	lbs/day ¹	--	--	0.00012	0.00018
Lead	µg/L	--	--	3.2	82
	lbs/day ¹	--	--	0.00004	0.0010
Zinc	µg/L	--	--	120	120
	lbs/day ¹	--	--	0.0015	0.0015
Dichlorobromomethane	µg/L	--	--	--	0.56
	lbs/day ¹	--	--	--	0.00001
Chloride	mg/L	--	--	--	100
	lbs/day ¹	--	--	--	1.25
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2
	lbs/day ¹	--	--	0.02	0.07
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--
	lbs/day ¹	--	--	0.09	--

¹ Mass-based effluent limitations based upon 1500 gpd.

D. Final Effluent Limitations

Section 402(o) of the CWA and 40 CFR section 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders. Technology-based effluent limitations for settleable solids, TSS (average monthly), BOD, oil and grease, and turbidity have been carried over from the previous Order. The effluent limitation for TSS in maximum daily has been revised (from 150 mg/L to 75 mg/L) based on effluent limitations contained in similar discharge permits recently issued by the Regional Board (i.e., hydroelectric generating station discharging once-through cooling water, wastewater from drainage sump, and potable backwash water in the Los Angeles Region). Effluent limitations for copper and aldrin for Discharge Point 004 and bis(2-ethylhexyl)phthalate and heptachlor epoxide for Discharge Point 005 were established because these pollutants demonstrated reasonable potential to exceed water quality standards in the discharge. Water quality-based effluent limitations for MBAS, copper, lead, zinc, and dichlorobromomethane have been included in this order and they are consistent with the limits included in Order R4-2007-0025 for Discharge Point 006. Effluent limitations for pH and temperature have been included as per objectives developed in the Basin Plan, Thermal Plan, and a White Paper, as discussed in section IV.C.5 of this Fact Sheet.

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at title 40 Code of Federal Regulations (40 CFR) section 122.44(l) restrict backsliding in NPDES permits. Section 402(o)(1) prohibits the relaxation of effluent limits (1) when a permittee seeks to revise a technology-based effluent limitation based on best professional judgment to reflect a subsequently promulgated effluent guideline which is less stringent, and (2) when a permittee seeks relaxation of an effluent limitation which is based upon a state treatment standard or water quality standard. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) outlines specific exceptions to the general prohibition against establishment of less stringent effluent limitations.

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. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with the exception of dieldrin. The effluent limitations for dieldrin have been removed based on the results of the reasonable potential analysis. The discharge monitoring data collected during the existing permit term (past 5 years) indicated dieldrin did not demonstrate reasonable potential to exceed the water quality standards. Therefore, no effluent limitations for dieldrin are included in this Order. The removal of effluent limitations for dieldrin is consistent with the anti-backsliding requirements of CWA sections 402(o)(1)/303(d)(4) because: the quality of the receiving water with respect to dieldrin equals or exceeds levels necessary to protect beneficial uses; there is no reasonable potential for dieldrin in the discharge to cause the receiving water to exceed water quality standards; levels of dieldrin in the discharge are not expected

to increase during this permit term; no lowering of receiving water quality should result from the discharge of dieldrin at currently monitored levels; and the removal of effluent limitations for dieldrin is consistent with state and federal antidegradation policies. This relaxation of effluent limitations is consistent with the exceptions to the anti-backsliding requirements of the CWA and federal regulations.

Because discharge points 001 and 002 do not require an NPDES permit, the effluent limitations in the previous permit applicable to those discharge points are not included in this Order. The discharge of wastewater from these discharge points does not constitute the discharge of a pollutant under section 301 of the CWA. Therefore, the removal of the effluent limitations associated with these discharge points does not violate anti-backsliding requirements.

2. Satisfaction of Antidegradation Policy

40 CFR section 131.12 requires that the state water quality standards include an anti-degradation 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.

This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment for discharges from Discharge Points 003 through 006. The final limitations in this Order for discharges from Discharge Points 003 through 006 meet the requirements of the SIP. The limits included hold the Discharger to performance levels that will not cause or contribute to water quality impairment or water quality degradation. Further, compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

The effluent limitations for dieldrin are not included in this Order based on the results of the reasonable potential analysis. The discharge monitoring data collected during the existing permit term (past 5 years) indicated dieldrin did not demonstrate reasonable potential to exceed the water quality standards. The removal of effluent limitations for dieldrin is not reasonably likely to degrade the quality of waters in the receiving waters below the lower of (1) the best water quality existing since 1968 or (2) subsequently lowered water quality that was consistent with the antidegradation policy. Levels of dieldrin in the discharge are not expected to increase during this permit term and no lowering of receiving water quality should result from the discharge of dieldrin at currently monitored levels. Therefore, the removal of effluent limitations for dieldrin does not violate the state and federal antidegradation policies. If monitoring data indicates that the discharges threaten to degrade the quality of the receiving waters or violate water quality standards, this permit may be reopened and appropriate effluent limitations applied to the discharges.

Effluent limitations for Discharge Points 001 and 002 are not included in this Order because discharges from those points do not require an NPDES permit. Based on data from available monitoring reports, the removal of effluent limitations for Discharge Points 001 and 002 will not degrade the quality of waters in Pyramid Lake or Castaic Lake below the lower of (1) the best water quality existing since 1968 or (2) subsequently lowered water quality that was consistent with the antidegradation policy. This Order requires continued monitoring at Discharge Points 001 and 002 for those constituents for which effluent limitations were included in the prior permit. The required monitoring will show whether the discharges are contributing to degradation of the receiving waters or violation of existing water quality standards. If monitoring data indicates that the discharges threaten to degrade the quality of the receiving waters or violate water quality standards, the Regional Board may impose additional requirements as to the nature of the discharges pursuant to its authority under article 4, chapter 4, division 7 of the Water Code.

Therefore, the issuance of this permit is consistent with the state's antidegradation policy.

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, oil and grease, TSS, and settleable solids. Restrictions on these pollutants are discussed in section IV of the Fact Sheet.

In addition to the technology-based effluent limitations, the SWPPP, BMPP, and SCP will also serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. 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 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.

Table F-11a. Summary of Final Effluent Limitations - Discharge Point 003

Parameter	Units	Effluent Limitations				Basis ¹
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily	
pH	s.u.	6.5	8.5	--	--	E, BP
Temperature	°F	--	86	--	--	E, TP
Total Suspended Solids (TSS)	mg/L	--	--	50	75	E, BPJ
	lbs/day ²	--	--	258,460	237,690	
BOD	mg/L	--	--	--	10	BPJ
	lbs/day ²	--	--	--	31,692	
Oil and Grease	mg/L	--	--	10	15	BPJ
	lbs/day ²	--	--	31,692	47,538	
Settleable Solids	ml/L	--	--	0.1	0.3	E, BPJ
Turbidity	NTU	--	--	5	25	E, BPJ
Chloride	mg/L	--	--	--	100	TMDL
	lbs/day ²	--	--	--	316,920	
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2	TMDL
	lbs/day ²	--	--	5,546	16,480	
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--	TMDL
	lbs/day ²	--	--	21,551	--	
E.coli	MPN/100ml	3				TMDL

¹ E = Existing Order; BPJ = Best Professional Judgment; TMDL = Total Maximum Daily Load.
 BPJ = Best Professional Judgment is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limitations are established in cases in which effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for using BPJ limitations is found under section 401(a)(1) of the Clean Water Act and under 40 CFR part 125.3.
² Mass-based effluent limitations based upon a maximum authorized discharge of 380.00 MGD.
³ See Table F-11-e.

Table F-11b. Summary of Final Effluent Limitations – Discharge Point 004

Parameter	Units	Effluent Limitations				Basis ¹
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily	
pH	s.u.	6.5	8.5	--	--	E, BP
Temperature	°F	--	86	--	--	E, TP
BOD	mg/L	--	--	--	10	E, BPJ
	lbs/day ²	--	--	--	15	
Oil and Grease	mg/L	--	--	10	15	E, BPJ
	lbs/day ²	--	--	15	23	
Total Suspended Solids (TSS)	mg/L	--	--	50	75	E, BPJ
	lbs/day ²	--	--	75	113	
Settleable Solids	ml/L	--	--	0.1	0.3	BPJ
Turbidity	NTU	--	--	5	25	BPJ
Copper	µg/L	--	--	6.5	13.1	CTR/SIP
	lbs/day	--	--	0.01	0.02	
Aldrin	µg/L	--	--	0.00013	0.00026	CTR/SIP
	lbs/day ¹	--	--	2.0 E-7	4.0 E-7	

Parameter	Units	Effluent Limitations				Basis ¹
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily	
Chloride	mg/L	--	--	--	100	TMDL
	lbs/day ²	--	--	--	150	
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2	TMDL
	lbs/day ²	--	--	2.6	7.8	
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--	TMDL
	lbs/day ²	--	--	10.2	--	
E.coli	MPN/100ml	³				TMDL

¹ E = Existing Order; BP = Basin Plan; TP = Thermal Plan; BPJ = Best Professional Judgment; TMDL = Total Maximum Daily Load; CTR=California Toxics Rule; SIP = State Implementation Policy

² The mass-based effluent limitations are based upon a discharge of 179,505 gpd (0.180 MGD).

³ See Table F-11e

Table F-11c. Summary of Final Effluent Limitations – Discharge Point 005

Parameter	Units	Effluent Limitations				Basis ¹
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily	
pH	s.u.	6.5	8.5	--	--	E, BP
Temperature	°F	--	86	--	--	E, TP
Total Suspended Solids (TSS)	mg/L	--	--	50	75	E, BPJ
	lbs/day ²	--	--	132	198	
BOD	mg/L	--	--	--	10	BPJ
	lbs/day ²	--	--	--	26	
Oil and Grease	mg/L	--	--	10	15	BPJ
	lbs/day ²	--	--	26	40	
Bis(2-ethylhexyl)phthalate	µg/L	--	--	1.8	3.6	CTR/SIP
	lbs/day ²	--	--	0.005	0.01	
N-Nitrosodimethylamine	µg/L	--	--	0.00069	0.00138	CTR/SIP
	lbs/day ²	--	--	1.8 E-6	3.6 E-6	
Heptachlor epoxide	µg/L	--	--	0.00010	0.00020	CTR/SIP
	lbs/day ²	--	--	2.6 E-7	5.3 E-7	
Settleable Solids	ml/L	--	--	0.1	0.3	E, BPJ
Turbidity	NTU	--	--	5	25	E, BPJ
Chloride	mg/L	--	--	--	100	TMDL
	lbs/day ²	--	--	--	264	
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2	TMDL
	lbs/day ²	--	--	4.6	13.7	
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--	TMDL
	lbs/day ²	--	--	18	---	
E.coli	MPN/100ml	³				TMDL

¹ E = Existing Order; BP = Basin Plan; BPJ = Best Professional Judgment; CTR=California Toxics Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Load.

² The mass-based effluent limitations are based upon a discharge of 316,000 gpd (0.316 MGD).

³ See Table F-11e.

Table F-11d. Summary of Final Effluent Limitations – Discharge Point 006

Parameter	Units	Effluent Limitations				Basis ¹
		Instant. Minimum	Instant. Maximum	Average Monthly	Maximum Daily	
pH	s.u.	6.5	8.5	--	--	E, BP
Temperature	°F	--	86	--	--	E, TP
BOD	mg/L	--	--	10	--	E, BPJ
	lbs/day ²	--	--	0.12	--	
Oil and Grease	mg/L	--	--	10	15	E, BPJ
	lbs/day ²	--	--	0.12	0.19	
Total Suspended Solids (TSS)	mg/L	--	--	50	150	E, BPJ
	lbs/day ²	--	--	0.62	1.9	
Residual Chlorine	mg/L	--	--	--	0.1	E, BPJ
	lbs/day ²	--	--	--	0.0012	
MBAS	mg/L	--	--	0.5	--	E, BPJ
	lbs/day ²	--	--	0.0062	--	
Copper	µg/L	--	--	9.33	14	E, CTR/SIP
	lbs/day ²	--	--	0.00012	0.00018	
Lead	µg/L	--	--	3.2	82	E, CTR/SIP
	lbs/day ²	--	--	0.00004	0.0010	
Zinc	µg/L	--	--	120	120	E, CTR/SIP
	lbs/day ²	--	--	0.0015	0.0015	
Dichloro-bromomethane	µg/L	--	--	--	0.56	E, CTR/SIP
	lbs/day ²	--	--	--	0.00001	
Settleable Solids	ml/L	--	--	0.1	0.3	E, BPJ
Turbidity	NTU	--	--	5	25	E, BPJ
Chloride	mg/L	--	--	--	100	TMDL
	lbs/day ²	--	--	--	1.25	
Ammonia , Total (as N)	mg/L	--	--	1.75	5.2	TMDL
	lbs/day ²	--	--	0.02	0.07	
Nitrate Plus Nitrite (as N)	mg/L	--	--	6.8	--	TMDL
	lbs/day ²	--	--	0.09	---	
Acute toxicity	% survival	³				BP
E.coli	MPN/100ml	⁴				TMDL

¹ E = Existing Order; BP = Basin Plan; BPJ = Best Professional Judgment; CTR=California Toxics Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Load.

² The mass-based effluent limitations are based upon a discharge of 1,500 gpd.

³ The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and (ii) no single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP (Attachment E).

⁴ See Table F-11e.

Table F-11e. Summary of Final Effluent Limitations (Bacteria TMDL Numeric Targets) – Discharge Points 003, 004, 005, and 006

Numeric Targets	Santa Clara River (Freshwater REC-1)
Single Sample:	
E.coli	235/100ml
Geometric Mean:	
E.coli	126/100ml

The Bacteria TMDL assigned WLAs of zero (0) allowable exceedance days of the single sample targets for both dry and wet weather and no exceedances of the geometric mean targets. Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

4. Mass-based Effluent Limitations

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

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

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

E. Interim Effluent Limitations

Not Applicable

F. Land Discharge Specifications

Not applicable

G. Reclamation Specifications

Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

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

B. Groundwater

Not Applicable

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize 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.

Monitoring at Monitoring Points RSW-001, EFF-001, and EFF-002 is necessary to determine compliance with the state antidegradation policy and state water quality standards. Prior permits for the facility required monitoring at these locations. Data from this monitoring and the Report of Waste Discharge (ROWD) dated December 19, 2011, as modified on May 10, 2013, submitted by the Discharger, provide the basis for suspecting that the Discharger is discharging waste and may be required to submit technical or monitoring reports pursuant to Water Code section 13267. The ROWD and monitoring reports are available in the Regional Water Board's public file on this matter. The burden, including costs of these reports bears a reasonable relationship to the need for the report and the benefits to be obtained from the reports.

A. Influent Monitoring

Not Applicable

B. Effluent Monitoring

Monitoring for those pollutants expected to be present will be required as established in the proposed MRP (Attachment E). The monitoring requirements are designed to demonstrate compliance with the established effluent limitations, state and federal antidegradation policies, and water quality standards.

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. This Order includes effluent limitations for acute toxicity and effluent monitoring for chronic toxicity.

D. Receiving Water Monitoring

1. Surface Water

The Regional Water Board is requiring that the Discharger conduct upstream receiving water monitoring for the CTR priority pollutants at Monitoring Location

RSW-001. Further, the Discharger must analyze for temperature, pH, and hardness of the upstream receiving water at the same time as the samples are collected for priority pollutants analysis. Monitoring at Monitoring Location RSW-001 is required to determine compliance with the state antidegradation policy and water quality standards.

2. Groundwater

Not Applicable

E. Other Monitoring Requirements

1. SWPPP, BMPP, and SCP Status and Effectiveness Report

The Discharger is required by Special Provision VI.C.3 of the Order to develop and implement a SWPPP, BMPP, and SCP. This Order requires the Discharger to report on the effectiveness of the plans and update them as needed to ensure all actual or potential sources of pollutants in the wastewater and storm water discharged from the Facility are addressed in the SWPPP, BMPP, and SCP.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 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 section 122.42.

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

B. Special Provisions

1. Reopener Provisions

The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, 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. Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on section 4 of the SIP, Toxicity Control Provisions.

b. Storm Water Pollution Prevention and Best Management Practices. The objective of this Order is to protect the beneficial uses of the receiving waters. To meet this objective, this Order requires the Discharger to implement an updated SWPPP and address storm water runoff to Elderberry Forebay. This is consistent with the SWPPP requirements in the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity (State Water Board Order No. 97-03-DWQ, NPDES Permit No. CAS000001). A SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. Storm water discharges do occur at the Facility, and best management practices are identified as one method to reduce contamination of storm water. This provision is based on 40 CFR section 122.44(k) and includes the requirement to develop and implement a SWPPP.

The Discharger uses, stores, handles and disposes of materials, chemicals, and wastes at the Facility, and conducts operational and maintenance activities to its facility and equipment that are potential or existing sources of pollutants in wastewater discharged from the Facility to the receiving water. Therefore, this Order requires the Discharger to develop and implement a BMPP that includes site-specific plans, procedures, and practices to minimize the amount of pollutants entering wastewater discharges from materials being stored and activities being conducted throughout the entire facility. To ensure the Discharger considers and implements appropriate and effective BMPs, the Discharger is required to consider implementing BMPs contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004) or equivalent alternatives when developing its BMPP.

c. Spill Contingency Plan (SCP). This Order requires the Discharger to implement an SCP for the Facility to protect the receiving water in the event of an accidental discharges, and for minimizing the effect of such events. The Discharger shall review and update, if necessary, the SCP after each incident and make it available for the facility personnel at all times.

3. Construction, Operation, and Maintenance Specifications

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

4. Special Provisions for Municipal Facilities (POTWs Only)

Not Applicable

5. Other Special Provisions

Not Applicable

6. Compliance Schedules

Not Applicable

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 the City of Los Angeles Department of Water and Power – Castaic Power Plant facility. As a step in the WDR adoption process, the Regional Water Board staff has developed revised 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.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these revised tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Board, written comments must be received at the Regional Board offices by 5:00 p.m. on May 10, 2013.

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: June 6, 2013
Time: 9:00 a.m.
Location: Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, California-

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

Please be aware that dates and venues may change. Our Web address is <http://www.waterboards.ca.gov/losangeles> where you can access the current agenda for changes in dates and locations.

D. 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:

1. 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 revised tentative waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to losangeles@waterboards.ca.gov with a copy submitted to Rosario Aston raston@waterboards.ca.gov 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 no later than close of business on May 10, 2013.. 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 3 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.

H. Waste Discharge Requirements Petitions

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

The State Water Board's mailing address is the following:

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 Report of Waste Discharge (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 Rosario Aston at (213) 576-6653.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. Implementation Schedule

A storm water pollution prevention plan (SWPPP) shall be updated and submitted to the Regional Water Board within 90 days following the adoption of this Order. The SWPPP shall be implemented within 10 days of approval from the Regional Water Board, or 6-months from the date of the submittal of the SWPPP to the Regional Water Board (whichever comes first).

II. Objectives

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, overhead coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

III. Planning and Organization

A. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Attachment E of this Permit. The SWPPP shall clearly identify the Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

B. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION Form Pollution Prevention Team Review other plans
ASSESSMENT PHASE Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-storm water discharges Assess pollutant risks
BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE Non-structural BMPs Structural BMPs Select activity and site-specific BMPs

<p>IMPLEMENTATION PHASE</p> <p>Train employees Implement BMPs Conduct recordkeeping and reporting</p>
--

<p>EVALUATION / MONITORING</p> <p>Conduct annual site evaluation Review monitoring information Evaluate BMPs Review and revise SWPPP</p>

The following information shall be included on the site map:

- A.** The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- B.** The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.
- C.** An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- D.** Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.
- E.** Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

V. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored,

received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. Description of Potential Pollutant Sources

A. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

- 1. Industrial Processes.** Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.
- 2. Material Handling and Storage Areas.** Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.
- 3. Dust and Particulate Generating Activities.** Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.
- 4. Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (USEPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Permit.

- 5. Non-Storm Water Discharges.** Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges (other boiler blowdown and boiler condensate permitted under the Order) that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D of the storm water general permit are prohibited by this Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D of the general storm water permit are authorized by this Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

- 6. Soil Erosion.** Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.
- B.** The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

VII. Assessment of Potential Pollutant Sources

- A.** The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:
- 1.** Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and
 - 2.** Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.
- B.** Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 8 below.

VIII. Storm Water Best Management Practices

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B
EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND
CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The

description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

A. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

1. **Good Housekeeping.** Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.
2. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.
3. **Spill Response.** This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.
4. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.
5. **Employee Training.** This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.
6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
7. **Recordkeeping and Internal Reporting.** This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

- 8. Erosion Control and Site Stabilization.** This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.
- 9. Inspections.** This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.
- 10. Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

B. Structural BMPs.

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

- 1. Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.
- 2. Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.
- 3. Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.
- 4. Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.
- 5. Treatment.** This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

IX. Annual Comprehensive Site Compliance Evaluation

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

- A. A review of all visual observation records, inspection records, and sampling and analysis results.
- B. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.
- C. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.
- D. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions V.D.5 of Attachment D.

X. SWPPP General Requirements

- A. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.
- B. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.
- C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- D. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Permit.

- E. When any part of the SWPPP is infeasible to implement due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

- F. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS (µg/L)

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the State Water Board and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02

Table 2d – PESTICIDES – PCBs*	GC
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography

GCMS - Gas Chromatography/Mass Spectrometry

HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)

LC - High Pressure Liquid Chromatography

FAA - Flame Atomic Absorption

GFAA - Graphite Furnace Atomic Absorption

HYDRIDE - Gaseous Hydride Atomic Absorption

CVAA - Cold Vapor Atomic Absorption

ICP - Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma/Mass Spectrometry

SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)

DCP - Direct Current Plasma

COLOR – Colorimetric

ATTACHMENT I – LIST OF PRIORITY POLLUTANTS

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
			1
1	Antimony	7440360	1
2	Arsenic	7440382	1
3	Beryllium	7440417	1
4	Cadmium	7440439	1
5a	Chromium (III)	16065831	1
5a	Chromium (VI)	18540299	1
6	Copper	7440508	1
7	Lead	7439921	1
8	Mercury	7439976	1631E
9	Nickel	7440020	1
10	Selenium	7782492	1
11	Silver	7440224	1
12	Thallium	7440280	1
13	Zinc	7440666	1
14	Cyanide	57125	1
15	Asbestos	1332214	1
16	2,3,7,8-TCDD	1746016	1
17	Acrolein	107028	1
18	Acrylonitrile	107131	1
19	Benzene	71432	1
20	Bromoform	75252	1
21	Carbon Tetrachloride	56235	1
22	Chlorobenzene	108907	1
23	Chlorodibromomethane	124481	1
24	Chloroethane	75003	1
25	2-Chloroethylvinyl Ether	110758	1
26	Chloroform	67663	1
27	Dichlorobromomethane	75274	1
28	1,1-Dichloroethane	75343	1
29	1,2-Dichloroethane	107062	1
30	1,1-Dichloroethylene	75354	1
31	1,2-Dichloropropane	78875	1
32	1,3-Dichloropropylene	542756	1
33	Ethylbenzene	100414	1
34	Methyl Bromide	74839	1
35	Methyl Chloride	74873	1
36	Methylene Chloride	75092	1
37	1,1,2,2-Tetrachloroethane	79345	1
38	Tetrachloroethylene	127184	1
39	Toluene	108883	1
40	1,2-Trans-Dichloroethylene	156605	1
41	1,1,1-Trichloroethane	71556	1
42	1,1,2-Trichloroethane	79005	1

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
43	Trichloroethylene	79016	1
44	Vinyl Chloride	75014	1
45	2-Chlorophenol	95578	1
46	2,4-Dichlorophenol	120832	1
47	2,4-Dimethylphenol	105679	1
48	2-Methyl-4,6-Dinitrophenol	534521	1
49	2,4-Dinitrophenol	51285	1
50	2-Nitrophenol	88755	1
51	4-Nitrophenol	100027	1
52	3-Methyl-4-Chlorophenol	59507	1
53	Pentachlorophenol	87865	1
54	Phenol	108952	1
55	2,4,6-Trichlorophenol	88062	1
56	Acenaphthene	83329	1
57	Acenaphthylene	208968	1
58	Anthracene	120127	1
59	Benzidine	92875	1
60	Benzo(a)Anthracene	56553	1
61	Benzo(a)Pyrene	50328	1
62	Benzo(b)Fluoranthene	205992	1
63	Benzo(ghi)Perylene	191242	1
64	Benzo(k)Fluoranthene	207089	1
65	Bis(2-Chloroethoxy)Methane	111911	1
66	Bis(2-Chloroethyl)Ether	111444	1
67	Bis(2-Chloroisopropyl)Ether	108601	1
68	Bis(2-Ethylhexyl)Phthalate	117817	1
69	4-Bromophenyl Phenyl Ether	101553	1
70	Butylbenzyl Phthalate	85687	1
71	2-Chloronaphthalene	91587	1
72	4-Chlorophenyl Phenyl Ether	7005723	1
73	Chrysene	218019	1
74	Dibenzo(a,h)Anthracene	53703	1
75	1,2-Dichlorobenzene	95501	1
76	1,3-Dichlorobenzene	541731	1
77	1,4-Dichlorobenzene	106467	1
78	3,3'-Dichlorobenzidine	91941	1
79	Diethyl Phthalate	84662	1
80	Dimethyl Phthalate	131113	1
81	Di-n-Butyl Phthalate	84742	1
82	2,4-Dinitrotoluene	121142	1
83	2,6-Dinitrotoluene	606202	1
84	Di-n-Octyl Phthalate	117840	1
85	1,2-Diphenylhydrazine	122667	1
86	Fluoranthene	206440	1

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
87	Fluorene	86737	1
88	Hexachlorobenzene	118741	1
89	Hexachlorobutadiene	87863	1
90	Hexachlorocyclopentadiene	77474	1
91	Hexachloroethane	67721	1
92	Indeno(1,2,3-cd)Pyrene	193395	1
93	Isophorone	78591	1
94	Naphthalene	91203	1
95	Nitrobenzene	98953	1
96	N-Nitrosodimethylamine	62759	1
97	N-Nitrosodi-n-Propylamine	621647	1
98	N-Nitrosodiphenylamine	86306	1
99	Phenanthrene	85018	1
100	Pyrene	129000	1
101	1,2,4-Trichlorobenzene	120821	1
102	Aldrin	309002	1
103	alpha-BHC	319846	1
104	beta-BHC	319857	1
105	gamma-BHC	58899	1
106	delta-BHC	319868	1
107	Chlordane	57749	1
108	4,4'-DDT	50293	1
109	4,4'-DDE	72559	1
110	4,4'-DDD	72548	1
111	Dieldrin	60571	1
112	alpha-Endosulfan	959988	1
113	beta-Endosulfan	33213659	1
114	Endosulfan Sulfate	1031078	1
115	Endrin	72208	1
116	Endrin Aldehyde	7421934	1
117	Heptachlor	76448	1
118	Heptachlor Epoxide	1024573	1
119	PCB-1016	12674112	1
120	PCB-1221	11104282	1
121	PCB-1232	11141165	1
122	PCB-1242	53469219	1
123	PCB-1248	12672296	1
124	PCB-1254	11097691	1
125	PCB-1260	11096825	1
126	Toxaphene	8001352	1

¹ Pollutants shall be analyzed using the methods described in 40 CFR Part 136.

ATTACHMENT J – SUMMARY OF REASONABLE POTENTIAL ANALYSIS (RPA)

CDS#	Parameters	Units	CV	MEC	Freshwater		Surface Water		Human Health or Consumption of...		Lowest C	MEC >>	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all B is ND, is MCL-C?	Enter the detected max conc (ug/L)	If all B is ND, is MCL-C?	Tier 3 - other info, 7	RPA Result - Exceed Limit?	Reason
					C acute = CMC tot	C chronic = CMC tot	C acute = CMC tot	C chronic = CMC tot	Water & Sediment only	Digressive only											
1	Antimony	ug/L	0.6	0.6	340.00	150.00	14.00		14.00		140.00	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
2	Arsenic	ug/L	0.6	0.6	340.00	150.00	14.00		14.00		140.00	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
3	Beryllium	ug/L	0.6	0.05	4.10	2.31					No Criteria	No	No	Y	Y	0.71	No	No	No	MEC-C & B is ND	
4	Cadmium	ug/L	0.6	0.05	105.04	105.04					105.04	No	No	Y	Y	13.2	No	No	No	MEC-C & B is ND	
5a	Chromium (III)	ug/L	0.6	0.6	105.31	11.43					105.31	No	No	Y	Y	0.9	No	No	No	MEC-C & B is ND	
5b	Chromium (VI)	ug/L	0.6	0.6	105.31	11.43					105.31	No	No	Y	Y	0.9	No	No	No	MEC-C & B is ND	
6	Copper	ug/L	0.6	0.6	13.44	5.60	1300.00				1300.00	No	No	Y	Y	0.02	No	No	No	MEC-C & B is ND	
7	Lead	ug/L	0.6	0.6	13.44	5.60					13.44	No	No	Y	Y	0.02	No	No	No	MEC-C & B is ND	
8	Mercury	ug/L	0.6	0.02	Reserved	Reserved	0.050				0.050	No	No	Y	Y	0.02	No	No	No	MEC-C & B is ND	
9	Nickel	ug/L	0.6	2.2	441.24	45.06					441.24	No	No	Y	Y	0.35	No	No	No	MEC-C & B is ND	
10	Selenium	ug/L	0.6	0.5	20.00	5.00					20.00	No	No	Y	Y	1.3	No	No	No	MEC-C & B is ND	
11	Silver	ug/L	0.6	2.5	3.95		1.70				3.95	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
12	Sulfur	ug/L	0.6	0.42	102.67	112.67					102.67	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
13	Thallium	ug/L	0.6	0.6	22.00	3.20					22.00	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
14	Cadmium	ug/L	0.6	1.6E-09			700.00				700.00	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
15	Asbestos	Fibers/L	0.6	1.6E-09			700.00				700.00	No	No	Y	Y	0.03	No	No	No	MEC-C & B is ND	
16	2,3,7,8-TCDD	ug/L	0.6	0.35			0.000000013				0.000000013	No	No	Y	Y	4E-10	No	No	No	MEC-C & B is ND	
17	Acrylonitrile	ug/L	0.6	0.23			0.059				0.059	No	No	Y	Y	0.13	No	No	No	MEC-C & B is ND	
18	Benzene	ug/L	0.6	0.19			0.38				0.38	No	No	Y	Y	0.23	No	No	No	MEC-C & B is ND	
19	Bromine	ug/L	0.6	0.19			4.3				4.3	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
20	Chloroform	ug/L	0.6	0.18			0.25				0.25	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
21	Chlorobenzene	ug/L	0.6	0.18			0.63				0.63	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
22	Chloroethane	ug/L	0.6	0.18			0.41				0.41	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
23	Chloroethylene	ug/L	0.6	0.18			0.11				0.11	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
25	2-Chloroethyl ethyl ether	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
27	Dichloromethane	ug/L	0.6	0.21			0.50				0.50	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
28	1,1-Dichloroethane	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
29	1,2-Dichloroethane	ug/L	0.6	0.18			0.38				0.38	No	No	Y	Y	0.22	No	No	No	MEC-C & B is ND	
30	1,2-Dichloroethane	ug/L	0.6	0.25			0.57				0.57	No	No	Y	Y	0.17	No	No	No	MEC-C & B is ND	
31	1,2-Dichloroethane	ug/L	0.6	0.25			0.16				0.16	No	No	Y	Y	0.25	No	No	No	MEC-C & B is ND	
32	1,3-Dichloropropane	ug/L	0.6	0.17			3100.00				3100.00	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
33	Ethylbenzene	ug/L	0.6	0.2			3100.00				3100.00	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
34	Methyl Bromide	ug/L	0.6	0.33			48				48	No	No	Y	Y	0.19	No	No	No	MEC-C & B is ND	
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.31	No	No	No	MEC-C & B is ND	
36	Methylene Chloride	ug/L	0.6	0.21			4.7				4.7	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
37	1,1,1-Trichloroethane	ug/L	0.6	0.16			0.17				0.17	No	No	Y	Y	0.14	No	No	No	MEC-C & B is ND	
38	1,1,1-Trichloroethane	ug/L	0.6	0.16			0.16				0.16	No	No	Y	Y	0.14	No	No	No	MEC-C & B is ND	
39	Toluene	ug/L	0.6	0.13			68.00				68.00	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
40	1,1,1-Trichloroethane	ug/L	0.6	0.2			700.00				700.00	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.21	No	No	No	MEC-C & B is ND	
42	1,1,2-Trichloroethane	ug/L	0.6	0.13			0.6				0.6	No	No	Y	Y	0.13	No	No	No	MEC-C & B is ND	
43	Trichloroethylene	ug/L	0.6	0.17			2.7				2.7	No	No	Y	Y	0.17	No	No	No	MEC-C & B is ND	
44	Trichloroethylene	ug/L	0.6	0.15			2				2	No	No	Y	Y	0.15	No	No	No	MEC-C & B is ND	
45	2,4-Dichlorophenol	ug/L	0.6	0.51			63				63	No	No	Y	Y	0.51	No	No	No	MEC-C & B is ND	
46	2,4-Dichlorophenol	ug/L	0.6	0.51			63				63	No	No	Y	Y	0.51	No	No	No	MEC-C & B is ND	
47	2,4-Dimethylphenol	ug/L	0.6	0.51			540.00				540.00	No	No	Y	Y	0.51	No	No	No	MEC-C & B is ND	
48	4,6-dinitro-o-cresol (4,6-DNOC)	ug/L	0.6	5			13.4				13.4	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
49	2,4-Dinitrophenol	ug/L	0.6	5			70				70	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
50	2,4-Dinitrophenol	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
51	3-Methyl-4-Chlorophenol	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
52	4,6-dinitro-o-cresol (4,6-DNOC)	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
53	Permethrin	ug/L	0.6	0.51			7.80				7.80	No	No	Y	Y	0.51	No	No	No	MEC-C & B is ND	
54	Permethrin	ug/L	0.6	0.51			2100.00				2100.00	No	No	Y	Y	0.51	No	No	No	MEC-C & B is ND	
55	2,4,6-Trichlorophenol	ug/L	0.6	0.51			2.1				2.1	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
56	Azinphosmethyl	ug/L	0.6	No Criteria							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND	
57	Azinphosmethyl	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
58	Azinphosmethyl	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
59	Azinphosmethyl	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
60	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
61	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
62	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
63	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
64	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
65	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
66	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
67	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
68	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
69	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
70	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
71	Benzene	ug/L	0.6							No Criteria	No	No	Y	Y	0.5	No	No	No	MEC-C & B is ND		
72	Benzene	ug/L	0.6																		

Fact Sheet Attachment J
 Discharge Points C03, and C05
 Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)				Human Health for consumption of:		REASONABLE POTENTIAL ANALYSIS (RPA)											
					Freshwater		Saltwater		Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason
					C acute = CMC tot	C chronic = CGC tot	C acute = CMC tot	C chronic = CGC tot														
56	Hexachlorobenzene	ug/L	0.6					0.00075		0.00075			Y	Y	5	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
59	Hexachlorobutadiene	ug/L	0.6					0.44		0.44			Y	Y	5	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
60	Hexachlorocyclopentadiene	ug/L	0.6	5				240		240	No	No	Y	Y	5	N	No detected value of B, Step 2	No	MEC<C & B is ND			
61	Hexachloroethane	ug/L	0.6					1.9		1.9			Y	Y	5	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
62	Indeno[1,2,3-cd]Pyrene	ug/L	0.6					0.0044		0.0044			Y	Y	5	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
93	Isophenole	ug/L	0.6	5				8.4		8.4	No	No	Y	Y	5	N	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
94	Naphthalene	ug/L	0.6	No Criteria				No Criteria		No Criteria	No Criteria		Y	Y	5	N	No Criteria	No Criteria	MEC<C & B is ND			
95	Nitrobenzene	ug/L	0.6	5				17		17	No	No	Y	Y	5	N	No detected value of B, Step 2	No	MEC<C & B is ND			
96	N-Nitrosodimethylamine	ug/L	0.6	0.003				0.00066		0.00066	Yes	Yes	Y	Y	5	Y	No detected value of B, Step 2	Yes	MEC=C			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6					0.005		0.005			Y	Y	5	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
98	N-Nitrosodiphenylamine	ug/L	0.6	0.002				5.0		5.0	No	No	Y	Y	0.002	N	No detected value of B, Step 2	No	MEC<C & B is ND			
99	Phenanthrene	ug/L	0.6	No Criteria				No Criteria		No Criteria	No Criteria		Y	Y	5	N	No Criteria	No Criteria	UD			
100	Pyrene	ug/L	0.6	5				960		960	No	No	Y	Y	5	N	No detected value of B, Step 2	No	MEC<C & B is ND			
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria				No Criteria		No Criteria	No Criteria		Y	Y	5	N	No Criteria	No Criteria	UD			
102	Aldrin	ug/L	0.6		3.00			0.00013		0.00013			Y	Y			No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
103	alpha-BHC	ug/L	0.6					0.0039		0.0039			Y	Y			No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
104	beta-BHC	ug/L	0.6	0.01				0.014		0.014	No	No	Y	Y	0.005	N	No detected value of B, Step 2	No	MEC=C & B is ND			
105	gamma-BHC	ug/L	0.6	0.01	0.95			0.019		0.019	No	No	Y	Y	0.01	N	No detected value of B, Step 2	No	MEC<C & B is ND			
106	delta-BHC	ug/L	0.6	No Criteria				No Criteria		No Criteria	No Criteria		Y	Y	0.002	N	No Criteria	No Criteria	UD			
107	Chlordane	ug/L	0.6		2.4	0.0043		0.00057		0.00057			Y	Y	0.01	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
108	4,4'-DDT	ug/L	0.6		1.1	0.001		0.00059		0.00059			Y	Y	0.005	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
109	4,4'-DDE (linked to DDT)	ug/L	0.6					0.00059		0.00059			Y	Y	0.03	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
110	4,4'-DDD	ug/L	0.6					0.00063		0.00063			Y	Y	0.03	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
111	Dieldrin	ug/L	0.6		0.24	0.056		0.00014		0.00014			Y	Y	0.005	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
112	alpha-Endosulfan	ug/L	0.6	0.014	0.22	0.056		110		0.0560	No	No	Y	Y	0.01	N	No detected value of B, Step 2	No	MEC<C & B is ND			
113	beta-Endosulfan	ug/L	0.6	0.0051	0.22	0.056		110		0.0560	No	No	Y	Y	0.005	N	No detected value of B, Step 2	No	MEC<C & B is ND			
114	Endosulfan Sulfate	ug/L	0.6	0.02				110		110	No	No	Y	Y	0.02	N	No detected value of B, Step 2	No	MEC<C & B is ND			
115	Endrin	ug/L	0.6	0.0051	0.086	0.036		0.76		0.0360	No	No	Y	Y	0.005	N	No detected value of B, Step 2	No	MEC<C & B is ND			
116	Endrin Aldehyde	ug/L	0.6	0.0059				0.76		0.76	No	No	Y	Y	0.005	N	No detected value of B, Step 2	No	MEC<C & B is ND			
117	Heptachlor	ug/L	0.6		0.52	0.0038		0.0021		0.0021			Y	Y	0.005	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
118	Heptachlor Epoxide	ug/L	0.6	0.0087	0.52	0.0038		0.0010		0.0010	Yes	Yes	Y	Y	0.005	Y	No detected value of B, Step 2	Yes	MEC=C			
119-125	PCBs sum (7)	ug/L	0.6		0.014			0.00317		0.00317			Y	Y	1.75	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			
126	Toxaphene	ug/L	0.6		0.73	0.0027		0.00073		0.00073			Y	Y	0.25	Y	No detected value of B, Step 2	No	UD, effluent ND, MDL>C, and B is ND			

Notes:
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CTR#	Parameters	HUMAN HEALTH CALCULATIONS				AQUATIC LIFE CALCULATIONS				LIMITS		Recommendation	Comment	
		AMEL hh = ECA = C hh D only	AMELAMEL multiplier	MEDEL hh	ECA acute multiplier (p3)	LTA acute	ECA multiplier	LTA chronic	Lowest LTA	AMEL multiplier as life	MEDEL multiplier as life			Lowest AMFI
88	Hexachlorobenzene												No Limit	
89	Hexachlorocyclopentadiene												No Limit	
90	Hexachlorocyclopentadiene												No Limit	
91	Hexachlorocyclopentadiene												No Limit	
92	Hexachlorocyclopentadiene												No Limit	
93	Isophthalate												No Limit	
94	Nonhalobenzene												No Limit	
95	Nitrobenzene												No Limit	
96	N,N-Dimethylmethanamine	0.00053	2.01	0.00381					1.55	3.11	0.00050	0.00138	No Limit	
97	N,N-Dimethyl-propylamine												No Limit	
98	Nitrobenzene												No Limit	
99	Nitrobenzene												No Limit	
100	Picric acid												No Limit	
101	1,2,4-Trichlorobenzene												No Limit	
102	Aldrin												No Limit	
103	Beta-BHC												No Limit	
104	Beta-BHC												No Limit	
105	gamma-BHC												No Limit	
106	Endosulfan												No Limit	
107	Endosulfan												No Limit	
108	4,4'-DDE												No Limit	
109	4,4'-DDE (linked to DDT)												No Limit	
110	4,4'-DDE												No Limit	
111	Dieldrin												No Limit	
112	Alpha Endosulfan												No Limit	
113	Beta Endosulfan												No Limit	
114	Endosulfan Sulfate												No Limit	
115	Endosulfan Sulfate												No Limit	
116	Endosulfan Sulfate												No Limit	
117	Heptachlor Epoxide												No Limit	
118	Heptachlor Epoxide	0.0001	2.01	0.00020	0.32	0.17	0.53	0.00	1.55	0.00	0.00010	0.00020	No Limit	
119-125	PCBs sum [1]												No Limit	
126	Toxaphene												No Limit	

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CTR#	Parameter	HUMAN HEALTH CALCULATIONS			ECOLOGICAL LIFE CALCULATIONS						LIMITS		Recommendation	Comment	
		AMEL hh = ECA = C in O only	MOEL/AMEL multiplier	MEDEL/hh	ECA acute multiplier (if J)	LTA multiplier acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier /55	AMEL multiplier /55	MEDEL multiplier /55			MEDEL /55
88	Hexachlorocyclopentadiene													No Limit	
89	Hexachlorobenzene													No Limit	
90	Heptachlorocyclopentadiene													No Limit	
91	Heptachloroepoxide													No Limit	
92	Heptachlor Epoxide													No Limit	
93	Heptachlorozone													No Limit	
94	Heptachlorozone													No Limit	
95	Heptachlorozone													No Limit	
96	N-Nitrosodimethylamine													No Limit	
97	N-Nitrosodipropylamine													No Limit	
98	N-Nitrosodimethylamine													No Limit	
99	Phenanthrene													No Limit	
100	Pyrene													No Limit	
101	2,4,6-Trichlorobenzene	0.00613	2.01	0.000%	0.32	0.23	0.53	0.66	0.09	1.55	0.09	0.0013	0.0026	No Limit	
102	2,4,6-Trichlorobenzene													No Limit	
103	2,4,6-Trichlorobenzene													No Limit	
104	2,4,6-Trichlorobenzene													No Limit	
105	gamma-BHC													No Limit	
106	gamma-BHC													No Limit	
107	gamma-BHC													No Limit	
108	Chlorzane													No Limit	
109	4,4'-DDT (linked to DDT)													No Limit	
110	4,4'-DDT													No Limit	
111	4,4'-DDT													No Limit	
112	alpha-Endosulfan													No Limit	
113	beta-Endosulfan													No Limit	
114	Endosulfan Sulfate													No Limit	
115	Endrin													No Limit	
116	Endrin Aldehyde													No Limit	
117	Endrin Aldehyde													No Limit	
118	Endrin Aldehyde													No Limit	
119	Endrin Aldehyde													No Limit	
120	Endrin Aldehyde													No Limit	

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