ORDER NO. R1-2016-0006
NPDES NO. CA0024040
WDID NO. 1B83118OMEN

WASTE DISCHARGE REQUIREMENTS

FOR

MENDOCINO COUNTY WATER WORKS DISTRICT NO. 2
ANCHOR BAY WASTEWATER TREATMENT FACILITY

The following Permittee is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Permittee Information

Permittee	Mendocino County Water Works District No. 2
Name of Facility	Anchor Bay Wastewater Treatment Facility
Facility Address	46890 Getchell Gulch Road
	Mendocino, CA 95445
	Mendocino County
Type of Facility	Publicly Owned Treatment Works (POTW)
Facility Design Flow	0.024 million gallons per day (mgd) (average dry weather treatment capacity)

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary treated wastewater	38° 48’ 25”	123° 35’ 22”	Pacific Ocean
002	Secondary treated wastewater	--	--	Forest Irrigation System

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Table 3. Administrative Information

This Order was adopted on:	**April 7, 2016**
This Order shall become effective on:	**June 1, 2016**
This Order shall expire on:	**May 31, 2021**
The Permittee shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**August 1, 2020**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, North Coast Region have classified this discharge as follows:	**Minor**

IT IS HEREBY ORDERED, that Waste Discharge Requirements (WDR) Order No. R1-2010-0038 and Monitoring and Reporting Program (MRP) No. R1-2010-0038, are rescinded upon the effective date of this Order except for enforcement purposes, and in order to meet the provisions contained in division 7 of the California Water Code (Water Code) (commencing with section 13000) and regulations and guidelines adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements of this Order. This action in no way prevents the North Coast Regional Water Quality Control Board (Regional Water Board) from taking enforcement action for past violations of the previous permit.

I, Matthias St. John, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, North Coast Region, on **April 7, 2016.**

_____
Matthias St. John, Executive Officer

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I. FACILITY INFORMATION

Information describing the Mendocino County Water Works District No. 2 (Permittee), Anchor Bay Wastewater Treatment Facility (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board), finds:

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 (U.S. EPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. Basis and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the Permittee's application, monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F) contains background information and rationale for the requirements in this Order, and is hereby incorporated into this Order and constitutes Findings for this Order. Attachments A through E are also incorporated into this Order.

C. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections III.E, III.F, III.I, IV.B, IV.C, V.B, and VI.C.5 of this Order and sections VI, IX.A, and X.E of the Monitoring and Reporting Program are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

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

E. 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.

III. DISCHARGE PROHIBITIONS

A. The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.

B. Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.

C. The discharge of sludge or digester supernatant is prohibited, except as authorized under section VI.C.5.c of this Order (Sludge Disposal and Handling Requirements).

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D. The discharge of untreated or partially treated waste (receiving a lower level of treatment than described in section II.A of the Fact Sheet) from anywhere within the collection, treatment, or disposal systems is prohibited, except as provided for in Attachment D, Standard Provisions G (Bypass) and H (Upset).

E. Any sanitary sewer overflow (SSO) that results in a discharge of untreated or partially treated wastewater to (a) waters of the state or (b) land that creates pollution, contamination, or nuisance, as defined in Water Code section 13050 is prohibited.

F. The discharge of waste to land that is not owned by the Permittee, governed by District ordinance, or under agreement to use by the Permittee, or for which the Permittee has explicitly permitted such use, is prohibited, except for use for non-structural fire suppression as provided in title 22, section 60307(b) of the CCR.

G. The discharge of waste at any point not described in Finding II.B of the Fact Sheet or authorized by a permit issued by the State Water Board or another Regional Water Board is prohibited.

H. The discharge from the Facility to the ocean at Discharge Point 001 shall not exceed either of the following:

1. Between May 15 and September 30, the discharge shall not exceed 0.0140 mgd in any calendar day. Discharges to the ocean during this period shall only occur during periods of high tide.

2. Between October 1 and May 14, the average monthly flow discharged from the Facility shall not exceed 0.0196 mgd.

Compliance with these prohibitions shall be determined as defined in sections VII.I and VII.J of this Order.

I. The discharge from the Facility to land at Discharge Point 002 shall not exceed 0.010 mgd in any calendar day. Compliance with this prohibition shall be determined as defined in section VII.J of this Order.

J. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into waters of the state is prohibited.

K. The discharge of sludge directly into the ocean or into a waste stream that discharges to the ocean is prohibited.

L. The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Ocean Plan Tables 1 or 2 (2012) is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

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

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Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations[1]					
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	6-Month Median
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	30	45	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75	--
Total Suspended Solids (TSS)	mg/L	30	45	--	--	--	--
Settleable Solids	mL/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
pH	s.u.	--	--	--	6.0	9.0	--
Total Residual Chlorine	mg/L	--	--	0.29	--	2.16	0.072

Table Notes:
1. See Definitions in Attachment A and Compliance Determination discussion in section VII of this Order.

b. **Percent Removal**. The average monthly percent removal of BOD_5 and TSS shall not be less than 85 percent. Percent removal shall be determined from the monthly average value of influent wastewater concentration in comparison to the monthly average value of effluent concentration for the same constituent over the same time period as measured at Monitoring Locations INF-001 and EFF-001, respectively.

c. **Disinfection**. Disinfected effluent discharged from the wastewater treatment plant through Discharge Point 001 to the Pacific Ocean shall not contain total coliform bacteria exceeding the following concentrations, as measured at Monitoring Location EFF-001:

i. The median value of total coliform bacteria shall not exceed a Most Probable Number (MPN) of 70 per 100 milliliters (mL), in a calendar month; and

ii. No samples shall exceed an MPN of 230 per 100 mL.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications and Requirements– Discharge Point 002

1. Land Discharge Specifications

a. The Permittee shall maintain compliance with the following land discharge specifications at Discharge Point 002, with compliance measured at Monitoring Location LND-001 as described in the attached MRP.

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Table 5. Land Discharge Specifications

Parameter	Units	Discharge Specifications[1]	
		Average Monthly	Maximum Daily
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	50	80
Total Suspended Solids (TSS)	mg/L	50	80
pH	s.u.	6.0 – 9.0	
Table Notes: 1. See Definitions in Attachment A and Compliance Determination discussion in section VII of this Order.			

b. **Disinfection**. Disinfected treated domestic wastewater discharged at Discharge Point 002 shall not contain total coliform bacteria exceeding the following concentrations, as measured at Monitoring Location LND-001:

i. The median value of total coliform bacteria shall not exceed an MPN of 23 per 100 mL using the bacteriological results of the last calendar month for which analyses have been completed; and

ii. In no case shall total coliform bacteria exceed an MPN of 230 per 100 mL, using bacteriological results from any calendar month.

2. Land Discharge Requirements

a. The Permittee shall install, operate, and maintain the forest irrigation system in a manner that ensures compliance with all requirements of this Order.

b. The Permittee shall conduct periodic inspections of the irrigation system, facilities, and operations to monitor and ensure compliance with the conditions of this Order.

c. The Permittee shall operate the forest irrigation system in a manner that minimizes the potential for runoff. The Regional Water Board recognizes that even with diligent implementation of best management practices (BMPs), incidental runoff events may occur on occasion. Incidental runoff is defined as unintended small amounts of runoff from recycled water use areas where appropriate irrigation rates and BMPs are being implemented. Examples of incidental runoff include unintended, minimal over-spray from sprinklers that escapes the recycled water use area or accidental breakage of a sprinkler head on a properly maintained irrigation system. Water leaving an irrigation area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Incidental runoff events are typically infrequent, low volume, accidental, not due to a pattern of neglect or lack of oversight, and are promptly addressed.

The Regional Water Board recognizes that such minor violations are unavoidable and present a low risk to water quality. All runoff incidents, including incidental runoff shall be summarized in the Permittee's monthly monitoring reports.

d. The use of disinfected secondary effluent for forest irrigation shall not result in unreasonable waste of water.

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e. The use of disinfected secondary effluent for forest irrigation shall not cause or contribute to an exceedance of any applicable water quality standard. The Permittee shall be responsible for ensuring that all discharges to the forest irrigation system meet all terms and conditions of this Order, including the quality standards in section IV of this Order.

f. The Permittee shall discontinue delivery of effluent for irrigation during any period that there is reason to believe that the requirements for use, as specified in this Order are not being met. The delivery of treated effluent for irrigation shall not resume until all conditions have been corrected.

g. Disinfected secondary effluent shall not be irrigated within 100 feet of any domestic water supply well.

h. The use of disinfected secondary effluent for irrigation shall not cause degradation of any water supply.

i. Irrigation areas shall be managed to prevent ponding and conditions conducive to the proliferation of mosquitoes and other disease vectors, and to avoid creation of a public nuisance or health hazard. The following practices shall be implemented, at a minimum:

i. Irrigation water shall infiltrate completely within a 48-hour period; and

ii. Low-pressure and unpressurized pipelines and ditches that may be accessible to mosquitoes shall not be used to store effluent.

j. All areas where treated effluent is used for irrigation that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide that include the following wording: "RECYCLED WATER – DO NOT DRINK". These signs shall be posted at least every 500 feet with a minimum of a sign at each corner and access road.

k. Treated effluent used for irrigation shall not be allowed to escape the use areas in the form of surface runoff. Where appropriate, practices and strategies to prevent the occurrence of runoff shall include, but not be limited to:

i. A minimum 50-foot setback to all surface waters or implementation of BMPs designed to prevent the potential for runoff discharging to surface water;

ii. Proper design and aim of sprinkler heads;

iii. Proper design and operation of the irrigation system;

iv. Refraining from application during precipitation events;

v. Application at a rate that does not exceed the demand of the vegetation being irrigated;

vi. Use of repeat start times and/or multiple water days with short run times to increase irrigation efficiency and reduce runoff potential. The goal of this BMP is to apply the volume of water needed to meet the needs of the vegetation being irrigated by breaking the volume up into smaller volumes. For example, apply one

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hour of irrigation in four 15-minute applications, separated by an hour each. This will allow more water to soak into the ground and reduce runoff; and

vii. Maintenance of irrigation infrastructure (e.g., pipelines, pumps, etc.) to prevent and minimize breakage and leaks.

l. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities, roadways, or any other area where the public would accidentally be exposed to the effluent.

m. All irrigation equipment, pumps, piping, valves, quick couplers and outlets shall be a type or secured in a manner that only permits operation by authorized personnel and shall be appropriately marked to differentiate them from potable facilities.

n. The main shutoff valve of the irrigation system meter shall be tagged with a warning sign indicating the use of treated wastewater effluent. The valve shall be equipped with an appropriate locking device to prevent unauthorized operation of the valve.

C. Recycling Requirements – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

Receiving water limitations are based on water quality objectives contained in the Ocean Plan, and are a required part of this Order. Receiving water conditions not in conformance with the limitation are not necessarily a violation of this Order. The Regional Water Board may require an investigation to determine cause and culpability prior to asserting that a violation has occurred.

Discharges from the Facility shall not cause the following in the receiving water upon completion of initial dilution:

1. Ocean Plan

a. Bacterial Characteristics

i. Water-Contact Standards. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone designated for water contact recreation use by the Regional Water Board, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column:

(a) 30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.

(1) Total coliform density shall not exceed 1,000 per 100 mL;

(2) Fecal coliform density shall not exceed 200 per 100 mL; and

(3) Enterococcus density shall not exceed 35 per 100 mL.

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(b) Single Sample Maximum:

(1) Total coliform density shall not exceed 10,000 per 100 mL;

(2) Fecal coliform density shall not exceed 400 per 100 mL;

(3) Enterococcus density shall not exceed 104 per 100 mL; and

(4) Total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1.

ii. Shellfish Harvesting Standards. At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacterial objectives shall be maintained throughout the water column:

(a) The median total coliform density shall not exceed 70 per 100 mL, and not more than 10 percent of the samples shall exceed 230 per 100 mL.

iii. Physical Characteristics

(a) Floating particulates and oil and grease shall not be visible.

(b) The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

(c) Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.

(d) The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

iv. Chemical Characteristics

(a) The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

(b) The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

(c) The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.

(d) The concentration of substances set forth in Chapter II, Table 1 of the Ocean Plan shall not be increased in marine sediments to levels which would degrade indigenous biota.

(e) The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.

(f) Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

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(g) Discharges shall not cause exceedances of water quality objectives for ocean waters of the state established in Chapter II, Table 1 of the Ocean Plan.

(h) Discharge of radioactive waste shall not degrade marine life.

v. Biological Characteristics

(a) Marine communities, including vertebrate, invertebrate and plant species, shall not be degraded.

(b) The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

(c) The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

vi. General Standards

(a) The discharge shall not cause a violation of any applicable water quality standard for the receiving waters adopted by the Regional Water Board or the State Water Board as required by the CWA and regulations adopted thereunder.

(b) Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

(c) Waste discharged to the ocean must be essentially free of:

(1) Material that is floatable or will become floatable upon discharge.

(2) Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.

(3) Substances which will accumulate to toxic levels in marine waters, sediments or biota.

(4) Substances that significantly decrease the natural light to benthic communities and other marine life.

(5) Materials that result in aesthetically undesirable discoloration of the ocean surface.

(d) Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

(e) Location of waste discharges must be determined after a detailed assessment of the oceanographic characteristics and current patterns to assure that:

(1) Pathogenic organisms and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body-contact sports.

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(2) Natural water quality conditions are not altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater.

(3) Maximum protection is provided to the marine environment.

(4) The discharge does not adversely affect recreational beneficial uses such as surfing and beach walking.

B. Groundwater Limitations

1. The collection, treatment, storage, and disposal of wastewater shall not cause a statistically significant degradation of groundwater quality unless a technical evaluation is performed that demonstrates that any degradation that could reasonably be expected to occur, after implementation of all regulatory requirements (e.g., title 27) and reasonable best management practices, will not violate groundwater quality objectives or cause impacts to beneficial uses of groundwater.

2. The collection, treatment, storage, and disposal of wastewater shall not cause alterations of groundwater that contain chemical concentrations in excess of limits specified in title 22, sections 64431 (Tables 2 and 3) and 64444, and the Basin Plan.

3. The collection, treatment, storage, and disposal of wastewater shall not cause groundwater to contain radionuclides in excess of the limits specified in title 22, division 4, chapter 15, article 5, section 64443 of the CCR.

4. The collection, treatment, storage, and disposal of wastewater shall not cause groundwater to contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

5. In groundwaters used for domestic or municipal supply (MUN), the collection, treatment, storage, and disposal of wastewater shall not cause the median of the most probable number of coliform organisms over any 7-day period to exceed 1.1 MPN/100 mL or 1 colony/100 mL.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Permittee shall comply with all Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** The Permittee shall comply with the following Regional Water Board standard provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. 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 Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may

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subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

b. In the event the Permittee does not comply or will be unable to comply for any reason, with any prohibition, final effluent limitation, land discharge specification, receiving water limitation, or provision of this Order that may result in a significant threat to human health or the environment, such as inundation of treatment components, breach of pond containment, recycled water main break or equivalent release, irrigation runoff, etc., that results in a discharge to a drainage channel or a surface water, the Permittee shall notify Regional Water Board staff within 24 hours of having knowledge of such non-compliance. Spill notification and reporting shall be conducted in accordance with Section V.E of Attachment D and X.E of the Monitoring and Reporting Program.

B. Monitoring and Reporting Program (MRP) Requirements

The Permittee shall comply with the MRP, included as Attachment E of this Order, and future revisions thereto.

C. Special Provisions

1. Reopener Provisions

a. Standard Revisions. If applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.

b. Reasonable Potential. This Order may be reopened for modification to include an effluent limitation, if monitoring establishes that the discharge causes, or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.

c. Whole Effluent Toxicity. As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a new chronic toxicity limitation, acute toxicity limitation and/or a limitation for a specific toxicant identified in the TRE.

d. 303(d)-Listed Pollutants. If an applicable total maximum daily load (TMDL) (see Fact Sheet, section III.D) program is adopted, this Order may be reopened and effluent limitations for the pollutant(s) that are the subject of the TMDL modified or imposed to conform this Order to the TMDL requirements.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Land Irrigation Operation and Maintenance Plan. The Permittee shall submit a Land Irrigation Operation and Maintenance Plan by **February 1, 2017**, describing the measures and practices that the Permittee implements to ensure that the forest irrigation system is operated in compliance with the requirements of this Order, including the requirements specified in section IV.B.2.

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3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program (PMP)

i. The Permittee shall, as required by the Executive Officer, develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as detected, but not quantified (DNQ) when the effluent limitation is less than the method detection limit (MDL), sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

(a) The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reporting level (RL); and

(b) A sample result is reported as non-detect (ND) and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

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

(a) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

(b) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

(c) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

(d) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

(e) An annual status report that shall be submitted as part of the Annual Facility Report due **March 1** to the Regional Water Board and shall include:

(1) All PMP monitoring results for the previous year;

(2) A list of potential sources of the reportable pollutant(s);

(3) A summary of all actions undertaken pursuant to the control strategy; and

(4) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. This Order (Attachment D, Standard Provision I.D) requires that the Permittee at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve

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compliance with this Order. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures.

b. The Permittee shall maintain an updated Operation and Maintenance (O&M) Manual for the operational components of the Facility. The Permittee shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel onsite and for review by state or federal inspectors. The O&M Manual shall include the following.

i. Description of the Facility's organizational structure showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the Facility so as to achieve the required level of treatment at all times.

ii. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

iii. Description of laboratory and quality assurance procedures.

iv. Process and equipment inspection and maintenance schedules.

v. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Permittee will be able to comply with requirements of this Order.

vi. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Wastewater Collection Systems

i. Statewide General WDRs for Sanitary Sewer Systems

The Permittee has coverage under, and is separately subject to, the requirements of State Water Board Order No. 2006-0003-DWQ, Statewide General WDRs for Sanitary Sewer Systems, as amended by Order No. WQ 2013-0058-EXEC. As such, the Permittee provides notification and reporting of SSOs in accordance with the requirements of Order Nos. 2006-0003-DWQ and WQ 2013-0058-EXEC and any revisions thereto for operation of its wastewater collection system.

b. Source Control and Pretreatment Provisions

i. The Permittee shall perform source control functions and provide a summary of source control activities conducted in the annual report (due March 1 to the Regional Water Board). Source control functions and requirements shall include the following:

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(a) Implement the necessary legal authorities to monitor and enforce source control standards, restrict discharges of toxic materials to the collection system and inspect facilities connected to the system.

(b) If waste haulers are allowed to discharge to the Facility, establish a waste hauler permit system, to be reviewed by the Executive Officer, to regulate waste haulers discharging to the collection system or Facility.

(c) Perform public outreach to educate industrial, commercial, and residential users about the importance of preventing discharges of industrial and toxic wastes to the wastewater treatment plant, at least once per year.

(d) Perform on-going inspections and monitoring, as necessary, to ensure adequate source control.

c. Sludge Disposal and Handling Requirements

i. All collected sludges and other solid waste removed from liquid wastes shall be removed from screens, sumps, ponds, and tanks as needed to ensure optimal plant operation and disposed of in accordance with applicable federal and state regulations.

ii. The use and disposal of biosolids shall comply with all of the land application and disposal requirements in 40 C.F.R. part 503, which are enforceable by the U.S. EPA, not the Regional Water Board. If during the life of this Order, the state accepts primacy for implementation of 40 C.F.R. part 503, the Regional Water Board may also initiate enforcement where appropriate.

iii. Sludge or biosolids that are disposed of in a municipal solid waste landfill or used as daily landfill cover shall meet the applicable requirements of 40 C.F.R. part 258. In the annual self-monitoring report, the Permittee shall report the amount of sludge placed in a landfill and the landfill(s) which received the sludge or biosolids.

iv. The Permittee shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Order that may adversely affect human health or the environment.

v. Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination.

vi. Solids and sludge treatment and storage sites shall have facilities adequate to divert surface water runoff from adjacent areas, to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage site. Adequate protection is defined as protection from a design storm with a 100-year recurrence interval and 24-hour duration.

vii. The discharge of sewage sludge and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the state.

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viii. For the land application of biosolids as soil amendment, the Permittee shall submit a report of waste discharge or the Permittee may dispose of biosolids at another appropriately permitted facility.

ix. New sludge treatment and storage facilities must comply with the requirements of the title 27 of the CCR for the protection of water quality.

d. Operator Certification

Supervisors and operators of municipal wastewater treatment facilities shall possess a certificate of appropriate grade in accordance with CCR title 23 of the CCR, section 3680. The State Water Board may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment facility operator, the State Water Board may approve use of a water treatment facility operator of appropriate grade certified by the State Water Board, Division of Drinking Water (DDW) where water recycling is involved.

e. Adequate Capacity

If the Facility will reach capacity within 4 years, the Permittee shall notify the Regional Water Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies, and the press. Factors to be evaluated in assessing reserve capacity shall include, at a minimum, (1) comparison of the wet weather design flow with the highest daily flow, and (2) comparison of the average dry weather design flow with the lowest 30-day flow. The Permittee shall demonstrate that adequate steps are being taken to address the capacity problem. The Permittee shall submit a technical report to the Regional Water Board showing how flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Water Board, or within 120 days after receipt of Regional Water Board notification that the Facility will reach capacity within 4 years. The time for filing the required technical report may be extended by the Regional Water Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Water Board itself. [CCR title 23, section 2232].

6. Other Special Provisions

a. Storm Water

For the control of storm water discharges from the Facility, if required, the Permittee shall seek separate authorization to discharge under the requirements of the State Water Board's Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities, which is not incorporated by reference in this Order.

Best management practices (BMPs) to control the run-on of storm water to the Facility site shall be maintained and upgraded as necessary. The Permittee shall describe the effectiveness of these storm water BMPs, as well as activities to maintain and upgrade these BMPs during the previous year, in its annual report to the Regional Water Board.

7. Compliance Schedules – Not Applicable

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VII. COMPLIANCE DETERMINATION

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

A. Compliance with Effluent Limitations

1. **Single Constituent Effluent Limitations.** The Permittee is out of compliance with the effluent limitation if the concentration of the pollutant (see section VII.C) in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

2. **Effluent Limitations Expressed as a Sum of Several Constituents.** The Permittee is out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as non-detect (ND) or detected but not quantified (DNQ).

B. Multiple Sample Data

When determining compliance with an AMEL for priority pollutants, and more than one sample result is available, the Permittee 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 Permittee 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 middle values 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 and a value of zero shall be used for the ND or DNQ value in the median calculation for compliance purposes only. Using a value of zero for DNQ or ND samples does not apply when performing reasonable potential or antidegradation analyses.

C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection C 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 Permittee 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 Permittee will be considered out of compliance for that calendar month. The Permittee will only be considered out of compliance for days when the discharge occurs. If there are ND or DNQ results for a specific constituent in a calendar month,

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the Permittee shall calculate the median of all sample results within that month for compliance determination with the AMEL as described in section X.B, above.

D. Average Weekly Effluent Limitation (AWEL)

If the average (or when applicable, the median determined by subsection C above for multiple sample data) of daily discharges over a calendar week (Sunday through Saturday) exceeds the AWEL for a given parameter, this will represent a single violation, though the Permittee will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Permittee will be considered out of compliance for that calendar week. The Permittee will only be considered out of compliance for days when the discharge occurs. If there are ND or DNQ results for a specific constituent in a calendar week, the Permittee shall calculate the median of all sample results within that week for compliance determination with the AWEL as described in section X.B, above.

E. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by subsection C, above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Permittee will be considered out of compliance for that parameter for that 1 day only within the reporting period.

F. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Permittee 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).

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

G. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Permittee 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).

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total time during which the pH values are outside the required

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range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

H. Bacteriological Limitations (Total Coliform)

Median. The median is the central tendency concentration of the pollutant. The data set shall be ranked from low to high, ranking the ND concentrations lowest, followed by quantified values. The median value is determined based on the number of data points in the set. 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, the median is the average of the two middle values, unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two middle data points. DNQ is lower than a detected value, and ND is lower than DNQ.

I. Average Monthly Flow

Compliance with the average monthly flow prohibition in section III.H.2 of this Order will be determined once each calendar month by evaluating all daily flow data collected in a calendar month. The discharge from the Facility at Discharge Point 001, measured daily and averaged monthly, must be 0.0196 mgd or less for the month with the lowest average monthly flow.

J. Average Daily Flow

Compliance with the average daily flow prohibitions in sections III.H.1 and III.I of this Order will be determined once each calendar day by evaluating all flow data collected in a day. The discharge from the Facility at Discharge Point 001, measured and averaged daily, must not exceed 0.0140 mgd and the discharge from the Facility at Discharge Point 002, measured and averaged daily, must not exceed 0.010 mgd.

K. Chronic Toxicity

Compliance with the accelerated monitoring and TRE provisions shall constitute compliance with the chronic toxicity requirements, all specified in the MRP (Attachment E, sections V.B and V.C).

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ATTACHMENT A – DEFINITIONS

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Resources Control Board (State Water Board) as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

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

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

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

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

Bioaccumulative Pollutants
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
Substances that are known to cause cancer in living organisms.

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Coefficient of Variation (CV)
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.

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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.

DDT
Shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Degrade
Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Dilution Credit
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.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

Dredged Material
Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

Effective Concentration (EC)
A point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

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

Enclosed Bays
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 headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This

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definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

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

Estuaries and Coastal Lagoons are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, Russian, San Diego, and Otay Rivers. Estuaries do not include inland surface waters or ocean waters.

Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Inhibition Concentration
The IC25 is typically calculated as a percentage of effluent. It is the level at which the organisms exhibit 25 percent reduction in biological measurement such as reproduction or growth. It is calculated statistically and used in chronic toxicity testing.

Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Water Board, whichever results in the lower estimate for initial dilution.

Inland Surface Waters
All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

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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).

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

Lowest Observed Effect Concentration (LOEC)
The lowest concentration of an effluent or toxicant that results in adverse effects on the test organism (i.e., where the values for the observed endpoints are statistically different from the control).

Mariculture
The culture of plants and animals in marine waters independent of any pollution source.

Material
(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

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)
The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)
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.

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Mixing Zone
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.

Natural Light
Reduction of natural light may be determined by the Regional Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

No Observed Effect Concentration (NOEC)
The highest tested concentration of an effluent or a test sample at which the effect is no different from the control effect, according to the statistical test used (see LOEC). The NOEC is usually the highest tested concentration of an effluent or toxicant that causes no observable effects on the aquatic test organisms (i.e., the highest concentration of toxicity at which the values for the observed responses do not statistically differ from the controls). It is determined using hypothesis testing.

Not Detected (ND)
Those sample results 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. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

PCBs (polychlorinated biphenyls)
The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

Persistent Pollutants
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 Ocean Plan Table 1 pollutants 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
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).

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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.

Publicly Owned Treatment Works (POTW)
A treatment works as defined in section 212 of the Clean Water Act (CWA), which is owned by a government agency as defined by section 502(4) of the CWA. [Section 502(4) of the CWA defines a municipality as a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes). This definition includes any devices and systems used in the storage, treatment, recycling, and recycling of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Recycled Water
Water which, as a result of treatment of municipal wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource (Water Code section 13050). The terms "recycled water" and "reclaimed water" have the same meaning (Water Code section 26).

Reporting Level (RL)
The ML (and its associated analytical method) used for reporting and compliance determination. 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 II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. 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.

Shellfish
Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

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Sludge and Biosolids
Sludge, as used in this Order, means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screenings generated during preliminary treatment. Biosolids refers to sludge that has been treated, tested, and demonstrated to be capable of being beneficially and legally used pursuant to federal and state regulations as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities.

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

Standard Deviation (σ)
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.

State Water Quality Protection Areas (SWQPAs)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolution Nos. 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

TCDD Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

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Test of Significant Toxicity (TST)
The statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010). TST was developed by the U.S. Environmental Protection Agency (EPA) for analyzing WET and ambient toxicity data. Using the TST approach, the sample is declared toxic if there is greater than or equal to a 25% effect in chronic tests, or if there is greater than or equal to a 20% effect in acute tests at the permitted instream waste concentration (IWC) (referred to as the toxic regulatory management decision (RMD)). The sample is declared non-toxic if there is less than or equal to a 10% effect at the IWC in acute or chronic tests (referred to as the non-toxic RMD).

Toxicity Reduction Evaluation (TRE)
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.)

Waste
As used in the Ocean Plan, waste includes a discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

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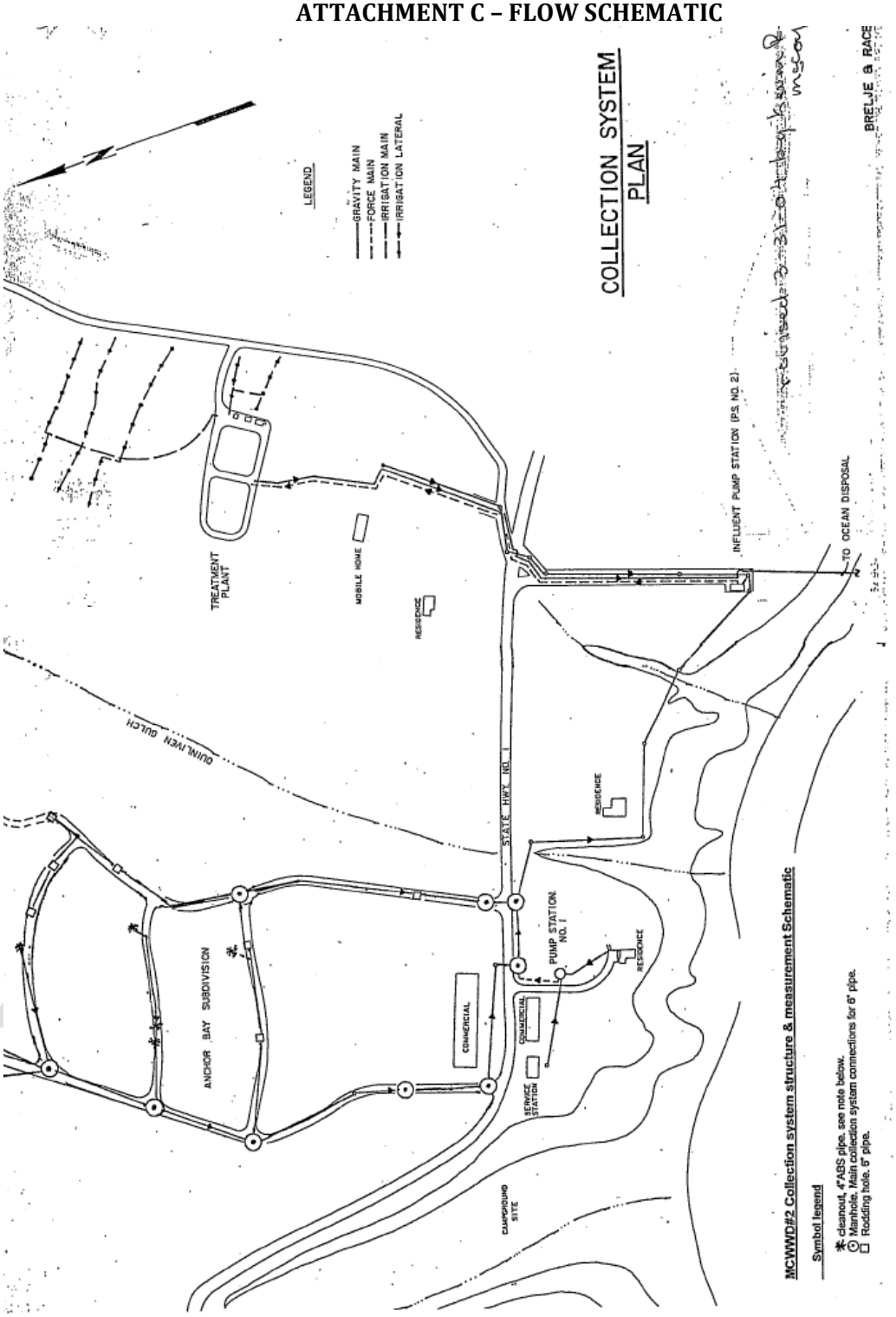
ATTACHMENT B – MAP

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Permittee 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 C.F.R. § 122.41(a).)

2. The Permittee 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 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Permittee 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 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Permittee 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 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Permittee 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 Permittee 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 Permittee only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 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 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, 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 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));

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2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Permittee 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 C.F.R. § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 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 C.F.R. § 122.41(m)(4)(i)(B)); and

   c. The Permittee submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

4. **Burden of Proof.** In any enforcement proceeding, the Permittee seeking to establish the bypass defense has the burden of proof.

5. 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 C.F.R. § 122.41(m)(4)(ii).)

6. **Notice**

   a. Anticipated bypass. If the Permittee 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 C.F.R. § 122.41(m)(3)(i).)

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b. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 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 C.F.R. § 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

a. An upset occurred and that the Permittee can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

c. The Permittee submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

d. The Permittee complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. **Burden of proof.** In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

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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 Permittee for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Permittee must apply for and obtain a new permit. (40 C.F.R. § 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 Permittee and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring must be conducted according to test procedures under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R., chapter 1, subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is "sufficiently sensitive" when:

1. The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter, and, either the method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter.

In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

In the case of sludge use or disposal approved under 40 C.F.R. part 136, monitoring must be conducted according to test procedures in part 503 unless otherwise specified in 40 C.F.R. or other test procedures have been specified in this Order.

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Permittee shall retain records of all

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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 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Permittee (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Permittee shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA 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 Permittee shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA 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 C.F.R. § 122.41(k).)

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA 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 C.F.R. § 122.22(b)(1));

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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 C.F.R. § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Permittee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(5).)

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E. Twenty-Four Hour Reporting

1. The Permittee shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Permittee 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 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 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 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Permittee 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 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Permittee'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 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Permittee 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 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Permittee 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 C.F.R. § 122.41(l)(7).)

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I. Other Information

When the Permittee 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 U.S. EPA, the Permittee shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of this Order (40 C.F.R. § 122.42(b)(2)).

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3)).

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. California Water Code section 13383 also authorizes the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Wastewater Monitoring Provision. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

B. Supplemental Monitoring Provision. If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 C.F.R. part 136 or as specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual discharge monitoring reports.

C. Data Quality Assurance Provision. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW) in accordance with the provisions of Water Code section 13176, and must include quality assurance / quality control data with their analytical reports.

D. Instrumentation and Calibration Provision. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated no less than the manufacturer's recommended intervals or one year intervals, (whichever comes first) to ensure continued accuracy of the devices.

E. Minimum Levels (ML) and Reporting Levels (RL). Compliance and reasonable potential monitoring analyses shall be conducted using detection limits that are lower than the applicable effluent limitations and/or water quality objectives in Table 1 of the Ocean Plan. If no Minimum Level (ML) value is below these levels, the lowest ML shall be selected as the Reporting Level (RL). Appendix II of the Ocean Plan lists the test methods the Permittee may use for reasonable potential monitoring to analyze priority pollutants.

II. MONITORING LOCATIONS

The Permittee 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 Description
--	INF-001	Influent wastewater prior to treatment and following all significant input of wastewater to the treatment system prior to entering the primary treatment pond.
001	EFF-001	A location where representative samples of the treated wastewater to be discharged to the Pacific Ocean at Discharge Point 001 can be collected at a point after treatment, including chlorination/dechlorination, and before contact with the receiving water.

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Discharge Point Name	Monitoring Location Name	Monitoring Location Description
002	LND-001	A location where representative samples of the treated wastewater to be discharged to the forest irrigation system at Discharge Point 002 can be collected at a point after treatment, including chlorination/dechlorination, and prior to discharge to the forest irrigation system. For discharges of treated wastewater from the settling pond to the forest irrigation system, effluent samples shall be collected from the effluent wet well prior to discharge.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Permittee shall monitor influent to the Facility at Monitoring Location INF-001 during periods of discharge to the Pacific Ocean at Discharge Point 001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Influent Flow[1]	mgd	Meter	Daily	--
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	Grab	Weekly[2]	Standard Methods[3]
Total Suspended Solids (TSS)	mg/L	Grab	Weekly[2]	Standard Methods

Table Notes:
1. The Permittee shall report the mean daily and average monthly influent flow rates.
2. Monitoring of BOD_5 and TSS in influent shall coincide with monitoring of these parameters in the effluent.
3. In accordance with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Permittee shall monitor treated effluent at Monitoring Location EFF-001 during periods of discharge to the Pacific Ocean at Discharge Point 001 as follows:

Table E-3. Effluent Monitoring – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Effluent Flow[1]	mgd	Meter	Daily	--
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)[2]	mg/L	24-hr Composite	Weekly	Standard Methods[3]
Total Suspended Solids (TSS)[2]	mg/L	24-hr Composite	Weekly	Standard Methods
Settleable Solids[2]	mL/L	Grab	Weekly	Standard Methods
Total Coliform Bacteria[2]	MPN/100 mL	Grab[4]	Weekly	Standard Methods
pH[2]	s.u.	Grab	Weekly	Standard Methods
Turbidity[2]	NTU	Grab	Weekly	Standard Methods
Total Residual Chlorine [4, 5]	mg/L	Grab	Daily	Standard Methods
Oil and Grease[6]	mg/L	Grab	Annually	Standard Methods

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Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods
Ocean Plan Table 1 Pollutants[7]	µg/L	Grab/ Composite[8]	Once per permit term	Standard Methods
Chronic Toxicity[9]	Pass or Fail, % Effect	Grab	Twice per permit term	See Section V below

Table Notes:

1. The Permittee shall report the maximum daily, mean daily, and average monthly flows.
2. Accelerated Monitoring (weekly monitoring frequency). If two consecutive weekly test results exceed an effluent limitation, the Permittee shall take two samples each of the two weeks following receipt of the second sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps to return to compliance.
3. In accordance with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
4. For purposes of determining compliance, grab samples shall be taken at the end of the chlorine contact system.
5. Accelerated Monitoring (daily monitoring frequency). If a test result exceeds an effluent limitation, the Permittee shall increase monitoring frequency to a minimum of twice a day for a week to evaluate whether the exceedance is persisting. If two or more samples in a week exceed an effluent limitation, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
6. Accelerated Monitoring (monthly monitoring frequency). If a test result exceeds an effluent limitation the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
7. Excluding acute toxicity.
8. Grab samples shall be used for volatile chemicals listed in Table II-1 of the Ocean Plan (2012). Composite samples shall be used for all other Ocean Plan Table I parameters.
9. Whole effluent acute and chronic toxicity shall be monitored in accordance with the requirements of section V of this Monitoring and Reporting Program.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

The Permittee shall conduct chronic toxicity testing in accordance with the following chronic toxicity testing requirements:

1. **Test Frequency.** The Permittee shall conduct chronic WET testing twice during the permit term, once during the second year of the permit term and once during the fourth year of the permit term, while discharging at Discharge Point 001, as summarized in Table E-3, above.

2. **Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity.** The chronic toxicity IWC for this discharge is 2.86 percent effluent.

3. **Sample Volume and Holding Time.** The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. All toxicity tests shall be conducted as soon as possible following sample collection.

   For toxicity tests requiring renewals (*Atherinops affinis*), a minimum of three samples shall be collected. The lapsed time (holding time) from sample collection to first use of each sample must not exceed 36 hours.

4. **Chronic Marine Test Species and Test Methods.** If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Permittee shall conduct the following chronic toxicity tests on effluent samples at the IWC for the discharge in accordance with species and test methods in *Short-term Methods for Estimating the Chronic*

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Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995). Artificial sea salts shall be used to increase sample salinity. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).

b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, and the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0), or a static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).

c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

5. Species Sensitivity Screening. For chronic toxicity testing conducted during the second year of the permit term, the Permittee shall use topsmelt, *Atherinops affinis*, which was identified as the most sensitive species during the 2012 species sensitivity screening.

Species sensitivity screening shall be conducted during the fourth year of the permit term and the results shall be submitted to the Regional Water Board with the report of waste discharge 180 days prior to permit expiration. The Permittee shall collect a single effluent sample and concurrently conduct three chronic toxicity tests using the fish, an invertebrate, and the alga species identified in section V.A.4, above. This sample shall also be analyzed for the parameters required for the discharge included in Table E-3. The species that exhibits the highest "Percent (%) Effect" at the discharge IWC during species sensitivity screening shall be used for subsequent testing.

6. Quality Assurance and Additional Requirements. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

a. The discharge is subject to determination of "Pass" or "Fail" and "Percent (%) Effect" for chronic toxicity tests using the TST approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (H_o) for the TST approach is: Mean discharge IWC response 0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass". A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent (%) Effect" at the discharge IWC is defined and reported as: ((Mean control response Mean discharge IWC response) ÷ Mean control response)) × 100.

b. If the effluent toxicity test does not meet the minimum effluent or reference toxicant TAC specified in the referenced test method, then the Permittee shall re-sample and re-test within 14 days.

c. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

d. Monthly reference toxicant testing shall be performed. All reference toxicant test results should be reviewed and reported.

e. The Permittee shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless

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explicitly authorized under this section of the MRP and the rationale is explained in the Fact Sheet (Attachment F).

f. **Ammonia Removal.** Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Permittee 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.

   i. 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.

   ii. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

   iii. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

   iv. 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.

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.

7. **Notification.** The Permittee shall notify the Regional Water Board verbally within 72 hours and in writing within 14 days after the receipt of a result of "Fail" during routine or accelerated monitoring.

8. **Accelerated Monitoring Requirements.** The trigger for accelerated monitoring for chronic toxicity is exceeded when a chronic toxicity test, analyzed using the TST approach, results in "Fail" and the "Percent Effect" is ≥0.50. Within 24 hours of the time the Permittee becomes aware of a result of "Fail", the Permittee shall implement an accelerated monitoring schedule consisting of four toxicity tests—consisting of 5-effluent concentrations (including the discharge IWC) and a control—conducted at approximately 2 week intervals, over an 8 week period. If each of the accelerated toxicity tests results is "Pass," the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results is "Fail", the Permittee shall immediately implement the TRE Process conditions set forth in section V.B, below.

9. **Reporting**

   a. **Routine Reporting.** Chronic toxicity monitoring results shall be submitted with the quarterly SMR associated with the month that chronic toxicity monitoring was performed. Routine reporting shall include the following in order to demonstrate compliance with permit requirements:

      i. WET test reports shall include the contracting laboratory's complete report provided to the Permittee and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the methods manual and this MRP. The WET test reports shall contain a narrative report that includes details about WET test procedures and results, including the following:

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(a) Receipt and handling of the effluent sample that includes a tabular summary of initial water quality characteristics (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia);

(b) The source and make-up of the lab control/diluent water used for the test;

(c) Any manipulations done to lab control/diluent and effluent such as filtration, nutrient addition, etc.;

(d) Identification of any reference toxicant testing performed;

(e) Tabular summary of test results for control water and each effluent dilution and statistics summary to include calculation of the NOEC, TUc, and IC25;

(f) Identification of any anomalies or nuances in the test procedures or results; and

(g) Summary and conclusions section.

(h) WET test results shall include, at a minimum, for each test:

(1) Sample date(s);

(2) Test initiation date;

(3) Test species;

(4) Determination of "Pass" or "Fail" and "Percent Effect" following the Test of Significant Toxicity hypothesis testing approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The "Percent Effect" shall be calculated as follows:

"Percent Effect" (or Effect, in %) = ((Control mean response – IWC mean response) ÷ Control mean response)) x 100

(5) End point values for each dilution (e.g., number of young, growth rate, percent survival);

(6) NOEC value(s) in percent effluent;

(7) IC15, IC25, IC40, and IC50 values (or EC15, EC25…etc.) in percent effluent;

(8) TUc values (100/NOEC);

(9) Mean percent mortality (±s.d.) after 96 hours in 100 percent effluent (if applicable);

(10) NOEC and LOEC values for reference toxicant test(s);

(11) IC50 or EC50 value(s) for reference toxicant test(s);

(12) Available water quality measurements for each test (e.g., pH, DO, temperature, conductivity, hardness, salinity, ammonia);

(13) Statistical methods used to calculate endpoints;

(14) The statistical program (e.g., TST calculator, CETIS, etc.) output results, which includes the calculation of percent minimum significant difference (PMSD); and

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(15) Results of applicable reference toxicant data with the statistical output page identifying the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD and dates tested; the reference toxicant control charts for each endpoint, to include summaries of reference toxicant tests performed by the contracting laboratory; and any information on deviations from standard test procedures or problems encountered in completing the test and how the problems were resolved.

b. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. TRE/TIE results shall be submitted to the Regional Water Board within 60 days of completion.

B. Toxicity Reduction Evaluation (TRE) Process

1. TRE Work Plan. The Permittee submitted a TRE Work Plan dated August 17, 2015, to the Regional Water Board on November 16, 2015. The Permittee's TRE Work Plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities.

The Permittee shall notify the Regional Water Board of this review and submit any revisions of the TRE Work Plan within 90 days of the notification, to be ready to respond to toxicity events. The TRE Work Plan shall describe the steps the Permittee intends to follow if toxicity is detected, and should include at least the following items:

a. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

b. A description of the facility's methods of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in the operation of this Facility.

c. 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).

2. Preparation and Implementation of a Detailed TRE Work Plan. If one of the accelerated toxicity tests described in section V.A.8, above, results in "Fail", the Permittee shall immediately initiate a TRE using, according to type of treatment facility, EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989) and within 30 days of receipt of the accelerated monitoring result submit to the Regional Water Board Executive Officer a Detailed TRE Work Plan, which shall follow the generic TRE Work Plan revised as appropriate for the toxicity event described in section V.A.8 of this MRP. The Detailed TRE Work Plan shall include the following information, and comply with additional conditions set by the Regional Water Board Executive Officer:

a. Further actions by the Permittee to investigate, identify, and correct causes of toxicity.

b. Actions the Permittee will take to mitigate effects of the discharge and prevent the recurrence of toxicity.

c. A schedule for these actions, progress reports, and the final report.

3. TIE Implementation. The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test methods and, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization*

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Procedures (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96- 054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

4. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Permittee shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

5. The Permittee shall conduct routine effluent monitoring for the duration of the TRE process. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

6. The Regional Water Board recognizes that toxicity may be episodic and identification of the causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

A. Monitoring Location LND-001

1. When treated effluent is discharged to the forest irrigation system at Discharge Point 002, the Permittee shall monitor the treated effluent at Monitoring Location LND-001 as follows:

Table E-4. Land Discharge Monitoring – Monitoring Location LND-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Effluent Flow[1]	mgd	Meter	Daily	--
pH	s.u.	Grab	Daily	Standard Methods[2]
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	Grab	Monthly	Standard Methods
Total Suspended Solids (TSS)	mg/L	Grab	Monthly	Standard Methods
Total Coliform Bacteria[3]	MPN/100 mL	Grab	Monthly	Standard Methods
Total Dissolved Solids	mg/L	Grab	June and September	Standard Methods
Nitrate, Total (as N)	mg/L	Grab	June and September	Standard Methods
Sodium	mg/L	Grab	June and September	Standard Methods

Table Notes:
1. The Permittee shall report the mean daily flow rates to the forest irrigation system.
2. In accordance with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
3. For the purpose of determining compliance with effluent limitations for total coliform bacteria, effluent grab samples shall be collected from the end of the chlorine contact chamber when discharging directly to the forest irrigation system.

2. Visual observations shall be conducted during and immediately after any discharge to the irrigation system, and shall include a record of any odors, evidence of surface runoff or

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spray mist leaving the property boundaries, or other signs of malfunction or improper operation.

3. Operating records for the forest irrigation system shall be maintained by the Permittee and shall include analytical results, specified above; records or operational problems with the irrigation system; plant and equipment breakdowns; and all corrective and preventative actions taken relative to the irrigation system. Following the months that the forest irrigation system has been used, a summary of these operating records shall be submitted with the monthly SMR.

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Surface Water – Not Required

B. Groundwater Monitoring – Not Required

IX. OTHER MONITORING REQUIREMENTS

A. Outfall Inspection

The Permittee shall visually inspect the outfall structure annually, by November 1, to verify the operational status of the outfall and document the inspection with photographs showing the condition of the outfall structure. A report documenting outfall condition and maintenance, including any observed cracks, breaks, malfunctions, and appropriate repairs, shall be submitted with the annual report due by **March 1** each year.

B. Biological Survey

The Permittee shall submit to the Regional Water Board Executive Officer for approval a Biological Survey Work Plan, no later than **January 1, 2017,** to conduct a biological survey during a normal discharge event and no later than **two weeks following discharge cessation**.

The Work Plan shall be prepared by and the Biological Survey conducted by a qualified aquatic biologist, and shall include:

1. A comparative evaluation of indigenous biota in the vicinity of the outfall;
2. The use of a transect line to document presence/absence and dominant species at different distances from the outfall;
3. Comparison to another surf zone cave site in the general area to confirm there are no obvious differences of surf zone cave ecosystems or indicators of adverse effects from the waste discharge.

The biologist shall prepare a report of observations, including objectionable aquatic growths, floating particulates or grease and oil, aesthetically undesirable discoloration of the ocean surface, color of fish or shellfish, and any evidence of degradation of indigenous biota attributable to the rate of deposition of inert solids, settleable material, nutrient materials, increased concentrations of organic materials, or increased concentrations of Ocean Plan Table 1 substances. The Permittee shall submit a final report by **August 1, 2017**.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Permittee shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

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B. Self-Monitoring Reports (SMRs)

1. The Permittee shall submit electronic Self-Monitoring Reports (eSMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal. The Permittee shall maintain sufficient staffing and resources to ensure it submits eSMRs that are complete and timely. This includes provision of training and supervision of individuals (e.g., Permittee personnel or consultant) on how to prepare and submit eSMRs.

2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Permittee shall submit monthly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Permittee 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. All monitoring results reported shall be supported by the inclusion of the complete analytical report from the laboratory that conducted the analyses.

4. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date[1]
Continuous	Permit effective date	All	First day of second calendar month following the end of each quarter
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following the end of each quarter
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following the end of each quarter
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last day of calendar month	First day of second calendar month following the end of each quarter
Annually	January 1 following (or on) permit effective date	January 1 through December 31	March 1 (of the following year)
Once per permit term	Permit effective date	All	180 days prior to permit expiration
Twice per permit term	Permit effective date	All	The chronic toxicity test results conducted during the second and fourth year of the permit term are due with the respective annual monitoring reports.

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Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date[1]
Table Note: 1. Quarterly monitoring periods are as follows: January 1 through March 31; April 1 through June 30; July 1 through September 30; and October 1 through December 31.			

5. **Reporting Protocols.** The Permittee shall report with each sample result the applicable ML, the RL, and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Permittee 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 reported ML, 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. The Permittee is 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 Permittee to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

6. The Permittee shall submit SMRs in accordance with the following requirements:

a. The Permittee 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 reported data shall include calculation of all effluent limitations that require averaging, taking of a median, or other computation. The Permittee 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 Permittee shall electronically submit the data in a tabular format as an attachment.

b. The Permittee shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:

i. Facility name and address;

ii. WDID number;

iii. Applicable period of monitoring and reporting;

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iv. Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation);

v. Corrective actions taken or planned; and

vi. The proposed time schedule for corrective actions.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the CIWQS Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). In the event that that an alternate method for submittal of SMRs is required, the Permittee shall submit the SMR electronically via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DVD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the Regional Water Board website at http://www.waterboards.ca.gov/northcoast.

C. Discharge Monitoring Reports (DMRs)

1. DMRs are U.S. EPA reporting requirements. As of the effective date of this Order, if the Permittee operates a "minor" facility as designated in Table 2 of the Order, electronic submittal of DMRs is not required. However, at any time during the term of this permit, the State Water Board or Regional Water Board may notify and require the Permittee to electronically submit DMRs.

2. In the event that the Permittee is notified of the need to submit DMRs, the Permittee shall electronically certify and submit DMRs together with SMRs using Electronic Self-Reporting module eSMR 2.5 or any upgraded version. Electronic submittal of DMRs will be in addition to electronic submittal of SMRs. DMRs shall be submitted quarterly on the first day of the second calendar month following the end of each quarter (February 1, May 1, August 1, November 1). Information about electronic submittal of DMRs is available at the Discharge Monitoring Report web site at: http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring/

D. Other Reports

1. **Special Study Reports and Progress Reports.** As specified in the Special Provisions contained in section VI of the Order and in the MRP, special study and progress reports shall be submitted in accordance with the following reporting requirements.

F. Table E-10. Reporting Requirements for Special Provisions Reports

Special Provision Report	Reporting Requirements
Land Irrigation Operation and Maintenance Plan (Special Provision VI.C.2.a)	**February 1, 2017**
Pollutant Minimization Program (Special Provision VI.C.3.a.i)	If required by the Executive Officer
Pollutant Minimization Program, Annual Facility Report (Special Provision VI.C.3.a.ii(e)	**March 1**, annually following development of Pollutant Minimization Program
Adequate Capacity, Technical Report (Special Provision VI.C.5.e)	**Within 120 days** of notification that the Facility will reach capacity within 4 years
TRE Work Plan Revisions (MRP section V.B.1)	As necessary

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Special Provision Report	Reporting Requirements
Detailed TRE Work Plan (MRP section V.B.2)	**Within 30 days** of accelerated monitoring result that exceeds the acute toxicity effluent limitation or results in a chronic toxicity result of "Fail"
Outfall Inspection Report (MRP section IX.A)	With Annual Report by **March 1** each year
Biological Survey Work Plan (MRP section IX.B)	**January 1, 2017**
Biological Survey, Final Report (MRP section IX.B)	**August 1, 2017**

2. **Annual Report.** The Permittee shall submit an annual report to the Regional Water Board for each calendar year through the CIWQS Program Web site. In the event that an alternate method of submitting the annual report is required, the Permittee shall submit the report to the e-mail address in section X.B.6.c., above. The report shall be submitted by March 1 of the following year. The report shall, at a minimum, include the following:

   a. Both tabular and, where appropriate, graphical summaries of the monitoring data and disposal records from the previous year. If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 C.F.R. part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and report of the data submitted SMR.

   b. A comprehensive discussion of the Facility's compliance (or lack thereof) with all effluent limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.

   c. The names and general responsibilities of all persons employed at the Facility;

   d. The names and telephone numbers of persons to contact regarding the Facility for emergency and routine situations; and

   e. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

   f. **Source Control Activity Reporting.** The Permittee shall submit, as part of its annual report to the Regional Water Board, a description of the Permittee's source control activities, as required by Special Provision VI.C.5.b., over the previous 12 months. This annual report is due on March 1 of each year, beginning on March 1, 2017, and shall contain:

      i. A copy of the source control standards, including a table presenting local limits.

      ii. A description of the waste hauler permit system; if applicable.

      iii. A summary of the compliance and enforcement activities taken by the Permittee during the past year, which ensures industrial user compliance. The summary shall include the names and addresses of any industrial or commercial users under surveillance by the Permittee, an explanation of whether they were inspected, sampled, or both, the frequency of these activities at each user, and the conclusions or results from the inspection or sampling of each user.

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iv. A summary of public outreach activities to educate and inform the public about the importance of preventing discharges of inappropriate wastes (e.g., fats, oils, and grease, pharmaceuticals, pesticides and other toxic materials) to the Facility.

g. Sludge Handling and Disposal Activity Reporting. The Permittee shall submit, as part of its annual report to the Regional Water Board, a description of the Permittee's solids handling, disposal and reuse activities, as required by Special Provision VI.C.5.c of this Order, over the previous 12 months. At a minimum, the report shall contain:

i. Annual sludge production, in dry tons and percent solids;

ii. Sludge monitoring results;

iii. A schematic diagram showing sludge handling facilities (e.g., digesters, thickeners, drying beds, etc.), if any and a solids flow diagram;

iv. Methods of final disposal of sludge:

(a) For any portion of sludge discharged to a sanitary landfill, the Permittee shall provide the volume of sludge transported to the landfill, the names and locations of the facilities receiving sludge, the Regional Water Board's WDRs order number for the regulated landfill, and the landfill classification.

(b) For any portion of sludge discharged through land application, the Permittee shall provide the volume of biosolids applied, the date and locations where biosolids were applied, the Regional Water Board's WDRs order number for the regulated discharge, a demonstration that the discharge was conducted in compliance with applicable permits and regulations, and, if applicable, corrective actions taken or planned to bring the discharge into compliance with WDRs.

(c) For any portion of sludge further treated through composting, the Permittee shall provide a summary of the composting process, the volume of sludge composted, and a demonstration and signed certification statement that the composting process and final product met all requirements for Class A biosolids.

v. Results of internal or external third-party audits of the Biosolids Management System, including reported program deficiencies and recommendations, required corrective actions, and a schedule to complete corrective actions.

h. Storm Water Reporting. The Permittee shall submit, as part of its annual report to the Regional Water Board, an evaluation of the effectiveness of the Permittee's BMPs to control the runoff of storm water to the treatment facility site, as well as activities to maintain and upgrade these BMPs, over the previous 12 months, as required by Special Provision VI.C.6 of this Order.

i. Land Discharge System Reporting.

i. Each month that the Permittee discharges to the forest irrigation system, the Permittee shall monitor in accordance with section VII of this MRP and report the results in its quarterly monitoring report.

ii. The forest irrigation area shall be inspected at least once a week during periods of use to ensure that application of effluent complies with irrigation system requirements identified in section IV.C of the Order. The Permittee shall report:

(a) Inspection Dates

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(b) All observations of over-application (e.g., ponding, excessive saturation, etc.) and/or runoff;

(c) A summary of any operational problems or equipment malfunctions that do not meet the requirements specified in this Order;

(d) A record of equipment or process failures initiating an alarm;

(e) Any corrective and preventative actions implemented in response to problems identified.

(f) A summary of any maintenance of the irrigation system appurtenances and irrigation areas.

E. Spill Notification

1. **Spills and Unauthorized Discharges.** Information regarding all spills and unauthorized discharges (except SSOs and recycled water) that may endanger health or the environment shall be provided orally to the Regional Water Board[1] within 24 hours from the time the Permittee becomes aware of the circumstances and a written report shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances, in accordance with Section V.E of Attachment D.

   Information to be provided verbally to the Regional Water Board includes:

   a. Name and contact information of caller;

   b. Date, time, and location of spill occurrence;

   c. Estimates of spill volume, rate of flow, and spill duration, if available and reasonably accurate;

   d. Surface water bodies impacted, if any;

   e. Cause of spill, if known at the time of the notification;

   f. Cleanup actions taken or repairs made at the time of the notification; and

   g. Responding agencies.

2. **Sanitary Sewer Overflows.** Notification and reporting of sanitary sewer overflows is conducted in accordance with the requirements of Order No. 2006-0003-DWQ (Statewide General WDRs for Sanitary Sewer Systems), which is not incorporated herein by reference, and any revisions thereto.

[1] The contact number of the Regional Water Board during normal business hours is (707) 576-2220. After normal business hours, spill reporting to the California Governor's Office of Emergency Services Warning Center (CalOES) will satisfy the 24 hour spill reporting requirement for the Regional Water Board. The contact number for spill reporting for the CalOES is (800) 852-7550.

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ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section I, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance 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 Permittee. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Permittee.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	1B83118OMEN
Permittee	Mendocino County Water Works District No. 2
Name of Facility	Anchor Bay Wastewater Treatment Facility
Facility Address	46890 Getchell Gulch Road
	Anchor Bay, CA 95445
	Mendocino County
Facility Contact, Title and Phone	Jennifer Caughey, Administrator, (707) 884-9641
Authorized Person to Sign and Submit Reports	Jennifer Caughey, Administrator, (707) 884-9641
Mailing Address	35501 S. Hwy 1, Unit #4, Gualala, CA 95445
Billing Address	Same as Mailing Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	0.0196 million gallons per day (mgd)
Facility Design Flow	0.0240 mgd (average dry weather treatment capacity)
Watershed	Mendocino Coast Hydrologic Unit
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean Waters

A. Mendocino County Water Works District No. 2 (hereinafter Permittee) is the owner and operator of the Anchor Bay Wastewater Treatment Facility (hereinafter Facility), a POTW.

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 Permittee herein.

B. The Facility discharges secondary treated wastewater to the Pacific Ocean, a water of the United States. The Permittee was previously regulated by Order No. R1-2010-0038 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024040 adopted on June 10, 2010 and expired on December 1, 2015. The terms and conditions of the current Order

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and MRP have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and NPDES permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Permittee filed a report of waste discharge (ROWD) and submitted an application for reissuance of its WDRs and NPDES permit on June 15, 2015. Supplemental information was submitted on September 8, 2015, September 17, 2015, November 3, 2015, November 16, 2015, and December 14, 2015. The application was deemed complete on December 14, 2015.

II. FACILITY DESCRIPTION

The Permittee owns and operates the Facility, a wastewater collection, treatment, and disposal facility that serves the unincorporated community of Anchor Bay with a population of approximately 100, including 66 residences, the Anchor Bay Campground, and a commercial business district.

A. Description of Wastewater and Biosolids Treatment and Controls

The Facility treats domestic and commercial wastewater and has an average dry weather design treatment capacity of 0.0240 mgd. The Permittee's wastewater collection system consists of approximately 6,800 linear feet of gravity pipeline, 1,370 linear feet of pressurized force mains, 26 manholes, and two wastewater pump stations.

The Facility consists of a headworks with a bar screen, a 320,000 gallon mechanically-aerated primary treatment pond, a 300,000 gallon aerated settling pond, serpentine chlorine contact chamber for disinfection treated wastewater may be discharged to either the Pacific Ocean at Discharge Point 001 or the forest irrigation system at Discharge Point 002 or. Aerators in the ponds run intermittently based on the dissolved oxygen levels, and pond retention times range from 15 to 20 days. Solids are retained in the pond. The ocean outfall (Discharge Point 001) is into a sea cave within the bluff southeast of the Facility. The outfall cave is at a depth of 31.6 feet, approximately 10.6 feet wide, and 7 to 9 feet high. The outfall pipe is located near the back of the cave and extends through the roof of the cave, and is designed to provide a 35:1 initial dilution at a maximum discharge rate of 600 gallons per minute. Currently, ocean discharges occur approximately 120 times per year, primarily from October through April with an average duration of 4 hours.

During the summer and other periods of dry weather, disinfected wastewater is discharged to land through Discharge Point 002 on 3.3 acres of forest land. The primary irrigation area is located in the northwest area of the Facility, and a second small irrigation area is located between the aeration pond and Getchell Gulch Road. The Permittee's forest irrigation discharge has been characterized as a land discharge rather than water recycling because the discharge is to a natural area that is acclimated to obtaining its water needs during the rainy season and does not require irrigation during the dry season. A 1991 study determined that the forested area could be irrigated with the Permittee's secondary effluent in a manner that prevents runoff and percolation to groundwater. Based on that study, the irrigation capacity of the forest irrigation system is estimated to be between 6,000 and 10,000 gallons per day (gpd). Over the last 4 years, the average daily volume applied to the forest irrigation system over the irrigation season (April or May through October) has ranged from 7,600 gpd (2012) to 8,600 gpd (2013). These application rates equate to approximately 7.5 to 9 inches of water applied over the 3.3 acres during the dry season each year.

B. Discharge Points and Receiving Waters

Treated wastewater is discharged west of the Facility at Discharge Point 001 at 38° 48' 25" N latitude and 123° 35' 22" W longitude to the Pacific Ocean via the outfall located in a sea cave.

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During the summer and other dry weather periods, disinfected secondary effluent is land applied to the forest irrigation area at Discharge Point 002.

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

Effluent limitations contained in Order No. R1-2010-0038 for discharges from Discharge Points 001 and 002 (Monitoring Locations EFF-001 and EFF-002, respectively) and representative monitoring data from the term of Order No. R1-2010-0038 are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data – Discharge Point 001

Parameter	Units	Effluent Limitation			Monitoring Data (December 2010 – June 2015)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	30	45	--	27	49	--
	lbs/day[1]	5.0	7.4	10	3.6	6.6	6.6
	lbs/day[2]	3.5	5.3	7.0			
	% Removal	85	--	--	91[3]	--	--
Total Suspended Solids (TSS)	mg/L	30	45	--	20	25	--
	lbs/day[1]	5.0	7.4	10	1.9	2.4	4.2
	lbs/day[2]	3.5	5.3	7.0			
	% Removal	85	--	--	81[3]	--	--
Oil and Grease	mg/L	25	40	75	<5	<5	<5
Settleable Solids	ml/L	1.0	1.5	3.0	<0.1	<0.1	<0.1
pH	s.u.	--	--	6.0 – 9.0	--	--	7.0 – 7.5
Total Residual Chlorine	mg/L	0.072[4]	--	0.29/2.16[5]	0.03[6]	--	0.07/0.07[7]
	lbs/day[1]	0.012[4]	--	0.047/0.35[5]	0.006[6]	--	0.009/ 0.009[7]
	lbs/day[2]	0.0080[4]	--	0.030/0.25[5]		--	
Turbidity	NTU	75	100	225	13.8	113	113
TCDD Equivalents	µg/L	1.4×10^{-7}	--	--	3.9×10^{-9}	--	--
	lbs/day[1]	2.3×10^{-11}	--	--	NR	--	--
	lbs/day[2]	1.6×10^{-11}	--	--		--	--
Total Coliform Bacteria	MPN/ 100 mL	70[8]	--	230[9]	--	--	300

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Parameter	Units	Effluent Limitation			Monitoring Data (December 2010 – June 2015)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge

NR = Not Reported

Table Notes:

1. Based on average dry weather design flow of 0.196 mgd for the period of October 1 through May 14 of each year.
2. Based on average dry weather design flow of 0.014 mgd for the period of May 15 through September 30 of each year.
3. Represents the lowest observed percent removal.
4. Represents the 6 month median effluent limitation.
5. Represents the instantaneous maximum effluent limitation.
6. Represents the highest observed 6 month median.
7. Represents the highest observed instantaneous maximum.
8. The monthly median concentration shall not exceed 70 MPN/100 mL.
9. No more than 10 percent of samples shall exceed 230 MPN/100 mL.

Table F-3. Historic Effluent Limitations and Monitoring Data – Discharge Point 002

Parameter	Units	Effluent Limitation			Monitoring Data (December 2010 – June 2015)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	50	--	80	69	--	69
Total Suspended Solids (TSS)	mg/L	50	--	80	16	--	16
pH	s.u.	--	--	6.0 – 9.0	--	--	7.0 – 7.5
Total Coliform Bacteria	MPN/ 100 mL	23[1]	--	230[2]	--	--	50

Table Notes:

1. The monthly median concentration shall not exceed 23 MPN/100 mL.
2. Not to exceed 230 MPN/100 mL in a calendar month.

D. Compliance Summary

During the term of Order No. R1-2010-0038, the Permittee had 7 violations of permit requirements. There were 4 violations of land discharge specifications: 3 coliform violations and 1 BOD_5 violation and 3 TSS percent removal violations. Due to the small number of minor violations that were not subject to mandatory minimum penalties, there were no enforcement actions taken in relation to these violations.

E. Planned Changes

The Permittee does not have any changes planned for this permit term.

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III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this 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 (U.S. EPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as 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 Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plan.** The Regional Water Board adopted a *Water Quality Control Plan for the North Coast Region* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which establishes state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. With high concentrations of total dissolved solids, ocean waters meet an exception to State Water Board Resolution No. 88-63; and therefore, the MUN designation is not applicable to the ocean receiving water for this Permittee. Beneficial uses applicable to the Pacific Ocean are summarized in Table F-4, below:

Table F-4. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	<u>Existing:</u> Navigation (NAV); Water contact recreation (REC-1); Non-contact water recreation (REC-2); Commercial and sport fishing (COMM); Wildlife habitat (WILD); Rare, threatened, or endangered species (RARE); Marine habitat (MAR); Migration of aquatic organisms (MIGR); Spawning, reproduction, and/or early development (SPAWN); Shellfish harvesting (SHELL); and Aquaculture (AQUA). <u>Potential:</u> Industrial water supply (IND); Industrial process supply (PRO); and Preservation of Areas of Special Biological Significance (ASBS).

Requirements of this Order implement the Basin Plan.

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2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters. The Permittee does not discharge thermal waste; therefore, the Order does not include effluent limitations for temperature in response to the requirements of the Thermal Plan.

3. **California Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, and 2012. The State Water Board adopted the latest amendment on October 16, 2012, and it became effective on August 19, 2013. The Ocean Plan is applicable, in its entirety, to point source discharges to the Pacific Ocean. In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program for implementation. The Ocean Plan identifies the beneficial uses of ocean waters of the state to be protected as summarized below:

Table F-5. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	Existing: Industrial water supply; Water contact and non-contact recreation, including aesthetic enjoyment; Navigation; Commercial and sport fishing; Mariculture; Preservation and enhancement of designated Areas of Special Biological Significance (ASBS); Rare and endangered species; Marine habitat; Fish migration; Fish spawning; and Shellfish harvesting.

Requirements of this Order implement the Ocean Plan.

4. **Compliance Schedules and Interim Requirements.** The State Water Board adopted Resolution No. 2008-0025 on April 15, 2008, titled *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits*, which includes compliance schedule policies for pollutants that are not addressed by the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). This Policy became effective on August 27, 2008.

   This Order does not include any compliance schedules or interim effluent limitations.

5. **Antidegradation Policy.** 40 C.F.R. 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 C.F.R. section 131.12 and State Water Board Resolution

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No. 68-16. As discussed in detail in section IV.D.2 of this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

7. **Endangered Species Act Requirements.** This Order does not authorize an 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. The Permittee is responsible for meeting all requirements of the applicable Endangered Species Act.

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

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies every two years. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. The CWA requires development of a total maximum daily load (TMDL) or alternate program of implementation for each 303(d) listed pollutant and water body to remedy the impairment. TMDLs establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine wasteload allocations (the portion of a TMDL allocated to existing and future point sources) and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources).

In June 26, 2015, the U.S. EPA provided final approval of the 2012 303(d) list of impaired water bodies prepared by the state. The Pacific Ocean, in the vicinity of the discharge, is not listed as an impaired waterbody on the 303(d) list.

E. Other Plans, Policies and Regulations

1. On May 2, 2006, the State Water Board adopted State Water Board Order No. 2006-0003-DWQ, Statewide General WDRs for Sanitary Sewer Systems and on August 6, 2013 adopted Order No. WQ 2013-0058-EXEC Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. Order No. 2006-0003-DWQ requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the General WDRs. The deadline for dischargers to apply for coverage was November 2, 2006. The Permittee applied for coverage and is subject to the requirements of Order Nos. 2006-0003-DWQ and WQ 2013-0058-EXEC and any future revisions thereto for operation of its wastewater collection system.

2. Coverage under the State Water Board Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial Storm Water General Permit) is not required based on the size of the Facility (less than 1 mgd).

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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: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water where a reasonable potential to exceed those criteria exist.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A.** The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.

   This prohibition has been retained from Order No. R1-2010-0038 and is based on the Basin Plan and State Water Board Order No. WQO 2002-0012 regarding the petition of WDRs Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies. In State Water Board Order No. WQO 2002-0012, the State Water Board found that this prohibition is acceptable in orders, but should be interpreted to apply only to constituents that are either not disclosed by the Permittee, or are not reasonably anticipated to be present in the discharge but have not been disclosed by the Permittee. It specifically does not apply to constituents in the discharge that do not have "reasonable potential" to exceed water quality objectives.

   The State Water Board has stated that the only pollutants not covered by this prohibition are those which were "*disclosed to the permitting authority and…can be reasonably contemplated*." [In re the Petition of East Bay Municipal Utilities District et al., (State Water Board, 2002) Order No. WQO 2002-0012, p. 24]. In that Order, the State Water Board cited a case which held the Permittee is liable for the discharge of pollutants "*not within the reasonable contemplation of the permitting authority…<u>whether spills or otherwise</u>…*" [*Piney Run Preservation Assn. v. County Commissioners of Carroll County, Maryland* (4th Cir. 2001) 268 F. 3d 255, 268.] Thus the State Water Board authority provides that, to be permissible, the constituent discharged (1) must have been disclosed by the Permittee and (2) can be reasonably contemplated by the Regional Water Board.

   Whether or not the Permittee reasonably contemplates the discharge of a constituent is not relevant. What matters is whether the Permittee disclosed the constituent to the Regional Water Board or whether the presence of the pollutant in the discharge can otherwise be reasonably contemplated by the Regional Water Board at the time of Order adoption.

2. **Discharge Prohibition III.B.** Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.

   This prohibition has been retained from Order No. R1-2010-0038 and is based on section 13050 of the Water Code and section 5411 of the California Health and Safety Code.

3. **Discharge Prohibition III.C.** The discharge of sludge or digester supernatant is prohibited, except as authorized under section VI.C.5.c of this Order (Sludge Disposal and Handling Requirements).

   This prohibition has been retained from Order No. R1-2010-0038 and is based on restrictions on the disposal of sewage sludge found in federal regulations [40 C.F.R. Part 503 (Biosolids), Part 527, and Part 258] and title 27 of the California Code of Regulations (CCR).

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4. **Discharge Prohibition III.D.** The discharge of untreated or partially treated waste (receiving a lower level of treatment than described in section II.A of the Fact Sheet) from anywhere within the collection, treatment, or disposal systems is prohibited, except as provided for in Attachment D, Standard Provisions G (Bypass) and H (Upset).

   This prohibition has been retained from Order No. R1-2010-0038 and is based on the Basin Plan to protect the beneficial uses of the receiving water from unpermitted discharges, and the intent of the Water Code sections 13260 through 13264 relating to the discharge of waste to waters of the state without filing for and being issued an Order. This prohibition applies to spills not related to sanitary sewer overflows (SSOs) and other unauthorized discharges of wastewater within the collection, treatment, and disposal facilities. The discharge of untreated or partially treated wastewater from the collection, treatment, or disposal facility represents an unauthorized bypass pursuant to 40 C.F.R. section 122.41(m) or an unauthorized discharge which poses a threat to human health and/or aquatic life, and therefore is explicitly prohibited by this Order.

5. **Discharge Prohibition III.E.** Any sanitary sewer overflow (SSO) that results in a discharge of untreated or partially treated wastewater to (a) waters of the state or (b) land that creates pollution, contamination, or nuisance, as defined in Water Code section 13050(m) is prohibited.

   This prohibition has been retained from Order No. R1-2010-0038 with a minor modification. A reference to groundwater has been removed because groundwater is captured in the broader term, "waters of the state." This prohibition applies to spills related to SSOs and is based on state standards, including section 13050 of the Water Code and the Basin Plan. This prohibition is consistent with the state's antidegradation policy as specified in State Water Board Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Water in California*) in that the prohibition imposes conditions to prevent impacts to water quality, the degradation of water quality, negative effects on receiving water beneficial uses, and lessening of water quality beyond that prescribed in State Water Board or Regional Water Board plans and policies.

   This prohibition is stricter than the prohibitions stated in State Water Board Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. Order No. 2006-0003-DWQ prohibits SSOs that result in the discharge of untreated or partially treated wastewater to waters of the United States and SSOs that cause a nuisance, compared to Prohibition III.E of this Order, which prohibits SSO discharges that create nuisance or pollution to waters of the state and land for a more complete protection of human health. This prohibition is necessary because of the prevalence of high groundwater in the North Coast Region and this Region's reliance on groundwater as a drinking water source.

6. **Discharge Prohibition III.F.** The discharge of waste to land that is not owned by the Permittee, governed by District ordinance, or under agreement to use by the Permittee, or for which the Permittee has explicitly permitted such use, is prohibited, except for use for non-structural fire suppression as provided in title 22, section 60307(b) of the CCR.

   This prohibition is retained from Order R1-2010-0038, with minor modifications. Land used for the application of wastewater must be owned by the Permittee or be under the control of the Permittee by contract so that the Permittee maintains a means for ultimate disposal of treated wastewater.

7. **Discharge Prohibition III.G.** The discharge of waste at any point not described in Finding II.B of the Fact Sheet or authorized by a permit issued by the State Water Board or another Regional Water Board is prohibited.

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This prohibition is newly established in this Order and is a standard Regional Water Board prohibition that allows the Permittee to discharge waste only in accordance with WDRs. It is based on sections 301 and 402 of the federal CWA and section 13263 of the Water Code.

8. **Prohibition III.H**. The discharge from the Facility to the ocean at Discharge Point 001 shall not exceed either of the following:

   a. Between May 15 and September 30, the discharge shall not exceed 0.0140 mgd in any calendar day. Discharges to the ocean during this period shall only occur during periods of high tide.

   b. Between October 1 and May 14, the average monthly flow discharged from the Facility shall not exceed 0.0196 mgd.

   Compliance with these prohibitions shall be determined as defined in sections VII.I and VII.J of this Order.

   Prohibition III.H.1 is retained from Order No. R1-2010-0038, with the additional requirement that discharges to the ocean must occur during periods of high tide. The maximum discharge rate allowed by this discharge prohibition is based on the difference between the Facility average dry weather design capacity of 0.024 mgd, and the maximum daily flow to the forest irrigation system of 0.010 mgd that occurs during the summer months. This Order reinstates the requirement that discharges to the ocean occur during periods of high tide to ensure that maximum dilution is available and to minimize receiving water impacts during periods of discharge. This requirement was included in previous Orders (Order R1-2005-0009 and older).

   Prohibition III.H.2 is retained from Order No. R1-2010-0038, with minor modifications, and limits average daily flow from the Facility to 0.0196 mgd (19,600 gpd). The maximum allowable average daily flow rate was set below the average dry weather design capacity of the Facility at the request of the California Department of Fish and Wildlife (formerly the California Department of Fish and Game) in 1992 to mitigate that agency's concern about the impacts of the discharge on marine communities. Compliance determination language was added in section VII.J of this Order. In addition, section IX.B of this MRP includes a requirement for the Permittee to conduct a biological survey once per permit term to assess the impact of the discharge on marine communities in the vicinity of the discharge.

9. **Prohibition III.I.** The discharge from the Facility to land at Discharge Point 002 shall not exceed 0.010 million gallons in any calendar day. Compliance with this prohibition shall be determined as defined in section VII.J of this Order. This prohibition is retained from Order No. R1-2010-0038.

   The flow prohibition is retained from Order No. R1-2010-0038 and is based on the maximum estimated capacity of the forest irrigation system of 10,000 gallons per day.

10. **Prohibition III.J.** The discharge of more than 0.0140 million gallons to the ocean at Discharge Point 001 in any calendar day between May 15 and September 30 is prohibited. Discharges to the ocean shall only occur during periods of high tide. This prohibition is retained from Order No. R1-2010-0038, with the additional requirement that discharges to the ocean must occur during periods of high tide.

11. **Prohibition III.K.** The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into waters of the state is prohibited.

    This prohibition is retained from Order No. R1-2010-0038 and is based on the discharge prohibitions contained in section III.I of the Ocean Plan and section 13375 of the Water Code.

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12. **Prohibition III.K.** The discharge of sludge directly into the ocean or into a waste stream that discharges to the ocean is prohibited.

    This prohibition is retained from Order No. R1-2010-0038 and is based on the Ocean Plan.

13. **Prohibition III.L.** The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Ocean Plan Tables 1 and 2 (2012) is prohibited.

    This prohibition is newly established by this Order and is based on the discharge prohibitions contained in section III.I. of the Ocean Plan.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 C.F.R. part 133 and Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3.

Regulations promulgated in 40 C.F.R. section 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the U.S. EPA Administrator.

Based on this statutory requirement, U.S. EPA developed secondary treatment regulations, which are specified in 40 C.F.R. part 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of BOD_5, TSS, and pH, as follows:

a. BOD_5 and TSS

i. The 30-day average shall not exceed 30 mg/L.

ii. The 7-day average shall not exceed 45 mg/L.

iii. The 30-day average percent removal shall not be less than 85%.

b. pH

The pH shall be maintained within the limits of 6.0 to 9.0.

The effluent limitation for pH required to meet the water quality objective for hydrogen ion concentration (pH) is contained in the Basin Plan, Table 3-1.

In addition, 40 C.F.R. section 122.45(f) requires the establishment of mass-based effluent limitations for all pollutants limited in Orders, except for 1) pH, temperature, radiation, or other pollutants which cannot be appropriately expressed by mass, and 2) when applicable standards and limitations are expressed in terms of other units of measure.

2. Applicable Technology-Based Effluent Limitations

a. Secondary Treatment Standards (BOD_5, TSS, and pH). As described above, the secondary treatment standards at 40 C.F.R. part 133 establish the minimum level of effluent quality attainable by secondary treatment in terms of BOD_5, TSS, and pH.

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Numeric effluent limitations for BOD_5, TSS, and pH, including the percent removal requirements for BOD_5 and TSS, are retained from Order No. R1-2010-0038 and reflect the secondary treatment standards at 40 C.F.R. part 133.

b. Ocean Plan Table 2 Effluent Limitations (Oil and Grease, TSS, Settleable Solids, Turbidity, and pH). The State Water Board, in Table 2 of the Ocean Plan, has established technology-based requirements for oil and grease, TSS, settleable solids, turbidity, and pH. Table 2 effluent limitations apply to POTWs, and also to industrial discharges for which Effluent Limitations Guidelines have not been established pursuant to Sections 301, 302, 304, or 306 of the federal CWA. Compliance with Table 2 effluent limitations shall be the minimum level of treatment acceptable under the Ocean Plan, and shall define reasonable treatment and waste control technology. The Facility is a POTW; therefore, technology-based limitations contained in Table 2 of the Ocean Plan are applicable to the Permittee.

Consistent with Order No. R1-2010-0038, this Order includes effluent limitations for oil and grease, settleable solids, turbidity, and pH based on Table 2 of the Ocean Plan. Table 2 of the Ocean Plan includes effluent limitations for oil and grease, settleable solids, and turbidity of 75 mg/L, 3.0 ml/L, and 225 NTU, respectively, not to be exceeded at any time. Order No. R1-2010-0038 included maximum daily effluent limitations (MDELs) based on these requirements. To be consistent with the averaging period specified in Table 2 of the Ocean Plan, this Order revises these effluent limitations to instantaneous maximum effluent limitations. The percent removal requirements for TSS in the secondary treatment requirements (i.e., 85 percent) are more stringent than the percent removal requirements in Table 2 of the Ocean Plan (i.e., 75 percent); therefore, consistent with Order No. R1-2010-0038, this Order includes percent removal requirements for TSS based on the secondary treatment standards at 40 C.F.R. part 133.

c. Mass-Based Effluent Limitations. Federal regulations at 40 C.F.R. section 122.45(f) require that, except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. Among the conditions exempting the application of mass-based limitations is section 40 C.F.R. section 122.45(f)(1)(i), which states "*for pH, temperature, and radiation, or other pollutants which cannot appropriately be expressed by mass*" and 40 C.F.R. section 122.45(f)(1)(ii), which states "*when applicable standards and limitations are expressed in terms of other units of measure.*"

This Order does not include mass-based effluent for the following pollutants pursuant to the exception in 40 C.F.R, section 122.45(f)(1)(i) and (ii):

i. BOD_5 and TSS, because these two parameters are expressed in terms of concentration and percent removal;

ii. Settleable solids, turbidity, and pH because these parameters cannot appropriately be expressed by mass; and

iii. Oil and grease, because the applicable standards for oil and grease in Table 2 of the Ocean Plan are expressed in terms of concentration.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. 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.

Section 122.44(d)(1)(i) of 40 C.F.R. requires 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, WQBELs must be established using: (1) U.S. EPA 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 section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan and Ocean 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 Ocean Plan.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. Beneficial Uses. Beneficial use designations for receiving waters for discharges from the Facility are presented in section III.C.1 and III.C.3 of this Fact Sheet.

b. Ocean Plan Water Quality Objectives. Water quality criteria applicable to ocean waters of the Region are established by the Ocean Plan, which includes general provisions and water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. These water quality objectives from the Ocean Plan are incorporated as receiving water limitations in section V.A of the Order. Table 1 of the Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 C.F.R. section 122.44(d)(1), and in accordance with procedures established by the Ocean Plan, the Regional Water Board has performed an Ocean Plan reasonable potential analysis (RPA) to determine the need for effluent limitations for the Table 1 toxic pollutants.

3. Determining the Need for WQBELs

NPDES regulations at 40 C.F.R. section 122.44(d) require effluent limitations to control all pollutants which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard.

a. Ocean Plan Reasonable Potential Analysis (RPA). Procedures for performing an RPA for ocean dischargers are described in Section III.C. and Appendix VI of the Ocean Plan. In general, the procedure is a statistical method that projects an effluent data set while taking into account the averaging period of water quality objectives, the long term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set, and compares the 95th percentile concentration at 95 percent confidence of each Table 1 pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of three following endpoints.

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Endpoint 1 – There is "reasonable potential," and a WQBEL and monitoring are required.

Endpoint 2 – There is "no reasonable potential." WQBELs are not required, and monitoring is required at the discretion of the Regional Water Board.

Endpoint 3 – The Ocean Plan RPA is inconclusive. Existing WQBELs are retained, and monitoring is required.

The State Water Resources Control Board has developed a reasonable potential calculator, which is available at http://www.waterboards.ca.gov/plnspols/docs/oplans/rpcalc.zip. The calculator (RPcalc 2.2) was used in conducting the RPA and considers several pathways in the determination of reasonable potential.

i. First Path

If available information about the receiving water or the discharge supports a finding of reasonable potential without analysis of effluent data, the Regional Water Board may decide that WQBELs are necessary after a review of such information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303(d) status of the receiving water, or the presence of threatened or endangered species or their critical habitat, or other information.

ii. Second Path

If any pollutant concentration, adjusted to account for dilution, is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

iii. Third Path

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), and all values in the data set are at or above the ML, a parametric RPA is conducted to project the range of possible effluent values. The 95th percentile concentration is determined at 95 percent confidence for each pollutant, and compared to the most stringent applicable water quality objective to determine reasonable potential. A parametric analysis assumes that the range of possible effluent values is distributed log normally. If the 95th percentile value is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

iv. Fourth Path

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), but at least one value in the data set is less than the ML, a parametric RPA is conducted according to the following steps.

(a) If the number of censored values (those expressed as a "less than" value) account for less than 80 percent of the total number of effluent values, calculate the ML (the mean of the natural log of transformed data) and SL (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.

(b) If the number of censored values account for 80 percent or more of the total number of effluent values, conduct a non-parametric RPA, as described below for the Fifth Path. (A non-parametric analysis becomes necessary when the

effluent data is limited, and no assumptions can be made regarding its possible distribution.)

v. Fifth Path

A non-parametric RPA is conducted when the effluent data set contains less than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total number of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable water quality objective, and accounting for ties. The sample number is reduced by one for each tie, when the dilution adjusted method detection limit (MDL) is greater than the water quality objective. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the water quality objective. If the sample number is 15 or less, the RPA is inconclusive, monitoring is required, and any existing effluent limitations in the expiring permit are retained.

b. Reasonable Potential Determination

The RPA for the effluent was conducted using effluent monitoring data generated from two monitoring events in December 2010 and December 2011 for all Ocean Plan Table 1 parameters and from routine monitoring events conducted between December 2010 through June 2015 for chlorine residual, TCDD equivalents, ammonia, and chronic toxicity as required by the Monitoring and Reporting Program for Order No. R1-2010-0038. Results from the RPA have been used to determine the need for effluent limitations for Table 1 parameters given in the Ocean Plan. The RPA was conducted using all available effluent data including effluent discharged to the ocean and the forest irrigation system. The use of data for effluent that is used through the forest irrigation system is appropriate because all effluent receives the same treatment.

For the RPA conducted for this permit renewal, pollutant concentrations were adjusted to account for the calculated initial dilution of 35 parts seawater per part wastewater. The adjustment for dilution is consistent with previous orders for this Facility.

The table below identifies the RPA endpoint for each Table 1 parameter detected in the effluent and shows the analysis reached an Endpoint 3 for most of the parameters analyzed. An Endpoint 3 RPA is inconclusive and results when a majority of the effluent data is reported as ND (not detected). In these circumstances, the Regional Water Board views the "inconclusive" result as an indication of no concern for a particular pollutant; however, additional monitoring will be required for those parameters during the term of the permit.

The RPA conducted for the Facility did not demonstrate reasonable potential (Endpoint 1) for discharges from the Facility to cause or contribute to exceedances of applicable water quality criteria.

The following table summarizes the RPA for each priority pollutant that was reported in detectable concentrations in the effluent. The MECs, most stringent water quality objectives (WQO), and background concentrations (B) used in the RPA are presented, along with the RPA results for each toxic pollutant analyzed. No other pollutants with applicable numeric water quality criteria from the Ocean Plan were measured above detectable concentrations or analyzed for during the monitoring events conducted by the Permittee.

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Attachment F-1 to this Order includes a summary of RPA results for all priority toxic pollutants with water quality criteria/objectives that are applicable to the Pacific Ocean.

Table F-6. Summary of Reasonable Potential Analysis Results

Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Back-ground Conc (µg/L) Cs[1]	Max Effluent Conc. (µg/L) Ce	Calculated Max Conc. (µg/L)[2] X-obs	RPA Results, Comment
Objectives for Protection of Marine Aquatic Life							
Ammonia	600	53	31	0	500	12.6	Endpoint 2- An effluent limitation is not required for this pollutant. Monitoring may be required as appropriate.
Zinc, Total Residual	20	1	0	8	6	7.9	Endpoint 3 - RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Total Residual Chlorine	2	654	0	0	70	0.972	Endpoint 2- An effluent limitation is not required for this pollutant. Monitoring may be required as appropriate.
Objectives for Protection of Human Health – Carcinogens							
Chloroform	130	2	0	0	27	0.75	Endpoint 3 - RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dibromochloro -methane	8.6	2	0	0	0.98	0.0272	Endpoint 3 - RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Dichlorobromo -methane	6.2	2	0	0	6.5	0.1806	Endpoint 3 - RPA is inconclusive. Less than 3 detects or greater than 80% ND.
TCDD Equivalents	3.9×10^{-9}	2	2	0	9.6×10^{-9}	$<2.8 \times 10^{-10}$	Endpoint 3 - RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chronic Toxicity	1 TUc	8	0	0	16.67 TUc	0.4631 TUc	Endpoint 3 - RPA is inconclusive. Greater than 15 results needed to confidently conclude no reasonable potential. Monitoring required.

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Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Back-ground Conc (µg/L) Cs[1]	Max Effluent Conc. (µg/L) Ce	Calculated Max Conc. (µg/L)[2] X-obs	RPA Results, Comment

Table Notes:

1. Background (Cs) is zero (0) for all pollutants except those with background concentrations specified in Table 3 of the Ocean Plan.
2. Represents the expected upper 95% concentration after complete mixing in accordance with the reasonable potential procedure in Appendix VI of the Ocean Plan. Calculations were performed using RPCalc 2.2. For pollutants with sufficient data (> 15 results, Endpoint 2), lognormal calculations were performed. For pollutants with insufficient data for a lognormal calculation (Endpoint 3), the maximum concentration was calculated using the permitted dilution ratio (Dm) of 35 as follows: X-obs = (Ce = Dm * Cs)/ (Dm + 1). The calculated maximum concentration is compared to the most stringent water quality objective to determine if effluent limitations are required. Effluent limitations are then calculated as described in section IV.C.4, below.

c. Non-Table 1 Water Quality Objectives

i. Total Residual Chlorine. Effluent limitations for total residual chlorine at Discharge Point 001 are retained from Order No. R1-2010-0038. The Ocean Plan includes total chlorine residual objectives for ocean waters for protection of marine aquatic life. Table 1 of the Ocean Plan includes 6-month median, daily maximum, and instantaneous maximum effluent limitations of 2 µg/L, 8 µg/L, and 60 µg/L, respectively, for total residual chlorine. Based on effluent monitoring data, the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the water quality objectives in the Ocean Plan. However, the Permittee uses chlorine to disinfect effluent, and as such effluent limitations for total residual chlorine are necessary.

ii. Total Coliform Bacteria. Effluent limitations for total coliform bacteria at Discharge Point 001 are retained from Order No. R1-2010-0038. The Ocean Plan includes bacterial objectives for ocean waters used for water contact recreation and shellfish harvesting. For total and fecal coliform bacteria and the enterococcus group of bacteria, water contact standards must be met within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline. Shellfish harvesting standards for total coliform bacteria must be maintained throughout the water column. In lieu of receiving water bacterial monitoring, the Permittee has been required to meet the most stringent water quality standards, shellfish harvesting standards, at end-of-pipe.

Regional Water Board staff has determined that there is a reasonable potential that the discharge can cause or contribute to exceedances of bacterial water quality objectives for shellfish harvesting. This determination is based on the following factors:

(a) The Ocean Plan specifies that shellfish standards shall be maintained through the water column (i.e., without dilution credit).

(b) Total coliform bacteria have been shown to be present in the discharge. For the period from December 2010 through June 2015, the maximum reported effluent concentration of total coliform was 300 MPN/100 mL at Monitoring Location EFF-001. The monthly median total coliform values did not exceed the shellfish harvesting standard of 70 MPN/100 mL. One result of

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300 MPN/100 mL exceeded the maximum value of 230 MPN/100 mL on February 16, 2011 based on 66 results.

(c) The Permittee collects effluent grab samples once per week, presenting an incomplete representation of the daily effluent quality.

(d) Receiving water monitoring data are not available for the area in the vicinity of the discharge, and

(e) Public access to offshore areas surrounding the Facility's outfall is open and unrestricted. Members of the public wishing to harvest shellfish in the area can approach by boat and collect shellfish in accordance with state regulations.

In accordance with the Ocean Plan, the disinfected effluent discharged through Discharge Point 001 shall not contain concentrations of total coliform bacteria, as measured at Monitoring Location EFF-001, exceeding the following limitations:

(a) The median concentration shall not exceed an MPN of 70 organisms per 100 mL in a calendar month.

(b) Not more than 10 percent of samples shall exceed an MPN of 230/100 mL. Although the Ocean Plan specifies compliance with this objective using the results of 10 consecutive samples, this Order applies the limitation as a single sample limitation for ease of determining compliance with the limitation.

These effluent limitations can reasonably be expected to be achieved with the Facility's existing facilities and will ensure that bacterial standards for both shellfish harvesting and water contact recreation are maintained throughout the water column.

iii. TCDD Equivalents. Order No. R1-2010-0038 included effluent limitations for TCDD equivalents. As shown in Table F-6, above, the RPA conducted according to the procedures in Appendix VI of the Ocean Plan using data collected during the term of Order No. R1-2010-0038 resulted in Endpoint 3 (inconclusive). For RPA results of Endpoint 3, Appendix VI of the Ocean Plan states that an existing limitation for the pollutant shall remain in the permit. However, the Ocean Plan, Appendix VI, also states, "*The Regional Water Board may use an alternative approach for assessing reasonable potential such as an appropriate stochastic dilution model that incorporates both ambient and effluent variability. The permit fact sheet or statement of basis will document the justification or basis for the conclusions of the reasonable potential assessment.*" Results obtained during monitoring events during the term of Order No. R1-2010-0038 demonstrated that TCDD equivalents were not detected in the effluent during two sampling events. There are also no known industrial users or other known potential sources of TCDD equivalents in the Permittee's service area. Based on this alternative approach for assessing reasonable potential, taking into consideration updated monitoring data and information regarding the service area of the Permittee, the Regional Water Board concludes that TCDD equivalents does not exhibit reasonable potential to cause or contribute to an exceedance of the Ocean Plan water quality objectives.

4. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to the Pacific Ocean, the Regional Water Board is establishing WQBELs for chlorine residual at Discharge Point No. 001.

As described by Section III.C of the Ocean Plan, effluent limits for Table 1 pollutants are calculated according to the following equation.

$$Ce = Co + Dm (Co - Cs)$$

Where …

Ce = the effluent limitation (µg/L)

Co = the concentration (the water quality objective) to be met at the completion of initial dilution (µg/L)

Cs = background seawater concentration (µg/L)

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 35)

For the Facility, the Dm of 35 is retained from Order No. R1-2010-0038. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. In accordance with Table 1 implementing procedures, Cs equals zero for all parameters, except the following:

Table F-7. Background Seawater Concentrations – Ocean Plan

Pollutant	Background Seawater Concentration (µg/L)
Arsenic	3
Copper	2
Mercury	0.0005
Silver	0.16
Zinc	8

Applicable water quality objectives from Table 1 of the Ocean Plan are as follows.

Table F-8. Water Quality Objectives – Ocean Plan

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum	30-Day Average
Total Residual Chlorine	µg/L	2	8	60	--

Using the equation, Ce = Co + Dm (Co – Cs), effluent limitations are calculated as follows. Here, Dm is equal to 35 for each effluent limitation calculation.

<u>Total Residual Chlorine</u>

Ce = 2 + 35 (2 – 0) = 72 µg/L (6-Month Median)

Ce = 8 + 35 (8 – 0) = 288 µg/L (Daily Maximum)

Ce = 60 + 35 (60 – 0) = 2,160 µg/L (Instantaneous Maximum)

5. Whole Effluent Toxicity (WET)

Monitoring triggers for chronic toxicity protect the receiving water from the aggregate effect of a mixture of pollutants that may be present in effluent. 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 test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth.

WET requirements are derived from the CWA and the Basin Plan. The Basin Plan establishes a narrative water quality objective for toxicity that states "*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental*

physiological responses in human, plant, or aquatic life." Detrimental responses may include, but are 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. For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Permittee to conduct WET testing for chronic toxicity, as specified in the MRP (Attachment E, section V).

The Permittee conducted annual chronic toxicity testing using *Macrocystis pyrifera, Haliotis rufescens,* and *Atherinops affinis*. The following table summarizes the chronic toxicity testing results for 2012 through 2014.

Table F-9. Summary of Chronic Toxicity Results

Date	*Macrocystis pyrifera*	*Haliotis rufescens*	*Atherinops affinis*	
	Growth (TUc)	**Larval Development (TUc)**	**Survival (TUc)**	**Growth (TUc)**
February 27, 2012	16.67	--	16.67	16.67
February 29, 2012	--	16.67	--	--
April 1, 2013	--	--	16.67	16.67
November 3, 2014	--	--	16.67	16.67

The Ocean Plan contains toxicity testing requirements based on minimum initial dilution (Dm) factors in section III.C.4.c. Following the implementation procedures of the Ocean Plan, dischargers with Dm factors that fall below 100:1 required to conduct chronic toxicity testing. This Order allows for a Dm of 35 for the chronic condition. As shown in Table F-6 of this Fact Sheet, the analysis to determine if the discharge has reasonable potential to cause or contribute to an exceedance of the Ocean Plan objective for chronic toxicity was inconclusive due to the fact that the sample set was too small to draw a solid conclusion regarding reasonable potential. This Order does not contain WET limitations; however, in accordance with the Ocean Plan (section III.C, Implementation Provisions for Table 1), this Order retains chronic toxicity monitoring requirements for the discharge at Discharge Point 001. Due to the fact that this is a very small facility that has not exceeded chronic toxicity triggers during the last two permit terms and has demonstrated compliance with Ocean Plan ammonia and total chlorine residual water quality objectives, the chronic toxicity monitoring frequency has been reduced to two times during the permit term as described in MRP section V.A.1.

Test of Significant Toxicity

The Ocean Plan establishes a daily maximum chronic toxicity objective of 1.0 TUc = 100/NOEC, using a five-concentration hypothesis test, and a daily maximum acute toxicity objective of 0.3 TUa = 100/LC50, using a point estimate model. In 2010, U.S. EPA endorsed the peer-reviewed Test of Significant Toxicity (TST) two-concentration hypothesis testing approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) as an improved hypothesis-testing tool to evaluate data from U.S. EPA's toxicity test methods. The TST hypothesis testing approach more reliably identifies toxicity—in relation to the chronic (0.25 or more) and acute (0.20 or more) mean responses of regulatory management concern—than the current NOEC hypothesis-testing approach used in the Ocean Plan.

This Order does not include effluent limitations for toxicity based on the TST approach. However, this Order does require the Permittee to monitor and report results in a manner that will allow the Regional Water Board to conduct an RPA in accordance with the TST approach at the time of the next permit renewal.

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The State Water Board is developing a toxicity amendment to the Water Quality Control Plan for Enclosed Bays and Estuaries of California that will standardize the regulation of aquatic toxicity for all non-oceanic surface waters. U.S. EPA's TST approach is an essential component of this draft toxicity amendment as it forms the basis for utilizing numeric water quality objectives and acts as the primary means of determining compliance with the proposed effluent limitations.

In a letter dated February 12, 2014, the State Water Board submitted an alternative test process (ATP) request to U.S. EPA Region 9 for the statewide use of a two-concentration toxicity test design when using the TST approach. This two-concentration test design is composed of a single effluent concentration and a control concentration. U.S. EPA approved the ATP request on March 17th, 2014. In June 2014, the approval was challenged in court on procedural grounds under the Administrative Procedures Act by the Southern California Alliance of Publicly Owned Treatment Works (SCAP) and the Central Valley Clean Water Association (CVCWA). The U.S. EPA withdrew the approval and notified State Water Board in a memo dated February 11, 2015.

It is important to note that U.S. EPA's rescission of its approval of the ATP is not based on the substantive TST statistical analysis or the scientific validity of a two-concentration test design. The withdrawal letter also states that currently there is a proposed rulemaking to change the language in the ATP regulations at 40 C.F.R. part 136.

The benefits of requiring the TST in new or amended permits include improving the statistical power of the toxicity test, and simplifying the analysis as compared to the traditional hypothesis statistical approaches or point estimates. The calculations are straightforward and provide a clear pass/fail result. With the withdrawal of the two-concentration test design approval, an NPDES permit can still require the TST for statistical analyses. If the two-concentration test design is approved at a future date, the MRP may be modified to remove the need for a five-concentration test. Toxicity tests shall be run using a multi-concentration test design in accordance with 40 C.F.R. section 136.3, and the TST shall be utilized with the biological responses from the permitted in-stream waste concentration (IWC) and the control (effluent concentration of zero). However, even with only two of the five concentration biological responses being used, cost savings in the form of time and effort are still realized for the statistical analysis and data interpretation carried out by the Permittee, lab, and permit manager. This Order requires application of TST for statistical analysis of whole effluent toxicity data.

Test of Significant Toxicity Design

The TST's null hypothesis for chronic toxicity is:

H_0: Mean response (In-stream Waste Concentration (IWC) in % effluent) ≤ 0.75 mean response (control)

Results are analyzed using the TST approach and an acceptable level of chronic toxicity is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P".

The chronic IWC (in % effluent) for Discharge Point 001 is 2.86%[1]. The chronic toxicity trigger for Discharge Point 001 is expressed as a null hypothesis (H_0) and regulatory management decision (b value) of 0.75 for the chronic toxicity methods in the MRP. The null hypothesis for this discharge is:

H_0: Mean response (2.86% effluent) ≤ 0.75 mean response (control)

[1] The IWC was calculated as follows, using the dilution of 35:
1/35 x 100 = 2.86%

Results shall be analyzed using the TST hypothesis testing approach in section V.B.6.a of the MRP. Compliance with this chronic toxicity limitation is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P".

When the chronic toxicity test results in a "Fail" or "F," the Permittee must initiate accelerated monitoring as specified in the MRP (Attachment E, section V). After accelerated monitoring, if conditions of chronic toxicity are found to persist, the Permittee will be required to conduct a TRE, as described by the MRP.

Notification requirements for chronic WET testing include a 72-hour verbal notification requirement and a 14 day written report requirement, if test results indicate toxicity. The 14 day written notification is established in the U.S. EPA WET Guidance documents cited in the MRP. The 72-hour verbal notification requirement is being added to provide the Regional Water Board with knowledge of the toxicity in advance of the written report. The 72-hour requirement is intended to give the Permittee sufficient time to make a telephone call to Regional Water Board staff and accounts for non-working days (e.g., weekends). Verbal notification of WET test exceedances may be left by voice mail if the Regional Water Board staff person is not immediately available by telephone.

This Order retains the requirement for the Permittee to conduct a screening test using at least one vertebrate, invertebrate, and plant species. The screening test is required late in the permit term to allow the Permittee time to plan for funding this test. The results of the screening test will be used to establish the most sensitive species for the next permit term.

Chronic WET limitations will be established if future monitoring results demonstrate that discharges from the Facility are causing or contributing to chronic toxicity in the receiving water.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R1-2010-0038, except for TCDD equivalents and mass-based effluent limitations for BOD_5, TSS, and chlorine residual.

Order No. R1-2010-0038 established final effluent limitations for TCDD equivalents. As discussed in section IV.C.3.c.iii of this Fact Sheet, results obtained during monitoring events during the term of Order No. R1-2010-0038 demonstrated that TCDD equivalents were not detected in the effluent during two sampling events and there are also no known industrial users or other known potential sources of TCDD equivalents in the Permittee's service area. The updated effluent data for TCDD equivalents constitutes new information, which permits the removal of effluent limitations consistent with CWA section 402(o)(2)(B). Therefore, the Order does not retain the effluent limitations for TCDD equivalents.

Order No. R1-2010-0038 established final mass-based effluent limitations for chlorine residual. 40 C.F.R. section 122.45(f)(1)(ii) states that mass limitations are not required when applicable standards and limitations are expressed in terms of other units of measurement. The numerical effluent limitations for chlorine residual established in this Order are based on the effluent limitations required by Table 1 of the Ocean Plan, which are expressed in terms of concentration. Pursuant to 40 C.F.R. section 122.45(f)(1)(ii), expressing the effluent limitations in terms of concentration is in accordance with federal

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regulations. Furthermore, the Ocean Plan does not require mass-based effluent limitations for Table 1 constituents.

Order No. R1-2010-0038 also established mass-based effluent limitations for BOD_5 and TSS. Historically, the Regional Water Board routinely incorporated mass-based limits (in addition to concentration-based limits) for BOD_5 and TSS in NPDES permits to encourage correction of infiltration and inflow (I&I). Applied in this way, mass-based limitations effectively restrict a POTW's wet-weather influent flows to less than or equal to the treatment facility's design capacity in situations where POTWs experience excessive I&I as a result of climate conditions and/or aging infrastructure. The application of mass-based effluent limitations for BOD_5 and TSS is not necessary to limit wet-weather inflow into the Permittee's Facility because I&I is not a significant problem and the Permittee is not in danger of exceeding treatment capacity for reasonably anticipated flows. 40 C.F.R. 133.103(d) states, "…*The determination of whether the less concentrated wastewater is the result of excessive I&I will use the definition of excessive I&I in 40 C.F.R. 35.2005(b)(16) plus the additional criterion that inflow is nonexcessive if the total flow to the POTW (i.e., wastewater plus inflow plus infiltration) is less than 275 gallons per capita per day.*" Using daily flow data from December 1, 2010 through June 30, 2015, the flow per capita (assuming a population of 100) exceeded 275 gallons per day four times out of 1,612 results. Therefore, I&I is not a significant problem for the Facility.

Mass limitations for BOD_5 and TSS for discharges of treated wastewater have been removed because Regional Water Board staff misinterpreted the exception of 40 C.F.R. 122.45(f)(2), which states that mass limitations are not required "*when applicable standards and limitations are expressed in terms of other units of measure*." Since secondary treatment standards for BOD_5 and TSS in 40 C.F.R. section 133.102, on which the effluent limitations in previous permits were based, are expressed in concentration and percent removal (i.e., other units of measure), the relaxation of effluent limitations for BOD_5 and TSS in this Order is permissible under CWA section 402(o)(2)(B). Regional Water Board staff has determined that mass-based limitations for BOD_5 and TSS were applied in the previous permits as a result of a mistaken interpretation of law when issuing those previous permits.

In addition, Regional Water Board staff previously held that anti-backsliding regulations prevented the removal of mass-based limitations for BOD_5 and TSS because they were appropriate and necessary to protect water quality and prevent water quality degradation in receiving waters. While it is conceivable that the absence of mass-based limitations for these pollutants may result in an increased pollutant loading to surface waters, recent self-monitoring reports indicate that compliance with concentration-based effluent limitations for BOD_5 and TSS effectively maintain the Permittee's mass emission rates for BOD_5 and TSS well below permitted mass-based limitations. In addition, even if there is resulting increase in pollutant loading, there is no evidence that the increase will result in degradation of water quality. Therefore, relaxation of effluent limitations for BOD_5 and TSS in this Order is also permissible under CWA section 402(o)(2)(B), based on new information available to the Regional Water Board.

2. Antidegradation Policies

This Order is consistent with applicable federal and state antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater beyond that which was permitted to discharge in accordance with Order No. R1-2010-0038.

3. Stringency of Requirements for Individual Pollutants

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This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD_5, oil and grease, pH, settleable solids, TSS, and turbidity. Restrictions on these pollutants are discussed in section IV.B of this Fact Sheet. This Order's technology-based pollutant restrictions implement section III.B, Table 2, of the Ocean Plan and the minimum, applicable federal technology-based requirements.

WQBELs have been 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. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "*applicable water quality standards for purposes of the CWA*" pursuant to 40 C.F.R. 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.

The Regional Water Board has considered the factors in Water Code section 13263, including the provisions of Water Code section 13241, in establishing these requirements.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications and Requirements

1. Scope and Authority

Section 13263 of the Water Code requires the Regional Water Board to prescribe requirements for proposed discharges, existing discharges, or material changes in an existing discharge based upon the conditions of the disposal area or receiving waters upon or into which the discharge is made or proposed. The prescribed requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241. In prescribing requirements, the Regional Water Board is not obligated to authorize the full waste assimilation capacities of the receiving water.

Here, the Regional Water Board considered all of these factors when developing the WDRs for the land discharge. Limitations for BOD_5, TSS, and pH were scientifically derived to implement water quality objectives that protect beneficial uses. Both beneficial uses and the water quality objectives have been approved pursuant to state law. In addition, discharge prohibitions were included to prohibit the land discharge of untreated or partially treated waste, in order to protect public health and prevent nuisance. In addition, the Regional Water Board considered the factors set forth in Water Code section 13241, including the consideration of past, present, and probable future beneficial uses of the receiving water, which the Regional Water Board anticipates to be the same as set forth in the Basin Plan. The Regional Water Board considered the environmental characteristics, including water quality, of the Garcia River Hydrologic Area of the Mendocino Coast Hydrologic unit, the water bearing capacity of groundwater basins in the vicinity of Anchor Bay, and the need to maintain a land discharge. The Permittee did not submit any evidence regarding whether the WDRs for discharges to land would interfere with the development of needed housing within the region or the costs of compliance, particularly anything to show that the costs of compliance with the Order would be unmanageable.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

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a. **Beneficial Uses.** Beneficial use designations for groundwater established in the Basin Plan include municipal and domestic supply (MUN), industrial service supply (IND), industrial process supply (PRO), agricultural supply (AG), native American culture (CUL), aquaculture (AQUA), and freshwater replenishment to surface waters (FRSH).

b. **Basin Plan Water Quality Objectives.** The Basin Plan contains narrative objectives for taste and odor, bacteria, radioactivity, and chemical constituents (including those chemicals that adversely affect agricultural water supply) that apply to groundwater.

3. Determining the Need for Requirements for Discharges to Land

a. **BOD and TSS.** The Order includes effluent limitations for BOD and TSS of 80 mg/L as a daily maximum and 50 mg/L as a monthly average. These limitations are based on best professional judgment and can be reasonable achieved through proper operation of the Permittee's wastewater treatment facilities. Compliance with these limitations will prevent nuisance conditions resulting from the aerial spraying of treated wastewater in the vicinity of private residences. These limitations are retained from Order No. R1-2010-0038.

b. **Total Coliform Bacteria.** The Order includes effluent limitations for total coliform bacteria of 23 MPN/100 mL as a monthly median and 230 MPN/100 mL as a daily maximum. These limitations are based on regulations for secondary-23 recycled water contained in title 22, Division 4, Chapter 3 of the California Code of Regulations to ensure that the quality of the water discharged to land is protective of human health. Although the Permittee's forest irrigation has been characterized as a land discharge rather than water recycling, title 22 secondary-23 requirements are appropriate for this use to ensure protection of public health. These limitations can be reasonably achieved through proper operation of the Permittee's wastewater treatment facilities and are retained from Order No. R1-2010-0038.

c. **pH.** The Order retains the discharge specification for pH of 6.0 to 9.0 based on technology-based effluent limitations required by U.S. EPA pursuant to 40 C.F.R. part 133. These pH limits are included in the Order to ensure that pH levels are appropriate for protection of groundwater when discharging to land.

G. Recycling Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

CWA section 303(a-c) requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The State Water Board adopted water quality criteria as water quality objectives in the Ocean Plan. Receiving water limitations within this Order reflect all applicable, general water quality objectives of the Ocean Plan.

The Ocean Plan includes numeric and narrative water quality objectives for various beneficial uses. This Order contains receiving water limitations for discharges to the Pacific Ocean based on the Ocean Plan numerical and narrative water quality objectives for bacteria, dissolved oxygen, floating particulates, oil and grease, pH, discoloration, natural lighting, deposition of solids, dissolved sulfides, organic materials in sediments, Table 1 parameters, nutrient materials, radioactive wastes, and biological characteristics.

B. Groundwater

1. Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

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2. Discharges from the Facility shall not cause exceedance of applicable water quality objectives or create adverse impacts to beneficial uses of groundwater.

3. The Basin Plan requires that waters designated for use as MUN shall not contain concentrations of chemical constituents in excess of the limits specified in CCR, title 22, division 4, chapter 15, article 4.1, section 64435, and article 5.5, section 64444.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D to the Order. The Permittee must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42. The rationale for the special conditions contained in the Order is provided in section VI.B, below.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. 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. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. 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).

2. Regional Water Board Standard Provisions

In addition to the Federal Standard Provisions (Attachment D), the Permittee shall comply with the Regional Water Board Standard Provisions provided in Standard Provisions VI.A.2 of the Order.

a. Order Provision VI.A.2.a identifies the state's enforcement authority under the Water Code, which is more stringent than the enforcement authority specified in the federal regulations (e.g., 40 C.F.R. sections 122.41(j)(5) and (k)(2)).

b. Order Provision VI.A.2.b requires the Permittee to notify Regional Water Board staff, orally and in writing, in the event that the Permittee does not comply or will be unable to comply with any Order requirement. This provision requires the Permittee to make direct contact with a Regional Water Board staff person.

B. Special Provisions

1. Reopener Provisions

a. Standard Revisions (Special Provision VI.C.1.a). Conditions that necessitate a major modification of a permit are described in 40 C.F.R. section 122.62, which include the following:

i. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such revised standards.

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ii. When new information that was not available at the time of permit issuance would have justified different permit conditions at the time of issuance.

b. **Reasonable Potential (Special Provision VI.C.1.b).** This provision allows the Regional Water Board to modify, or revoke and reissue, this Order if present or future investigations demonstrate that the Permittee governed by this Permit is causing or contributing to excursions above any applicable priority pollutant criterion or objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

c. **Whole Effluent Toxicity (Special Provision VI.C.1.c).** This Order requires the Permittee to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity through a TRE. This Order may be reopened to include a numeric acute and/or chronic toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.

d. **303(d)-Listed Pollutants (Special Provision VI.C.1.d).** This provision allows the Regional Water Board to reopen this Order to modify existing effluent limitations or add effluent limitations for pollutants that are the subject of any future TMDL action.

2. **Special Studies and Additional Monitoring Requirements**

a. **Land Irrigation Operation and Maintenance Plan (Special Provision VI.C.2.a).** The requirement for the Permittee to submit a Land Irrigation Operation and Maintenance Plan is included in the Order to provide documentation that the forest irrigation system is operated in compliance with the requirements of this Order, including the requirements specified in section IV.B.2.

3. **Best Management Practices and Pollution Prevention**

a. **Pollutant Minimization Program (Special Provision VI.C.3.a).** This provision is included in this Order pursuant to section III.C.9 of the Ocean Plan. The Regional Water Board includes standard provisions in all NPDES permits requiring development of a pollutant minimization program when there is evidence that a toxic pollutant is present in the effluent at a concentration greater than an applicable effluent limitation.

4. **Construction, Operation, and Maintenance Specifications**

a. **Operation and Maintenance (Special Provision VI.C.4).** 40 C.F.R. section 122.41(e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. An up-to-date operation and maintenance manual, as required by Provision VI.C.4.b of this Order, is an integral part of a well-operated and maintained facility.

5. **Special Provisions for Municipal Facilities (POTWs Only)**

a. **Wastewater Collection Systems (Special Provision VI.C.5.a)**

i. **Statewide General WDRs for Sanitary Sewer Systems.** On May 2, 2006, the State Water Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order). The General Order requires public agencies that own or operate sanitary sewer systems with greater than 1 mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all SSOs, among other requirements and prohibitions. The Permittee has enrolled under the General Order as required.

On February 20, 2008, the State Water Board adopted Order No. WQ 2008-0002-EXEC Adopting Amended Monitoring and Reporting Requirements for Statewide

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General Waste Discharge Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, to ensure adequate and timely notifications are made to the Regional Water Board and appropriate local, state, and federal authorities in case of sewage spills. On August 6, 2013, the State Water Board adopted Order No. WQ 2013-0058-EXEC Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. Order No. WQ 2013-0058-EXEC addressing compliance and enforceability of the Monitoring and Reporting Program and superseding the amendments in Order No. WQ-2008-0002-EXEC. Notification and reporting of SSOs is conducted in accordance with the requirements of Order Nos. 2006-0003-DWQ and WQ 2013-0058-EXEC, and any revisions thereto for operation of its wastewater collection system.

b. Source Control and Pretreatment Provisions (Special Provision VI.C.5.b). Pursuant to Special Provision VI.C.5.b.i, the Permittee shall implement the necessary legal authorities to monitor and enforce source control standards, restrict discharges of toxic materials to the collection system, and inspect facilities connected to the system.

40 C.F.R. section 403.8(a) requires POTWs with a total design flow greater than 5 mgd and receiving pollutants which pass through or interfere with the operation of the POTW to establish a POTW Pretreatment Program. The Regional Water Board may also require that a POTW with a design flow of 5 mgd or less develop a POTW Pretreatment Program if the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent interference or pass through. The Permittee reports that there are no known industrial wastes subject to regulation under the NPDES Pretreatment Program being discharged to the Facility and the average dry weather design flow of the Facility is less than 5 mgd; therefore, the Order does not require the Permittee to develop a pretreatment program that conforms to federal regulations. However, in order to prevent interference with the POTW or pass through of pollutants to the receiving water, the Order requires the Permittee to implement a source control program.

Water Code section 13263.3(d)(1) allows the Regional Water Board to require a discharger to complete and implement a pollution prevention plan if pollution prevention is necessary to achieve a water quality objective, to include, pursuant to Water Code section 13263.3(d)(3), an analysis of the methods that could be used to prevent the discharge of the pollutants into the POTW. These methods can include application of local limits to industrial or commercial dischargers, pollution prevention techniques, public education and outreach, or other innovative and alternative approaches to reduce discharges of pollutants to the POTW. The analysis also shall identify sources, or potential sources, not within the ability or authority of the POTW to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides, and estimate the magnitude of those sources, to the extent feasible. This Order includes requirements for the Permittee to implement a source identification and reduction program.

A key component of an effective source control program is the identification and location of possible industrial users within the POTW's wastewater collection system. This information is typically obtained by the POTW through industrial waste surveys. The following types of resources can be consulted in compiling a master list of industrial users:

i. Water and sewer billing records

ii. Applications for sewer service

iii. Local telephone directories

iv. Chamber of Commerce and local business directories

v. Business license records

vi. POTW and wastewater collection personnel and field observations

vii. Business associations

viii. The internet

ix. Industrial and non-residential sewer use permit records

In addition, the Regional Water Board recognizes that some form of source control is prudent to ensure the efficient operation of the Facility, the safety of Facility staff, and to ensure that pollutants do not pass through the treatment Facility to impair the beneficial uses of the receiving water. The proposed Order includes prohibitions for the discharge of pollutants that may interfere, pass through, or be incompatible with treatment operations, interfere with the use of disposal of sludge, or pose a health hazard to personnel.

c. **Sludge Disposal and Handling Requirements (Special Provision VI.C.5.c).** The disposal or reuse of wastewater treatment screenings, sludges, or other solids removed from the liquid waste stream is regulated by 40 C.F.R. parts 257, 258, 501, and 503, and the State Water Board promulgated provisions of title 27 of the CCR. Sludge generated at the Facility is currently retained in the treatment ponds.

This provision also requires the Permittee to comply with the state's regulations relating to the discharge of biosolids to the land. The discharge of biosolids through land application is not currently regulated under this Order. In the event that the Permittee wishes to discharge biosolids to land, the Permittee is required to either submit a report of waste discharge or dispose of biosolids at another permitted facility.

d. **Operator Certification (Special Provision VI.C.5.d).** This provision requires the Facility to be operated by supervisors and operators who are certified as required by title 23, section 3680 of the CCR.

e. **Adequate Capacity (Special Provision VI.C.5.e).** The goal of this provision is to ensure appropriate and timely planning by the Permittee to ensure adequate capacity for the protection of public health and water quality.

6. Other Special Provisions

a. **Storm Water (Special Provision VI.C.6.a).** This provision requires the Permittee, if applicable, to obtain coverage under the State Water Board's Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (or subsequent renewed versions of the NPDES General Permit CAS000001). Currently, the Facility is exempted from these requirements based on a design flow of less than 1.0 mgd.

The Order requires the Permittee to implement and maintain best management practices (BMPs) to control the run-on of storm water to the Facility and to describe the effectiveness of these storm water BMPs, as well as activities to maintain and upgrade these BMPs during the previous year, in its annual report to the Regional Water Board.

7. Compliance Schedules – Not Applicable

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VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 C.F.R. requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code section 13383 authorizes the Regional Water Board to require technical and monitoring reports. The MRP, Attachment E, establishes monitoring and reporting requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

A. Influent Monitoring

1. Influent monitoring requirements for flow, BOD_5 and TSS are retained from Order No. R1-2010-0038 and are necessary to determine compliance with the Order's 85 percent removal requirement for these parameters.

B. Effluent Monitoring

1. Effluent monitoring requirements are necessary to determine compliance with prohibitions and/or effluent limitations established by the Order. Monitoring at Monitoring Location EFF-001 is necessary to demonstrate compliance with effluent limitations and demonstrate whether or not the discharge poses reasonable potential for a pollutant to exceed any numeric or narrative water quality objectives for discharges to the Pacific Ocean.
2. Effluent monitoring requirements for flow, BOD_5, TSS, settleable solids, total coliform bacteria, pH, turbidity, total chlorine residual, oil and grease, and ammonia have been retained from Order No. R1-2010-0038.
3. Effluent monitoring data indicates that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives for TCDD equivalents. Therefore, this Order discontinues TCDD-equivalents effluent monitoring requirements from Order No. R1-2010-0038.
4. Consistent with Order No. R1-2010-0038, effluent monitoring requirements for Ocean Plan Table 1 pollutants is required once per permit term to generate adequate data to perform an RPA.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) monitoring requirements are established for discharges to the Pacific Ocean from Discharge Point 001 at Monitoring Location EFF-001 and are included in the Order to protect the receiving water quality from the aggregate effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period and chronic toxicity testing is conducted over a longer time period and may measure mortality, reproduction, and/or growth. The Ocean Plan (section III.C.4.c.(4)) requires only chronic testing where the minimum initial dilution of the effluent is below 100:1. Because this Order allows for a Dm of 35 for the Facility, WET monitoring shall consist of chronic toxicity testing. This Order includes monitoring requirements for chronic toxicity to assess whether there is reasonable potential to exceed the Ocean Plan's narrative water quality objectives for toxicity. The monitoring frequency has been reduced from annual to twice per permit term as further described in section IV.C.5 of this Fact Sheet.

In addition to routine toxicity monitoring, this Order requires the Permittee to maintain and update their TRE Work Plan, in accordance with appropriate U.S. EPA guidance to ensure that the Permittee has a plan to immediately move forward with the initial tiers of a TRE in the event effluent toxicity is encountered in the future. The TRE is initiated by evidence of a pattern of toxicity demonstrated through the additional effluent monitoring provided as a result of an accelerated monitoring program.

D. Land Discharge Monitoring Requirements

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1. Land discharge monitoring requirements are necessary to determine compliance with prohibitions and/or effluent limitations established by the Order. Monitoring at Monitoring Location LND-001 is necessary to demonstrate compliance with land discharge specifications in section VI.A of the Order and demonstrate whether or not the discharge poses reasonable potential for a pollutant to exceed any numeric or narrative water quality objectives.

2. Monitoring requirements for flow, BOD_5, TSS, total coliform bacteria, pH, nitrate, total dissolved solids, and sodium have been retained from Order No. R1-2010-0038. Monitoring frequencies have been reduced for nitrate, total dissolved solids and sodium to two times per irrigation season due to the fact that these pollutants have not been detected at levels that exceed any applicable drinking water MCLs, yet some monitoring is needed to continue to verify that these pollutants are controlled in a manner to prevent exceedance of applicable drinking water MCLs. Monitoring requirements for ammonia, chloride and aluminum have been eliminated because there are no applicable drinking water MCLs for these three pollutants and monitoring data generated during the last five years has demonstrated that concentrations of ammonia and chloride are well below applicable drinking water MCLs. Aluminum was detected in the wastewater discharged to the forest irrigation system at concentrations of 0.21 mg/L to 0.24 mg/L in three samples collected in May through July 2011; however, aluminum concentrations ranged from non-detect to 0.12 mg/L and were consistently below the Secondary MCL of 0.2 mg/L in 22 subsequent samples collected between August 2011 and June 2015.

3. Visual monitoring of irrigation system and land discharge sites. The purpose of visual monitoring is to identify and record any odors, evidence of surface runoff or ponding, spray mist leaving the use area boundaries, or other signs of malfunction or improper operation.

E. Receiving Water Monitoring – Not Applicable

F. Other Monitoring Requirements

1. **Outfall Inspection.** Consistent with Order No. R1-2010-0038, this Order requires the Permittee to inspect the outfall location to determine the structural integrity and operational status of the outfall structure annually during the term of the permit. This requirement is necessary to demonstrate proper operation and maintenance of the POTW as required by 40 C.F.R. section 122.4, and to ensure that the calculated minimum probable initial dilution is not compromised as a result of unanticipated structural or operational changes in the outfall structure.

2. **Biological Survey.** Consistent with Order No. R1-2010-0038, this Order requires the Permittee to perform a biological survey of the outfall location once every 5 years.

   The last outfall inspection was conducted on August 3, 2012 by an aquatic invertebrate expert and the Biological Survey Report dated September 5, 2012, was submitted to the Regional Water Board on February 27, 2013with the Permittee's 2012 Annual Report. The Biological Survey Report states, "There were no indications of the discharge of pollutants into the cave or in the immediate vicinity of the cave. The smell was normal for the surf zone of the Mendocino coast. There was no discoloration of the cave environment or the diverse community of sea grasses and kelp in the vicinity of the cave mouth." The Report identifies an abundance and distribution of marine mollusks, anemones, starfish and small fish in and near the cave mouth and that no sea urchins were observed. The Report notes that the last discharge of wastewater occurred three months prior to the survey and recommends that the next biological survey be conducted "during the time of normal wastewater discharge into the cave and no later than two weeks after cessation of normal discharge operations into the cave to realistically determine if there are any adverse effects from the discharge of

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wastewater. The Report further recommends that the procedure of using a transect line to document presence/absence and dominant species at different distances from the outfall should be used in future biological surveys and that there should be a comparison to another surf zone cave site in the general area to confirm that there are no obvious differences of surf zone cave ecosystems or indicators of adverse effects from waste water discharge.

These recommendations have been incorporated into the Biological Survey requirement in section IX.B of the MRP (Attachment E).

G. Reporting Requirements

The reporting frequency has been changed from monthly to quarterly for routine influent, effluent, and land discharge monitoring. The Permittee is still required to perform monitoring at the frequencies specified in the MRP, but will submit reports quarterly. The reduced reporting frequency is intended to improve reporting efficiency. Although Regional Water Board staff will receive monitoring reports less frequently, the Order retains the requirement for the Permittee to notify Regional Water Board staff within 24-hours any non-compliance issues that may result in a significant threat to human health or the environment.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board) has considered the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Mendocino County Water Works District No. 2, Anchor Bay Wastewater Treatment Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board notified the Permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following posting on the Regional Water Board's Internet site at: http://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs.shtml and through publication in the Press Democrat on **January 27, 2016.**

B. Written Comments

Interested persons were invited to submit written comments concerning these tentative WDRs as provided through the notification process. Comments were due to the Regional Water Board Executive Office electronically via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DVD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the Regional Water Board website at http://www.waterboards.ca.gov/northcoast.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on **February 22, 2016**.

C. Public Hearing

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

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Date:	April 7, 2016
Time:	8:30 a.m. or as announced in the Regional Water Board's agenda
Location:	Humboldt County

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

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

D. Waste Discharge Requirements Petitions

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

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

For instruction on how to file a petition for review see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. 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 identified in section VIII.C, 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 (707) 576-2220.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Cathleen Goodwin at Cathleen.Goodwin@waterboards.ca.gov or (707) 576-2687.

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Attachment F-1 – Mendocino County Water Works District No. 2, Anchor Bay Wastewater Treatment Facility RPA Summary

Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Arsenic	ND	2	µg/L	1	<2	8	3	3
Cadmium	ND	1	µg/L	1	<1	1	--	3
Chromium (Total)	ND	1	µg/L	1	<1	2	--	3
Copper	ND	50	µg/L	1	<50	3	2	3
Lead	ND	5	µg/L	1	<5.0	2	--	3
Mercury	ND	0.025	µg/L	1	<0.025	0.04	0.0005	3
Nickel	ND	10	µg/L	1	<10	5	--	3
Selenium	ND	5	µg/L	1	<5	15	--	3
Silver	ND	10	µg/L	1	<10	0.7	0.16	3
Zinc		6	µg/L	0	6	20	8	3
Cyanide (No Data Available)		--	µg/L	--	--	--	--	--
Total Chlorine Residual[1]		70	µg/L	0	70	2	0	2
Ammonia (expressed as Nitrogen)[2]	ND	200	µg/L	31	500	600	0	2
Acute Toxicity		--	TUa	0	--	0.3	0	--
Chronic Toxicity	--	--	TUc	0	16.67	1	0	3
Chronic Toxicity, *Atherinops affinis,* Survival		16.67	TUc					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Chronic Toxicity, *Atherinops affinis,* Growth		16.67	TUc					
Chronic Toxicity, *Atherinops affinis,* Survival		16.67	TUc					
Chronic Toxicity, *Atherinops affinis,* Growth		16.67	TUc					
Chronic Toxicity, *Atherinops affinis,* Survival		16.67	TUc					
Chronic Toxicity, *Atherinops affinis,* Growth		16.67	TUc					
Chronic Toxicity, *Haliotis rufescens,* Larval Development		16.67	TUc					
Chronic Toxicity, *Macrocystis pyrifera,* Growth		16.67	TUc					
Phenolic Compounds (non-chlorinated)	ND	1.9	µg/L	1	<1.9	30	0	3
Chlorinated phenolics	ND	1.9	µg/L	2	<1	1	0	3
Chlorinated phenolics	ND	1	µg/L					
Endosulfan, Sum	ND	0.01	µg/L	2	<0.01	0.009	0	3
Endosulfan I	ND	0.02	µg/L					
Endosulfan I	ND	0.02	µg/L					
Endosulfan II	ND	0.01	µg/L					
Endosulfan II	ND	0.01	µg/L					
Endosulfan sulfate	ND	0.05	µg/L					
Endosulfan sulfate	ND	0.05	µg/L					
Endrin	ND	0.01	µg/L	2	<0.01	0.002	0	3
Endrin	ND	0.01	µg/L					
HCH, sum	ND	0.005	µg/L	2	<0.005	0.004	0	3
alpha-BHC	ND	0.01	µg/L					
alpha-BHC	ND	0.01	µg/L					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
beta-BHC	ND	0.005	µg/L					
beta-BHC	ND	0.005	µg/L					
delta-BHC	ND	0.005	µg/L					
delta-BHC	ND	0.005	µg/L					
gamma-BHC (Lindane)	ND	0.02	µg/L					
gamma-BHC (Lindane)	ND	0.02	µg/L					
Acrolein	ND	5	µg/L	2	<5	220	0	3
Acrolein	ND	5	µg/L					
Antimony	--	--	µg/L	--	--	1,200	0	--
Bis(2-chloroethoxy)methane	ND	1.9	µg/L	2	<1	4.4	0	3
Bis(2-chloroethoxy)methane	ND	1	µg/L					
Bis(2-chloroisopropyl)ether	ND	1.9	µg/L	2	<1	1,200	0	3
Bis(2-chloroisopropyl)ether	ND	1	µg/L					
Chlorobenzene	ND	0.5	µg/L	2	<0.5	570	0	3
Chlorobenzene	ND	0.5	µg/L					
Chromium (III)		See Total Chromium	µg/L	--	--	190,000	0	--
Di-n-butyl phthalate	ND	19	µg/L	2	<1	3,500	0	3
Di-n-butyl phthalate	ND	1	µg/L					
Dichlorobenzenes, sum	ND	0.5	µg/L	4	<0.5	5,100	0	3
1,2-Dichlorobenzene	ND	0.5	µg/L					
1,2-Dichlorobenzene	ND	1.9	µg/L					
1,2-Dichlorobenzene	ND	0.5	µg/L					
1,2-Dichlorobenzene	ND	1	µg/L					
1,3-Dichlorobenzene	ND	0.5	µg/L					
1,3-Dichlorobenzene	ND	1.9	µg/L					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
1,3-Dichlorobenzene	ND	0.5	µg/L					
1,3-Dichlorobenzene	ND	1	µg/L					
Diethyl Phthalate	ND	1.9	µg/L	2	<1	33,000	0	3
Diethyl Phthalate	ND	1	µg/L					
Dimethyl Phthalate	ND	1.9	µg/L	2	<1	820,000	0	3
Dimethyl Phthalate	ND	1	µg/L					
4,6-Dinitro-2-methylphenol	ND	9.7	µg/L	2	<5	220	0	3
4,6-Dinitro-2-methylphenol	ND	5	µg/L					
2,4-Dinitrophenol	ND	9.7	µg/L	2	<5	4	0	3
2,4-Dinitrophenol	ND	5	µg/L					
Ethylbenzene	ND	0.5	µg/L	2	<0.5	4,100	0	3
Ethylbenzene	ND	0.5	µg/L					
Fluoranthene	ND	1.9	µg/L	2	<1	15	0	3
Fluoranthene	ND	1	µg/L					
Hexachlorocyclopentadiene	ND	1	µg/L	4	<1	58	0	3
Hexachlorocyclopentadiene	ND	9.7	µg/L					
Hexachlorocyclopentadiene	ND	1	µg/L					
Hexachlorocyclopentadiene	ND	5	µg/L					
Nitrobenzene	ND	1.9	µg/L	2	<1	4.9	0	3
Nitrobenzene	ND	1	µg/L					
Thallium	ND	1	µg/L	1	<1	2	0	3
Toluene	ND	0.5	µg/L	2	<0.5	85,000	0	3
Toluene	ND	0.5	µg/L					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Tributyltin	ND	0.06	µg/L	2	<0.06	0.0014	0	3
Tributyltin	ND	0.06	µg/L					
1,1,1-Trichloroethane	ND	0.5	µg/L	2	<0.5	540,000	0	3
1,1,1-Trichloroethane	ND	0.5	µg/L					
Acrylonitrile	ND	2	µg/L	2	<2	0.1	0	3
Acrylonitrile	ND	2	µg/L					
Aldrin	ND	0.005	µg/L	2	<0.005	0.000022	0	3
Aldrin	ND	0.005	µg/L					
Benzene	ND	0.5	µg/L	2	<0.5	5.9	0	3
Benzene	ND	0.5	µg/L					
Benzidine	ND	9.7	µg/L	2	<5	0.000069	0	3
Benzidine	ND	5	µg/L					
Beryllium	ND	1	µg/L	1	<1	0.033	0	3
Bis(2-chloroethyl)ether	ND	1.9	µg/L	2	<1	0.045	0	3
Bis(2-chloroethyl)ether	ND	1	µg/L					
Bis(2-ethylhexyl)Phthalate	ND	9.7	µg/L	2	<5	3.5	0	3
Bis(2-ethylhexyl)Phthalate	ND	5	µg/L					
Carbon Tetrachloride	ND	0.5	µg/L	2	<0.5	0.9	0	3
Carbon Tetrachloride	ND	0.5	µg/L					
Chlordane, sum	ND	0.05	µg/L	2	<0.05	0.000023	0	3
Chlordane-alpha	ND	0.05	µg/L					
Chlordane-alpha	ND	0.05	µg/L					
Chlordane	ND	0.1	µg/L					
Chlordane	ND	0.1	µg/L					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Chlordane-gamma	ND	0.05	µg/L					
Chlordane-gamma	ND	0.05	µg/L					
Chlorodibromomethane		0.98	µg/L	0	0.98	8.6	0	3
Chlorodibromomethane		0.79	µg/L					
Chloroform		26	µg/L	0	27	130	0	3
Chloroform		27	µg/L					
DDT, Sum	ND	0.01	µg/L	2	<0.01	0.00017	0	3
p,p-DDD	ND	0.01	µg/L					
p,p-DDD	ND	0.01	µg/L					
p,p-DDE	ND	0.01	µg/L					
p,p-DDE	ND	0.01	µg/L					
p,p-DDT	ND	0.01	µg/L					
p,p-DDT	ND	0.01	µg/L					
1,4-Dichlorobenzene	ND	0.5	µg/L	4	<0.5	18	0	3
1,4-Dichlorobenzene	ND	1.9	µg/L					
1,4-Dichlorobenzene	ND	0.5	µg/L					
1,4-Dichlorobenzene	ND	1	µg/L					
3,3'-Dichlorobenzidine	ND	3.9	µg/L	2	<2	0.0081	0	3
3,3'-Dichlorobenzidine	ND	2	µg/L					
1,2-Dichloroethane	ND	0.5	µg/L	2	<0.5	28	0	3
1,2-Dichloroethane	ND	0.5	µg/L					
1,1-Dichloroethylene	ND	0.5	µg/L	2	<0.5	0.9	0	3
1,1-Dichloroethylene	ND	0.5	µg/L					
Dichlorobromomethane		6.5	µg/L	0	6.5	6.2	0	3
Dichlorobromomethane		5.8	µg/L					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Dichloromethane	ND	0.5	µg/L	2	<0.5	450	0	3
Dichloromethane	ND	0.5	µg/L					
1,3-Dichloropropene	--	--	µg/L	-	--	8.9	0	--
Dieldrin	ND	0.01	µg/L	2	<0.01	0.00004	0	3
Dieldrin	ND	0.01	µg/L					
2,4-Dinitrotoluene	ND	1.9	µg/L	2	<1	2.6	0	3
2,4-Dinitrotoluene	ND	1	µg/L					
1,2-Diphenylhydrazine	ND	1.9	µg/L	2	<0.33	0.16	0	3
1,2-Diphenylhydrazine	ND	1	µg/L					
Halomethanes, sum	ND	0.5	µg/L	2	<0.5	130	0	3
Bromoform	ND	0.5	µg/L					
Bromoform	ND	0.5	µg/L					
Bromomethane	ND	0.5	µg/L					
Bromomethane	ND	0.5	µg/L					
Chloromethane	ND	0.5	µg/L					
Chloromethane	ND	0.5	µg/L					
Heptachlor	ND	0.01	µg/L	2	<0.01	0.00005	0	3
Heptachlor	ND	0.01	µg/L					
Heptachlor epoxide	ND	0.01	µg/L	2	<0.01	0.00002	0	3
Heptachlor epoxide	ND	0.01	µg/L					
Hexachlorobenzene	ND	0.5	µg/L	4	<0.5	0.00021	0	3
Hexachlorobenzene	ND	1.9	µg/L					
Hexachlorobenzene	ND	0.5	µg/L					
Hexachlorobenzene	ND	1	µg/L					
Hexachlorobutadiene	ND	0.5	µg/L	4	<0.5	14	0	3

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Hexachlorobutadiene	ND	1.9	µg/L					
Hexachlorobutadiene	ND	1	µg/L					
Hexachlorobutadiene	ND	0.5	µg/L					
Hexachloroethane	ND	0.5	µg/L	4	<0.5	2.5	0	3
Hexachloroethane	ND	1.9	µg/L					
Hexachloroethane	ND	0.5	µg/L					
Hexachloroethane	ND	1	µg/L					
Isophorone	ND	1.9	µg/L	2	<1	730	0	3
Isophorone	ND	1	µg/L					
N-Nitrosodimethylamine	ND	9.7	µg/L	2	<5	7.3	0	3
N-Nitrosodimethylamine	ND	5	µg/L					
N-Nitrosodi-N-Propylamine	ND	1.9	µg/L	2	<1	0.38	0	3
N-Nitrosodi-N-Propylamine	ND	1	µg/L					
N-Nitrosodiphenylamine	ND	1.9	µg/L	2	<1	2.5	0	3
N-Nitrosodiphenylamine	ND	1	µg/L					
PAHs, sum	ND	1	µg/L	2	<1	0.0088	0	3
Acenaphthylene	ND	1.9	µg/L					
Acenaphthylene	ND	1	µg/L					
Anthracene	ND	1.9	µg/L					
Anthracene	ND	1	µg/L					
Benzo(a)pyrene	ND	1.9	µg/L					
Benzo(a)pyrene	ND	1	µg/L					
Benzo(k)fluoranthene	ND	1.9	µg/L					
Benzo(k)fluoranthene	ND	1	µg/L					
Chrysene	ND	1.9	µg/L					
Chrysene	ND	1	µg/L					
Dibenzo(a,h)anthracene	ND	1.9	µg/L					
Dibenzo(a,h)anthracene	ND	1	µg/L					

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Fluorene	ND	1.9	µg/L					
Fluorene	ND	1	µg/L					
Indeno(1,2,3-cd)pyrene	ND	1.9	µg/L					
Phenanthrene	ND	1.9	µg/L					
Phenanthrene	ND	1	µg/L					
Pyrene	ND	1.9	µg/L					
Pyrene	ND	1	µg/L					
PCBs, sum	ND	0.5	µg/L	2	<0.5	0.000019	0	3
PCB-1016	ND	0.5	µg/L					
PCB-1016	ND	0.5	µg/L					
PCB-1221	ND	0.5	µg/L					
PCB-1221	ND	0.5	µg/L					
PCB-1232	ND	0.5	µg/L					
PCB-1232	ND	0.5	µg/L					
PCB-1242	ND	0.5	µg/L					
PCB-1242	ND	0.5	µg/L					
PCB-1248	ND	0.5	µg/L					
PCB-1248	ND	0.5	µg/L					
PCB-1254	ND	0.5	µg/L					
PCB-1254	ND	0.5	µg/L					
PCB-1260	ND	0.5	µg/L					
PCB-1260	ND	0.5	µg/L					
TCDD Equivalents	ND	9.9×10^{-9}	µg/L	2	$<9.9 \times 10^{-9}$	0.0000000039	0	3
TCDD Equivalents	ND	9.6×10^{-9}	µg/L					
1,1,2,2-Tetrachloroethane	ND	0.5	µg/L	2	<0.5	2.3	0	3
1,1,2,2-Tetrachloroethane	ND	0.5	µg/L					
Tetrachloroethylene	ND	0.5	µg/L	2	<0.5	2.0	0	3
Tetrachloroethylene	ND	0.5	µg/L					
Toxaphene	ND	0.5	µg/L	2	<0.5	0.00021	0	3

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Pollutant	Qualifier	Value	Unit	No. ND	MEC	Co	B	Endpoint
Toxaphene	ND	0.5	µg/L					
Trichloroethylene	ND	0.5	µg/L	2	<0.5	27	0	3
Trichloroethylene	ND	0.5	µg/L					
1,1,2-Trichloroethane	ND	0.5	µg/L	2	<0.5	9.4	0	3
1,1,2-Trichloroethane	ND	0.5	µg/L					
2,4,6-Trichlorophenol	ND	1.9	µg/L	2	<1	0.29	0	3
2,4,6-Trichlorophenol	ND	1	µg/L					
Vinyl Chloride	ND	0.5	µg/L	2	<0.5	36	0	3
Vinyl Chloride	ND	0.5	µg/L					

[1] Total residual chlorine was detected in all 654 samples collected between December 1, 2010 and March 20, 2015, with results ranging from 10 µg/L to 70 µg/L.

[2] Ammonia was detected in 22 out of 53 samples collected between December 1, 2010 and March 20, 2015, with results ranging from <200 µg/L to 500 µg/L.

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