



# California Regional Water Quality Control Board

## Central Coast Region



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Edmund G. Brown Jr.  
Governor

**ORDER NO. R3-2011-0007**

**NPDES NO. CA0048941**

### WASTE DISCHARGE REQUIREMENTS FOR THE HERITAGE RANCH COMMUNITY SERVICES DISTRICT WASTEWATER TREATMENT PLANT

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

**Table 1. Discharger Information**

<b>Discharger</b>	Heritage Ranch Community Services District
<b>Name of Facility</b>	Wastewater Treatment Plant
<b>Facility Address</b>	4870 Heritage Road
	Paso Robles, CA 93446
	San Luis Obispo County
The U.S. Environmental Protection Agency (USEPA) and the Central Coast Regional Water Quality Control Board (Central Coast Water Board) have classified this discharge as a minor discharge.	

Discharges by the Heritage Ranch Community Services District Wastewater Treatment Facility to the discharge points identified below are subject to waste discharge requirements as set forth in this Order.

**Table 2. Discharge Locations**

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Discharge Point Description
001A	Disinfected Secondary Treated Municipal Effluent	35° 43' 51" N	120 ° 50' 21" W	Unnamed Drainage, Tributary to the Nacimiento River
001B	Undisinfected* Secondary Treated Municipal Effluent	35° 43' 31" N	120 ° 50' 24" W	Spray irrigation land disposal at former evaporation pond facility location
001C	Undisinfected* Secondary Treated Municipal Effluent	35° 43' 15" N	120 ° 52' 59" W	Spray irrigation land disposal on fields adjacent to WWTP
001D	Undisinfected* Secondary Treated Municipal Effluent	35° 43' 04" N	120 ° 51' 50" W	Spray irrigation reuse on horse pasture

Note: \*Secondary effluent for land discharges and reuse at discharge points 001B, 001C, and 001D will be disinfected with varying degrees of chlorine contact time depending on the location of the turnout points for the

water distribution systems from the force main downstream of chlorine injection point and effluent pump station. For the purposes of this permit the point of compliance for these discharge points is immediately downstream of the chlorine injection point and effluent pump station. Subsequently, the California Code of Regulations (CCR) Title 22 Water Recycling Criteria and land disposal requirements applied to the noted land discharge and reuse areas are based on "undisinfected secondary recycled water" due to an unknown level of disinfection at the points of application.

**Table 3. Administrative Information**

This Order was adopted by the Central Coast Water Board on:	<b>May 5, 2011</b>
This Order shall become effective on:	<b>June 1, 2011</b>
This Order shall expire on:	<b>June 1, 2016</b>
The Discharger shall file a Report of Waste Discharge in accordance with CCR Title 23, as application for issuance of new waste discharge requirements no later than:	<u>180 days prior to the Order expiration date</u>

IT IS HEREBY ORDERED, that Order No. R3-2006-0012 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Roger W. Briggs Executive Officer, do hereby certify that this Order, with all attachments, is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coastal Region, on May 5, 2011.

*for*   
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 Roger W. Briggs, Executive Officer

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## I. FACILITY INFORMATION

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

**Table 4. Facility Information**

<b>Discharger</b>	Heritage Ranch Community Services District
<b>Name of Facility</b>	Wastewater Treatment Plant
<b>Facility Address</b>	4870 Heritage Road
	Paso Robles, CA 93446
	San Luis Obispo County
<b>Facility Contact, Title, and Phone</b>	John D'Ornellas, General Manager, (805) 227-6230
<b>Mailing Address</b>	4870 Heritage Road, Paso Robles, CA 93446
<b>Type of Facility</b>	Publically Owned Treatment Works (POTW)
<b>Facility Design Flow</b>	0.4 million gallons per day (MGD) monthly average

## II. FINDINGS

The California Regional Water Quality Control Board, Central Coast Region (hereinafter the Central Coast Water Board), finds:

**A. Background.** The Heritage Ranch Community Services District (hereinafter Discharger) is currently discharging pursuant to Order No. R3-2006-0012 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0048941. The Discharger submitted a Report of Waste Discharge, dated September 1, 2010, and applied for an NPDES permit renewal to discharge up to 0.4 MGD of treated wastewater from the Heritage Ranch Community Services District Wastewater Treatment Plant (hereinafter Facility). The application was deemed complete on December 8, 2010.

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

**B. Facility Description.** The Discharger owns and operates a wastewater collection, treatment, and disposal system which provides sewerage service for the Heritage Ranch Community Services District with a service population of approximately 3,200. The treatment system consists of an aerated lagoon (Pond 1), a polishing pond (Pond 2), sodium hypochlorite injection, an effluent holding pond (Pond 3), two sand filters, and dechlorination unit.

Secondary treated effluent from Pond 2 is chlorinated via sodium hypochlorite injection prior to being pumped 3.5 miles through a 6-inch force main to the final treatment area. The chlorinated effluent can be directed to either sand filters or to Pond 3. Partially treated effluent pumped to Pond 3 can be directed to the sand filters or by-pass the sand filters depending on the quality of effluent in Pond 3. Effluent from the sand filters is dechlorinated and discharged to an unnamed ephemeral drainage way (Discharge Point No. 001A) that is tributary to the Nacimiento River 4.2 miles downstream of the discharge point.

In a letter dated August 26, 2010, the Discharger requested that the renewed NPDES permit include spray disposal and reuse as options for discharge. The effluent for spray disposal would be chlorinated to varying degrees; however, it would not go through the sand filters. The Discharger identified the following three locations as potential spray irrigation disposal and reuse areas (see Attachment B for location maps of spray disposal sites):

- **The site of the current evaporation/percolation ponds (tentative discharge point 001B).** The Discharger has evaluated converting percolation/evaporation ponds which are no longer in use to a spray field to be used for effluent disposal. The Discharger estimates that the District could discharge up to 4.89 million gallons per year of effluent (approximately 5 to 8 percent of the total actual flow at the Facility). The Discharger reports the field would be planted with turf grass and maintained by the District, and that effluent would be applied at agronomic rates.
- **A location adjacent to the existing wastewater treatment plant (tentative discharge point 001C).** The Discharger owns approximately 22 acres on Heritage Road. This property currently has the Discharger's wastewater treatment plant and offices situated on it. These facilities only cover approximately 10 acres. The remaining 12 acres are currently open fields adjacent to the wastewater treatment plant. The Discharger proposes to fence this area and convert this land to spray irrigation fields for disposal. The Discharger estimates that up to 5.89 million gallons per year (approximately 4 to 8 percent of actual flow at the Facility) could be disposed of at this site.
- **A location adjacent to the Nacimiento Research Center (tentative discharge point 001D).** The Discharger is having preliminary discussions with the property owner of the Research Center located at the entrance of Heritage Ranch on Gateway Drive. The Research Center is a restricted access facility, gated with fencing around the entire site. The site is used for training of equestrian horses. The property owner currently uses the District's potable water supply source to irrigate the land that is grazed by the horses. The property owner has requested to utilize recycled water in lieu of potable water to irrigate his 10 to 14 acres of pasture land used for grazing. The Discharger estimates that approximately 9.77 million gallons per year of treated wastewater (approximately 10 to 16 percent of actual flow at the Facility) could be disposed of at this site.

This Order establishes conditional requirements for land disposal and reuse/reclamation. Implementation of the land disposal and reuse alternatives noted above is contingent on written authorization by the Executive Officer based on the submittal of detailed work plans, engineering reports, operations and maintenance plans, etc. as required to demonstrate the proposed disposal/reuse applications will protect public health and water quality.

Attachment B provides a topographic map of the area around the Facility. Attachment C provides a flow diagram of the Facility.

Storm water does not discharge from the site. The Discharger reports that storm water runoff from industrial areas is non-existent. Any runoff or spill from the ponds is considered a sanitary sewer overflow.

- C. Legal Authorities.** This Order is issued pursuant to the federal Clean Water Act (CWA) § 402 and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (CWC), commencing with section 13370. It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the CWC, commencing with section 13260.
- D. Background and Rationale for Requirements.** The Central Coast Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E are also incorporated into this Order.
- E. California Environmental Quality Act (CEQA).** Pursuant to CWC §13389, this action to adopt an NPDES permit is exempt from the provisions of the CEQA, Public Resources Code § 21100 to § 21177.
- F. Technology-Based Effluent Limitations.** CWA § 301(b) and USEPA's NPDES regulations at 40 CFR 122.44 require that permits include, at a minimum, conditions meeting applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Discharges authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards established at 40 CFR Part 133 and Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3. A detailed discussion of development of technology-based effluent limitations is included in the Fact Sheet (Attachment F).
- G. Water Quality-Based Effluent Limitations.** CWA § 301(b) and NPDES regulations at 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

NPDES regulations at 40 CFR 122.44(d)(1)(i) mandate 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 is established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA § 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 at 40 CFR 122.44(d)(1)(vi).

**H. Water Quality Control Plans.** The Central Coast Water Board has adopted the *Water Quality Control Plan for the Central Coast Region* (Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the region. In addition, the Basin Plan implements State Water Resources Control Board (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.

In accordance with Chapter 2 of the Basin Plan, surface water bodies that do not have beneficial uses specifically identified by the Basin Plan, including the unnamed ephemeral receiving stream for this discharge, are assigned the beneficial uses of:

- Municipal and domestic supply (MUN), and
- Protection of both recreation and aquatic life.

Because the unnamed ephemeral drainage way to which the Facility discharges is tributary to the Nacimiento River, and the potential for this discharge to impact the Nacimiento River exists, beneficial uses for the Nacimiento River downstream of the reservoir were also considered. The additional beneficial uses assigned to this segment of the Nacimiento River include:

- agricultural supply (AGR),
- industrial service supply (IND),
- ground water recharge (GWR),
- water contact recreation (REC1),
- non-contact water recreation (REC2),
- wildlife habitat (WILD),
- cold fresh water habitat (COLD),
- warm freshwater habitat (WARM),
- migration of aquatic organisms (MIGR),
- spawning, reproduction, and/or early development (SPWN),
- rare, threatened, or endangered species (RARE), and
- commercial and sport fishing (COMM).

Groundwater throughout the Central Coastal Region, except for that found in the Soda Lake Sub-basin, is suitable for:

- Agricultural water supply (AGR),
- Municipal and domestic water supply (MUN), and
- Industrial supply (PROC and IND).

Requirements of this Order implement the Basin Plan.

**I. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition,

incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants that are applicable to discharges from the Facility.

- J. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Central Coast Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- K. Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed five years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds one year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules or interim effluent limitations.
- L. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000), codified at 40 CFR 131.21] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- M. Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. As discussed in section IV. B of the Fact Sheet, the Order establishes technology-based effluent limitations for biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), settleable solids, oil and grease, turbidity, and pH for Discharge Point No. 001. These technology-based limitations implement the minimum, applicable federal technology-based requirements. The Order also contains effluent limitations in addition to the minimum, federal technology-based requirements, necessary to meet applicable water quality standards. These limitations are not more stringent than required by the CWA.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to NPDES regulations at 40 CFR 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR and the SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to NPDES regulations at 40 CFR 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. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 CFR 131.21 (c) (1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

- N. Antidegradation Policy.** NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California’s antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The Central Coast Water Board’s Basin Plan implements and incorporates by reference both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.
- O. Anti-Backsliding Requirements.** CWA § 402(o)(2), CWA § 303(d)(4), and NPDES regulations at 40 CFR 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. As discussed in section IV.D of the Fact Sheet, effluent limitations and other requirements established by this Order satisfy applicable anti-backsliding provisions of the CWA and NPDES regulations.
- P. Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the State. The

Discharger is responsible for meeting all requirements of State and federal law regarding threatened and endangered species.

- Q. Monitoring and Reporting.** NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. CWC §13267 and CWC §13383 authorize the Central Coast Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.
- R. Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with NPDES regulations at 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Central Coast Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- S. Recycled Water Policy.** The Strategic Plan Update 2008-2012 for the Regional Boards includes a priority to increase sustainable local water supplies available for meeting existing and future beneficial uses by 1,725,000 acre-feet per year, in excess of 2002 levels, by 2015, and ensure adequate water flows for fish and wildlife habitat. The State Water Board adopted the Recycled Water Policy, via Resolution No. 2009-0011, on February 3, 2009<sup>1</sup>. The Recycled Water Policy is intended to support the Strategic Plan priority to Promote Sustainable Local Water Supplies. Increasing the acceptance and promoting the use of recycled water is a means towards achieving sustainable local water supplies and can result in reduction in greenhouse gases, a significant driver of climate change. The Recycled Water Policy is also intended to encourage beneficial use of, rather than solely disposal of, recycled water.

The Recycled Water Policy calls for the development of regional groundwater basin/sub-basin salt/nutrient management plans. The State Water Board recognizes that, pursuant to the letter from statewide water and wastewater entities<sup>2</sup> dated December 19, 2008 and attached to Resolution No. 2009-0011 adopting the Policy, the local water and wastewater entities, together with local salt/nutrient contributing stakeholders, will fund locally driven and controlled, collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for each basin/sub-basin in California, including compliance with CEQA and participation by Regional Board staff.

It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual projects. The Central Coast Water

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<sup>1</sup> [http://www.swrcb.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2009/rs2009\\_0011.pdf](http://www.swrcb.ca.gov/board_decisions/adopted_orders/resolutions/2009/rs2009_0011.pdf)

<sup>2</sup> [http://www.waterboards.ca.gov/board\\_info/agendas/2009/feb/020309\\_7\\_%20rw\\_policy\\_funding\\_letter.pdf](http://www.waterboards.ca.gov/board_info/agendas/2009/feb/020309_7_%20rw_policy_funding_letter.pdf)

Board finds that a combination of regional management plans and individual or programmatic project requirements may be necessary to protect beneficial uses.

One of the primary components of the required regional salt/nutrient management plans is the development and implementation of groundwater basin/sub-basin monitoring programs. As specified in the Recycled Water Policy, salt/nutrient contributing stakeholders will be responsible for conducting, compiling, and reporting the monitoring data once the regional groundwater monitoring programs are developed.

A large number of technical reports and data contained within Central Coast Water Board files document widespread and increasing salt and nutrient impacts within the groundwater basins throughout the Central Coast Region, including the Paso Robles Area subbasin of the Salinas Valley groundwater basin. Although the facility is not located within any defined groundwater basin, the discharge receiving water, an unnamed ephemeral drainage, is tributary to the Nacimiento River and the Paso Robles Area subbasin.

- T. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, and V.B of this Order 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.
- U. Notification of Interested Parties.** The Central Coast Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet accompanying this Order.
- V. Consideration of Public Comment.** The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet of this Order.
- W. Privilege to Discharge.** A permit and the privilege to discharge waste into waters of the State are conditional upon the discharge complying with provisions of CWC division 7 and the CWA (as amended or as supplemented by implementing guidelines and regulations); and with any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisances.

### III. DISCHARGE PROHIBITIONS

- A.** Discharge of treated wastewater at a location or in a manner other than as described by this Order is prohibited (excluding storm water regulated by General Permit No. CAS000001).
- B.** The discharge of any waste not specifically regulated by this Order is prohibited.
- C.** The discharge of wastewater by seepage or percolation through units of the wastewater treatment system is prohibited.

- D.** The discharge of radioactive substances is prohibited (as defined by the limits specified in California Code of Regulations (CCR) Title 22, Chapter 15, Article 5, § 64441 and § 64443, Table 4).
- E.** The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G (Bypass), is prohibited.
- F.** The discharge of any wastes, including overspray and runoff from transport, treatment, or disposal systems, to adjacent properties or drainage ways is prohibited.
- G.** Creation of a condition of pollution, contamination, or nuisance, as defined by CWC § 13050, is prohibited.

## IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

### A. Effluent Limitations – Discharge Point No. 001A

#### 1. Effluent Limitations – Discharge Point No. 001A

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001A, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP.

**Table 5. Effluent Limitations**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Biochemical Oxygen Demand (5-day @ 20°C) (BOD) <sup>[1]</sup>	mg/L	30	45	90
	lbs/day	100	150	300
Total Suspended Solids (TSS) <sup>[1]</sup>	mg/L	30	45	90
	lbs/day	100	150	300
Oil & Grease	mg/L	10	--	20
	lbs/day	33	--	67
Settleable Solids	mL/L	--	--	0.1
pH	s.u.	--	--	6.5 – 8.3 <sup>[2]</sup>
Nitrate (as N)	mg/L	--	--	8.0
	lbs/day	--	--	26.7
Chlorine	µg/L	--	--	ND <sup>[3]</sup>
	lbs/day	--	--	--
Copper, Total Recoverable	µg/L	9.0	--	18.0
	lbs/day	0.03	--	0.006
Aluminum	mg/L	1.0	--	--
	lbs/day	3.3	--	--
Acute Toxicity	% survival	--	--	<sup>[4]</sup>

<sup>[1]</sup> The average monthly percent removal for BOD and TSS shall not be less than 85 percent.

<sup>[2]</sup> Applied as an instantaneous effluent limitation.

<sup>[3]</sup> Non-detected by amperometric titration or an equally sensitive method.

<sup>[4]</sup> Survival of test organisms exposed to 100 percent effluent shall not be significantly reduced when compared, using a t-test to the survival of control organisms, as defined in section V of Attachment E to this Order.

2. **Dry Weather Flow:** Effluent daily dry weather flow shall not exceed a monthly average of 0.4 MGD.

#### 3. Bacteria.

##### a. Fecal Coliform:

- i. Fecal coliform concentrations, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 organisms/100 mL; and

- ii. Fecal coliform concentrations shall not exceed 400 organisms/100 mL for more than 10 percent of the samples in a 30-day period.

**b. Total Coliform:**

- i. Total coliform concentrations shall not exceed a median of 23 organisms/100 mL based on the results of the last 7 days of sampling results for which analyses have been completed.
- ii. Total coliform concentrations shall not exceed 2,400 organisms/100 mL at any time.

**B. Land Discharge Requirements – Discharge Point Nos. 001B, 001C and 001D.**

Upon receiving written authorization from the Executive Officer to implement land discharges of effluent, based on information provided by the Discharger as specified in section VI.C.2.b of this Order, the Discharger shall maintain compliance with the following:

**1. Land Discharge Specifications**

The Discharger shall maintain compliance with the following discharge specifications.

- a. The hydraulic loading to any individual field shall be at agronomic rates considering vegetation type, soil, climate, and irrigation management system, and designed to minimize percolation of wastewater constituents below the evaporative and root zone (i.e., deep percolation).
- b. The total nitrogen loading to any individual field shall not exceed the agronomic rate for plant available nitrogen for the type of vegetation grown, as specified in the most recent edition of the Western Fertilizer Handbook or otherwise approved in writing from Regional Water Board staff.
- c. The discharge of waste classified as “hazardous” as defined in CCR Title 23 §2521(a), or “designated”, as defined in CWC §13173, is prohibited.
- d. Wastewater may not be used for irrigation purposes during periods of significant precipitation, and for at least 24 hours after cessation of significant precipitation, or when soils are saturated. Significant rainfall is defined as 0.25 inches during a 24-hour period.
- e. Areas irrigated with or used to store effluent shall be managed to prevent breeding of mosquitoes.
- f. Land discharge of effluent (defined by the wetted area produced during irrigation) shall be set back as specified below:

- i. a minimum of 150 ft from any surface water or well used for domestic supply or irrigation of food crops, or any place where public exposure could be similar to that of a park, playground, or school yard; and
  - ii. a minimum of 50 feet from the land application area property boundary and any public road.
- g.** The land application areas shall be managed in a manner to prevent public contact, through methods such as fences and signage notifying the public of the presence of wastewater.
- h.** Over spray, mist, and surface runoff of effluent from land disposal areas are prohibited.

### **C. Reclamation Requirements – Discharge Point No. 001D**

This permit conditionally authorizes the Discharger to act as the Producer, Distributor and User of recycled (or reclaimed) water as specified below. Unless otherwise specified within water reclamation requirements (permits) issued to other entities acting as a Distributor and/or User of recycled water produced by the facility, the Discharger is responsible for compliance with all applicable requirements associated with the production, distribution and use of recycled water as specified within this permit.

Upon receiving written authorization from the Executive Officer to implement the use of recycled water for irrigation purposes, based on information provided by the Discharger as specified in section VI.C.2.c of this Order, the Discharger shall maintain compliance with the following:

#### **1. Effluent Specifications**

- a. Recycled water used for irrigating pasture land used for grazing horses shall be undisinfected secondary recycled water, or better quality, pursuant to §60301.900 of the Water Recycling Criteria contained within CCR Title 22, Division 4, Chapter 3.
- b. Unless otherwise specified within this permit, application of recycled water for irrigation of pasture land shall comply with all applicable portions of the Water Recycling Criteria contained within CCR Title 22, Division 4, Chapter 3.
- c. Spray irrigation of recycled water shall be accomplished at a time and in a manner to minimize the possibility of ponding, surface runoff and public contact with recycled water.
- d. The incidental discharge of recycled water to waters of the State shall not unreasonably affect the beneficial uses of the water, and not result in an exceedance of an applicable water quality objective in the receiving water.<sup>3</sup>

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<sup>3</sup> February 24, 2004, SWRCB memorandum re: Incidental Runoff of Recycled Water.

- e. The application of undisinfected secondary recycled water shall comply with the Land Discharge Specifications contained within Section IV.B.2. of this Order.

## **2. Use Area Requirements**

- a. No irrigation with, or impoundment of, undisinfected secondary recycled water shall take place within 150 feet of any domestic water supply well.
- b. Any use of recycled water shall comply with the following:
  - i. Any irrigation runoff shall be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized by the regulatory agency.
  - ii. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.
  - iii. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
- b. No spray irrigation of any recycled water, other than disinfected tertiary recycled water, shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
- c. All use areas where recycled water is used 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." Each sign shall display an international symbol similar to that shown in figure 60310-A of CCR Title 22 §60310. The Executive Officer may accept alternative signage and wording, or an educational program, provided the applicant demonstrates to the Executive Officer that the alternative approach will assure an equivalent degree of public notification.

## **3. Design and Operation Requirements**

- a. Except as allowed under CCR Title 17 §7604, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
- b. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.
- c. If the recycled water use area (horse pasture) is to include both potable and recycled water distribution piping and appurtenances (i.e. dual plumed system), the Discharger shall be responsible for all applicable requirements contained within CCR Title 22, Division 4, Chapter 3, Article 5 for Dual Plumbed Recycled Water Systems.

- d. The public water supply shall not be used as a backup or supplemental source of water for a dual-plumbed recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of CCR Title 17 §7602(a) and CCR Title 17 §7603(a), and the approval of the public water system has been obtained.<sup>4</sup>
- e. All pipes installed above or below the ground, on and after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape.<sup>5</sup>
- f. Personnel involved in producing, transporting, or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water.
- g. The Discharger shall ensure that all above-ground equipment, including pumps, piping, storage reservoirs, and valves, etc. under their control which may at any time contain reclaimed water shall be adequately and clearly identified with warning signs. The Discharger shall make all necessary provisions to inform the public that the water being stored or distributed is reclaimed municipal wastewater and is unfit for human consumption.
- h. The Discharger shall implement a Cross Connection Control Plan to protect the public water supply system. The Cross Connection Plan shall be reviewed and updated annually as necessary. A copy of the revised Plan or statement indicating the Plan has been reviewed, but not updated shall be submitted to the Water Board as part of the Discharger's annual monitoring report.
- i. Reclamation facilities shall be operated in conformance with the California Department of Public Health Services' (CDPH) *Guidelines for Use of Reclaimed Wastewater for Irrigation and Impoundment, Guidelines for Worker Protection at Reclamation Use Areas*, and the American Water Works Association, California-Nevada Section's *Guidelines for the Distribution of Non-potable Water*.

## V. RECEIVING WATER LIMITATIONS

### A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan, are consistent with the SIP, and are a required part of this Order. Discharges from the wastewater treatment facility shall not cause or contribute to exceedance of the following conditions in receiving waters:

1. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. Coloration attributable to materials of waste origin shall not be greater than 15 units or 10 percent above natural background color, whichever is greater.

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<sup>4</sup> CCR Title 22, Div. 4, Chap. 3, Article 5, § 60315

<sup>5</sup> California Health & Safety Code § 116815

2. Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.
3. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
4. Waters shall not contain suspended material in concentrations that cause nuisance or adversely affects beneficial uses.
5. Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.
6. Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.
7. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
8. The suspended sediment load and suspended sediment discharge rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
9. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increase in turbidity attributable to controllable water quality factors shall not exceed the following limits.
  - a. Where natural turbidity is between 0 and 50 Jackson Turbidity Units (JTU), increases shall not exceed 20 percent.
  - b. Where natural turbidity is between 50 and 100 JTU, increases shall not exceed 10 JTU.
  - c. Where natural turbidity is greater than 100 JTU, increases shall not exceed 10 percent.
10. The pH value shall not be depressed below 7.0 nor raised above 8.5. The change in normal ambient pH levels shall not exceed 0.5 in fresh water.
11. Dissolved oxygen concentrations in receiving waters shall not be reduced below 5.0 mg/L at any time.

12. Natural temperature of receiving waters shall not be altered unless it can be demonstrated to the satisfaction of the Central Coast Water Board that such alteration in temperature does not adversely affect beneficial uses.
13. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality conditions shall not be less than that for the same water body in areas unaffected by the waste discharge.
14. The discharge of wastes shall not cause concentrations of unionized ammonia (NH<sub>3</sub>) to exceed 0.025 mg/L (as N) in the receiving water.
15. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect the beneficial uses of the receiving water. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life. For waters where existing concentrations are presently nondetectable or where beneficial uses would be impaired by concentrations in excess of nondetectable levels, total identifiable chlorinated hydrocarbon pesticides shall not be present at concentrations detectable within the accuracy of analytical methods as prescribed in Standard Methods for the Examination of Water and Wastewater, latest edition, or other equivalent methods approved by the Executive Officer.
16. Waters shall not contain organic substances in concentrations greater than the following.

**Table 6. Organic Substances Water Quality Objectives**

Parameter	Water Quality Objective
Phenol	0.1 mg/L
Methylene Blue Activated Substances	0.2 mg/L
Total Phenols	0.1 mg/L
PCBs	0.3 µg/L
Phthalate Esters	0.002 µg/L

17. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent, which presents a hazard to human, plant, animal, or aquatic life. In no circumstance shall receiving waters contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) for radioactivity presented in Table 4 of CCR Title 22, Division 4, Chapter 15, Article 5.
18. Receiving waters shall not contain concentrations of chemical constituents in excess of the primary MCLs specified for drinking water in Table 64431-A (Primary MCLs for Inorganic Chemicals) and Table 64444-A (Primary MCLs for Organic Chemicals) of CCR Title 22, Division 4, Chapter 15.
19. Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 mL, nor shall more

than 10 percent of samples collected during any 30-day period exceed 400 per 100 mL.

20. The following surface water quality objectives for the Nacimiento River shall not be exceeded:

**Table 7. Salinity Water Quality Objectives**

TDS	Chloride	Sulfate	Boron	Sodium
200 mg/L	20 mg/L	50 mg/L	0.2 mg/L	20 mg/L

21. The following concentrations of metals shall not be exceeded for the protection of aquatic life:

**Table 8. Toxic Metal Water Quality Objectives**

Parameter	Receiving Water Hardness	
	>100 mg/L CaCO <sub>3</sub>	<100 mg/L CaCO <sub>3</sub>
Cadmium	0.03	0.004
Chromium	0.05	0.05
Copper	0.03	0.01
Lead	0.03	0.03
Mercury	0.0002	0.0002
Nickel	0.4	0.1
Zinc	0.2	0.004

**B. Groundwater Objectives**

The Discharger shall not cause or contribute to an exceedance of the following water quality objectives for groundwater established by the Basin Plan:

1. Groundwater shall not contain taste or odor-producing substances in concentrations that adversely affect beneficial uses.
2. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or results in the accumulation or radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.
3. The median concentration of coliform organisms in groundwater, over any seven-day period, shall be less than 2.2 organisms per 100 milliliters.
4. Groundwater shall not contain concentrations of chemical constituents in excess of the primary MCLs specified for drinking water in Table 64431-A (Primary MCLs for Inorganic Chemicals) and Table 64444-A (Primary MCLs for Organic Chemicals) of CCR Title 22, Division 4, Chapter 15.
5. Groundwater shall not contain concentrations of chemical constituents in amounts that adversely affect the agricultural supply beneficial use. Interpretation of adverse effects shall be as described in *University of California Agricultural Extension Service guidelines provided in Table 3-3 of the Central Coast Basin Plan*.

6. Groundwater used for irrigation and livestock watering shall not exceed concentrations of chemical constituents in excess of those levels specified for irrigation and livestock watering in Section III, Table 3-4 of the Basin Plan.

## VI. PROVISIONS

### A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **Central Coast Water Board Standard Provisions.** The Discharger shall comply with all Central Coast Water Board Standard Provisions included in Attachment D-1 of this Order.

### B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order. All monitoring shall be conducted according to 40 CFR Part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

### C. Special Provisions

#### 1. Reopener Provisions

This permit may be reopened and modified in accordance with NPDES regulations at 40 CFR 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any USEPA approved, new, State water quality objective.

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

##### a. Toxicity Reduction Requirements

If the discharge consistently exceeds the effluent limitation for toxicity specified by section IV.A.1.a of this Order, or is otherwise requested by the Central Coast Water Board, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's TRE Workplan.

A TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases -

characterization, identification, and confirmation using aquatic organism toxicity tests. The TRE shall include all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

The Discharger shall maintain a TRE Workplan, which describes steps that the Discharger intends to follow in the event that a toxicity effluent limitation established by this Order is exceeded in the discharge. The TRE Workplan shall be prepared in accordance with current technical guidance and reference material, including EPA/600/2-88-070 (for industrial discharges) or EPA/600/2-88/062 (for municipal discharges), and shall include, at a minimum:

- i. Actions that will be taken to investigate/identify the causes/sources of toxicity;
- ii. Actions that will be evaluated to mitigate the impact of the discharge, to correct the non-compliance, and/or to prevent the recurrence of acute or chronic toxicity (this list of action steps may be expanded, if a TRE is undertaken); and
- iii. A schedule under which these actions will be implemented.

When monitoring measures toxicity in the effluent above a limitation established by this Order, the Discharger shall resample immediately, if the discharge is continuing, and retest for whole effluent toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer as soon as possible following receipt of monitoring results. The Executive Officer will determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE, or to implement other measures. The Discharger shall conduct a TRE giving due consideration to guidance provided by the USEPA’s TRE Procedures, Phases 1, 2, and 3 (USEPA document Nos. EPA 600/3-88/034, 600/3-88/035, and 600/3-88/036, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

**Table 9. Toxicity Reduction Evaluation—Schedule**

Action Step	When Required
Take all reasonable measures necessary to immediately reduce toxicity, where the source is known.	Within 24 hours of identification of noncompliance.
Initiate the TRE in accordance to the TRE Workplan.	Within 7 days of notification by the Executive Officer
Conduct the TRE following the procedures in the TRE Workplan.	Within the period specified in the TRE Workplan (not to exceed one year, without an approved TRE Workplan)
Submit the results of the TRE, including summary of findings, required corrective action, and all results and data.	Within 60 days of completion of the TRE
Implement corrective actions to meet Permit limits and conditions.	To be determined by the Executive Officer

## **b. Land Disposal Work Plan Requirements**

For consideration to receive written authorization from the Executive Officer for land disposal as specified in sections II.B and IV.B. of this Order, the Discharger shall submit a detailed workplan to the Central Coast Water Board for review. The workplan shall be sufficient to ensure the land disposal sites will be constructed and managed in a manner that is consistent with the requirements of this Order and will not result in a hydraulic connection to surface waters or degrade groundwater quality. At a minimum, the workplan shall include final engineering reports, designs, and an operations and maintenance plan. Additional information/materials may be requested upon review of the initial work plan package.

## **c. Recycled Water Engineering Report Requirements**

For consideration to receive written authorization from the Executive Officer for water recycling as specified in sections II.B and IV.C. of this Order, the Discharger shall submit an engineering report to the Central Coast Water Board and CDPH for review and approval. The engineering report shall clearly describe the manner by which the project will comply with the Water Recycling Criteria contained within CCR Title 22 § 60301 through CCR Title 22 §60355. Engineering report requirements are contained within section 60323 of Title 22 and the CDPH March 2001 guidance document, "Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water." Links to CCR Title 22 and the CDPH guidance document are available upon request or at the following CDPH website link:

<http://www.cdph.ca.gov/HealthInfo/environhealth/water/Pages/Waterrecycling.aspx>

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

### **a. Salt and Nutrient Management Program**

- i. Within one year of the effective date of this Order, the Discharger shall develop, implement, and maintain an ongoing salt/nutrient management program with the intent of reducing mass loading of salts and nutrients (with an emphasis on nitrogen species) in treated effluent to a level that will ensure compliance with effluent limitations and protect beneficial uses of groundwater.
- ii. Salt reduction measures shall focus on all potential salt contributors to the collection system, including water supply, commercial, industrial and residential dischargers. The salt/nutrient management program shall also address the concentration of salts in the wastewater treatment process as a result of excessive hydraulic retention times and/or chemical addition.
- iii. Nutrient reduction measures shall focus on optimizing wastewater treatment processes for nitrification and denitrification, or other means of nitrogen

removal. Reduction measures may also include source control (non-human waste from commercial and industrial sources) as appropriate.

- iv. As part of the salt/nutrient management program, the Discharger shall submit an annual report of salt and nutrient reduction efforts. This salt/nutrient management report shall be included as part of the annual report described in Monitoring and Reporting Program No. R3-2011-0007. The report shall be submitted by January 30<sup>th</sup>, and shall include (at a minimum):

**1) Salt Component**

- a) Calculations of annual salt mass discharged to (influent) and from (effluent) the wastewater treatment or recycling facility with a description of contributing sources;
- b) Analysis of wastewater evaporation/salt concentration effects;
- c) Analysis of groundwater monitoring results for salts constituents and associated trends;
- d) Analysis of potential impacts of salt loading on the groundwater basin (focusing on the relationship between salt concentration in the discharge and the Basin Plan water quality objectives);
- e) A summary of existing salt reduction measures; and
- f) Recommendations and time schedules for implementation of any additional salt reduction measures.

**2) Nutrient Component**

- a) Calculations of annual nitrogen mass (for all identified species) discharged to (influent) and from (effluent) the wastewater treatment or recycling facility with a description of contributing sources;
- b) Analysis of wastewater treatment facility ability to facilitate nitrification and denitrification, or other means of nitrogen removal;
- c) Analysis of groundwater monitoring results for nitrogen constituents and trends;
- d) Analysis of potential impacts of nitrogen loading on the groundwater basin (focusing on the relationship between salt concentration in the discharge and the Basin Plan water quality objectives);
- e) A summary of existing nitrogen loading reduction measures; and
- f) Recommendations and time schedules for implementation of any

additional nitrogen loading reduction measures.

- v. As an alternative to the salt/nutrient management program requirements described above, upon Executive Officer approval, the Discharger may submit documentation and summary of participation in a regional salt/nutrient management plan implemented under the provisions of State Water Board Resolution No. 2009-0011 (Recycled Water Policy).

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

- a. The Facility shall be operated as specified under Standard Provision D of Attachment D.
- b. Freeboard shall be equal or exceed two feet in all ponds at all times (measured vertically to the lowest point of overflow).
- c. The treatment, storage, and disposal facilities shall be managed to exclude the public and posted to warn the public of the presence of wastewater.
- d. Ponds shall be managed to prevent breeding of mosquitoes. In particular,
  - i. An erosion control program should ensure that small coves and irregularities are not created around the perimeter of the water surface.
  - ii. Weeds shall be minimized, and
  - iii. Dead algae, vegetation, and debris shall not accumulate on the water surface.

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

- a. **Biosolids Management.** The handling, management, and disposal of sludge and solids derived from wastewater treatment must comply with applicable provisions of USEPA regulations at 40 CFR 257,258, 501, and 503, including all monitoring, record keeping, and reporting requirements.

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. Sites for solids and sludge treatment and storage shall have adequate facilities to divert surface water runoff from adjacent areas to protect the boundaries of such sites from erosion, and to prevent drainage from treatment and storage sites.

The treatment, storage, disposal, or reuse 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 into waters of the State. The Discharger is responsible for assuring that all biosolids produced at its facility are used or disposed of in accordance with the above rules, whether the Discharger uses or disposes of the biosolids itself, or transfers them to another party for further treatment, use, or disposal. The Discharger is responsible for informing

subsequent preparers, applicers, and disposers of the requirements that they must adhere to under these rules.

## 6. Other Special Provisions

- a. **Discharges of Storm Water.** For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, if applicable, the Discharger shall seek authorization to discharge under and meet the requirements of the State Water Board's Water Quality Order 97-03-DWQ, NPDES General Permit No. CAS0000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.
- b. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ).** This General Permit, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Discharger is enrolled under the Statewide General Permit. The Discharger's WDID number for coverage under the General Permit is 355010275.

## 7. Compliance Schedules – Not Applicable

## VII. COMPLIANCE DETERMINATION

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

- A. **General.** Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Central Coast Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).
- B. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

## ATTACHMENT A – DEFINITIONS

### Acute Toxicity:

a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{\frac{96\text{-hr LC}}{50\%}}$$

b. Lethal Concentration 50% (LC 50)

LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log(100 - S)}{1.7}$$

where: S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

**Areas of Special Biological Significance (ASBS):** are those areas designated by the 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.

**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.

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

**Chronic Toxicity:** This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

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

b. No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

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

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

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

**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)** are those sample results less than the reported Minimum Level, but greater than or equal to the laboratory's MDL.

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

**Downstream Ocean Waters** shall mean 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”.

**Enclosed Bays** are 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 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** shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

**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 CWC § 12220), Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

**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.

**Initial Dilution** is 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 Central Coast Water Board, whichever results in the lower estimate for initial dilution.

**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.

**Mariculture** is 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.

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

**Minimum Level (ML)** is the concentrations 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.

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

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

**Ocean Waters** are the territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. 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)** shall mean 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)** shall mean 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.

**Pollutant Minimization Program (PMP)** means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table B 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 Central Coast Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC §13263.3(d), shall be considered to fulfill the PMP requirements.

**Reported Minimum Level** is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Central Coast 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 reported ML.

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

**Shellfish** are organisms identified by the CDPH as shellfish for public health purposes (i.e., mussels, clams and oysters).

**Significant Difference** is 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.

**State Water Quality Protection Areas (SWQPAs)** are 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** shall mean 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

**Toxicity Reduction Evaluation (TRE)** is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A TOXICITY IDENTIFICATION EVALUATION (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

**Waste:** As used in the Ocean Plan, waste includes a Discharger’s total discharge, of whatever origin, i.e., gross, not net, discharge.

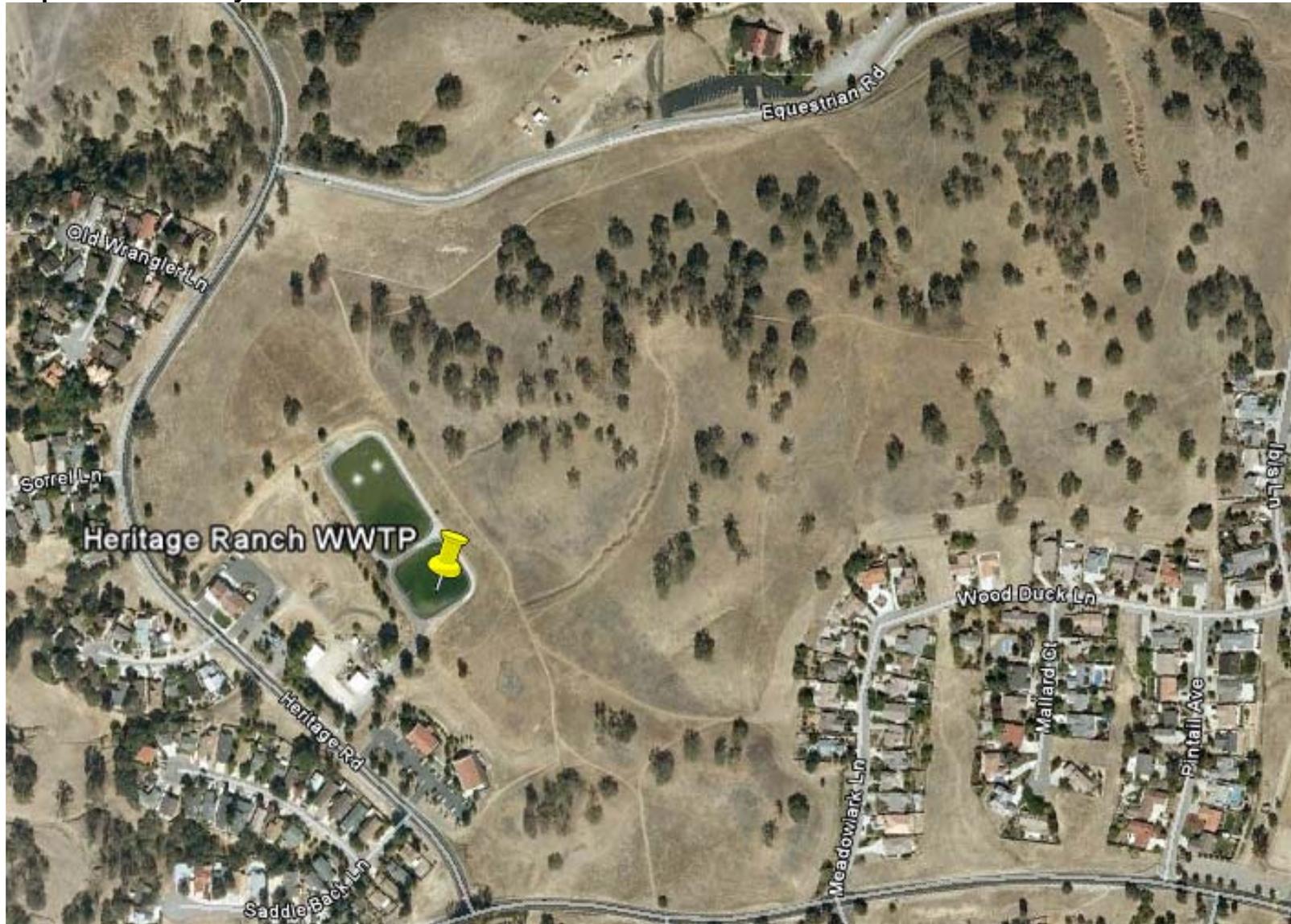
**Water Reclamation:** The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

## ATTACHMENT B – MAP

Map B-1. Facility Location and Discharge Point



### Map B-2. Facility Location



**Map B-3. Spray Irrigation Field – Current Evaporation/Percolation Ponds**



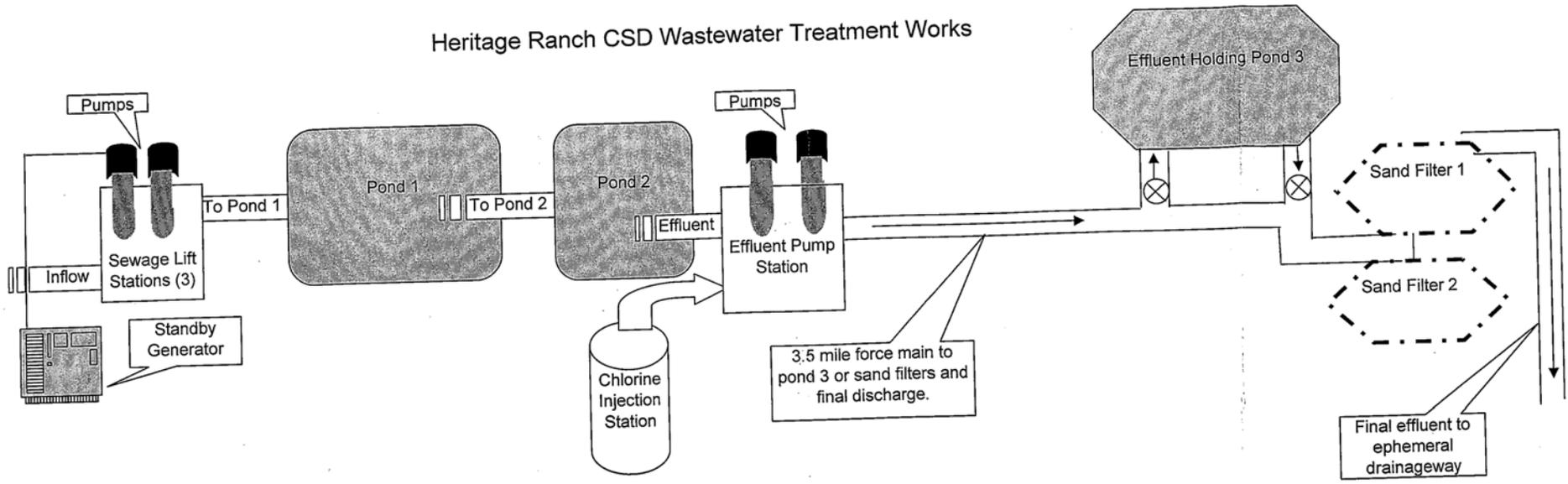
**Map B-4. Spray Irrigation Field – Adjacent to the Nacimientto Research Center**



**Map B-5. Spray Irrigation Field – Adjacent to Facility**



### ATTACHMENT C – FLOW SCHEMATIC



The Heritage Ranch CSD wastewater treatment process begins with influent from a residential community pumped via three main lift stations. The plant has a capacity of .400 MGD with current average influent of 0.18 MGD. Pond 1 is a combination aerated lagoon and facultative pond. Typically the BOD and suspended solids are reduced by 57% from influent. Pond 2 is a polishing pond with a one to two week detention time. Typically the BOD and suspended solids are reduced by 34% from influent in pond 2. Sodium hypochlorite is injected at the effluent pump station and pumped 3.5 miles in a six inch force main to the final treatment area. The free chlorine residual is maintained between 1 and 2 mg/l. The coliform organisms average less than 2 MPN. There is some biological process occurring in the force main, resulting in a 13% reduction in suspended solids and BOD. Chlorinated effluent can be directed to either the sand filters or first pond 3 then the underground collection system at the sand filters. Final discharge down an unnamed ephemeral drainageway occurs approximately 335 times per year with a flow of 0.18 MGD. The effluent is dechlorinated prior to discharge and travels down the ephemeral drainageway approximately 1.5 miles and then percolates upon meeting the Monterey geological formation which is known for its high permeability. The effluent can only flow to a surface water body during very heavy rainfall when there is a high volume of natural flow in the drainageway.

## ATTACHMENT D –STANDARD PROVISIONS

### I. FEDERAL STANDARD PROVISIONS

#### A. Federal Standard Provisions – Permit Compliance

##### 1. Duty to Comply

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

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

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

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

##### 5. Property Rights

- a. This Order does not convey any property rights of any sort or any exclusive privileges [40 CFR § 122.41(g)].
- b. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations [40 CFR §122.5(c)].

6. **Inspection and Entry.** The Discharger shall allow the Central Coast Water Board, State Water Board, USEPA, and/or their authorized representatives (including an

authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR §122.41(i); CWC §13383]:

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

## 7. Bypass

### a. Definitions

- i. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [40 CFR §122.41(m)(1)(i)].
  - ii. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 CFR §122.41(m)(1)(ii)].
- b. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Federal Standard Provisions – Permit Compliance I.A.7.c, I.A.7.d, and I.A.7.e below [40 CFR §122.41(m)(2)].
- c. Prohibition of bypass. Bypass is prohibited, and the Central Coast Water Board may take enforcement action against a Discharger for bypass, unless [40 CFR §122.41(m)(4)(i)]:
- i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR §122.41(m)(4)(i)(A)];
  - ii. There were no feasible alternatives to the bypass, such as use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if

- adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR §122.41(m)(4)(i)(B)]; and
- iii. The Discharger submitted notice to the Central Coast Water Board as required under Federal Standard Provisions – Permit Compliance I.A.7.e below [40 CFR §122.41(m)(4)(i)(C)].
  - d. The Central Coast Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Coast Water Board determines that it will meet the three conditions listed in Federal Standard Provisions – Permit Compliance I.A.7.c above [40 CFR §122.41(m)(4)(ii)].
  - e. Notice
    - i. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR §122.41(m)(3)(i)].
    - ii. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Federal Standard Provisions - Reporting I.E.5 below (24-hour notice) [40 CFR §122.41(m)(3)(ii)].
8. **Upset.** Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 CFR §122.41(n)(1)].
- a. 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 Federal Standard Provisions – Permit Compliance I.A.8.b below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR §122.41(n)(2)].
  - b. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR §122.41(n)(3)]:
    - i. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 CFR §122.41(n)(3)(i)];

- ii. The permitted facility was, at the time, being properly operated [40 CFR §122.41(n)(3)(ii)];
  - iii. The Discharger submitted notice of the upset as required in Federal Standard Provisions – Reporting I.E.5.b.ii below (24-hour notice) [40 CFR §122.41(n)(3)(iii)]; and
  - iv. The Discharger complied with any remedial measures required under Federal Standard Provisions – Permit Compliance I.A.3 above [40 CFR §122.41(n)(3)(iv)].
- c. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [40 CFR §122.41(n)(4)].

## **B. Federal Standard Provisions – Permit Action**

1. **General.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [40 CFR §122.41(f)].
2. **Duty to Reapply.** If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [40 CFR §122.41(b)].
3. **Transfers.** This Order is not transferable to any person except after notice to the Central Coast Water Board. The Central Coast Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code [40 CFR §122.41(l)(3); §122.61].

## **C. Federal Standard Provisions – Monitoring**

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

## **D. Federal Standard Provisions – Records**

1. **Records Retention.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for

continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Coast Water Board Executive Officer at any time. (40 CFR §122.41(j)(2).)

**2. Records of monitoring information shall include:**

- a. The date, exact place, and time of sampling or measurements [40 CFR §122.41(j)(3)(i)];
- b. The individual(s) who performed the sampling or measurements [40 CFR §122.41(j)(3)(ii)];
- c. The date(s) analyses were performed [40 CFR §122.41(j)(3)(iii)];
- d. The individual(s) who performed the analyses [40 CFR §122.41(j)(3)(iv)];
- e. The analytical techniques or methods used [40 CFR §122.41(j)(3)(v)]; and
- f. The results of such analyses [40 CFR §122.41(j)(3)(vi)].

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

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

**E. Federal Standard Provisions – Reporting**

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

**2. Signatory and Certification Requirements**

- a. All applications, reports, or information submitted to the Central Coast Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Federal Standard Provisions – Reporting I.E.2.b, I.E.2.c, I.E.2.d and I.E.2.e below [40 CFR §122.41(k)].

- b. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [40 CFR §122.22(a)(1)].
- c. All reports required by this Order and other information requested by the Central Coast Water Board, State Water Board, or USEPA shall be signed by a person described in Federal Standard Provisions – Reporting I.E.2.b above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - i. The authorization is made in writing by a person described in Federal Standard Provisions – Reporting I.E.2.b above [40 CFR §122.22(b)(1)];
  - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) [40 CFR §122.22(b)(2)]; and
  - iii. The written authorization is submitted to the Central Coast Water Board and State Water Board [40 CFR §122.22(b)(3)].
- d. If an authorization under Federal Standard Provisions – Reporting I.E.2.c 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 Central Coast Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].
- e. Any person signing a document under Federal Standard Provisions – Reporting I.E.2.b or I.E.2.c above shall make the following certification:

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

### 3. Monitoring Reports

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

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

### 5. Twenty-Four Hour Reporting

- a. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 CFR §122.41(l)(6)(i)].

- b. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR §122.41(l)(6)(ii)]:
    - i. Any unanticipated bypass that exceeds any effluent limitation in this Order [40 CFR §122.41(l)(6)(ii)(A)].
    - ii. Any upset that exceeds any effluent limitation in this Order [40 CFR §122.41(l)(6)(ii)(B)].
  - c. The Central Coast Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 CFR §122.41(l)(6)(iii)].
6. **Planned Changes.** The Discharger shall give notice to the Central Coast Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 CFR §122.41(l)(1)]:
- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) [40 CFR §122.41(l)(1)(i)]; or
  - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order [40 CFR §122.41(l)(1)(ii)].
  - c. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 CFR §122.41(l)(1)(iii)].
7. **Anticipated Noncompliance.** The Discharger shall give advance notice to the Central Coast Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. [40 CFR §122.41(l)(2)].
8. **Other Noncompliance.** The Discharger shall report all instances of noncompliance not reported under Federal Standard Provisions – Reporting I.E.3, I.E.4, and I.E.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Federal Standard Provisions – Reporting I.E.5 above. [40 CFR §122.41(l)(7)].
9. **Other Information.** When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Coast Water Board, State Water

Board, or USEPA, the Discharger shall promptly submit such facts or information [40 CFR §122.41(l)(8)]

#### **F. Federal Standard Provisions – Enforcement**

1. The Central Coast Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, CWC §13385, CWC §13386, and CWC §13387.

#### **G. Additional Federal Provisions – Notification Levels**

1. **Non-Municipal Facilities.** Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Central Coast Water Board as soon as they know or have reason to believe [40 CFR §122.42(a)]:
  - a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(1)]:
    - i. 100 micrograms per liter ( $\mu\text{g/L}$ ) [40 CFR §122.42(a)(1)(i)];
    - ii. 200  $\mu\text{g/L}$  for acrolein and acrylonitrile; 500  $\mu\text{g/L}$  for 2,4-dinitrophenol and 2-methyl-4, 6-dinitrophenol; and 1 milligram per liter ( $\text{mg/L}$ ) for antimony [40 CFR §122.42(a)(1)(ii)];
    - iii. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(1)(iii)]; or
    - iv. The level established by the Central Coast Water Board in accordance with 40 CFR Section 122.44(f) [40 CFR §122.42(a)(1)(iv)].
  - b. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(2)]:
    - i. 500 micrograms per liter ( $\mu\text{g/L}$ ) [40 CFR §122.42(a)(2)(i)];
    - ii. 1 milligram per liter ( $\text{mg/L}$ ) for antimony [40 CFR §122.42(a)(2)(ii)];
    - iii. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(2)(iii)]; or
    - iv. The level established by the Central Coast Water Board in accordance with 40 CFR §122.44(f) [40 CFR §122.42(a)(2)(iv)].

**2. Publicly-Owned Treatment Works (POTWs).** All POTWs shall provide adequate notice to the Central Coast Water Board of the following [40 CFR § 122.42(b)]:

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

**II. CENTRAL COAST REGION'S STANDARD PROVISIONS (JANUARY 1985)**

**A. Central Coast Water Board General Permit Conditions**

**1. Central Coast Standard Provisions – Prohibitions**

- a. Introduction of "incompatible wastes" to the treatment system is prohibited.
- b. Discharge of high-level radiological waste and of radiological, chemical, and biological warfare agents is prohibited.
- c. Discharge of "toxic pollutants" in violation of effluent standards and prohibitions established under CWA §307(a) is prohibited.
- d. Discharge of sludge, sludge digester or thickener supernatant, and sludge drying bed leachate to drainageways, surface waters, or the ocean is prohibited.
- e. Introduction of pollutants into the collection, treatment, or disposal system by an "indirect discharger" that:
  - i. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,
  - ii. Flow through the system to the receiving water untreated; and,
  - iii. Cause or "significantly contribute" to a violation of any requirement of this Order, is prohibited.
- f. Introduction of "pollutant free" wastewater to the collection, treatment, and disposal system in amounts that threaten compliance with this order is prohibited.

**2. Central Coast Standard Provisions – Provisions**

- a. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by CWC §13050.

- b. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.
- c. Operation of collection, treatment, and disposal systems shall be in a manner that precludes public contact with wastewater.
- d. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed in a manner approved by the Executive Officer.
- e. Publicly owned wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23 of the California Administrative Code.
- f. After notice and opportunity for a hearing, this order may be terminated for cause, including, but not limited to:
  - i. violation of any term or condition contained in this order;
  - ii. obtaining this order by misrepresentation, or by failure to disclose fully all relevant facts;
  - iii. a change in any condition or endangerment to human health or environment that requires a temporary or permanent reduction or elimination of the authorized discharge; and,
  - iv. a substantial change in character, location, or volume of the discharge.
- g. Provisions of this permit are severable. If any provision of the permit is found invalid, the remainder of the permit shall not be affected.
- h. After notice and opportunity for hearing, this order may be modified or revoked and reissued for cause, including:
  - i. Promulgation of a new or revised effluent standard or limitation;
  - ii. A material change in character, location, or volume of the discharge;
  - iii. Access to new information that affects the terms of the permit, including applicable schedules;
  - iv. Correction of technical mistakes or mistaken interpretations of law; and,
  - v. Other causes set forth under Sub-part D of 40 CFR Part 122.
- i. Safeguards shall be provided to assure maximal compliance with all terms and conditions of this permit. Safeguards shall include preventative and contingency

plans and may also include alternative power sources, stand-by generators, retention capacity, operating procedures, or other precautions. Preventative and contingency plans for controlling and minimizing the affect of accidental discharges shall:

- i. identify possible situations that could cause "upset", "overflow" or "bypass", or other noncompliance. (Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.)
  - ii. evaluate the effectiveness of present facilities and procedures and describe procedures and steps to minimize or correct any adverse environmental impact resulting from noncompliance with the permit.
- j. Physical Facilities shall be designed and constructed according to accepted engineering practice and shall be capable of full compliance with this order when properly operated and maintained. Proper operation and maintenance shall be described in an Operation and Maintenance Manual. Facilities shall be accessible during the wet-weather season.
- k. Production and use of reclaimed water is subject to the approval of the Central Coast Water Board. Production and use of reclaimed water shall be in conformance with reclamation criteria established in Chapter 3, Title 22, of the California Administrative Code and CWC Chapter 7, Division 7. An engineering report pursuant to §60323, Title 22, of the California Administrative Code is required and a waiver or water reclamation requirements from the Central Coast Water Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by this Board.

## **B. Central Coast Standard Provisions – General Monitoring Requirements**

1. If results of monitoring a pollutant appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or non-compliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be maintained until the Executive Officer agrees the original monitoring frequency may be resumed.

For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions II.F.13.). If suspended solids are monitored weekly and results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (Central Coast Standard Provisions – Definitions II.F.14.).

2. Water quality analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the CDPH for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Board and the State Department of Fish and Game. If the laboratory used or proposed for use by the discharger is not certified by the CDPH or, where appropriate, the Department of Fish and Game due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided:
  - a. Data results remain consistent with results of samples analyzed by the Central Coast Water Board;
  - b. A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Central Coast Water Board; and,
  - c. Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.
3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken during periods of peak loading conditions. Influent samples shall be samples collected from the combined flows of all incoming wastes, excluding recycled wastes. Effluent samples shall be samples collected downstream of the last treatment unit and tributary flow and upstream of any mixing with receiving waters.
4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

### **C. Central Coast Standard Provisions – General Reporting Requirements**

1. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of the Monitoring and Reporting Program shall include at least the following information:
  - a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.).
  - b. A description of sampling stations, including differences unique to each station (e.g., station location, grain size, rocks, shell litter, calcareous worm tubes, evident life, etc.).
  - c. A description of the sampling procedures and preservation sequence used in the survey.

- d. A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to (Central Coast Standard Provisions – Definitions II.B.1 above, and Federal Standard Provision – Monitoring I.C.1. However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.
  - e. A brief discussion of the results of the survey. The discussion shall compare data from the control station with data from the outfall stations. All tabulations and computations shall be explained.
2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.
  3. The “Discharger” shall file a report of waste discharge or secure a waiver from the Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.
  4. Within 120 days after the discharger discovers, or is notified by the Central Coast Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the discharger shall file a written report with the Central Coast Water Board. The report shall include:
    - a. the best estimate of when the monthly average daily dry weather flow rate will equal or exceed design capacity; and,
    - b. a schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

In addition to complying with Federal Standard Provision – Reporting I.E.2, the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

5. All “Dischargers” shall submit reports to the:

Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

In addition, "Dischargers" with designated major discharges shall submit a copy of each document to:

Regional Administrator  
US Environmental Protection Agency, Region 9  
Attention: CWA Standards and Permits Office (WTR-5)  
75 Hawthorne Street  
San Francisco, California 94105

6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Central Coast Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing “Discharger” and proposed “Discharger” containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Federal Standard Provision – Permit Action IB.3.
7. Except for data determined to be confidential under CWA §308 (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Central Coast Water Board or USEPA Regional Administrator. Please also see Federal Standard Provision – Records I.D.3.
8. By January 30th of each year, the discharger shall submit an annual report to the Central Coast Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The discharger shall discuss the compliance record and corrective actions taken, or which may be needed, to bring the discharge into full compliance. The report shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall inform the Board of the date of the Facility's Operation and Maintenance Manual (including contingency plans as described Central Coast Standard Provision – Provision II.A.2.i), of the date the manual was last reviewed, and whether the manual is complete and valid for the current facility. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with effluent limits and provide a summary of performance relative to Section B above, General Monitoring Requirements.

If the facility treats industrial or domestic wastewater and there is no provision for periodic sludge monitoring in the Monitoring and Reporting Program, the report shall

include a summary of sludge quantities, analyses of its chemical and moisture content, and its ultimate destination.

If applicable, the report shall also evaluate the effectiveness of the local source control or pretreatment program using the State Water Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Programs."

#### **D. Central Coast Standard Provisions – General Pretreatment Provisions**

1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 CFR Part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 CFR Chapter 1, Subchapter N), shall comply with the appropriate pretreatment standards:
  - a. By the date specified therein;
  - b. Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,
  - c. If a new indirect discharger, upon commencement of discharge.

#### **E. Central Coast Standard Provisions – Enforcement**

1. Any person failing to file a report of waste discharge or other report as required by this permit shall be subject to a civil penalty not to exceed \$5,000 per day.
2. Upon reduction, loss, or failure of the treatment facility, the "Discharger" shall, to the extent necessary to maintain compliance with this permit, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.

#### **F. Central Coast Standard Provisions – Definitions**

##### **(Not otherwise included in Attachment A to this Order)**

1. A "composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.
2. "Daily Maximum" limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples" except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a "grab sample".
3. "Discharger", as used herein, means, as appropriate: (1) the Discharger; (2) the local sewerage entity (when the collection system is not owned and operated by the

Discharger); or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger", it refers to the discharger.)

4. "Duly Authorized Representative" is one where:
  - a. the authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision I.E.2;
  - b. the authorization specifies either an individual or the occupant of a position having either responsibility for the overall operation of the regulated facility, such as the plant manager, or overall responsibility for environmental matters of the company; and,
  - c. the written authorization was submitted to the Central Coast Water Board.
5. A "grab sample" is defined as any individual sample collected in less than 15 minutes. "Grab samples" shall be collected during peak loading conditions, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the daily maximum limits identified in Central Coast Standard Provision – Provision II.F.2 and instantaneous maximum limits.
6. "Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to CWA §311.
7. "Incompatible wastes" are:
  - a. Wastes which create a fire or explosion hazard in the treatment works;
  - b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes;
  - c. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;
  - d. Any waste, including oxygen demanding pollutants (BOD, etc), released in such volume or strength as to cause inhibition or disruption in the treatment works and subsequent treatment process upset and loss of treatment efficiency; and,
  - e. Heat in amounts that inhibit or disrupt biological activity in the treatment works or that raise influent temperatures above 40°C (104°F) unless the treatment works is designed to accommodate such heat.
8. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.
9. "Log Mean" is the geometric mean. Used for determining compliance of fecal or total coliform populations, it is calculated with the following equation:  
$$\text{Log Mean} = (C1 \times C2 \times \dots \times Cn)^{1/n}$$

in which "n" is the number of days samples were analyzed during the period and any "C" is the concentration of bacteria (MPN/100 ml) found on each day of sampling. "n" should be five or more.

10. "Mass emission rate" is a daily rate defined by the following equations:

mass emission rate (lbs/day) = 8.34 x Q x C; and,

mass emission rate (kg/day) = 3.79 x Q x C,

where "C" (in mg/l) is the measured daily constituent concentration or the average of measured daily constituent concentrations and "Q" (in MGD) is the measured daily flow rate or the average of measured daily flow rates over the period of interest.

11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph F.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.
12. "Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision II.F.10, above, using the "six-month Median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.
13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.
14. "Monthly Average" (or "Weekly Average", as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period
- $$\text{Average} = (X_1 + X_2 + \dots + X_n) / n$$
- in which "n" is the number of days samples were analyzed during the period and "X" is either the constituent concentration (mg/l) or mass emission rate (kg/day or lbs/day) for each sampled day. "n" should be four or greater.
15. "Municipality" means a city, town, borough, county, district, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, industrial waste, or other waste.
16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.
17. "Pollutant-free wastewater" means inflow and infiltration, storm waters, and cooling waters and condensates which are essentially free of pollutants.

18. "Primary Industry Category" means any industry category listed in 40 CFR Part 122, Appendix A.
19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using "Monthly averages" of pollutant concentrations ( $C$ , in mg/l) of influent and effluent samples collected about the same time and the following equation (or its equivalent):
- $$C_{\text{Effluent}} \text{ Removal Efficiency (\%)} = 100 \times (1 - C_{\text{effluent}} / C_{\text{influent}})$$
20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in the absence of a "bypass". It does not mean economic loss caused by delays in production.
21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.
22. To "significantly contribute" to a permit violation means an "indirect discharger" must:
- Discharge a daily pollutant loading in excess of that allowed by contract with the "Discharger" or by Federal, State, or Local law;
  - Discharge wastewater which substantially differs in nature or constituents from its average discharge;
  - Discharge pollutants, either alone or in conjunction with discharges from other sources, which results in a permit violation or prevents sewage sludge use or disposal; or
  - Discharge pollutants, either alone or in conjunction with pollutants from other sources, that increase the magnitude or duration of permit violations.
23. "Toxic Pollutant" means any pollutant listed as toxic under CWA §307(a)(1) or under 40 CFR Part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions I.E.5.).
24. "Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water Board.

# ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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## ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC §13267 and CWC §13383 also authorize the Central Coast Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

### I. GENERAL MONITORING PROVISIONS

- A. Laboratories analyzing monitoring samples shall be certified by the CDPH, in accordance with CWC §3176, and must include quality assurance/quality control data with their reports.
- B. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and approval of the Central Coast Board.
- C. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.
1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
  2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
  3. *Flow Measurement in Open Channels and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
  4. *NPDES Compliance Sampling Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)
- D. All monitoring instruments and devices used by the Discharger 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 at least once per year to ensure continued accuracy of the devices.

- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.
- F. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 CFR 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2005) (SIP)*.

## II. MONITORING LOCATIONS

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

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Influent wastewater, prior to discharge to Pond 1, and following all significant inputs to the collection system of untreated wastewater and inflow and infiltration.
001A	EFF-001 (previously M-001)	Final effluent to the unnamed drainage way, prior to contact with receiving water flow. (35°, 43', 51" N Lat., 120°, 50', 21" W Long)
001B	LND-001B	Spray irrigation disposal area (35° 43' 31" N Lat., 120° 50' 24" W Long)
001C	LND-001C	Spray irrigation disposal area (35° 43' 15" N Lat., 120° 52' 59" W Long.)
001D	LND-001D	Spray irrigation reuse area (35° 43' 04" N Lat., 120° 51' 50" W Long)
--	RSW-001	Approximately 50 feet upstream of Discharge Point No. 001A, when flow exists, within the unnamed drainage way.
--	RSW-002	Approximately 100 feet downstream of Discharge Point No. 001A, when flow exists, within the unnamed drainage way.
--	BIO-001	Biosolids at the last point in the biosolids handling process where representative samples of residual solids from the treatment process can be obtained.

## III. INFLUENT MONITORING REQUIREMENTS

### A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the wastewater treatment facility at Monitoring Location INF-001 as follows.

**Table E-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow*	MGD	Measured	1/Day
Max Daily Flow	MGD	Calculated	1/Month
Mean Daily Flow	MGD	Calculated	1/Month
Biochemical Oxygen Demand (5-day @ 20°C) (BOD)	mg/L	24-hr composite	1/Month
Total Suspended Solids (TSS)	mg/L	24-hr composite	1/Month
Total Nitrogen (as N)	mg/L	24-hr composite	2/Year
Total Dissolved Solids (TDS)	mg/L	Grab	2/Year
Sodium	mg/L	Grab	2/Year
Chloride	mg/L	Grab	2/Year
Sulfate	mg/L	Grab	2/Year
Boron	mg/L	Grab	2/Year

Note: \* Flow monitoring is conducted via a flow totalizer downstream of the Pond 2 effluent pump station and closely approximates influent and effluent flows given the effluent pump station operation is governed by influent flow conditions to the wastewater treatment facility. Discrete influent and effluent flow monitoring is currently infeasible given three separate collection system force mains discharge to Pond 1. The Discharger is considering future upgrades to the facility that would include a headworks facility for influent flow monitoring and pretreatment.

**IV. EFFLUENT MONITORING REQUIREMENTS**

**A. Monitoring Location EFF-001**

1. The Discharger shall monitor effluent discharged to monitoring location EFF-001 (Discharge Point No. 001A) as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Levels.

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
BOD	mg/L	24-hr Composite	1/Week
TSS	mg/L	24-hr Composite	1/Week
Settleable Solids	mL/L	Grab	1/Week
Chlorine	mg/L	Grab	1/Week
Oil and Grease	mg/L	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Temperature	°F	Instantaneous	1/Month
Color	color units	Grab	1/Month
Turbidity	NTU	Grab	1/Month
Hardness	mg/L as CaCO <sub>3</sub>	Grab	1/Month
Total Dissolved Solids (TDS)	mg/L	Grab	2/Year
Sodium	mg/L	Grab	2/Year

Parameter	Units	Sample Type	Minimum Sampling Frequency
Sulfate	mg/L	Grab	2/Year
Boron	mg/L	Grab	2/Year
Chloride	mg/L	Grab	2/Year
Nitrate (as N)	mg/L	Grab	2/Year
Ammonia (as N)	mg/L	Grab	2/Year
Unionized ammonia (as N)	mg/L	Grab	2/Year
Total Nitrogen (as N)	mg/L	Grab	2/Year
Total Coliform	MPN/100 mL	Grab	2/Week
Fecal Coliform	MPN/100 mL	Grab	2/Week
Acute Toxicity <sup>[1]</sup>	% Survival	Grab	1/Year
Copper, Total Recoverable	µg/L	Grab	2/Year
Aluminum	µg/L	Grab	1/Year
CTR Priority Pollutants <sup>[2]</sup>	µg/L	Grab	1/Permit Term
CCR Title 22 Pollutants <sup>[3]</sup>	µg/L	Grab	1/Permit Term

<sup>[1]</sup> Whole effluent acute toxicity monitoring shall be conducted according to the requirements established in Section V.A of this Monitoring and Reporting Program.

<sup>[2]</sup> The CTR priority pollutants are those listed by the California Toxics Rule at 40 CFR 131.38 (b)(1). These pollutants shall be monitored a minimum of one time per the permit term (once every five years). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the SIP. The Discharger shall instruct its analytical laboratory to establish calibration standards so that the Minimum Levels (MLs) presented in Appendix 4 of the SIP are the lowest calibrated standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of the CTR; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

<sup>[3]</sup> CCR Title 22 pollutants are those for which primary MCLs have been established by the CDPH and which are listed in Tables 64431-A and 64444-A of CCR, Title 22, Division 4, Chapter 15. Where these pollutants are included in other groups of pollutants (CTR Priority Pollutants), monitoring does not need to be duplicated. Analytical methods shall adhere to the Detection Limits for Purposes of Reporting (DLRs) established by CCR Title 22, Division 4, Chapter 15, § 64432 and §64445.1.

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

### A. Acute Toxicity

#### 1. Acute Toxicity Monitoring Requirements - EFF-001

- a. Bioassays shall be performed to evaluate the toxicity of the discharge in accordance with the following procedures unless otherwise specified by the Central Coast Water Board's Executive Officer or designee.
- b. Acute toxicity testing shall be performed using USEPA Method 2001.0 (fathead minnow) in accordance with procedures described by *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition*, USEPA Office of Water, EPA-821-R-02-012 (2002) or the latest edition.
- c. The test species given below shall be used to measure acute toxicity:

**Table E-4. Approved Tests – Acute Toxicity**

Species	Effect	Test Duration (days)	Reference
Fathead Minnow ( <i>Pimephales promelas</i> )	Larval Survival and Growth	7	EPA/821-R-02-012 (Acute)

d. The presence of acute toxicity shall be determined as significantly reduced survival of test organisms at 100 percent effluent compared to a control using a statistical t-test. The Discharger shall include with the SMR the percent survival of the organisms for both the effluent and control, and the results of the t-test (“statistically different” or “not statistically different”).

**B. Quality Assurance**

1. The use of a dilution series for this Discharger is not applicable, because there is no dilution in the receiving water.
2. For the acute toxicity testing using a t-test, two dilutions shall be used, i.e., 100 percent effluent and a control (when a t-test is used instead of an LC50).
3. If organisms are not cultured in-house, concurrent testing with a referenced toxicant shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests also shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc.).
4. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the toxicity test references, then the permittee must resample and retest within 15 working days or as soon as possible. The retesting period begins when the Discharger collects the first sample required to complete the retest.
5. The reference toxicant and effluent tests must meet the upper and lower bounds on test sensitivity as determined by calculating the percent minimum significant difference (PMSD) for each test result. The test sensitivity bound is specified for each test method in the respective methods manuals.

**C. Accelerated Monitoring Requirements**

1. When acute toxicity is detected in the effluent during regular toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring to confirm the effluent toxicity.
2. The Discharger shall implement an accelerated monitoring frequency consisting of performing three toxicity tests in a six-week period following the first failed test results.
3. If implementation of the generic Toxicity Reduction Evaluation (TRE) Workplan indicates the source of the exceedance of the toxicity trigger (for instance, a temporary plant upset), then only one additional test is necessary. If exceedance of the toxicity

trigger is detected in this test, the Discharger will continue with accelerated monitoring requirements or implement the Toxicity Identification and Toxicity Reduction Evaluations.

4. If none of the three tests indicated exceedance of the toxicity trigger, then the Discharger may return to the normal bioassay testing frequency.

#### **D. Conducting Toxicity Identification Evaluations and Toxicity Reduction Evaluations**

1. A Toxicity Identification Evaluation (TIE) shall be triggered if testing from the accelerated monitoring frequency indicates any of the following:
  - a. Two of the three accelerated toxicity tests are reported as failed tests meeting any of the conditions specified in Attachment E, Section V.C.
  - b. The TIE shall be initiated within 15 days following failure of the second accelerated monitoring test.
  - c. If a TIE is triggered prior to the completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE.
2. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the USEPA which include the following:
  - a. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, (USEPA, 1992a);
  - b. Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures, Second Edition (USEPA, 1991a);
  - c. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Sampling Exhibiting Acute and Chronic Toxicity (USEPA, 1993a); and
  - d. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (USEPA, 1993b).
3. As part of the TIE investigation, the Discharger shall be required to implement its TRE work plan. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required toxicity tests or a TRE within a designated period shall result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. Recommended guidance in conducting a TRE include the following:
  - a. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, August 1999, EPA/833B-99/002; and

- b. Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program dated March 27, 2001, USEPA Office of Wastewater Management, Office of Regulatory Enforcement.

**VI. LAND DISCHARGE MONITORING REQUIREMENTS**

- A. The Discharger shall monitor at each of the land discharge and reuse locations (Discharge Point Nos. 001B, 001C and 001D) as follows.
  - 1. The Discharger shall monitor daily application/discharge flows to each of the discharge and reuse locations.
  - 2. The Discharger shall conduct daily visual monitoring of the land discharge and reuse locations to evaluate compliance with the Land Discharger and Reclamation Requirements contained within Sections IV.B and IV.C of the Order. A daily log of the visual monitoring shall be maintained at the facility and any incidences of non-compliance shall be reported along with the corrective actions taken within the applicable quarterly monitoring report.

**VII. RECLAMATION MONITORING REQUIREMENTS**

(see Land Discharge Monitoring Requirements section above)

**VIII. RECEIVING WATER MONITORING REQUIREMENTS**

**A. Surface Water Monitoring**

- 1. The Discharger shall monitor the receiving water at Monitoring Stations RSW-001 and RSW-002 as follows, except that the CTR Priority Pollutants and the Title 22 Pollutants shall be monitored only at Monitoring Station RSW-001:

**Table E-6. Receiving Water Monitoring Requirements<sup>[6]</sup>**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Oil and Grease	mg/L	Grab	2/Year
pH	standard units	Field Measurement	2/Year
Temperature	°F	Field Measurement	2/Year <sup>[1]</sup>
Turbidity	NTU	Grab	2/Year <sup>[1]</sup>
Dissolved Oxygen	mg/L	Field Measurement	2/Year <sup>[1]</sup>
Sodium	mg/L	Grab	2/Year <sup>[1]</sup>
TDS	mg/L	Grab	2/Year <sup>[1]</sup>
Chloride	mg/L	Grab	2/Year <sup>[1]</sup>
Sulfate	mg/L	Grab	2/Year <sup>[1]</sup>
Boron	mg/L	Grab	2/Year <sup>[1]</sup>
Nitrate (as N)	mg/L	Grab	2/Year <sup>[1]</sup>
Ammonia (as N)	mg/L	Grab	2/Year <sup>[1]</sup>
Total Nitrogen (as N)	mg/L	Grab	2/Year <sup>[1]</sup>
Unionized ammonia (as N) <sup>[5]</sup>	mg/L	Grab	2/Year <sup>[1]</sup>

Parameter	Units	Sample Type	Minimum Sampling Frequency
Hardness (as CaCO <sub>3</sub> )	mg/L	Grab	2/Year <sup>[1]</sup>
Methylene Blue Activated Substances	mg/L	Grab	2/Year <sup>[1]</sup>
CTR Priority Pollutants <sup>[2], [4]</sup>	µg/L	Grab	1/Permit Term
CCR Title 22 Pollutants <sup>[3],[4]</sup>	µg/L	Grab	1/Permit Term

- <sup>[1]</sup> Semiannual monitoring events shall be conducted in January and July.
- <sup>[2]</sup> Those pollutants listed as Compound Nos. 1 – 126 by the CTR at 40 CFR 131.38. Monitoring of receiving water for the CTR pollutants shall occur simultaneously with effluent monitoring for the same pollutants.
- <sup>[3]</sup> CCR Title 22 pollutants are those for which primary MCLs have been established by the CDPH and which are listed in § 64431-A and §64444-A of CCR, Title 22, Division 4, Chapter 15. Where these pollutants are also identified as CTR Priority Pollutants, monitoring does not need to be duplicated. Monitoring of receiving water for the CCR Title 22 Pollutants shall occur simultaneously with effluent monitoring for the same pollutants.
- <sup>[4]</sup> Monitoring shall be performed at Monitoring Location RSW-001 only.
- <sup>[5]</sup> It is recommended that semiannual receiving water monitoring for unionized ammonia and other nitrogen species is conducted in concert with semiannual effluent monitoring.
- <sup>[6]</sup> If there is no surface water to sample at the monitoring location, then the monitoring requirement cannot be fulfilled and a statement to that effect shall be reported.

**IX. OTHER MONITORING REQUIREMENTS**

**A. Solids/Biosolids Monitoring**

The following information shall be submitted with the Annual Report required by X.B.7.d, below (or Standard Provision II.C.8).

- a. Volume of biosolids removed, % moisture, and disposal and/or reuse destination. Order or permit number (if applicable) for the biosolids destination shall also be provided.
- b. Representative sample of biosolids removed for disposal and/or reuse shall be analyzed for the following parameters:

Arsenic	Cadmium	Copper
Lead	Mercury	Molybdenum
Nickel	Selenium	Zinc
Total Nitrogen		

- c. Biosolids shall be identified as Class A or Class B (in accordance with criteria specified at 40CFR 503). The basis for classification shall also be described.
- d. Pathogen reduction and vector attraction reduction achievement methods shall be described in adequate detail to demonstrate compliance with 40CFR 503.32.

If no biosolids are removed from the facility during the reporting period (the year), then the Discharger shall include such statement in the Annual Report required by X.B.5.d, below (or Standard Provision II.C.8).

**B. Pond Freeboard**

The Discharger shall record the available freeboard of Pond 1, Pond 2, and the effluent storage pond once per month and report these values with the monthly SMRs.

**X. REPORTING REQUIREMENTS**

**A. General Monitoring and Reporting Requirements**

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. All quarterly monitoring shall be performed at any time during the monitoring quarter (calendar year), but samples representative of two consecutive quarterly periods must be separated by at least one month. Unless otherwise specified by the Monitoring and Reporting Program, annual sampling shall be performed any time during the calendar year, but samples representative of two consecutive annual periods must be obtained at least six months apart.

**B. Self Monitoring Reports (SMRs)**

1. The Discharger must submit Self-Monitoring Reports (SMRs) electronically using the State Water Board’s California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>)]
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly, quarterly, and annual SMRs including the results of all required monitoring using USEPA approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table E-9. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On ...	Monitoring Period	SMR Due Date
Continuous	June 1, 2011	All	First day of second calendar month following month of sampling
1/Day	June 1, 2011	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	
2/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Two times per week	

Sampling Frequency	Monitoring Period Begins On ...	Monitoring Period	SMR Due Date
1/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	
2/Month	Sunday following permit effective date or on permit effective date if on a Sunday	14 day consecutive period	
1/Month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	
1/Quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1/Year	January 1 following (or on) permit effective date	January 1 through December 31	February 1
2/Year	January 1 or July 1 following permit effective date	January 1 through June 30 and July 1 through December 31	August 1 and February 1
X/Permit Term	Between 180 and 365 days prior to Order expiration date	Permit term	The earliest of May 1, Aug 1, Nov 1, or Feb 1 following the monitoring event

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

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

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the 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 ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
5. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).
6. Multiple Sample Data. When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
  - a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
  - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
7. The Discharger shall submit SMRs in accordance with the following requirements:
  - a. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. If CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
  - c. SMRs must be submitted to the Central Coast Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401

- d. An Annual Self Monitoring Report shall be due on **February 1st** following each calendar year and shall include:
- All data required by this MRP for the corresponding monitoring period, including appropriate calculations to verify compliance with effluent limitations.
  - A discussion of any incident of non-compliance and corrective actions taken.

**C. Discharge Monitoring Reports (DMRs) – not applicable**

**D. Other Reports**

1. The Discharger shall report the results of any special monitoring, TREs, or other data or information that results from the Special Provisions, section VI.C, of the Order. The Discharger shall submit such reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

## ATTACHMENT F – FACT SHEET

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## ATTACHMENT F – FACT SHEET

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

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

### I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility:

**Table F-1. Facility Information**

<b>WDID</b>	3 401013001
<b>Discharger</b>	Heritage Ranch Community Services District
<b>Name of Facility</b>	Heritage Ranch Community Services District Wastewater Treatment Plant
<b>Facility Address</b>	4870 Heritage Road
	Paso Robles, CA 93446
	San Luis Obispo County
<b>Facility Contact, Title and Phone</b>	John D’Ornellas, General Manager, (805) 227-6230
<b>Authorized Person to Sign and Submit Reports</b>	John D’Ornellas, General Manager, (805) 227-6230
<b>Mailing Address</b>	4870 Heritage Road, Paso Robles, CA 93446
<b>Billing Address</b>	4870 Heritage Road, Paso Robles, CA 93446
<b>Type of Facility</b>	POTW
<b>Major or Minor Facility</b>	Minor
<b>Threat to Water Quality</b>	2
<b>Complexity</b>	B
<b>Pretreatment Program</b>	No
<b>Reclamation Requirements</b>	No
<b>Facility Permitted Flow</b>	0.4 million gallons per day (MGD)
<b>Facility Design Flow</b>	0.4 MGD
<b>Watershed</b>	Nacimiento
<b>Receiving Waters</b>	Drainage way, tributary to the Nacimiento River
<b>Receiving Water Type</b>	Inland, fresh water

- A. Heritage Ranch Community Services District (hereinafter Discharger) is the owner and operator of the Heritage Ranch Community Services District Wastewater Treatment Plant (hereinafter Facility), a wastewater collection, treatment, and disposal system which provides sewerage service for the Heritage Ranch Development, southeast of Lake Nacimiento in San Luis Obispo County.

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

- B.** The Facility discharges wastewater to an unnamed drainage way which is a tributary to the Nacimiento River, a water of the United States, and is currently regulated by Order R3-2006-0012, which was adopted on March 24, 2006 and expires on March 31, 2011. The terms and conditions of the current Order will be automatically continued and remain in effect until new waste discharge requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order.
- C.** The Discharger filed a Report of Waste Discharge and submitted an application for renewal of its WDRs and NPDES permit on September 1, 2010. Additional information was received on September 20, 2010. Central Coast Regional Water Quality Control Board (Central Coast Water Board) staff conducted a site visit on **January 13, 2011**, to observe operations and collect additional data to develop permit limitations and conditions.

## **II. FACILITY DESCRIPTION**

### **A. Description of Wastewater and Biosolids Treatment or Controls**

The Discharger owns and operates a wastewater collection, treatment and disposal system to provide sewerage service to the Heritage Ranch Development, serving a population of approximately 3,200. The treatment at the Facility consists of influent pump stations, an aerated lagoon (Pond 1), a polishing pond (Pond 2), chlorine injection, and two sand filters. The Facility has a design capacity of 0.4 MGD. The Discharger reports an average influent flow over the previous permit term of 0.18 MGD.

Wastewater enters the Facility via three discrete collection system force mains without screening or grit removal and flows into Pond 1. Pond 1 is a combination aerated lagoon and facultative pond with an approximate capacity of 2.7 million gallons and 1.25 acres surface area. Pond 2 is a polishing pond with an estimated capacity of 1.5 million gallons and a surface area of 0.75 acres. Following the aerated lagoons, wastewater is chlorinated and pumped approximately three miles to two mono-media sand filters in series. The Discharger maintains a 20-acre feet effluent storage lagoon where flow can be diverted prior to the sand filters.

Chlorinated effluent is discharged either directly from the effluent holding pond to the under drain system of the sand filters (bypassing the sand filters) or directed through the sand filters prior to discharge, depending on the quality of water in the effluent holding pond. The effluent is dechlorinated prior to discharge within the under drain system of the sand filters. The dechlorinated effluent is discharged to an unnamed ephemeral drainage way, a tributary to the Nacimiento River.

A flow diagram is included as Attachment C of this Order.

In addition to the surface water discharge, the Discharger previously used percolation/evaporation ponds to dispose of approximately 18 to 21 percent of the overall

effluent from the Facility. During the permitting effort for Order No. R3-2006-0012, the Central Coast Water Board determined that the shallow groundwater in the area of the Facility's percolation/evaporation ponds is hydrologically connected to local surface water. Treated wastewater that does percolate travels along bedrock and flows laterally into the surface water. Although only a minimal amount of treated wastewater actually percolates to groundwater, that percolation is essentially a discharge to surface water that must be regulated under the NPDES program like a direct discharge to surface water. Rather than imposing discharge limitations on that portion of treated wastewater flow routed to the percolation/evaporation ponds, the Central Coast Water Board followed the Discharger's suggestion of prohibiting the discharge. The Discharger has acknowledged the existing possibility of a discharge to surface water via hydraulically connected groundwater. Thus, Order No. R3-2006-0012 prohibited the discharge of water by seepage from the percolation/evaporation ponds, and required the Discharger to install liners in the pond.

Since the adoption of Order No. R3-2006-0012, the Discharger has determined that it is not cost effective to line the evaporation/percolation ponds, and has committed to no longer using the evaporation/percolation ponds. Thus, discharges to the evaporation/percolation ponds are no longer addressed under this Order and the requirement to line them has been removed.

In a letter dated August 26, 2010, the Discharger requested that the renewed NPDES permit include spray irrigation disposal as an option for discharge. The effluent for spray irrigation disposal would be chlorinated to varying degrees, but would not go through the sand filters. In addition, the effluent would be applied at agronomic rates to prevent percolation to underlying bedrock and potential surface water drainage discharges. The Discharger identified the following three locations as potential spray irrigation disposal and reuse areas (see Attachment B for location maps of spray disposal sites):

- **The site of the current evaporation/percolation ponds (tentative discharge point 001B).** The Discharger has evaluated converting percolation/evaporation ponds which are no longer in use to a spray field to be used for effluent disposal. The Discharger estimates that the District could discharge up to 4.89 million gallons per year of effluent (approximately 5 to 8 percent of the total actual flow at the Facility). The Discharger reports the field would be planted with turf grass and maintained by the District, and that effluent would be applied at agronomic rates.
- **A location adjacent to the existing wastewater treatment plant (tentative discharge point 001C).** The Discharger owns approximately 22 acres on Heritage Road. This property currently has the Discharger's wastewater treatment plant and offices situated on it. These facilities only cover approximately 10 acres. The remaining 12 acres are currently open fields adjacent to the wastewater treatment plant. The Discharger proposes to fence this area and convert this land to spray irrigation fields for disposal. The Discharger estimates that up to 5.89 million gallons per year (approximately 4 to 8 percent of actual flow at the Facility) could be disposed of at this site.
- **A location adjacent to the Nacimiento Research Center (tentative discharge point 001D).** The Discharger is having preliminary discussions with the property owner of the Research Center located at the entrance of Heritage Ranch on Gateway

Drive. The Research Center is a restricted access facility, gated with fencing around the entire site. The site is used for training of equestrian horses. The property owner currently uses the District's potable water supply source to irrigate the land that is grazed by the horses. The property owner has requested to utilize recycled water in lieu of potable water to irrigate his 10 to 14 acres of pasture land used for grazing. The Discharger estimates that approximately 9.77 million gallons per year of treated wastewater (approximately 10 to 16 percent of actual flow at the Facility) could be disposed of at this site.

The Order establishes conditional requirements for land disposal and reuse/reclamation. Implementation of the land disposal and reuse alternatives noted above is contingent on written authorization by the Executive Officer based on the submittal of detailed work plans, engineering reports, operations and maintenance plans, etc. as required to demonstrate the proposed disposal/reuse applications will protect public health and water quality.

A Wastewater Master Plan completed for the District in July 2005 projected a build out flow for the District of 0.487 MGD, which will exceed the Facility's design, average flow capacity of 0.4 MGD. The plan recommended that treatment capacity be expanded when average wastewater flows reach 85 percent of current capacity and determined that such an upgrade will be required by 2015. In a November 5, 2010 email, a Facility representative stated that the Discharger no longer believes this estimate to be accurate. Further, the Facility representative stated they are currently at less than 50 percent build out for the community and there are no newly approved subdivisions or other increases in sewer connections within the community. The Facility representative stated that a significant change in total flow over the next five years was not anticipated.

Order No. R3-2006-0012 established final effluent limitations for copper and granted a compliance schedule for the Discharger to achieve compliance by April 1, 2010. Over the term of the previous Order, the Discharger determined that copper was leaching out of household plumbing and causing the contamination in the wastewater effluent. To reduce copper concentrations in their wastewater and achieve compliance with the final copper effluent limitations contained in Order No. R3-2006-0012, the Discharger began injecting orthophosphate into the water system to protect piping against corrosion in September 2007. The Discharger spent the next two years optimizing the dosage to best meet their needs. As of mid-2009, the Discharger had significantly reduced copper concentrations in its wastewater. The Discharger anticipates meeting water quality-based effluent limitations for copper through source control as described above.

## **B. Discharge Points and Receiving Waters**

Secondary treated wastewater is discharged to an unnamed ephemeral drainage way (Discharge Point No. 001A) that is tributary to the Nacimiento River approximately 4.2 miles downstream from the discharge point. The point of discharge has low permeability. The discharge flows largely intact for approximately 1.5 miles in the unnamed ephemeral drainage way where it percolates upon meeting the Monterey geological formation with higher permeability. During wet weather periods, the discharge has the potential to flow through the unnamed drainage way and discharge to the Nacimiento River. Discharge

Point No. 001A is located at 35° 43' 51" N Latitude; 120° 50' 21" W Longitude. No dilution has been granted for this discharge.

**C. Summary of Existing Requirements and Effluent Characterization**

Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001A and representative monitoring data for Monitoring Location EFF-001, for the term of the previous Order, are presented in the following tables.

**Table F-2. Historic Effluent Limitations and Monitoring Data, Major Constituents and Properties of Wastewater, Discharge Point No. 001A (formerly 001)**

Parameter	Units	Effluent Limitation			Monitoring Data (January 2007 through August 2010)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand (5-day; BOD <sub>5</sub> )	mg/L	30	45	90	NR	43	43
	lbs/day	100	150	300	NR	NR	NR
Total Suspended Solids (TSS)	mg/L	30	45	90	NR	41	41
	lbs/day	100	150	300	NR	NR	NR
Settleable Solids	mL/L	--	--	0.1	--	--	0.1
Oil and Grease	mg/L	10	--	20	7	--	7
pH	pH Units	6.5 - 8.3			6.5 - 8.28		
Nitrate	mg/L	--	--	8.0	--	--	0.14
Chlorine, Total Residual	mg/L	--	--	ND	--	--	ND
Acute Toxicity	% Survival	--	--	[1]	--	--	55
Copper	µg/L	9.0	--	18	--	--	19 <sup>[2]</sup>
Mercury	µg/L	0.05	--	0.10	0.03	--	0.03
4,4 - DDD	µg/L	0.00059	--	0.0019	ND	--	ND

NA = Not Available  
 ND = Not Detected  
 NR = Not Reported

[1] Survival of test organisms exposed to 100 percent effluent shall not be significantly reduced when compared, using a t-test, to the survival of control organisms. Results summarized indicate lowest percent survival.  
 [2] Occurred in January 2007 while an interim monthly effluent limitation of 25 µg/L was effective. The Interim effluent limitation expired on March 24, 2010. No permit limit exceedances have been reported since the final effluent limitation became effective.

**D. Compliance Summary**

- The following effluent limitation exceedances were observed in self monitoring data for the Discharger from March 2006 to August 2010:

**Table F-3. Summary of Compliance History**

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
12/30/2010	4 <sup>th</sup> Quarter 2010	Maximum Daily	Acute Toxicity	55% survival <sup>[1]</sup>	[1]	% survival

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<sup>[1]</sup> Compliance with the effluent limitation for acute toxicity is determined by conducted a t-test between the percent survival of organisms within 100% effluent and organisms in a control sample. The reported percent survival of 55% is not sufficient to determine compliance with the effluent limitation.

## **E. Planned Changes**

The Discharger has requested authorization for discharges to land. Please see section II.A of this Fact Sheet for a description of the potential changes to implement land disposal/water reuse.

## **III. APPLICABLE PLANS, POLICIES, AND REGULATIONS**

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

### **A. Legal Authorities**

This Order is issued pursuant to the federal Clean Water Act (CWA) §402 and implementing regulations adopted by the USEPA and California Water Code (CWC) Chapter 5.5, division 7, commencing with §13370. It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDR pursuant to article 4, chapter 4, division 7 of the CWC, commencing with §13260.

### **B. California Environmental Quality Act (CEQA)**

Pursuant to CWC §13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code §21100 through §21177.

### **C. State and Federal Regulations, Policies, and Plans**

**1. Water Quality Control Plans.** The Central Coast Water Board has adopted the *Water Quality Control Plan for the Central Coast Region* (the Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving 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.

In accordance with Chapter 2 of the Basin Plan, surface water bodies that do not have beneficial uses specifically identified by the Basin Plan, including the receiving stream for this discharge, are assigned the beneficial uses of:

- Municipal and domestic supply (MUN), and
- Protection of both recreation and aquatic life.

Because the unnamed drainage way to which the Facility discharges is tributary to the Nacimiento River, and the potential for this discharge to impact the Nacimiento River exists, beneficial uses for the Nacimiento River, downstream of the reservoir

were also considered. The additional beneficial uses assigned to this segment of the Nacimiento River include:

- agricultural supply (AGR)
- industrial service supply (IND)
- ground water recharge (GWR)
- water contact recreation (REC1)
- non-contact water recreation (REC2)
- wildlife habitat (WILD)
- cold fresh water habitat (COLD)
- warm freshwater habitat (WARM)
- migration of aquatic organisms (MIGR)
- spawning, reproduction, and/or early development (SPWN)
- rare, threatened, or endangered species (RARE); and
- commercial and sport fishing (COMM).

Groundwater throughout the Central Coastal Basin, except for that found in the Soda Lake Sub-basin, is suitable for:

- Agricultural water supply (AGR),
- Municipal and domestic water supply (MUN), and
- Industrial supply (IND).

Requirements of this Order implement the Basin Plan.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants that are applicable to the receiving water for discharges from the City's wastewater treatment facility.
3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Central Coast Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control that are applicable to discharges to the unnamed drainage way tributary to the Nacimiento River.

Requirements of this Order implement the SIP.

- 4. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000), codified at 40 CFR 131.21] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- 5. Antidegradation Policy.** NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The Central Coast 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 provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.
- 6. Anti-Backsliding Requirements.** CWA §402(o)(2) and CWA §303(d)(4) and NPDES regulations at 40 CFR 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.

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

CWA §303(d) requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d) listed water bodies and pollutants, the Central Coast Water Board must develop and implement Total Maximum Daily Loads (TMDLs) that will specify Waste Load Allocations (WLAs) for point sources and Load Allocations for non-point sources.

The USEPA approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. The Nacimiento River is not listed for any impairment and there are no effective TMDLs for Nacimiento River.

#### **E. Other Plans, Policies and Regulations**

- 1. Storm Water Management.** For the control of storm water discharged from the site of the wastewater treatment facilities, the Order requires the Discharger to seek authorization to discharge under and meet the requirements of the State Water Board's Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*, if applicable.

- 2. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ).** The General Permit, adopted on May 2, 2006, is applicable to all “federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.” The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Order requires the Discharger to seek coverage under the General Permit, if applicable, and comply with its requirements.
  
- 3. Recycled Water Policy.** A priority of the Strategic Plan Update 2008-2012 for the regional boards includes a priority to increase sustainable local water supplies available for meeting existing and future beneficial uses by 1,725,000 acre-feet per year, in excess of 2002 levels, by 2015, and ensure adequate water flows for fish and wildlife habitat. The State Water Board adopted the Recycled Water Policy via Resolution No. 2009-0011 on February 3, 2009. The Recycled Water Policy is intended to support the Strategic Plan priority to Promote Sustainable Local Water Supplies. Increasing the acceptance and promoting the use of recycled water is a means towards achieving sustainable local water supplies and can result in reduction in greenhouse gases, a significant driver of climate change. The Recycled Water Policy is also intended to encourage beneficial use of, rather than solely disposal of, recycled water.

The Recycled Water Policy calls for the development of regional groundwater basin/sub-basin salt/nutrient management plans. The State Water Board recognizes that, pursuant to the letter from statewide water and wastewater entities<sup>2</sup> dated December 19, 2008 and attached to Resolution No. 2009-0011 adopting the Policy, the local water and wastewater entities, together with local salt/nutrient contributing stakeholders, will fund locally driven and controlled, collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for each basin/sub-basin in California, including compliance with CEQA and participation by Central Coast Water Board staff.

It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual projects. The Central Coast Water Board finds that a combination of regional management plans and individual or programmatic project requirements may be necessary to protect beneficial uses.

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<sup>1</sup> [http://www.swrcb.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2009/rs2009\\_0011.pdf](http://www.swrcb.ca.gov/board_decisions/adopted_orders/resolutions/2009/rs2009_0011.pdf)

<sup>2</sup> [http://www.waterboards.ca.gov/board\\_info/agendas/2009/feb/020309\\_7\\_%20rw\\_policy\\_funding\\_letter.pdf](http://www.waterboards.ca.gov/board_info/agendas/2009/feb/020309_7_%20rw_policy_funding_letter.pdf)

One of the primary components of the required regional salt/nutrient management plans is the development and implementation of groundwater basin/sub-basin monitoring programs. As specified in the Recycled Water Policy, salt/nutrient contributing stakeholders will be responsible for conducting, compiling, and reporting the monitoring data once the regional groundwater monitoring programs are developed.

A large number of technical reports and data contained within Central Coast Water Board files document widespread and increasing salt and nutrient impacts within the groundwater basins throughout the Central Coast Region, including the Paso Robles Area subbasin of the Salinas Valley groundwater basin. Although the facility is not located within any defined groundwater basin, the discharge receiving water, an unnamed ephemeral drainage, is tributary to the Nacimiento River and the Paso Robles Area subbasin.

#### **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. NPDES regulations establish two principal bases for effluent limitations. At 40 CFR 122.44 (a) permits are required to include applicable technology-based limitations and standards; and at 40 CFR 122.44 (d) permits are required to include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. When numeric water quality objectives have not been established, but a discharge has the reasonable potential to cause or contribute to an excursion above a narrative criterion, WQBELs may be established using one or more of three methods described at 40 CFR 122.44 (d) - 1) WQBELs may be established using a calculated water quality criterion derived from a proposed State criterion or an explicit State policy or regulation interpreting its narrative criterion; 2) WQBELs may be established on a case-by-case basis using USEPA criteria guidance published under CWA Section 304 (a); or 3) WQBELs may be established using an indicator parameter for the pollutant of concern.

##### **A. Discharge Prohibitions**

- 1. Discharge Prohibition III.A** (No discharge at a location or in a manner except as described by the Order). The Order authorizes a single, specific point of discharge to surface waters, and the limitations and conditions established by the Order are based on specific information provided by the Discharger and gained by the Central Coast Water Board through site visits, monitoring reports, and other information. Discharges to surface waters at locations not contemplated by this Order or discharges of a character not contemplated by this Order are therefore viewed as inconsistent with CWA §402's prohibition against discharges of pollutants except in compliance with the Act's permit requirements, effluent limitations, and other enumerated provisions. This prohibition is similar to Discharge Prohibition III.B from the previous permit.

- 2. Discharge Prohibition III.B** (The discharge of any waste not specifically regulated by this Permit is prohibited). Because limitations and conditions of the Order have been prepared based on specific information provided by the Discharger and specific wastes described by the Discharger, the limitations and conditions of the Order do not adequately address waste streams not contemplated during drafting of the Order. To prevent the discharge of such waste streams that may be inadequately regulated, the Order prohibits the discharge of any waste that was not described by to the Central Coast Water Board during the process of permit reissuance.
- 3. Discharge Prohibition III.C** (No discharge of wastewater by seepage or percolation through units of wastewater treatment). As discussed in section II.A of this Fact Sheet, the Central Coast Water Board determined that wastewater percolate from the former evaporation ponds was hydraulically connected to surface waters, and thus constituted a discharge to surface waters. This NPDES permit does not regulate the discharge of wastewater to surface waters through discharge points other than Discharge Point No. 001A. This prohibition was modified from the previous Order to eliminate references to evaporation pond liner requirements because the percolation/evaporation ponds have been taken out of service (see section II.A of this Fact Sheet for additional information).
- 4. Discharge Prohibition III.D.** (Discharges of radioactive substances is prohibited). This prohibition is based on the water quality objective for radioactivity for surface waters with the beneficial use of municipal and domestic supply. This discharge prohibition is similar to discharge prohibitions contained in similar recently adopted Orders (i.e., R3-2009-0019, City of San Juan Bautista).
- 5. Discharge Prohibition III.E and III.G** (The overflow, bypass, or overspray of wastewater from the Discharger's facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G. (Bypass), is prohibited). The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 CFR 122.41(m) or an unauthorized discharge, which poses a threat to human health and/or aquatic life, and therefore, is explicitly prohibited by the Order.
- 6. Discharge Prohibition III.G** (Creation of a condition of pollution, contamination, or nuisance is prohibited). The Basin Plan requires that the disposal of wastewater in ephemeral streams be accomplished in a manner that safeguards public health and prevents nuisance conditions. This discharge prohibition is based on the requirements of the Basin Plan.

## **B. Technology-Based Effluent Limitations**

### **1. Scope and Authority**

NPDES regulations at 40 CFR 122.44 (a) require that permits include applicable technology-based limitations and standards. Where the USEPA has not yet developed technology based standards for a particular industry or a particular

pollutant, CWA Section 402 (a) (1) and USEPA regulations at 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 CFR 125.3.

- a. **BOD and TSS.** Federal Regulations, 40 CFR 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD and TSS. A daily maximum effluent limitation for BOD and TSS is also included in the Order to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities. In addition, 40 CFR 133.102, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85 percent.

The Discharger has consistently demonstrated that the Facility is capable of meeting these effluent limitations for BOD and TSS. The technology-based effluent limitations established for secondary treated wastewater in 40 CFR 133 are applicable to the wastewater discharged from the Facility.

- b. **pH.** Federal Regulations, 40 CFR 133, also establish technology-based effluent limitations for pH for secondary treated wastewater. The secondary treatment standards require the pH of the effluent to be no lower than 6.0 and no greater than 9.0 standard units.

The technology-based effluent limitations established for secondary treated wastewater in 40 CFR 133 are applicable to the wastewater discharged from the Facility. However, because the water quality-based effluent limitation for pH is more stringent (see section IV.C.6.e of this Fact Sheet), the water quality-based effluent limitations for pH have been established in the Order.

- c. **Flow.** The Facility was designed to provide a secondary level of treatment for up to an average dry weather design flow of 0.4 MGD. Therefore, this Order contains an average monthly discharge flow effluent limit of 0.4 MGD for the Facility.
- d. **Settleable Solids and Oil and Grease.** A daily maximum effluent limitation for settleable solids of 0.1 ml/L and a monthly average and daily maximum effluent limitations for oil and grease of 10 mg/L and 20 mg/L, respectively, were established in Order No. R3-2006-0012 based on the best professional judgment of Central Coast Water Board staff. The Discharger has demonstrated the ability to consistently comply with these effluent limitations. These limitations are typical standards of performance for secondary treatment facilities and remain applicable to the discharge. The effluent limitations for settleable solids and oil and grease have been carried over from the previous Order.

## 2. Applicable Technology-Based Effluent Limitations

40 CFR 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR 122.45(f)(2) allows pollutants that are limited in terms

of mass to additionally be limited in terms of other units of measurement. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations were calculated based upon the permitted average daily discharge flow of the Facility of 0.4 MGD.

The following tables summarize technology-based effluent limitations established by the Order.

**Table F-4. Technology-Based Effluent Limitations**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Flow	MGD	0.4	--	--
Biochemical Oxygen Demand (5-day @ 20°C) (BOD) <sup>[1]</sup>	mg/L	30	45	90
	lbs/day <sup>[2]</sup>	100	150	300
Total Suspended Solids (TSS) <sup>[1]</sup>	mg/L	30	45	90
	lbs/day <sup>[2]</sup>	100	150	300
Oil & Grease	mg/L	10	--	20
	lbs/day <sup>[2]</sup>	33	--	67
Settleable Solids	mL/L	--	--	0.1

<sup>[1]</sup> The average monthly percent removal for BOD and TSS shall not be less than 85 percent.

<sup>[2]</sup> Mass-based effluent limitations were calculated using the following formula:

$$\text{lbs/day} = \text{pollution concentration (mg/L)} * \text{Design flow (0.4 MGD)} * \text{conversion factor (8.34)}$$

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

NPDES regulations at 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards, including numeric and narrative objectives within a standard.

The process for determining “reasonable potential” and calculating WQBELs, when necessary, is intended to protect the designated uses of receiving waters as specified in the Basin Plan and achieve applicable water quality objectives and criteria that are contained in the Basin Plan and in other applicable State and federal rules, plans, and policies, including applicable water quality criteria from the CTR and NTR.

Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established in

accordance with the requirements of 40 CFR 122.44(d)(1)(vi), using (1) USEPA criteria guidance under CWA §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.

## **2. Applicable Beneficial Uses and Water Quality Criteria and Objectives**

In accordance with Chapter 2 of the Basin Plan, surface water bodies that do not have beneficial uses specifically identified by the Basin Plan, like the receiving water for this discharge, are assigned the beneficial uses of municipal and domestic supply and protection of both recreation and aquatic life. Water quality criteria applicable to this receiving water are established by the CTR, the NTR, and by the Basin Plan.

## **3. Determining the Need for WQBELs**

NPDES regulations at 40 CFR 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.

The SIP, statewide policy that became effective on May 22, 2000, establishes procedures to implement water quality criteria from the NTR and CTR and for priority, toxic pollutant objectives established in the Basin Plan. The implementation procedures of the SIP include methods to determine reasonable potential (for pollutants to cause or contribute to excursions above State water quality standards) and to establish numeric effluent limitations, if necessary, for those pollutants which show reasonable potential.

The Central Coast Water Board conducted the RPA in accordance with section 1.3 of the SIP. Although the SIP applies directly to the control of CTR priority pollutants, the State Water Board has held that the Central Coast Water Board may use the SIP as guidance for water quality-based toxics control. The SIP states in the introduction *"The goal of this Policy is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency."* Therefore, in this Order the RPA procedures from the SIP were used to evaluate reasonable potential for both CTR and non-CTR constituents based on information submitted as part of the application, in studies, and as directed by monitoring and reporting programs.

The SIP Section 1.3 requires the Central Coast Water Board to use all available, valid, relevant, and representative receiving water and effluent data and information to conduct a reasonable potential analysis. On January 22, 2010, the Discharger collected a single set of effluent data for the toxic pollutants with applicable water quality criteria established by the CTR, NTR, and Basin Plan. Additional data was available for copper, mercury, and 4,4-DDD from monitoring conducted by the Discharger between July 2006 and April 2010. All available data was considered during the reasonable potential analysis.

Some freshwater water quality criteria for metals are hardness dependent; i.e., as hardness decreases, the toxicity of certain metals increases and the applicable water quality criteria become correspondingly more stringent. Because the receiving water for this discharge is effluent dominated, Central Coast Water Board staff used a hardness of 160 mg/L (as CaCO<sub>3</sub>) which represented the lowest effluent hardness detected over the term of the previous Order (160 mg/L was reported greater than 15 percent of the time).

To conduct the reasonable potential analysis, the Central Coast Water Board identified the maximum observed effluent (MEC) and background (B) concentrations for each priority, toxic pollutant from receiving water and effluent data provided by the Discharger and compared this data to the most stringent applicable water quality criterion (C) for each pollutant from the NTR, CTR, and the Basin Plan. Section 1.3 of the SIP establishes three triggers for a finding of reasonable potential.

- Trigger 1 – If the MEC is greater than C, there is reasonable potential, and an effluent limitation is required.
- Trigger 2 – If B is greater than C, and the pollutant is detected in effluent (MEC > ND), there is reasonable potential, and an effluent limitation is required.
- Trigger 3 – After reviewing other available and relevant information, a permit writer may decide that a WQBEL is required. Such additional information may include, but is not limited to: the facility type, the discharge type, solids loading analyses, lack of dilution, history of compliance problems, potential toxic impact of the discharge, fish tissue residue data, water quality and beneficial uses of the receiving water, CWA §303(d) listing for the pollutant, and the presence of endangered or threatened species or their critical habitat.

Based on analysis of effluent data, the Central Coast Water Board, using methods presented in the SIP, finds that the discharge does not show reasonable potential to cause or contribute to in-stream excursions above applicable water quality criteria for the priority toxic pollutants with the exception of copper and aluminum.

The following table summarizes the RPA for each priority, toxic pollutant, or CCR Title 22 pollutant that was measured in effluent during the monitoring event of January 22, 2010. No other pollutants with applicable, numeric water quality criteria from the NTR, CTR, and the Basin Plan were measured above detectable concentrations during that monitoring event.

**Table F-5. RPA Results**

Pollutant	Units	C <sup>[1]</sup>	MEC	B	RPA Result <sup>[2]</sup>
Antimony, Total Recoverable	µg/L	14.00 <sup>[5]</sup>	0.10	< 0.1	No
Arsenic, Total Recoverable	µg/L	36.00 <sup>[4]</sup>	0.60	0.20	No
Beryllium, Total Recoverable	µg/L	No Criteria	< 0.2	< 0.2	Uc
Cadmium, Total Recoverable	µg/L	3.56 <sup>[4]</sup>	< 0.2	< 0.2	No
Chromium (III)	µg/L	304.2 <sup>[4]</sup>	0.10	0.20	No
Chromium (VI)	µg/L	11.43 <sup>[4]</sup>	< 0.10	< 0.01	No

Pollutant	Units	C <sup>[1]</sup>	MEC	B	RPA Result <sup>[2]</sup>
Copper, Total Recoverable	µg/L	13.94 <sup>[4]</sup>	17.00 <sup>[8]</sup>	1.30	Yes
Lead, Total Recoverable	µg/L	5.79 <sup>[4]</sup>	0.31	0.84	No
Mercury, Total Recoverable	µg/L	0.050 <sup>[5]</sup>	0.03	< 0.5	No
Nickel, Total Recoverable	µg/L	77.63 <sup>[4]</sup>	1.80	0.90	No
Selenium, Total Recoverable	µg/L	5.00 <sup>[4]</sup>	0.20	0.40	No
Silver, Total Recoverable	µg/L	4.78 <sup>[3]</sup>	< 0.5	< 0.5	No
Thallium, Total Recoverable	µg/L	1.70 <sup>[5]</sup>	< 0.1	< 0.1	No
Zinc, Total Recoverable	µg/L	178.43 <sup>[3], [4]</sup>	9.90	3.00	No
Cyanide, Total	µg/L	5.20 <sup>[4]</sup>	< 2.7	< 2.7	No
Asbestos	µg/L	7,000,000 <sup>[5]</sup>	--	--	Ud
2,3,7,8 TCDD	µg/L	1.3x10 <sup>-8</sup> <sup>[5]</sup>	< 3.2x10 <sup>-7</sup>	< 3.2x10 <sup>-7</sup>	No
Acrolein	µg/L	320 <sup>[5]</sup>	< 1.7	< 1.7	No
Acrylonitrile	µg/L	0.059 <sup>[5]</sup>	< 0.69	< 0.69	No
Benzene	µg/L	1 <sup>[6]</sup>	< 0.18	< 0.18	No
Bromoform	µg/L	4.3 <sup>[5]</sup>	< 0.15	< 0.15	No
Carbon Tetrachloride	µg/L	0.25 <sup>[5]</sup>	< 0.16	< 0.16	No
Chlorobenzene	µg/L	30 <sup>[6]</sup>	< 0.18	< 0.18	No
Chlorodibromomethane	µg/L	0.41 <sup>[5]</sup>	< 0.17	< 0.17	No
Chloroethane	µg/L	No Criteria	< 0.38	< 0.38	Uc
2-Chloroethylvinyl ether	µg/L	No Criteria	< 0.28	< 0.28	Uc
Chloroform	µg/L	No Criteria	6.00	< 0.19	Uc
Dichlorobromomethane	µg/L	0.56 <sup>[5]</sup>	0.29	< 0.16	No
1,1-Dichloroethane	µg/L	5 <sup>[6]</sup>	< 0.19	< 0.19	No
1,2-Dichloroethane	µg/L	0.38 <sup>[5]</sup>	< 0.18	< 0.18	No
1,1-Dichloroethylene	µg/L	0.057 <sup>[5]</sup>	< 0.21	< 0.21	No
1,2-Dichloropropane	µg/L	0.52 <sup>[5]</sup>	< 0.18	< 0.18	No
1,3-Dichloropropylene	µg/L	10 <sup>[5]</sup>	< 0.16	< 0.16	No
Ethylbenzene	µg/L	300 <sup>[6]</sup>	< 0.26	< 0.26	No
Methyl Bromide	µg/L	48 <sup>[5]</sup>	< 0.17	< 0.17	No
Methyl Chloride	µg/L	No Criteria	< 0.23	< 0.23	Uc
Methylene Chloride	µg/L	4.7 <sup>[5]</sup>	0.36	< 0.2	No
1,1,2,2-Tetrachloroethane	µg/L	0.17 <sup>[5]</sup>	< 0.1	< 0.1	No
Tetrachloroethylene	µg/L	0.8 <sup>[5]</sup>	< 0.19	< 0.19	No
Toluene	µg/L	150 <sup>[6]</sup>	< 0.19	< 0.19	No
1,2-Trans-Dichloroethylene	µg/L	700 <sup>[5]</sup>	< 0.22	< 0.22	No
1,1,1-Trichloroethane	µg/L	200 <sup>[6]</sup>	< 0.19	< 0.19	No
1,1,2-Trichloroethane	µg/L	0.5 <sup>[6]</sup>	< 0.16	< 0.16	No
Trichloroethylene	µg/L	2.7 <sup>[5]</sup>	< 0.2	< 0.2	No
Vinyl Chloride	µg/L	0.5 <sup>[6]</sup>	< 0.25	< 0.25	No
2-Chlorophenol	µg/L	120 <sup>[5]</sup>	< 0.98	< 0.98	No
2,4-Dichlorophenol	µg/L	93 <sup>[5]</sup>	< 0.99	< 0.99	No
2,4-Dimethylphenol	µg/L	540 <sup>[5]</sup>	< 0.87	< 0.87	No
4,6-dinitro-o-cresol (aka 2-methyl-4,6-Dinitrophenol)	µg/L	13.4 <sup>[5]</sup>	< 0.91	< 0.91	No
2,4-Dinitrophenol	µg/L	70 <sup>[5]</sup>	< 0.83	< 0.83	No
2-Nitrophenol	µg/L	No Criteria	< 0.89	< 0.89	Uc
4-Nitrophenol	µg/L	No Criteria	< 0.83	< 0.83	Uc
3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L	No Criteria	< 0.91	< 0.91	Uc
Pentachlorophenol	µg/L	0.28 <sup>[5]</sup>	< 0.81	< 0.81	No
Phenol	µg/L	21,000 <sup>[5]</sup>	< 0.69	< 0.69	No
2,4,6-Trichlorophenol	µg/L	2.1 <sup>[5]</sup>	< 0.97	< 0.97	No

Pollutant	Units	C <sup>[1]</sup>	MEC	B	RPA Result <sup>[2]</sup>
Acenaphthene	µg/L	1,200 <sup>[5]</sup>	< 0.03	< 0.03	No
Acenaphthylene	µg/L	No Criteria	< 0.03	< 0.03	Uc
Anthracene	µg/L	9,600 <sup>[5]</sup>	< 0.03	< 0.03	No
Benzidine	µg/L	0.00012 <sup>[5]</sup>	< 5	< 5	No
Benzo(a)Anthracene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
Benzo(a)Pyrene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
Benzo(b)Fluoranthene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
Benzo(ghi)Perylene	µg/L	No Criteria	< 0.03	< 0.03	Uc
Benzo(k)Fluoranthene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
Bis(2-Chloroethoxy)Methane	µg/L	No Criteria	< 0.93	< 0.93	Uc
Bis(2-Chloroethyl)Ether	µg/L	0.031 <sup>[5]</sup>	< 0.95	< 0.95	No
Bis(2-Chloroisopropyl)Ether	µg/L	1,400 <sup>[5]</sup>	< 0.81	< 0.81	No
Bis(2-Ethylhexyl)Phthalate	µg/L	1.8 <sup>[5]</sup>	2.30 <sup>[9]</sup>	< 0.95	Ud
4-Bromophenyl Phenyl Ether	µg/L	No Criteria	< 0.97	< 0.97	Uc
Butylbenzyl Phthalate	µg/L	3,000 <sup>[5]</sup>	< 0.98	< 0.98	No
2-Chloronaphthalene	µg/L	1,700 <sup>[5]</sup>	< 0.98	< 0.98	No
4-Chlorophenyl Phenyl Ether	µg/L	No Criteria	< 0.99	< 0.99	Uc
Chrysene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
Dibenzo(a,h)Anthracene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
1,2-Dichlorobenzene	µg/L	2,700 <sup>[5]</sup>	< 0.27	< 0.27	No
1,3-Dichlorobenzene	µg/L	400 <sup>[5]</sup>	< 0.18	< 0.18	No
1,4-Dichlorobenzene	µg/L	5 <sup>[6]</sup>	< 0.18	< 0.18	No
3,3 Dichlorobenzidine	µg/L	0.04 <sup>[5]</sup>	< 5	< 5	No
Diethyl Phthalate	µg/L	23,000 <sup>[5]</sup>	< 0.86	< 0.86	No
Dimethyl Phthalate	µg/L	313,000 <sup>[5]</sup>	< 0.97	< 0.97	No
Di-n-Butyl Phthalate	µg/L	2,700 <sup>[5]</sup>	< 0.91	< 0.91	No
2,4-Dinitrotoluene	µg/L	0.11 <sup>[5]</sup>	< 0.96	< 0.96	No
2,6-Dinitrotoluene	µg/L	No Criteria	< 0.98	< 0.98	Uc
Di-n-Octyl Phthalate	µg/L	No Criteria	< 0.92	< 0.92	Uc
1,2-Diphenylhydrazine	µg/L	0.040 <sup>[5]</sup>	< 0.9	< 0.9	No
Fluoranthene	µg/L	300 <sup>[5]</sup>	< 0.03	< 0.03	No
Fluorene	µg/L	1,300 <sup>[5]</sup>	< 0.03	< 0.03	No
Hexachlorobenzene	µg/L	0.00075 <sup>[5]</sup>	< 0.91	< 0.91	No
Hexachlorobutadiene	µg/L	0.44 <sup>[5]</sup>	< 0.92	< 0.92	No
Hexachlorocyclopentadiene	µg/L	50 <sup>[6]</sup>	< 0.9	< 0.9	No
Hexachloroethane	µg/L	1.9 <sup>[5]</sup>	< 0.94	< 0.94	No
Indeno(1,2,3-cd)Pyrene	µg/L	0.0044 <sup>[5]</sup>	< 0.03	< 0.03	No
Isophorone	µg/L	8.4 <sup>[5]</sup>	< 0.93	< 0.93	No
Naphthalene	µg/L	No Criteria	< 0.03	< 0.03	Uc
Nitrobenzene	µg/L	17 <sup>[5]</sup>	< 0.95	< 0.95	No
N-Nitrosodimethylamine	µg/L	0.00069 <sup>[5]</sup>	< 0.88	< 0.88	No
N-Nitrosodi-n-Propylamine	µg/L	0.005 <sup>[5]</sup>	< 0.97	< 0.97	No
N-Nitrosodiphenylamine	µg/L	5.0 <sup>[5]</sup>	< 0.83	< 0.83	No
Phenanthrene	µg/L	No Criteria	< 0.03	< 0.03	Uc
Pyrene	µg/L	960 <sup>[5]</sup>	< 0.03	< 0.03	No
1,2,4-Trichlorobenzene	µg/L	5.0 <sup>[6]</sup>	< 0.98	< 0.98	No
Aldrin	µg/L	0.00013 <sup>[5]</sup>	< 0.04	< 0.04	No
alpha-BHC	µg/L	0.0039 <sup>[5]</sup>	< 0.12	< 0.12	No
beta-BHC	µg/L	0.014 <sup>[5]</sup>	< 0.11	< 0.11	No
gamma-BHC	µg/L	0.019 <sup>[5]</sup>	< 0.06	< 0.06	No
delta-BHC	µg/L	No Criteria	< 0.11	< 0.11	Uc
Chlordane	µg/L	0.00057 <sup>[5]</sup>	< 0.4	< 0.4	No

Pollutant	Units	C <sup>[1]</sup>	MEC	B	RPA Result <sup>[2]</sup>
4,4'-DDT	µg/L	0.00059 <sup>[5]</sup>	< 0.04	< 0.04	No
4,4'-DDE	µg/L	0.00059 <sup>[5]</sup>	< 0.09	< 0.09	No
4,4'-DDD	µg/L	0.00083 <sup>[5]</sup>	< 0.1	< 0.1	No
Dieldrin	µg/L	0.00014 <sup>[5]</sup>	< 0.05	< 0.05	No
alpha-Endosulfan	µg/L	0.0560 <sup>[4]</sup>	< 0.06	< 0.06	No
beta-Endosulfan	µg/L	0.0560 <sup>[4]</sup>	< 0.09	< 0.09	No
Endosulfan Sulfate	µg/L	110 <sup>[5]</sup>	< 0.07	< 0.07	No
Endrin	µg/L	0.0360 <sup>[4]</sup>	< 0.08	< 0.08	No
Endrin Aldehyde	µg/L	0.76 <sup>[5]</sup>	< 0.09	< 0.09	No
Heptachlor	µg/L	0.00021 <sup>[5]</sup>	< 0.03	< 0.03	No
Heptachlor Epoxide	µg/L	0.00010 <sup>[5]</sup>	< 0.05	< 0.05	No
Total PCBs	µg/L	0.00017 <sup>[5]</sup>	< 1	< 1	No
Toxaphene	µg/L	0.0002 <sup>[4]</sup>	< 10	< 10	No
Methoxychlor	mg/L	0.1 <sup>[6]</sup>	<0.01	<0.01	No
cis-1,2-Dichloroethylene	µg/L	6 <sup>[6]</sup>	<0.2	<0.2	No
trans-1,2-Dichloropropane	µg/L	10 <sup>[6]</sup>	<0.22	<0.22	No
1,3-Dichloropropene	µg/L	0.5 <sup>[6]</sup>	<0.5	<0.5	No
Methyl-tert-butyl Ether	µg/L	13 <sup>[6]</sup>	<0.5	<0.5	No
Styrene	µg/L	100 <sup>[6]</sup>	<0.5	<0.5	No
Trichlorofluoromethane	µg/L	150 <sup>[6]</sup>	<0.5	<0.5	No
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	1,200 <sup>[6]</sup>	<0.5	<0.5	No
Xylenes	mg/L	1.75 <sup>[6]</sup>	<0.0005	<0.0005	No
Aluminum	mg/L	1 <sup>[7]</sup>	0.12	3.2	Yes
Barium	mg/L	1 <sup>[6]</sup>	<0.1	<0.1	No
Nitrate (as NO <sub>3</sub> )	mg/L	45 <sup>[6]</sup>	0.75	5	No

<sup>[1]</sup> The most stringent water quality objective/criteria has been summarized in this Table.

<sup>[2]</sup> RPA Results:

- = Yes, if MEC > WQO/WQC, or B > WQO/WQC and MEC is detected;
- = No, if MEC and B are < WQO/WQC or all effluent data are undetected;
- = Undetermined, if no criteria have been promulgated (Uc), or for lack of data (Ud).

<sup>[3]</sup> Acute CTR Water Quality Criteria

<sup>[4]</sup> Chronic CTR Water Quality

<sup>[5]</sup> Human Health Criteria for Consumption of Water & Organisms

<sup>[6]</sup> Basin Plan, Organic Concentrations Not to be Exceeded in Domestic or Municipal Supply (Title 22 MCLs).

<sup>[7]</sup> Basin Plan, Inorganic Concentrations Not to be Exceeded in Domestic or Municipal Supply (Title 22 MCLs).

<sup>[8]</sup> In approximately September 2007 the Discharger began injecting a corrosion inhibitor into the water system to reduce copper concentrations in their wastewater. Over the next two years the Discharger experimented with dosing to achieve the desired results. The data set for determining reasonable potential with copper was limited to data provided from April 2009 through April 2010 to accurately reflect the current water quality of the Facility's effluent.

<sup>[9]</sup> Data J-flagged in analytical report and reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The "J" flag is equivalent to the DNQ Estimated Concentration flag. Given the MDL and RL were 0.95 and 3.0 µg/L, respectively, it is not possible to determine whether the effluent concentration actually exceeded the criteria of 1.8 µg/L.

As detailed in Table F-5, reasonable potential has been determined for copper (total recoverable) and aluminum.

Reasonable potential was determine to not exist for mercury and 4,4-DDD. Consistent with the requirements of 40 CFR 122.44(I)(2)(i)(B), based on the results of the reasonable potential analysis, effluent limitations for mercury and 4,4-DDD will not be carried over to this Order.

#### 4. WQBEL Calculations

- a. If reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:
  - i. If applicable and available, use of the wasteload allocation (WLA) established as part of a TMDL.
  - ii. Use of a steady-state model to derive MDELs and AMELs.
  - iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.
- b. Water quality based effluent limitations for copper is based on monitoring results and following the procedure based on the steady-state model, available in Section 1.4 of the SIP.
- c. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this tentative Order, no dilution credit is being allowed.
- d. WQBELs Calculation Example

The following demonstrates how WQBELs were established for this Order for copper.

##### Concentration-Based Effluent Limitations

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

##### *Calculation of aquatic life AMEL and MDEL:*

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

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

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators.  
D = The dilution credit, and

B = The ambient background concentration

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

$$ECA = C$$

For copper the applicable water quality criteria are:

$$ECA_{acute} = 21.80 \mu\text{g/L}$$

$$ECA_{chronic} = 13.94 \mu\text{g/L}$$

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

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

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

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

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

No. of Samples	CV	ECA Multiplier <sub>acute 99</sub>	ECA Multiplier <sub>chronic 99</sub>
8	0.6	0.32	0.53

$$LTA_{acute} = 21.80 \mu\text{g/L} \times 0.32 = 7.00 \mu\text{g/L}$$

$$LTA_{chronic} = 13.94 \mu\text{g/L} \times 0.53 = 7.35 \mu\text{g/L}$$

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

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

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

$$LTA = 7.00 \mu\text{g/L}$$

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

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

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

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

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

No. of Samples Per Month	CV	Multiplier <sub>MDEL 99</sub>	Multiplier <sub>AMEL 95</sub>
4	0.6	3.11	1.55

$$AMEL_{\text{aquatic life}} = 7.00 \times 1.55 = 10.9 \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = 7.00 \times 3.11 = 21.8 \mu\text{g/L}$$

*Calculation of human health AMEL and MDEL:*

**Step 5:** For the ECA based on human health, set the AMEL equal to the ECA<sub>human health</sub>

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

For copper:

$$AMEL_{\text{human health}} = 1,300 \mu\text{g/L}$$

**Step 6:** Calculate the MDEL for human health by multiplying the AMEL by the ratio of the Multiplier<sub>MDEL</sub> to the Multiplier<sub>AMEL</sub>. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

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

For copper, the following data were used to develop the MDEL<sub>human health</sub>:

No. of Samples Per Month	CV	Multiplier <sub>MDEL 99</sub>	Multiplier <sub>AMEL 95</sub>	Ratio
4	0.6	1.55	3.11	2.01

$$\text{MDEL}_{\text{human health}} = 1,300 \mu\text{g/L} \times 2.01 = 2,608 \mu\text{g/L}$$

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

For copper the AMEL<sub>human health</sub> and MDEL<sub>human health</sub> were 1,300 µg/L and 2,608 µg/L. Thus the aquatic life criteria-based effluent limitations were more stringent and were considered in the Order. The newly calculated aquatic life criteria-based effluent limitations were compared to the effluent limitations established for copper in Order No. R3-2006-0012 (average monthly effluent limitation of 9.0 µg/L; maximum daily effluent limitation of 18 µg/L). The effluent limitations in Order No. R3-2006-0012 were more stringent than the newly calculated effluent limitations. Thus, the effluent limitations for copper have been carried over from Order No. R3-2006-0012.

## 5. Whole Effluent Toxicity (WET)

The Basin Plan requires that all waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. WET limitations protect receiving water quality from the aggregated toxic effect of a mixture of pollutants in effluent. The WET approach allows for protection of the narrative “no toxics in toxic amounts” criterion while implementing numeric criteria for toxicity. There are two types of WET tests - acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

In Order No. R3-2006-0012, Central Coast Water Board staff determined that treated wastewater from the Facility has a reasonable potential to cause or contribute to acute toxicity in the discharge. In December 2009 the Discharger reported a percent survival of 55 percent. Further, because the cumulative/synergistic effects of various pollutants present at low levels in the discharge are unknown, a WET effluent limitation remains applicable. As such, reasonable potential to exceed water quality exists, and the acute toxicity effluent limitation has been carried over to the tentative Order.

The Discharger is required to maintain a Toxicity Reduction Evaluation (TRE) Workplan, which describes the steps that the Discharger intends to follow in the event that the acute toxicity limitation is exceeded. When monitoring measures WET in the effluent above the limitation established by the Order, the Discharger must resample, if the discharge is continuing, and retest. The Central Coast Water Board's Executive Officer will then determine whether to initiate enforcement action, whether to require the Discharger to implement a TRE or to implement other measures.

## 6. Basin Plan

**a. Aluminum.** For the protection of receiving waters with designated beneficial uses of municipal and domestic supply, the Basin Plan establishes water quality objectives for chemical constituents based on the limits specified in CCR, Title 22, Article 4, Chapter 15, Tables 64431-A and 64444-A. As detailed in Table F-5 of this Fact Sheet, the Discharger was determined to have reasonable potential to contribute to the exceedance of a water quality objective for aluminum. The water quality objective for aluminum established in Table 64444-A of CCR, Title 22, Article 4, Chapter 15 is 1 mg/L. Thus, a monthly effluent limitation of 1 mg/L has been established for aluminum. Because the maximum effluent concentration reported by the Discharger for aluminum is 0.12 mg/L, the Discharger is expected to comply with the effluent limitation for aluminum immediately upon the Order effective date.

### b. Bacteria.

- i. Fecal Coliform.** The Basin Plan establishes a water quality objectives, for the protection of surface waters with the designated beneficial use of Water Contact Recreation (REC 1), of a log-mean for any 30-day period of 200 organisms/100 ml, and that no more than 10 percent of total samples during any 30-day period exceed 400 organisms/100 ml. Because fecal coliform is a pollutant of concern for treated municipal wastewater, these water quality objectives have been added to Order.
- ii. Total Coliform.** The Central Coast Water Board established effluent limitations in Order No. R3-2006-0012 for total coliform to ensure adequate disinfection is provided at the Facility as to protect beneficial uses. Effluent limitations for total coliform included: the median number of total coliform bacteria shall not exceed 23 organisms/100 ml, as determined from the last seven days for which analyses have been completed; and the maximum number of total coliform organisms shall not exceed 2,400 organisms/100 ml at any time. These effluent limitations have been carried over from the previous Order.
- c. Chlorine.** Order No. R3-2006-0012 established an effluent limitation for chlorine of non-detect. The Central Coast Water Board views chlorinated discharges as having the potential to contribute to an exceedance of the Basin Plan's narrative toxicity objective. The USEPA developed National Recommended Ambient Water Quality Criteria for chlorine for the protection of freshwater aquatic life.

The recommended 4-day average (chronic) and 1-hour average (acute) criteria for chlorine residual are 0.011 µg/L and 0.019 µg/L, respectively. These criteria are protective of the Basin Plan's narrative toxicity objective. In the Fact Sheet for Order No. R3-2006-0012, Central Coast Water Board staff determined that these concentrations are, in effect, non-detectable concentrations by the common amperometric analytical method used for the measurement of chlorine; and therefore the Central Coast Water Board established a non-detect level of chlorine as an effluent limitation for the Discharger. A limit of "non-detect" has been carried over from the previous Order.

- d. Nitrate.** The Basin Plan establishes a narrative water quality objective for biostimulatory substances, which states,

*"Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses."*

Nitrogen may exist in a number of oxidation states within municipal wastewater, including nitrate. Nitrate is a common pollutant in effluent from wastewater treatment facilities, that when not properly controlled may lead to excessive biostimulatory growth, negatively impacting the receiving water. As such, Central Coast Water Board staff established a numeric effluent limitation for nitrate in Order Nos. 01-006 and R3-2006-0012 of 8 mg/L. The effluent limitation of 8 mg/L for nitrate has been carried over from the previous Order as a maximum daily limitation.

- e. pH.** The Basin Plan establishes a water quality objective for pH of between 6.5 to 8.3 standard units for the protection of receiving waters with the beneficial use of Municipal and Domestic Supply, and Water Contact Recreation. Order No. R3-2006-0012 implemented this water quality objective as an effluent limitation. The effluent limitation for pH has been carried over from the previous Order.

## **D. Final Effluent Limitations**

Final, technology-based and water quality-based effluent limitations established by the Order are discussed in the preceding sections of the Fact Sheet.

### **1. Satisfaction of Anti-Backsliding Requirements**

The Order retains effluent limitations equal to, or more stringent than those established by the previous Order for flow, BOD, TSS, oil and grease, settleable solids, pH, nitrate, chlorine, copper, acute toxicity, salinity, and total coliform. Further, additional effluent limitations for aluminum and fecal coliform have been established.

The elimination of WQBELs for mercury and 4,4-DDD is consistent with the exception to the CWA's anti-backsliding requirements expressed at CWA §402(0)(2)(B)(i), which allows a reissued permit to include less stringent limitations when "information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods), and which would have

justified the application of a less stringent effluent limitation at the time of permit issuance. In these circumstances, less stringent limitations (here, the removal of limitations) are based on new data, which was generated during the term of previous permit, and which demonstrates no reasonable potential for discharges from the Facility to cause or contribute to exceedances of applicable water quality objectives.

## **2. Satisfaction of Antidegradation Policy**

The Discharger has requested the Central Coast Water Board authorize the discharge of disinfected secondary treated effluent to land for disposal. The Discharger has identified disposal sites, as summarized in section II.A of this Fact Sheet. The Central Coast Water Board has included land disposal requirements in the tentative Order on a conditional basis. As part of the conditional basis, the Discharger shall demonstrate to the Executive Officer that the land disposal sites will be constructed and managed in a manner so as to not degrade groundwater quality or result in a discharge to surface waters. In addition, monitoring of groundwater shall be required to determine impacts, if any, to the groundwater.

Further, the use of land disposal sites for a portion of the Discharger's effluent will decrease the total effluent and pollutant load discharged to the surface water. As such, the Central Coast Water Board finds that land discharges, as described in this Fact Sheet, and in compliance with the terms of the tentative Order will not result in the degradation of water quality.

Provisions of the Order are consistent with applicable anti-degradation policy expressed by NPDES regulations at 40 CFR 131.12 and by State Water Board Resolution No. 68-16. The Order does not authorize increases in discharge rates or pollutant loadings, and its limitations and conditions otherwise assure maintenance of the existing quality of receiving waters.

## **3. Stringency of Requirements for Individual Pollutants**

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on flow, BOD, TSS, pH, oil and grease, and settleable solids. Restrictions on these pollutants are discussed in section IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These limitations are not more stringent than required by the CWA.

## **4. Summary of Final Effluent Limitations**

- a. The following effluent limitations are applicable to the discharge of disinfected secondary treated wastewater from the Facility at Discharge Point No. 001.

**Table F-7. Final Effluent Limitations**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Biochemical Oxygen Demand (5-day @ 20°C) (BOD) <sup>[1]</sup>	mg/L	30	45	90
	lbs/day	100	150	300
Total Suspended Solids (TSS) <sup>[1]</sup>	mg/L	30	45	90
	lbs/day	100	150	300
Oil & Grease	mg/L	10	--	20
	lbs/day	33	--	67
Settleable Solids	mL/L	--	--	0.1
pH	s.u.	--	--	6.5 – 8.3 <sup>[2]</sup>
Nitrate (as N)	mg/L	--	--	8.0
	lbs/day	--	--	26.7
Chlorine	µg/L	--	--	ND <sup>[3]</sup>
	lbs/day	--	--	--
Copper, Total Recoverable	µg/L	9.0	--	18.0
	lbs/day	0.030	--	0.060
Aluminum	mg/L	1.0	--	--
	lbs/day	3.3	--	--
Acute Toxicity	% survival	--	--	<sup>[4]</sup>

<sup>[1]</sup> The average monthly percent removal for BOD and TSS shall not be less than 85 percent.

<sup>[2]</sup> Applied as an instantaneous effluent limitation.

<sup>[3]</sup> Non-detected by amperometric titration or an equally sensitive method.

<sup>[4]</sup> Survival of test organisms exposed to 100 percent effluent shall not be significantly reduced when compared, using a t-test to the survival of control organisms, as defined in section V of Attachment E to this Order.

**b. Dry Weather Flow:** Effluent daily dry weather flow shall not exceed a monthly average of 0.4 MGD.

**c. Bacteria.**

**i. Fecal Coliform:**

- 1) Fecal coliform concentrations shall not exceed a log mean of 200 organisms/100 mL for any 30-day period (based on a minimum of 5 samples); and
- 2) Fecal coliform concentrations shall not exceed 400 organisms/100 mL more than 10 percent of the time in a 30-day period.

**ii. Total Coliform:**

- 1) Total coliform concentrations shall not exceed a median of 23 organisms/100 ml No more than 23 MPN/100 mL, based on the results of the last 7 days of sampling results for which analyses have been completed.

- 2) Total coliform concentrations shall not exceed 2,400 organisms/100 mL at any time.

## **E. Interim Effluent Limitations – Not Applicable**

## **F. Land Discharge Effluent Limitations and Specifications**

The Discharger has requested authorization for land disposal of undisinfected secondary treated effluent, as described in section II.A of this Fact Sheet. The tentative Order establishes conditional authorization for land disposal of effluent at the land disposal sites identified in Attachment B.

1. **Scope and Authority.** CCR Title 27 conditionally exempt certain activities from its provisions. Several exemptions are relevant to the discharge of wastewater to land, and the operation of treatment and/or storage ponds, associated with the Facility only if: 1) the discharge is regulated by WDRs; 2) any groundwater degradation complies with the Basin Plan and Resolution No. 68-16 (Antidegradation Policy); and 3) it does not need to be managed as a hazardous waste.

The conditional land disposal requirements contained within the tentative Order are expected to result in a discharge that meets the exemptions from CCR Title 27.

2. **Beneficial Uses and Water Quality Objectives.** The Land Discharge Specifications are necessary to protect the beneficial uses of the groundwater. The Basin Plan establishes the following beneficial uses for groundwater in the area of the discharge:

- Agricultural water supply,
- Municipal and domestic water supply, and
- Industrial supply.

3. **Land Disposal Effluent Limitations.**

- a. **Technology-based Treatment Effluent Limitations.** The USEPA guidelines for secondary treatment do not apply to land disposal cases. However, the Basin Plan states that municipal treatment facilities must provide effective solids removal and some soluble organics removal for the reduction of nuisance in wastewater effluent irrigation/disposal operations. The Discharger's proposal for land disposal and reuse at agronomic rates via spray irrigation has specified the use of undisinfected secondary treated effluent even though the effluent will be disinfected to varying degrees based on contact time within the forcemain downstream of the effluent pump station and chlorine injection point. The Discharger has demonstrated the ability to consistently treat effluent to secondary treatment standards for surface water disposal and will continue to treat the majority of the effluent for surface water disposal. Subsequently, the Central Coast Water Board has determined that establishing additional secondary treatment standards and monitoring requirements for land discharges and reuse are not warranted.

Because the design specifics for the land disposal system are unknown at the time of the drafting of the tentative Order, a maximum flow rate to land cannot be accurately determined. The Central Coast Water Board expects that the Land Discharge and Reclamation Requirements contained within sections IV.B and IV.B. of the Order will appropriately limit discharge volume of effluent for land disposal based on the design criteria of the disposal system. Thus, a numeric flow limitation has not been applied to discharges to land.

- b. Water Quality-based Treatment Effluent Limitations.** Numeric water quality criteria are specified for groundwater designated for agricultural water supply and municipal and domestic water supply. Effluent data was compared to CCR Title 22, Chapter 15, §64444 and §64431 (Maximum Contaminant Levels [MCLs] for domestic water quality criteria for organic and inorganic chemicals), and Tables 3-3 and 3-4 of the Basin Plan (water quality objectives for agriculture). Effluent data did not result in any exceedances of applicable numeric groundwater objectives. The land disposal of effluent from the Facility does not have reasonable potential to exceed applicable CCR Title 22 criteria, thus numeric land disposal effluent limitations for applicable CCR Title 22 criteria have not been established. See Table F-5 of this Fact Sheet for a comparison of effluent data to criteria.

The facility is not located within a defined groundwater basin and the subsurface geology in the area of the unnamed ephemeral drainage discharge point and proposed land discharge locations is characteristic of bedrock without any producible groundwater. In addition, the Discharger's proposal and Order requirements for land discharges or reuse via spray irrigation are based the application of effluent at agronomic rates such that significant percolation of applied effluent will not be likely to occur. Subsequently, the Order does not include specific groundwater quality objectives or groundwater monitoring. However, the Order does include general narrative objectives for groundwater that are consistent with the Basin Plan and other permits.

#### **4. Land Discharge Specifications.**

- a. Land Discharge Specification IV.B. (conditional land disposal).** The requirements for conditional land disposal have been established to ensure the land disposal sites requested by the Discharger are designed and managed in a manner that is consistent with the requirements of this Order, ensure that land applied effluent will not be hydraulically connected to surface waters, and will not degrade groundwater quality.
- b. Land Discharge Specifications IV.B.1.a and b (agronomic rate application).** The requirements for land application at agronomic rates have been established to minimize the potential for the degradation of groundwater from nutrients.
- c. Land Discharge Specification IV.B.1.c (prohibition to discharge hazardous wastes).** Hazardous waste compounds are not usually associated with domestic wastewater and when present are reduced in the

discharge to inconsequential concentrations through treatment or dilution. However, it is inappropriate to allow degradation of groundwater with such constituents, and therefore, this Order contains a prohibition to discharge waste classified as “hazardous” under CCR Title 23, Chapter 15, §2521.

- d. Land Discharge Specification IV.B.1.d and e (prohibition to irrigate during periods of significant precipitation).** These prohibitions have been established in the Order to minimize the potential for the creation of nuisance conditions from the ponding or surface runoff of secondary treated effluent.
- e. Land Discharge Specification IV.B.1.g and h (irrigation set backs and public contact).** Land application set backs and requirements to prevent public contact with for the land application of secondary effluent have been established based on the minimum requirements of CCR Title 22, Chapter 3, §60310 for the protection of human health.

## **G. Reclamation Requirements/Specifications**

The Discharger has requested authorization to land apply undisinfectated secondary effluent to a portion of the Nacimiento Research Facility, as discussed in section II.A of this Fact Sheet. CCR Title 22, Article 3, §60304 establishes requirements for recycled water based on intended use. Requirements for recycled wastewater used for the surface irrigation of fodder, and fiber crops and pasture for animals not producing milk for human consumption consists of a minimum treatment of undisinfectated secondary recycled water. The proposed discharges to land meet the minimum requirements established in CCR Title 22. The Reclamation Specifications contained within the Order were taken directly from the CCR Title 22 Water Recycling Criteria.

This permit conditionally authorizes the discharge of undisinfectated secondary treated effluent to land under sections IV.B and IV.C of the Order as land discharges and reclamation/reuse, respectively. Requirements for land discharges are described in section IV.F of this Fact Sheet and are also applicable to the proposed reuse via irrigation of the horse pasture.

## **H. Salt and Nutrient Management Program (section VI.C.3.a of the Order).**

New requirements for the Discharger to develop and implement a Salt and Nutrient Management Program or participate in a regional program are based on the Recycled Water Policy as discussed in section III.E.3 of this Fact Sheet. The requirements specified in section VI.C.3.a of the Order are similar to those established in other permits in the Central Coast Region which irrigate with or land apply secondary treated effluent.

## **V. RATIONALE FOR RECEIVING WATER LIMITATIONS**

### **A. Surface Water**

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order considers these factors and is designed to minimize the influence of the

discharge on the receiving water. Specific water quality objectives established by the Basin Plan to meet this goal for all inland surface waters are carried over from the previous Order as Receiving Water Limitations in section V.A of the Order.

## 1. Salinity

The salinity objectives for the Nacimiento River contained within Table 7 of the Order were retained from the previous permit and are excerpted from Table 3-7 of the Basin Plan. Chapter 3, Section II.A.3 of Basin Plan states:

It must be recognized that the median values indicated in Table 3-7 are values representing gross areas of a water body. Specific water quality objectives for a particular area may not be directly related to the objectives indicated. Therefore, application of these objectives must be based upon consideration of the surface and ground water quality naturally present; i.e., waste discharge requirements must adhere to the previously stated objectives and issuance of requirements must be tempered by consideration of beneficial uses within the immediate influence of the discharge, the existing quality of receiving waters, and water quality objectives. Consideration of beneficial uses includes: (1) a specific enumeration of all beneficial uses potentially to be affected by the waste discharge, (2) a determination of the relative importance of competing beneficial uses, and (3) impact of the discharge on existing beneficial uses. The Regional Board will make a judgment as to the priority of dominant use and minimize the impact on competing uses while not allowing the discharge to violate receiving water quality objectives.

Chapter 3, Section II. Of the Basin Plan also states:

Controllable water quality shall conform to the water quality objectives contained herein. When other conditions cause degradation of water quality beyond the levels or limits established as water quality objectives, controllable conditions shall not cause further degradation of water quality.

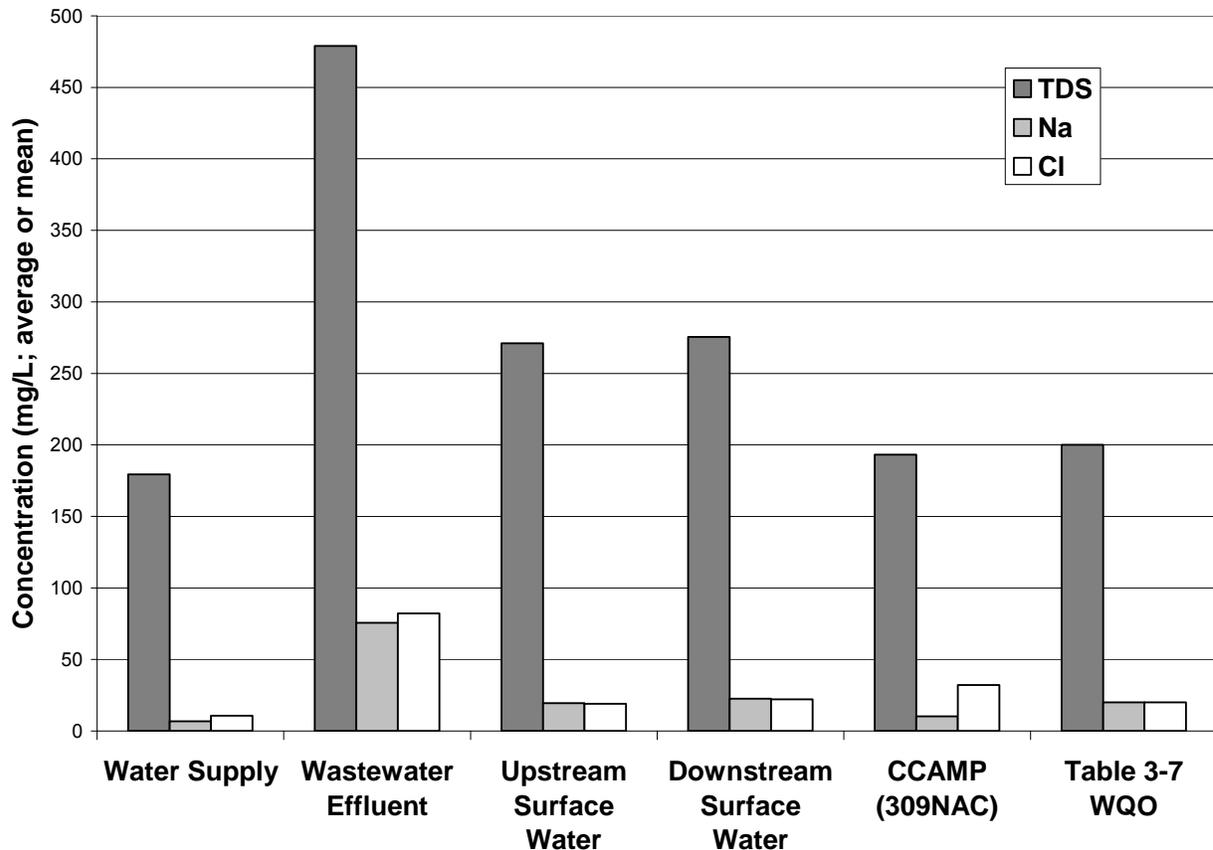
Controllable water quality conditions are those actions or circumstances resulting from man's activities that may influence the quality of the waters of the State and that may be reasonably controlled.

Although a detailed analysis of the effects of the discharge on salinity within the Nacimiento River has not been conducted, available information and data indicate the discharge is not likely to cause or significantly contribute to a measurable exceedance of the water quality objectives within Table 7 (Basin Plan Table 3-7) given the following:

- The discharge is to an ephemeral unnamed drainage tributary to the Nacimiento River. The confluence of the unnamed drainage with the River is approximately 4.2 miles downstream from the discharge point. The unnamed drainage typically runs dry approximately 1.5 miles downstream of the discharge point during most of the year and the effluent never reaches the Nacimiento River. During the wet season when the unnamed drainage flows to the Nacimiento River, effluent is likely diluted with stormwater runoff and groundwater recharge (gaining stream).

- Upstream and downstream receiving water monitoring (where available due to flowing conditions) does not show significant increases in total dissolved solids (TDS), sodium (Na), and chloride (Cl) downstream of the discharge point. In addition, the upstream and downstream concentrations of these constituents are within the range of the water quality objectives.
- Surface water quality data collected from the Nacimiento River at HWY 101 (downstream of the confluence with the unnamed ephemeral drainage) by the Central Coast Ambient Monitoring Program (CCAMP) do not indicate the Nacimiento River is impacted with TDS, Na, and Cl based on the Basin Plan objectives.
- The municipal water supply for the Heritage Ranch Community Services District is of a high quality with regard to TDS, Na, and Cl. Subsequently, the resultant effluent concentrations are relatively lower than that observed for other municipalities with lesser water supply quality (like the City of Paso Robles) and that necessitate the use of water softeners which lead to higher salt loading within the effluent waste stream.
- There are no known beneficial use receptors (potable or irrigation water supply wells or surface water diversions) between the point of discharge and the unnamed drainage confluence with the Nacimiento River. The unnamed drainage flows through a steep chaparral canyon and the California Army National Guard Camp Roberts training facility before reaching the Nacimiento River.
- The Order allows for, and the Discharger intends to develop, land discharge and reuse disposal alternatives that will reduce the seasonal discharge of effluent to the unnamed ephemeral drainage.

The following figure compares TDS, Na, and Cl data for the Discharger's water supply and wastewater effluent with upstream and downstream surface water in the vicinity of the discharge, CCAMP monitoring data for the Nacimiento River just upstream of its confluence with the Salinas River, and the Table 3-7 surface water quality objectives (WQO) for the Nacimiento River.



The Order requires the Discharger to either develop a facility specific salinity management plan to track and reduce salinity via reasonable controls such as outreach and potential ordinances restricting the use of water softeners, or to participate in the development and implementation of a regional salt and nutrient management plan. Additional controls such as alternative water supplies or effluent treatment to reduce salinity constituents would not be cost effective or reasonable given the water supply and effluent quality are already relatively low by comparison with other municipalities and the discharge does not appear to be causing or significantly contributing to exceedances of the salinity water quality objectives within the Nacimiento River.

## B. Groundwater

General water quality objectives for groundwater established by the Basin Plan were added to the Order based on the proposed land discharge and reclamation disposal alternatives conditionally approved within the Order. These were included in the Order even though the discharge locations are not located over any known groundwater basins or producible groundwater and given the required application of effluent at agronomic rates is not likely to result in significant percolation of applied effluent.

## **VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS**

NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. CWC §13267 and CWC §13383 also authorize the Central Coast Water Board to require technical and monitoring reports. Rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program (MRP), which is presented as Attachment E of this Order, is presented below.

### **A. Influent Monitoring**

In addition to influent flow monitoring, monitoring for BOD and TSS is required to determine compliance with the Order's 85 percent removal requirement for those pollutants. Influent monitoring has been carried over from Order No. R3-2006-0012 with the addition of total nitrogen to help determine the level of nitrogen loading to the facility and removal within the treatment system, and the addition of total dissolved solids, sodium, chloride, sulfate and boron to evaluate domestic contributions of these parameters and aid in the development and implementation of a salt and nutrient management plan.

### **B. Effluent Monitoring**

Effluent monitoring requirements were retained from Order No. R3-2006-0012 for Discharge Point No. 001A with the following exceptions:

1. Effluent monitoring for fecal coliform has been established to determine compliance with the newly established effluent limitations for fecal coliform.
2. Effluent monitoring for sulfate and boron has been established to help determine compliance with salinity objectives contained within the Basin Plan.
3. Semiannual effluent monitoring for total recoverable copper, based on reasonable potential to exceed applicable criteria, has been retained within the Order to determine compliance with the effluent limitation for total recoverable copper.
4. Semiannual monitoring for total nitrogen and ammonia has been added to the Order to compliment existing nitrate monitoring requirements and to determine the level of nitrogen removal with the treatment process.
5. Annual effluent monitoring for aluminum has been established to determine compliance with the newly established effluent limitation. Less frequent monitoring has been established for aluminum as the data provided by the Discharger does not indicate future exceedances of the effluent limitations are likely.

### **C. Whole Effluent Toxicity Testing Requirements**

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period. This Order retains

limitations for acute toxicity and monitoring requirements for acute toxicity for Discharge Point No. 001.

## **D. Receiving Water Monitoring**

### **1. Surface Water**

Surface water monitoring requirements have been retained from Order No. R3-2006-0012 for Discharge Point No. 001A with the following exceptions:

- a. Monitoring for sulfate and boron have been added to determine background concentrations of these constituents in the receiving waters and to be consistent with the water quality objectives contained within the Order for the Nacimiento River.
- b. Monitoring for unionized ammonia has been added to the Order to determine compliance with the numeric toxicity objective for unionized ammonia contained within the Order and the Basin Plan.
- c. Monitoring for total nitrogen and ammonia have been added to the Order to compliment receiving water monitoring for nitrate and effluent monitoring for nitrogen species and to determine receiving water conditions for these constituents.

### **2. Groundwater**

Consistent with the previous Order and discussions found in sections IV.F.3.b. and V.G. of this Fact Sheet, groundwater monitoring requirements have not been added to the Order.

## **E. Other Monitoring Requirements**

### **1. Land Discharge Monitoring.**

The Order includes daily flow and visual monitoring of the land discharge and reuse locations to evaluate compliance with the Land Discharger and Reclamation Requirements contained within Sections IV.B and IV.C of the Order.

### **2. Biosolids/Sludge Monitoring.**

40 CFR Part 503 sets forth USEPA's final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids.

USEPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction. Decreased sludge monitoring and reporting requirements of this Order, compared to the previous permit, therefore reflect the fact that USEPA, not the Regional Water Board, oversees compliance with 40 CFR Part 503.

The Discharger does not anticipate the removal of biosolids over the term of this Order, however biosolids monitoring have been established in the event the Discharger must removal biosolids during the term of this Order. Biosolids monitoring is not required during years when no biosolids are removed from the Facility.

### **3. Pond Freeboard.**

Pond freeboard monitoring has been established to determine compliance with Operation Specifications contained in section V.C.4 of the tentative Order.

## **VII. RATIONALE FOR PROVISIONS**

### **A. Standard Provisions**

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D to the Order.

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

### **B. Special Provisions**

#### **1. Reopener Provisions**

The Order may be modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include appropriate conditions or limits based on newly available information, or to implement any, new State water quality objectives that are approved by the USEPA. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order will be reopened to incorporate such limitations.

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

##### **a. Toxicity Reduction Requirements**

The requirement to perform a Toxicity Reduction Evaluation, if the acute toxicity limitation is exceeded is based on Provision VI.C.2 from Order No. R3-2006-0012. When toxicity monitoring measures acute toxicity in the effluent above the limitation established by the Order, the Discharger is required to resample and retest. When all monitoring results are available, the Executive Officer can

determine whether to initiate enforcement action, whether to require the Discharger to implement toxicity reduction evaluation (TRE) requirements, or whether other measures are warranted.

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

#### **a. Salt and Nutrient Management Program**

As discussed in section IV.F.5 of this Fact Sheet, the requirements for the Discharger to develop and implement a Salt and Nutrient Management Program are based on the Recycled Water Policy as discussed in section III.E.3 of this Fact Sheet. The requirements specified in section VI.C.3.a of the Order are similar to those established in other permits in the Region for discharges that are used to irrigate/land apply secondary treated effluent to land.

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

- a. Provision V.C.4.a requires the Discharger to comply with standard NPDES permit provisions based on Federal and State regulations.
- b. Provision V.C.4.b is carried over from Order No. R3-2006-0012 to ensure the potential for spills at the Facility are minimized.
- c. Provision V.C.4.c has been established for the protection of public health.
- d. Provision V.C.4.d has been established to minimize to occurrences of nuisance conditions, consistent with the requirements of the Basin Plan.

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

#### **a. Biosolids Management**

Provisions regarding sludge handling and disposal ensure that such activity will comply with all applicable regulations.

40 CFR Part 503 sets forth USEPA's final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids. The intent of this federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment.

USEPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction at this time. USEPA, not the Central Coast Water Board, will oversee compliance with 40 CFR Part 503.

40 CFR Part 503.4 (Relationship to other regulations) states that the disposal of sewage sludge in a municipal solid waste landfill unit, as defined in 40 CFR 258.2, that complies with the requirements in 40 CFR 258 constitutes compliance

with CWA §405(d). Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit must ensure that the sewage sludge meets the applicable requirements of 40 CFR 503.

## 6. Other Special Provisions

- a. **Discharges of Storm Water.** Discharges of storm water from POTWs with a design capacity greater than 1.0 MGD are applicable for coverage under General State Water Board Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Dischargers of Storm Water Associated with Industrial Activities Excluding Construction Activities*.
- b. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ).** The Order requires coverage by and compliance with applicable provisions of General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ). This General Permit, adopted on May 2, 2006, is applicable to all “federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.” The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows.

## 7. Compliance Schedules – Not Applicable

## VIII. PUBLIC PARTICIPATION

The Central Coast Water Board is considering the issuance of WDRs that will serve as an NPDES permit for the Heritage Ranch Community Services District Wastewater Treatment Facility. As a step in the WDR adoption process, Central Coast Water Board staff has developed tentative WDRs. The Central Coast Water Board encourages public participation in the WDR adoption process.

### A. Notification of Interested Parties

The Central Coast Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.

### B. Written Comments

Central Coast Water Board staff determinations are tentative. Interested persons were invited to submit written comments concerning these tentative WDRs. To be fully responded to by staff and considered by the Central Coast Water Board, written comments were to have been received at the Central Coast Water Board offices by 5:00 p.m. on **March 8, 2011**.

Staff received written comments from the USEPA. Those comments are summarized, along with staff's response to the comments, as follows:

1. USEPA Comments and Responses

(Comments submitted on March 2, 2010 via letter within electronic correspondence)

a. Comment

Thank you for the opportunity to comment on the public notice draft permit (NPDES Permit No. CA0047953) for the discharge from the Heritage Ranch Community Services District to an unnamed tributary of the Nacimiento River. We are concerned the reasonable potential analysis (RPA) does not appear to examine the need for water quality-based effluent limitations for total dissolved solids (TDS), sodium, chloride, sulfate, and boron. The record supporting the proposed permit should be revised to include a clear RPA for these pollutants to ensure applicable Basin Plan objectives are met and NPDES permitting requirements implemented. Pursuant to 40 CFR 123.44, we reserve the right to object to issuance of this permit if our concerns are not addressed; however, we are committed to working with the Central Coast Water Board to ensure the permit meets Clean Water Act requirements.

Table F-5 of the Fact Sheet contains RPA results for 133 separate pollutants, comparing the reported maximum effluent concentration with the most stringent water quality objective for the receiving water. As described in the State Implementation Plan (SIP), when the concentration of a pollutant has been detected in the effluent at or above the most stringent water quality objective, the pollutant is said to have "reasonable potential" requiring an effluent limitation in the permit. TDS, chloride, sodium, sulfate and boron were not included in Table F-5 and no assessment of whether these pollutants have "reasonable potential" was provided in the permit or fact sheet.

Table F-5 in the Fact Sheet should address each of these pollutants, comparing them with the most stringent water quality objectives as described in Table 3-7 of the Central Coast Region Basin Plan for the Nacimiento River and summarized in the table below:

<b>Pollutant (mg/L)</b>	<b>Objective</b>
TDS	200
Chloride	20
Sodium	20
Sulfate	50
Boron	0.2

If "reasonable potential" is determined, then the permit should incorporate limits protective of the applicable objectives.

## Staff Response

The RPA did not examine the need for water quality-based effluent limitations for TDS, sodium, chloride, sulfate, and boron based on the Basin Plan Table 3-7 surface water quality objectives as is consistent with Central Coast Water Board standard convention for waste discharge requirements. Applying the Table 3-7 water quality objectives to an RPA is not appropriate because unlike water quality criteria for priority pollutants promulgated within the California Toxics Rule (CTR), the Table 3-7 objectives are not intended to be used as hard numbers. As previously stated in Section V.A.1 of the Fact Sheet, Chapter 3, Section II.A.3 of Basin Plan states:

“It must be recognized that the median values indicated in Table 3-7 are values representing gross areas of a water body. Specific water quality objectives for a particular area may not be directly related to the objectives indicated. Therefore, application of these objectives must be based upon consideration of the surface and ground water quality naturally present; i.e., waste discharge requirements must adhere to the previously stated objectives and issuance of requirements must be tempered by consideration of beneficial uses within the immediate influence of the discharge, the existing quality of receiving waters, and water quality objectives. Consideration of beneficial uses includes: (1) a specific enumeration of all beneficial uses potentially to be affected by the waste discharge, (2) a determination of the relative importance of competing beneficial uses, and (3) impact of the discharge on existing beneficial uses. The Regional Board will make a judgment as to the priority of dominant use and minimize the impact on competing uses while not allowing the discharge to violate receiving water quality objectives.”

In addition, the Table 3-7 water quality objectives are presented as median values. Applying median values as maximum allowable or even average effluent limitations is an apples-to-oranges statistical comparison given half of a dataset, by definition, will exceed the median. Therefore, applying the Table 3-7 numeric objectives as de facto maximum effluent limitations is not appropriate and would likely be overly protective and unrealistic for a given municipal discharger to meet. The latter is particularly true for salts which are very difficult to control given they are primarily an artifact of source water supply quality and the domestic use of self-regenerating water softeners, which are very difficult to regulate. History has shown that applying the Table 3-7 water quality objectives as effluent limitations can be overly burdensome on a discharger by subjecting them to mandatory minimum penalties for effluent limitation violations while also resulting in only limited reductions in effluent loading/concentrations based on the implementation of reasonable controls by the discharger (e.g., City of San Juan Bautista). Once applied within an order/permit, these effluent limitations can be difficult to reduce or remove.

Chapter 3, Section II of the Basin Plan also states:

“Controllable water quality shall conform to the water quality objectives contained herein. When other conditions cause degradation of water quality beyond the levels or limits established as water quality objectives, controllable conditions shall not cause further degradation of water quality.”

Controllable water quality conditions are those actions or circumstances resulting from man’s activities that may influence the quality of the waters of the State and that may be reasonably controlled. Applying very expensive, both in capital and operation and maintenance costs, end-of-pipe tertiary treatment such as reverse osmosis (RO) would not be a reasonable control given it would not be likely to meet the Table 3-7 objectives based on the review of effluent water quality data for a newly constructed \$22 million micro-filtration and RO facility operated by Carmel Area Wastewater District. An RO facility would also generate a concentrated brine waste stream that is toxic and very difficult to dispose of within inland areas.

Section V.A.1 of the Fact Sheet previously laid out the rationale for not including effluent limitations for these parameters based on review of site specific water supply, effluent and receiving water quality data indicating the discharge is likely not causing or contributing to exceedances of the Table 3-7 water quality objectives within the Nacimiento River. This section of the Fact Sheet has been slightly modified to clarify this point.

Notwithstanding the above response and the discussion within Section V.A.1 of the Fact Sheet, the Central Coast Water Board considers salinity loading to be one of its biggest regional water quality issues along with nitrate/nitrogen loading. Applying potentially unrealistic effluent limitations to waste discharge requirements based on water quality objectives not intended to be used as maximum allowable, or even site specific, criteria is very unlikely to sufficiently address this regional issue. Particularly given that municipal and industrial discharges historically have been shown to contribute approximately two percent of the TDS loadings within the Salinas Valley,<sup>3</sup> of which the Nacimiento River is tributary via the Salinas River. The predominant agricultural landuse activities are the primary contributor of TDS loading within the Salinas Valley watershed. Consequently the Central Coast Water Board is focusing on a regional solution while also allowing dischargers to implement reasonable controls to reduce salt loading without being subject to mandatory minimum penalties that could otherwise be spent on developing real solutions to address the problem. To that end the proposed Order, consistent with the previous Order, does not contain effluent limitations based on the Table 3-7 objectives, retains the existing surface water quality objectives based on the Table 3-7 objectives, and includes a Special Provision requiring the Discharger to either develop its own salt and nutrient management program or participate in a regional salt and nutrient management plan consistent with the provisions of State Water Board Resolution No. 2009-0011 (Recycled Water Policy). Coincidentally, the Discharger reportedly

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<sup>3</sup> Association of Monterey Bay Area Governments (AMBAG), October 1978. “Investigation of Nonpoint Source of Groundwater Pollutants in Santa Cruz and Monterey Counties, California.” H. Esmaili and Associates

has already initiated its participation in a regional program under the leadership of the City of Paso Robles.

Based on this comment staff has added semiannual influent monitoring for total dissolved solids, sodium, chloride, sulfate and boron to evaluate domestic contributions of these parameters, complement effluent and receiving water monitoring and aid in the development and implementation of a salt and nutrient management plan.

b. Comment

In addition to the salinity-related pollutants, the basis for not incorporating a limit for Bis(2-Ethylhexyl) Phthalate is unclear. Although the fact sheet explains that the result of the RPA for this pollutant was “undetermined” for “lack of data,” a maximum effluent concentration of 2.3 µg/L was reported in Table F-5 (greater than the 1.8 µg/L standard). Although the SIP describes how to conduct an RPA if the detection limit is above the objective, it contains no exceptions for objectives beneath reporting limits. Recognizing that the data point used in the analysis was between the MDL and the RL, we recommend incorporating a limit and requiring additional monitoring to gather more data to substantiate a more robust RPA when the permit is next reviewed.

Staff Response

Although it is true the SIP contains no exceptions for objectives (criteria) beneath the reporting limit (RL), it also does not specifically require or specify that inconclusive data be used to determine whether a given constituent has reasonable potential to exceed a criterion. The Table F-5 footnote for the bis(2-ethylhexyl) phthalate data is provided below for the benefit of the reader:

Data J-flagged in analytical report and reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The “J” flag is equivalent to the DNQ Estimated Concentration flag. Given the MDL and RL were 0.95 and 3.0 µg/L, respectively, it is not possible to determine whether the effluent concentration actually exceeded the criteria of 1.8 µg/L.

The effluent data in question is clearly inconclusive (estimated) and does not definitively show whether the applicable criterion was exceeded and subsequently resulted in a “reasonable potential” to exceed the criteria. All that can definitively be said of the data result is that bis(2-ethylhexyl) phthalate was likely detected at a concentration of between 0.95 µg/L and 3.0 µg/L. Although an estimated concentration of 2.3 µg/L was reported that exceeds the applicable criterion, this result is not technically or legally defensible because it is below the lowest standard concentration in the calibration curve for the applied method (i.e., below the RL).

It should be noted that the Discharger and the consulted laboratory were not in error or violation with regard to potentially applying analytical techniques with an RL below that which are required by the SIP. Appendix 4 of the SIP specifies Minimum Levels (MLs) for use in reporting and compliance purposes (effectively reporting levels or RLs) of 5 µg/L and 10 µg/L, respectively, for GC and GCMS analytical equipment. The above noted RL and MDL are both well below the SIP specified ML for bis(2-ethylhexyl) phthalate.

Accordingly, the Discharger should not be penalized by applying additional monitoring requirements based on conjecture regarding whether the criterion may have been exceeded. Particularly for bis(2-ethylhexyl) phthalate, a common plasticizer contained within certain types of plastic tubing or gloves, which has been shown to be an artifact of sampling apparatus/techniques and not that of source loading to the wastewater facility. This compound has been detected sporadically at low levels in samples from numerous municipal facilities and cleanup sites within the Central Coast Region. The application of “clean” sampling techniques has been shown to reduce the occurrence of bis(2-ethylhexyl) phthalate detections.

In addition, the Discharger collected another effluent sample for bis(2-ethylhexyl) phthalate on December 8, 2010. Although the resulting reporting limit was 4 µg/L, bis(2-Ethylhexyl) phthalate was not detected.

c. Comment

Secondary treatment limits for BOD and TSS have been retained from the previous permit limit and are consistent with the requirements of 40 CFR 122.45. In table F-2 on page F-7 of the fact sheet, however, we note historical average monthly reporting for BOD and TSS are characterized as “not reported.” If BOD and TSS data are not being regularly reported by this facility, we recommend the Central Coast Water Board take appropriate action to address non-compliance with existing monitoring requirements and ensure these data are collected and reported in the future.

Staff Response

Comment appropriate and noted.

**C. Public Hearing**

The Central Coast Water Board held a public hearing on the tentative WDRs during its regular scheduled meeting on the following date and time and at the following location:

Date: **May 5, 2010**  
Time: **8:30 AM**  
Location: **Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401**

Interested persons were invited to attend and provide public comment/testimony. The Central Coast Water Board approved the WDRs as part of the public meeting agenda consent calendar given no interested persons requested to provide testimony.

#### **D. Waste Discharge Requirements Petitions**

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

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

#### **E. Information and Copying**

The Report of Waste Discharge (RWD), related documents, effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m., Monday through Friday. Copying of documents may be arranged through the Central Coast Water Board by calling (805) 549-3147.

#### **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 Central Coast 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 Matthew Keeling at (805) 549-3685 or [Mkeeling@waterboards.ca.gov](mailto:Mkeeling@waterboards.ca.gov).