CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

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ORDER NO. R5-2008-0167
NPDES NO. CA0004219

WASTE DISCHARGE REQUIREMENTS FOR THE SIERRA PINE LIMITED SIERRA PINE – AMPINE DIVISION AMADOR COUNTY

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

Table 1. Discharger Information

Discharger	SierraPine Limited
Name of Facility	SierraPine – Ampine Division
Facility Address	11300 Ridge Road
	Martell, CA 95654
	Amador County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a **minor** discharge.	

The discharge by SierraPine Limited from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Boiler Blowdown, Non-Contact Cooling Water, Equipment/Facilities Washwater, and Biofilter Blowdown	38º 22' 02" N	120º 48' 57" W	Stony Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**24 October 2008**
This Order shall become effective on:	**24 October 2008**
This Order shall expire on:	**1 October 20013**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	**180 days prior to the Order expiration date**

I, PAMELA C. CREEDON, 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 Valley Region, on 24 October 2008.

Original Signed By:

PAMELA C. CREEDON, Executive Officer

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I. FACILITY INFORMATION

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

Table 4. Facility Information

Discharger	SierraPine Limited
Name of Facility	SierraPine – Ampine Division
Facility Address	11300 Ridge Road
	Martell, CA 95654
	Amador County
Facility Contact, Title, and Phone	Dave Scott, EH & S Manager, (209) 223-1690
Mailing Address	P.O. Box 115
	Martell, CA 95654
Type of Facility	Particleboard Manufacturing Facility (SIC Code 2493)
Facility Design Flow	Not Applicable

II. FINDINGS

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

A. Background. SierraPine Limited (hereinafter Discharger) is currently discharging pursuant to Order No. R5-2002-0018 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0004219. The Discharger submitted a Report of Waste Discharge (ROWD), dated 31 August 2006, and applied for a NPDES permit renewal to discharge up to 0.047 mgd of treated wastewater from SierraPine – Ampine Division, hereinafter Facility. A revised ROWD was submitted on 1 July 2008. The application was deemed complete on 2 July 2008.

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

B. Facility Description. The Discharger owns and operates a particleboard manufacturing facility. The treatment system consists of a series of three unlined ponds. Wastewater is discharged from Discharge Point No. 001 (see table on cover page) to the Stony Creek, a water of the United States, and a tributary to the Mokelumne River within the Sacramento–San Joaquin Delta, via Sutter Creek and Dry Creek. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. Legal Authorities. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental

Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (commencing with Section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with Section 13260).

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available 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 and G through H are also incorporated into this Order.

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

F. Technology-based Effluent Limitations. Section 301(b) of the CWA and implementing USEPA permit regulations at Title 40 of the Code of Federal Regulations (CFR)[1], Part 122.44 (40 CFR 122.44) require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards for the Particleboard Manufacturing Category in Part 429. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. Water Quality-based Effluent Limitations. Section 301(b) of the CWA and 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.

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

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

information, as provided in 40 CFR 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Regional Water Board adopted a *Water Quality Control Plan, Fourth Edition (Revised October 2007), for the Sacramento and San Joaquin River Basins* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan at page II-2.00 states that the "…*beneficial uses of any specifically identified water body generally apply to its tributary streams*." The Basin Plan does not specifically identify beneficial uses for Stony Creek, but does identify present and potential uses for the Sacramento – San Joaquin Delta, to which Stony Creek, via Sutter Creek, Dry Creek, and the Mokelumne River, is tributary. These beneficial uses are as follows: municipal and domestic supply; agricultural supply, including irrigation and stock watering; industrial service supply; industrial process supply; navigation; water contact recreation, including canoeing and rafting; non-contact water recreation, including aesthetic enjoyment; warm freshwater habitat; cold freshwater habitat; warm and cold migration of aquatic organisms; warm spawning, reproduction, and/or early development; and wildlife habitat. As discussed further in the Fact Sheet, the Regional Water Board also determined in Order No. R5-2002-0018 that groundwater recharge is a beneficial use of Stony Creek.

In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, as discussed in detail in the Fact Sheet, beneficial uses applicable to Stony Creek are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point No.	Receiving Water Name	Beneficial Use(s)
001	Stony Creek	Existing: Municipal and domestic supply (MUN); agricultural supply, including irrigation and stock watering (AGR); industrial service supply (IND); industrial process supply (PROC); navigation (NAV); water contact recreation, including canoeing and rafting (REC-1); non-contact water recreation, including aesthetic enjoyment (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); warm and cold migration of aquatic organisms (MIGR); warm spawning, reproduction, and/or early development (SPWN); wildlife habitat (WILD); and groundwater recharge (GWR).

Requirements of this Order implement the Basin Plan.

I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on 22 December 1992, and later amended it on 4 May 1995 and 9 November 1999. About forty criteria in the NTR applied in California. On

18 May 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 13 February 2001. These rules contain water quality criteria for priority pollutants.

J. State Implementation Policy. On 2 March 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 28 April 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on 18 May 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 24 February 2005 that became effective on 13 July 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. In general, an NPDES permit must include final effluent limitations that are consistent with Clean Water Act section 301 and with 40 CFR 122.44(d). There are exceptions to this general rule. The State Water Board has concluded that where the Regional Water Board's Basin Plan allows for schedules of compliance and the Regional Water Board is newly interpreting a narrative standard, it may include schedules of compliance in the permit to meet effluent limits that implement a narrative standard. See In the Matter of Waste Discharge Requirements for Avon Refinery (State Water Board Order WQ 2001-06 at pp. 53-55). See also Communities for a Better Environment et al. v. State Water Resources Control Board, 34 Cal.Rptr.3d 396, 410 (2005). The Basin Plan for the Sacramento and San Joaquin Rivers includes a provision that authorizes the use of compliance schedules in NPDES permits for water quality objectives that are adopted after the date of adoption of the Basin Plan, which was 25 September 1995 (see Basin Plan at page IV-16). Consistent with the State Water Board's Order in the CBE matter, the Regional Water Board has the discretion to include compliance schedules in NPDES permits when it is including an effluent limitation that is a "new interpretation" of a narrative water quality objective. This conclusion is also consistent with the United States Environmental Protection Agency policies and administrative decisions. See, e.g., Whole Effluent Toxicity (WET) Control Policy. The Regional Water Board, however, is not required to include a schedule of compliance, but may issue a Time Schedule Order pursuant to Water Code section 13300 or a Cease and Desist Order pursuant to Water Code section 13301 where it finds that the Discharger is violating or threatening to violate the permit. The Regional Water Board will consider the merits of each case in determining whether it is appropriate to include a compliance schedule in a permit, and, consistent with the Basin Plan, should consider feasibility of achieving compliance, and must impose a schedule that is as short as practicable to achieve compliance with the objectives, criteria, or effluent limit based on the objective or criteria.

For CTR constituents, Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or 18 May 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 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 30 March 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 CFR §131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after 30 May 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 30 May 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains WQBELs for individual pollutants. The WQBELs consist of restrictions on diethylaminethanol, electrical conductivity, pH, and TCDD-equivalents. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements contained in 40 CFR Part 429, Subpart M.

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 40 CFR section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on 1 May 2001. 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 30 May 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to 30 May 2000, but not approved by USEPA before that date, are nonetheless "*applicable water quality standards for purposes of the [Clean Water] Act*" pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

N. Antidegradation Policy. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 is consistent with the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

O. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

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 the applicable Endangered Species Act.

Q. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

R. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

S. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections V.B, VI.A.2.v, VI.C.2.b, VI.C.4.a, and VI.C.4.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.

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

U. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

IT IS HEREBY ORDERED, that Order No. R5-2002-0018 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 Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of wastewater at a location or in a manner different from that described in the Findings is prohibited.

B. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Federal Standard Provisions I.G. and I.H. (Attachment D).

C. Neither the discharge nor its treatment shall create a nuisance as defined in Section 13050 of the California Water Code.

D. The Discharge of hazardous or toxic substances to surface water or groundwater is prohibited.

E. The discharge of wastewater to surface water from Discharge Point No. 001 is prohibited from 1 May through 31 October.

F. The discharge of particleboard manufacturing process wastewater is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E):

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 6:

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	standard units	--	--	6.5	8.5
Priority Pollutants					
TCDD-Equivalents	µg/L	1.30×10^{-8}	2.61×10^{-8}	--	--
	lbs/day[1]	5.10×10^{-12}	10.23×10^{-12}	--	--
Non-Conventional Pollutants					
Electrical Conductivity @ 25°C	µmhos/cm	900	1,600	--	--

[1] Based on a production flow of 0.047 mgd from the particleboard facility.

b. **Electrical Conductivity.** The annual average for electrical conductivity shall not exceed 450 µmhos/cm.

c. **Diethylaminethanol.** For a calendar year, the annual average effluent concentration shall not exceed 22,000 mg/L.

d. **Acute Toxicity.** Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay---------- 70%
Minimum for any three or more consecutive bioassays------ 90%

2. Interim Effluent Limitations

[Not Applicable]

B. Land Discharge Specifications

[Not Applicable]

C. Reclamation Specifications

[Not Applicable]

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

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

1. **Bacteria**. The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL, nor more than ten percent of the total number of fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL.

2. **Biostimulatory Substances**. Water to contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.

3. **Chemical Constituents**. Chemical constituents to be present in concentrations that adversely affect beneficial uses.

4. **Color**. Discoloration that causes nuisance or adversely affects beneficial uses.

5. **Dissolved Oxygen**:

    a. The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass;
    b. The 95 percentile dissolved oxygen concentration to fall below 75 percent of saturation; nor
    c. The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time.

6. **Floating Material**. Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.

7. **Oil and Grease**. Oils, greases, waxes, or other materials to be present in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.

8. **pH**. The pH to be depressed below 6.5, raised above 8.5, nor changed by more than 0.5 units.

9. **Pesticides**:

    a. Pesticides to be present, individually or in combination, in concentrations that adversely affect beneficial uses;

b. Pesticides to be present in bottom sediments or aquatic life in concentrations that adversely affect beneficial uses;
c. Total identifiable persistent chlorinated hydrocarbon pesticides to be present in the water column at concentrations detectable within the accuracy of analytical methods approved by USEPA or the Executive Officer;
d. Pesticide concentrations to exceed those allowable by applicable antidegradation policies (see State Water Board Resolution No. 68-16 and 40 CFR §131.12.);
e. Pesticide concentrations to exceed the lowest levels technically and economically achievable;
f. Pesticides to be present in concentration in excess of the maximum contaminant levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15; nor
g. Thiobencarb to be present in excess of 1.0 µg/L.

10. **Radioactivity**:

    a. Radionuclides to be present in concentrations that are harmful to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life; nor
    b. Radionuclides to be present in excess of the maximum contaminant levels specified in Table 4 (MCL Radioactivity) of Section 64443 of Title 22 of the California Code of Regulations.

11. **Suspended Sediments**. The suspended sediment load and suspended sediment discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

12. **Settleable Substances**. Substances to be present in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.

13. **Suspended Material**. Suspended material to be present in concentrations that cause nuisance or adversely affect beneficial uses.

14. **Taste and Odors**. Taste- or odor-producing substances to be present in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses.

15. **Temperature**. The natural temperature to be increased by more than 5°F.

16. **Toxicity**. Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.

17. **Turbidity**. The turbidity to increase as follows:

a. More than 1 Nephelometric Turbidity Unit (NTU) where natural turbidity is between 0 and 5 NTUs.
b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
c. More than 10 NTU where natural turbidity is between 50 and 100 NTUs.
d. More than 10 percent where natural turbidity is greater than 100 NTUs.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded.

VI. PROVISIONS

A. Standard Provisions

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

2. The Discharger shall comply with the following provisions:

   a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, CCR, Division 3, Chapter 26.

   b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

      i. violation of any term or condition contained in this Order;

      ii. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;

      iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and

      iv. a material change in the character, location, or volume of discharge.

      The causes for modification include:

      - *New regulations.* New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

      - *Land application plans.* When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.

- *Change in sludge use or disposal practice.* Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Regional Water Board may review and revise this Order at any time upon application of any affected person or the Regional Water Board's own motion.

c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Regional Water Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

   The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:

   i. contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or

   ii. controls any pollutant limited in the Order.

   The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.

g. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.

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

i. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.

j. Safeguard to electric power failure:

   i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this Order.

   ii. Upon written request by the Regional Water Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past 5 years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Regional Water Board.

   iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Regional Water Board not approve the existing safeguards, the Discharger shall, within 90 days of having been advised in writing by the Regional Water Board that the existing safeguards are inadequate, provide to the Regional Water Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Regional Water Board, become a condition of this Order.

k. The Discharger, upon written request of the Regional Water Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under Regional Water Board Standard Provision VI.A.2.m.

   The technical report shall:

   i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. 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 state when they became operational.

iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Regional Water Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

l. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last 3 years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in 4 years, the Discharger shall notify the Regional Water Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Regional Water Board may extend the time for submitting the report.

m. The Discharger shall submit technical reports as directed by the Executive Officer. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

n. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Regional Water Board and USEPA.

o. The Discharger shall conduct analysis on any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to USEPA's DMQA manager.

p. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.

q. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy.

r. The Discharger shall file with the Regional Water Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this Order.

s. The results of all monitoring required by this Order shall be reported to the Regional Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

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

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

v. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, 1-hour average effluent limitation, or receiving water limitation contained in this Order, the Discharger shall notify the Regional Water Board by telephone (916) 464-3291 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within 5 days, unless the Regional Water Board waives confirmation. The written notification shall include the information required by Attachment D, Section V.E.1 [40 CFR section 122.41(l)(6)(i)].

B. Monitoring and Reporting Program (MRP) Requirements

1. The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional

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

b. Conditions that necessitate a major modification of a permit are described in 40 CFR section 122.62, including:

   i. If new or amended applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.

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

c. **Whole Effluent Toxicity.** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if the State Water Board revises the SIP's toxicity control provisions that would require the establishment of numeric chronic toxicity effluent limitations, this Order may be reopened to include a numeric chronic toxicity effluent limitation based on the new provisions.

d. **Biofilter Blowdown.** This Order requires the Discharger to complete and submit a report on the characteristics of the biofilter blowdown wastewater. The studies shall be completed and submitted to the Regional Water Board as specified in section VI.C.2.d of this Order. Based on a review of the results of the report on the characteristics of the biofilter blowdown wastewater, this Order may be reopened to include limitations and/or discharge specifications for biofilter blowdown wastewater.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Chronic Whole Effluent Toxicity.** For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct chronic whole effluent toxicity testing, as specified in the Monitoring and Reporting Program (Attachment E, Section V). Furthermore, this Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exceeds the toxicity numeric monitoring trigger established in this Provision, the Discharger is required to initiate a Toxicity Reduction Evaluation (TRE), in accordance with an approved TRE Work Plan, and take actions to mitigate the impact of the discharge and prevent reoccurrence of toxicity. A TRE is a site-specific study conducted in a stepwise process to identify the source(s) of toxicity and the effective control measures for effluent toxicity. TREs are designed to identify the causative agents and sources of whole effluent toxicity, evaluate the effectiveness of the toxicity control options, and confirm the reduction in effluent toxicity. This Provision includes requirements for the Discharger to develop and submit a TRE

Work Plan and includes procedures for accelerated chronic toxicity monitoring and TRE initiation.

i. **Initial Investigative TRE Workplan. Within 90 days of the effective date of this Order,** Within 90 days of the effective date of this Order, the Discharger shall submit to the Regional Water Board an Initial Investigative TRE Workplan for approval by the Executive Officer. This should be a one to two page document including, at a minimum:

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

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

   c) A discussion of who will conduct the Toxicity Identification Evaluation (TIE), if necessary (e.g., an in-house expert or outside contractor).

ii. **Accelerated Monitoring and TRE Initiation.** When the numeric toxicity monitoring trigger is exceeded during regular chronic toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications. WET testing results exceeding the monitoring trigger during accelerated monitoring demonstrates a pattern of toxicity and requires the Discharger to initiate a TRE to address the effluent toxicity.

iii. **Numeric Monitoring Trigger.** The numeric toxicity monitoring trigger is > **1 TUc** (where TUc = 100/NOEC). The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to begin accelerated monitoring and initiate a TRE.

iv. **Accelerated Monitoring Specifications.** If the monitoring trigger is exceeded during regular chronic toxicity testing, within 14 days of notification by the laboratory of the test results, the Discharger shall initiate accelerated monitoring. Accelerated monitoring shall consist of four (4) chronic toxicity tests in a 6-week period (i.e., one test every 2 weeks) using the species that exhibited toxicity. The following protocol shall be used for accelerated monitoring and TRE initiation:

   a) If the results of four (4) consecutive accelerated monitoring tests do not exceed the monitoring trigger, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

b) If the source(s) of the toxicity is easily identified (i.e. temporary plant upset), the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until four (4) consecutive accelerated tests do not exceed the monitoring trigger. Upon confirmation that the effluent toxicity has been removed, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring.

c) If the result of any accelerated toxicity test exceeds the monitoring trigger, the Discharger shall cease accelerated monitoring and initiate a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty (30) days of notification by the laboratory of the test results exceeding the monitoring trigger during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Regional Water Board including, at minimum:

1) Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including TRE WET monitoring schedule;

2) Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

3) A schedule for these actions.

Within sixty (60) days of notification by the laboratory of the test results, the Discharger shall submit to the Regional Water Board a TRE Workplan for approval by the Executive Officer. The TRE Workplan shall outline the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity. The TRE Workplan must be developed in accordance with USEPA guidance[2].

b. **Groundwater Monitoring.** To determine compliance with Groundwater Limitations contained in section V.B of this Order, Discharger shall continue to implement the groundwater monitoring program in accordance with the approved Martell Facility Groundwater Characterization Work Plan (12 June 2003) and addendum (29 September 2003). All monitoring wells shall comply with the appropriate standards as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 74-81 (December 1981), and any more stringent standards adopted by the Discharger or County pursuant to CWC section 13801.

If the monitoring shows that any constituent concentrations are increased above background water quality, the Discharger shall perform BPTC evaluation tasks as required in section VI.C.2.c below.

c. **BPTC Evaluation Tasks**. If the groundwater monitoring results conducted under this Order show that the discharge of waste is threatening to cause or has caused groundwater to contain waste constituents in concentrations statistically greater than background water quality, the Discharger shall propose a work plan

[2] See the Fact Sheet (Attachment F section VII.B.2.a.) for a list of USEPA guidance documents that must be considered in development of the TRE Workplan.

and schedule for providing BPTC as required by Resolution 68-16. The work plan and schedule shall be submitted, within 6 months the after the first full year of monitoring that documents constituent concentrations increased beyond background water quality. The technical report describing the work plan and schedule shall contain a preliminary evaluation of each component and propose a time schedule for completing the comprehensive technical evaluation.

Following completion of the comprehensive technical evaluation, the Discharger shall submit a technical report describing the evaluation's results and critiquing each evaluated component with respect to BPTC and minimizing the discharge's impact on groundwater quality. Where deficiencies are documented, the technical report shall provide recommendations for necessary modifications (e.g., new or revised salinity source control measures, Facility component upgrade and retrofit) to achieve BPTC and identify the source of funding and proposed schedule for modifications. The schedule shall be as short as practicable but in no case shall completion of the necessary modifications exceed 4 years past the Executive Officer's determination of the adequacy of the comprehensive technical evaluation, unless the schedule is reviewed and specifically approved by the Regional Water Board. The technical report shall include specific methods the Discharger proposes as a means to measure processes and assure continuous optimal performance of BPTC measures. The Discharger shall comply with the following compliance schedule in implementing the work required by this Provision:

Task	Compliance Date
i. Submit technical report: work plan and schedule for comprehensive evaluation	**Within 6 months** after first full year of monitoring that documents constituent concentrations increased beyond background water quality.
ii. Commence comprehensive evaluation	**30 days** following Executive Officer approval of Task i.
iii. Complete comprehensive evaluation	As established by Task i and/or 2 years following Task ii, whichever is sooner.
iv. Submit technical report: comprehensive evaluation results	**60 days** following completion of Task iii.
v. Submit annual report, if applicable, describing the overall status of BPTC implementation and compliance with groundwater limitations over the past reporting year	To be submitted in accordance with the MRP (Attachment E, Section X.D.1).

d. **Biofilter Monitoring Study.** The Discharger shall complete and submit a report on the characteristics of the biofilter blowdown wastewater. At a minimum, the study report shall provide monitoring data for the discharge from the unit, as well as provide information related to the operation of the unit (including chemical additives used, if any). The Discharger shall comply with the following time schedule to complete the study:

Task	Compliance Date
i. Submit Workplan and Time Schedule for approval by the Executive Officer	**Within 6 months** following adoption of the Order.
ii. Complete Study and Submit Study Report	**Within 24 months** following Executive Officer approval of the Workplan and Time Schedule

3. Best Management Practices and Pollution Prevention

a. **Best Management Practices (BMP) Plan.** The Discharger shall develop and implement a BMP Plan for discharges from the Facility that prevents the discharge of pollutants into Stony Creek from the irrigation pond at levels that would contribute to the degradation of the receiving waters or otherwise negatively affect the beneficial uses of the receiving water. At a minimum, the BMP Plan shall be developed and implemented in accordance with Attachment H to prevent, or minimize the potential for, the release of pollutants to waters of the State and waters of the United States.

4. Construction, Operation and Maintenance Specifications

a. **Treatment Pond Operating Requirements (Log Deck Settling Pond and Irrigation Pond).**

i. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.

ii. Ponds shall be managed to prevent breeding of mosquitoes. In particular,

a) An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
b) Weeds shall be minimized.
c) Dead algae, vegetation, and debris shall not accumulate on the water surface.

iii. Freeboard shall never be less than 2 feet (measured vertically to the lowest point of overflow) for all ponds.

iv. Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas.

v. As a means of discerning compliance with Treatment Pond Operating Requirement VI.C.4.a.v above, the dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/L.

vi. Ponds shall not have a pH less than 6.5 or greater than 9.0.

b. **Land Application Requirements.**

i. The discharge shall be distributed uniformly on adequate acreage in compliance with the Discharge Specifications.

ii. Hydraulic loading of wastewater shall be at reasonable agronomic rates designed to minimize the percolation of process wastewater below the root zone (i.e., deep percolation).

iii. Public contact with effluent shall be precluded through such means as fences, signs, and other acceptable alternatives.

iv. Areas irrigated with effluent shall be managed to prevent breeding of mosquitoes. More specifically:

a) All applied irrigation water must infiltrate completely within 24 hours.
b) Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation.
c) Low-pressure and un-pressurized pipelines and ditches, which are accessible to mosquitoes, shall not be used to store reclaimed water.

v. Discharges to the spray irrigation fields shall be managed to minimize erosion. Runoff from the disposal area must be captured and returned to the treatment facilities or spray fields.

vi. The Discharger may not discharge effluent to the disposal fields 24 hours before precipitation, during periods of precipitation, and for at least 24 hours after cessation of precipitation, or when soils are saturated.

vii. A 50-foot buffer zone shall be maintained between any watercourse and the wetted area produced during irrigation used for effluent disposal.

viii. A 100-foot buffer zone shall be maintained between any spring, domestic well or irrigation well and the wetted area produced during irrigation used for effluent disposal.

ix. A 50-foot buffer zone shall be maintained between effluent disposal areas and all property boundaries.

x. The resulting effect of the wastewater discharge on the soil pH shall not exceed the buffering capacity of the soil profile.

5. Special Provisions for Municipal Facilities (POTWs Only)

[Not Applicable]

6. Other Special Provisions

a. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a

copy of which shall be immediately forwarded to the Regional Water Board.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Water Board and a statement. The statement shall comply with the signatory and certification requirements in the Federal Standard Provisions (Attachment D, Section V.B.) and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

7. Compliance Schedules

[Not Applicable]

VII. COMPLIANCE DETERMINATION

[Not Applicable]

ATTACHMENT A – DEFINITIONS

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

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

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

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

Best Practicable Treatment or Control (BPTC): BPTC is a requirement of State Water Resources Control Board Resolution 68-16 – "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (referred to as the "Antidegradation Policy"). BPTC is the treatment or control of a discharge necessary to assure that, *"(a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."* Pollution is defined in CWC Section 13050(l). In general, an exceedance of a water quality objective in the Basin Plan constitutes "pollution".

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

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

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

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

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

arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

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

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

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

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

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

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

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

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

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

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

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

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

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of 3 July 1999.

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

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

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

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

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

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

goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

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

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

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

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

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

where:

x is the observed value;

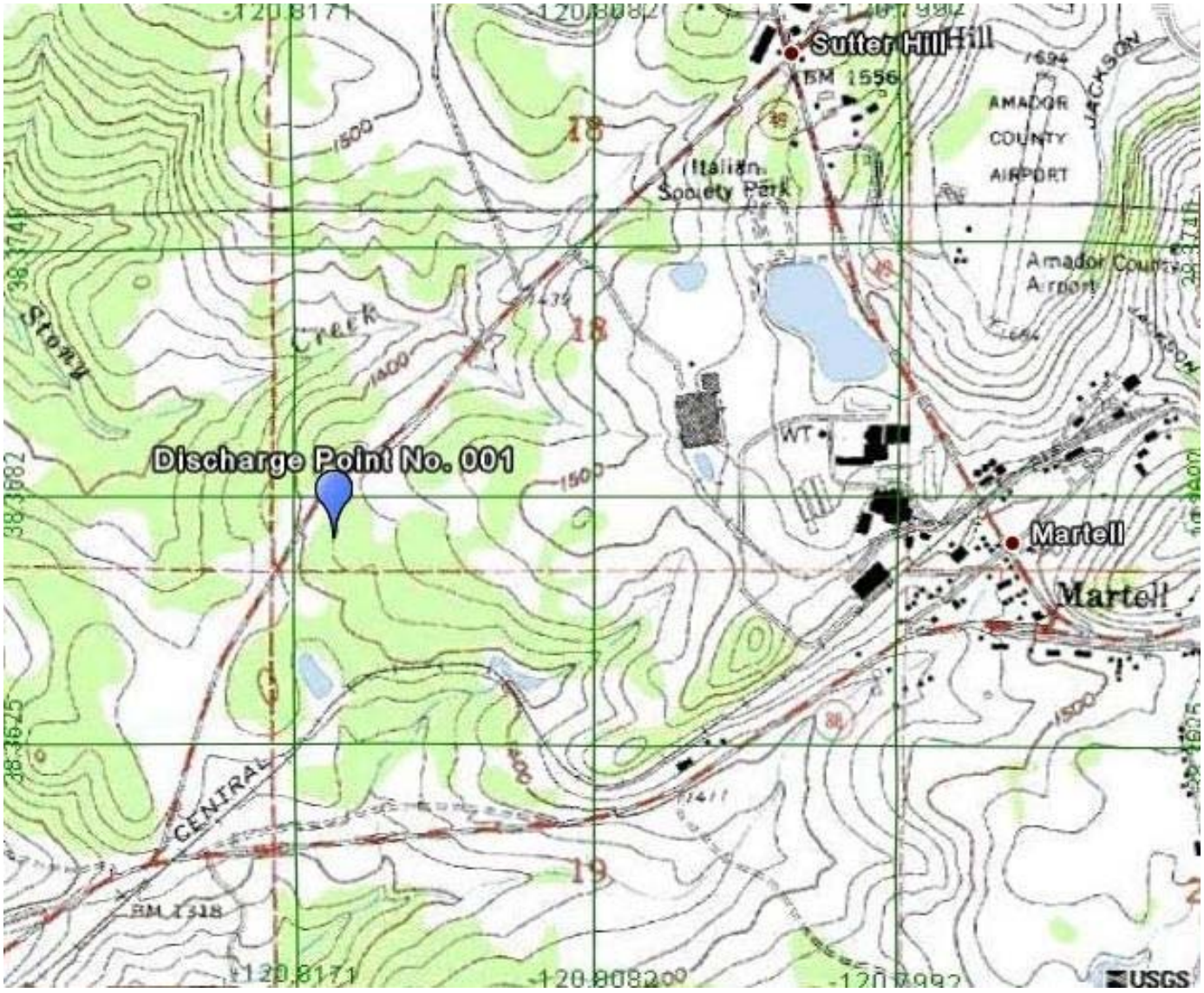
μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity,

evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

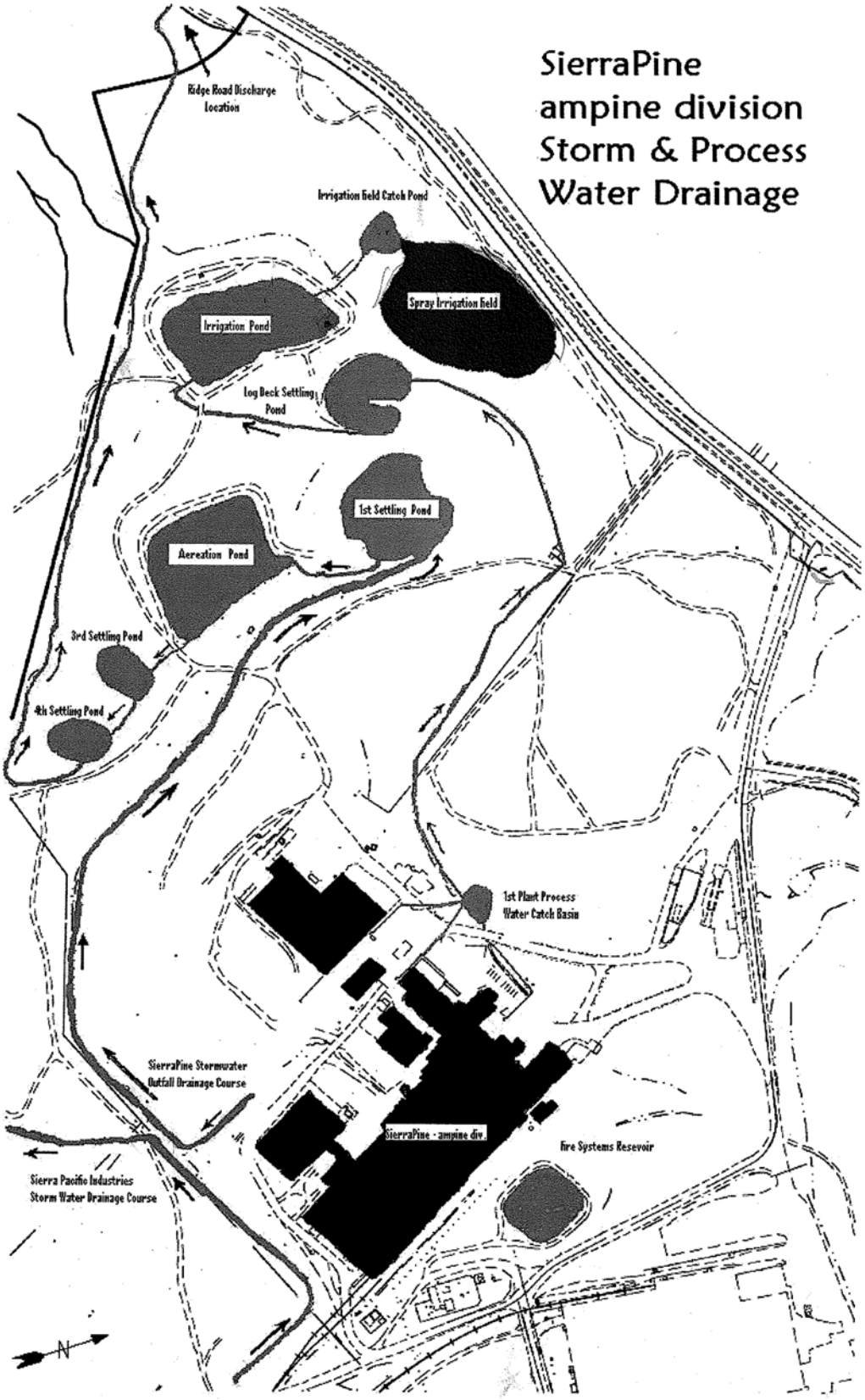
ATTACHMENT B – MAP



SITE LOCATION MAP

SIERRAPINE LIMITED
SIERRAPINE – AMPINE DIVISION
AMADOR COUNTY

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR §122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR §122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

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

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

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

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR §122.41(i)(3)); and

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

G. Bypass

1. Definitions

   a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR §122.41(m)(1)(i).)

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

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR §122.41(m)(2).)

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

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR §122.41(m)(4)(i)(A));

    b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR §122.41(m)(4)(i)(B)); and

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

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR §122.41(m)(4)(ii).)

5. Notice

    a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR §122.41(m)(3)(i).)

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

H. Upset

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

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

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

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

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

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

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

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

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR §122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 CFR §122.41(j)(4); §122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR §122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

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

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

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

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

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR §122.41(k).)

2. 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).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR §122.22(b)(1));

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of

equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR §122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR §122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR §122.22(c).)

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

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR §122.22(l)(4).)

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

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, 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 Regional Water Board. (40 CFR §122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR §122.41(l)(4)(iii).)

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

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

   b. Any upset that exceeds any effluent limitation in this Order. (40 CFR §122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR §122.41(l)(6)(iii).)

F. Planned Changes

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

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

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 CFR §122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR §122.41(l)(1)(iii).)

G. Anticipated Noncompliance

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

H. Other Noncompliance

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

I. Other Information

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

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

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR §122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 CFR §122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR§ 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR §122.42(a)(1)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 CFR §122.42(a)(1)(iv).)

2. 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)):

a. 500 micrograms per liter (µg/L) (40 CFR §122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 CFR §122.42(a)(2)(ii));

c. 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

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 CFR §122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

A. 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 the approval of this Regional Water Board.

B. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Regional Water Board.

C. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services. Laboratories that perform sample analyses shall be identified in all monitoring reports.

D. 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. 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 Monitoring and Reporting Program.

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
001	EFF-001	A location where a representative sample of the effluent may be collected just prior to discharge to Stony Creek.
--	LND-001	Shall be located within the land application area.
--	LND-002	Shall be located within the irrigation pond.
--	LND-003	Shall be located within the Log Deck Settling Pond.
--	RSW-001	Shall be located in Stony Creek, approximately 50 feet downstream of the discharge.
--	GW-001	Groundwater monitoring well (identified as WQ1 in the Discharger's Groundwater Characterization Work Plan).
--	GW-002	Groundwater monitoring well (identified as WQ3 in the Discharger's Groundwater Characterization Work Plan).
--	GW-003	Groundwater monitoring well (identified as WQ5 in the Discharger's quarterly groundwater monitoring reports).

III. INFLUENT MONITORING REQUIREMENTS

[Not Applicable]

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor the effluent at Monitoring Location EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level:

Table E-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
Flow	mgd	Estimate	1/Week	--
Conventional Pollutants				
pH	standard units	Grab	1/Week	[2]
Priority Pollutants				
TCDD-Equivalents[4]	µg/L	Grab	1/Quarter	[2,3]
	lbs/day	Calculate	1/Quarter	[2,3]
Priority Pollutants	µg/L	Grab	[5]	[2,3]
Non-Conventional Pollutants				
Chloride	mg/L	Grab	1/Month	[2]

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
Diethylaminethanol	mg/L	Grab	1/Month	[2]
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week	[2]
Hardness (as $CaCO_3$)	mg/L	Grab	1/Month	[2]
Iron, Total Recoverable	µg/L	Grab	1/Month	[2]
Nitrite Nitrogen, Total (as N)	mg/L	Grab	1/Month	[2]
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/Month	[2]
Sulfate	mg/L	Grab	1/Month	[2]
Total Dissolved Solids	mg/L	Grab	1/Week	[2]

[1] On the first day of each discharge occurrence, the Discharger shall monitor and record data for the constituent, after which the frequencies of analysis given in the table shall apply for the duration of each such discharge.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136.

[3] For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.

[4] TCDD-Dioxin Congener Equivalents shall include all 17 of the 2,3,7,8 TCDD dioxin congeners.

[5] Priority pollutants shall be sampled once during the third year following the date of permit adoption. The Discharger is not required to conduct effluent monitoring for priority pollutants that have already been sampled during the third year.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. **Acute Toxicity Testing.** The Discharger shall conduct acute toxicity testing to determine whether the effluent is contributing acute toxicity to the receiving water. The Discharger shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* – The Discharger shall perform acute toxicity testing once per year during a discharge event. [3]

2. *Sample Types* – For static non-renewal and static renewal testing, the samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001.

3. *Test Species* – Test species shall be fathead minnows (*Pimephales promelas*).

4. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, ammonia, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.

[3] Sampling should occur during the first discharge event of the year to ensure that a sample is taken during that year. If no discharge event occurs during the year, then sampling is not required.

5. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.

B. **Chronic Toxicity Testing**. The Discharger shall conduct three species chronic toxicity testing to determine whether the effluent is contributing chronic toxicity to the receiving water. The Discharger shall meet the following chronic toxicity testing requirements:

1. *Monitoring Frequency* –The Discharger shall perform three species chronic toxicity testing once per year during a discharge event. [4]

2. *Sample Types* – Effluent samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001. The receiving water control shall be a grab sample obtained from the RSW-001 sampling location, as identified in the Monitoring and Reporting Program.

3. *Sample Volumes* – Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.

4. *Test Species* – Chronic toxicity testing measures sublethal (e.g., reduced growth, reproduction) and/or lethal effects to test organisms exposed to an effluent compared to that of the control organisms. The Discharger shall conduct chronic toxicity tests with:

   - The cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test);
   - The fathead minnow, *Pimephales promelas* (larval survival and growth test); and
   - The green alga, *Selenastrum capricornutum* (growth test).

5. *Methods* – The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition,* EPA/821-R-02-013, October 2002.

6. *Reference Toxicant* – As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.

7. *Dilutions* – The chronic toxicity testing shall be performed using 100% effluent and one control (laboratory water). If toxicity is found in any effluent test, the Discharger must immediately retest using the dilution series identified in Table E-3, below.

[4] Sampling should occur during the first discharge event of the year to ensure that a sample is taken during that year. If no discharge event occurs during the year, then sampling is not required.

Table E-3. Chronic Toxicity Testing Dilution Series

Sample	Dilutions (%)					Controls	
	100	75	50	25	12.5	Receiving Water	Laboratory Water
% Effluent	100	75	50	25	12.5	0	0
% Laboratory Water	0	25	50	75	87.5	0	100

8. *Test Failure* –The Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days after receiving notification of a test failure. A test failure is defined as follows:

   a. The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002 (Method Manual), and its subsequent amendments or revisions; or

   b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in Table 6 on page 52 of the Method Manual. (A retest is only required in this case if the test results do not exceed the monitoring trigger specified in Special Provisions VI. 2.a.iii.)

C. **WET Testing Notification Requirements**. The Discharger shall notify the Regional Water Board within 24-hrs after the receipt of test results exceeding the monitoring trigger during regular or accelerated monitoring, or an exceedance of the acute toxicity effluent limitation.

D. **WET Testing Reporting Requirements**. All toxicity test reports shall include the contracting laboratory's complete report provided to the Discharger and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the method manuals. At a minimum, whole effluent toxicity monitoring shall be reported as follows:

1. **Chronic WET Reporting.** Regular chronic toxicity monitoring results shall be reported to the Regional Water Board within 30 days following completion of the test, and shall contain, at minimum:

   a. The results expressed in TUc, measured as 100/NOEC, and also measured as $100/LC_{50}$, $100/EC_{25}$, $100/IC_{25}$, and $100/IC_{50}$, as appropriate.

   b. The statistical methods used to calculate endpoints;

   c. The statistical output page, which includes the calculation of the percent minimum significant difference (PMSD);

   d. The dates of sample collection and initiation of each toxicity test; and

   e. The results compared to the numeric toxicity monitoring trigger.

   Additionally, the monthly discharger self-monitoring reports shall contain an updated chronology of chronic toxicity test results expressed in TUc, and organized by test

species, type of test (survival, growth or reproduction), and monitoring frequency, i.e., either quarterly, monthly, accelerated, or TRE. (Note: items a through c, above, are only required when testing is performed using the full dilution series.)

2. **Acute WET Reporting.** Acute toxicity test results shall be submitted with the monthly discharger self-monitoring reports and reported as percent survival.
3. **TRE Reporting.** Reports for Toxicity Reduction Evaluations shall be submitted in accordance with the schedule contained in the Discharger's approved TRE Work Plan.
4. **Quality Assurance (QA).** The Discharger must provide the following information for QA purposes (if applicable):
   a. Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.
   b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.
   c. Any information on deviations or problems encountered and how they were dealt with.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

A. Monitoring Location LND-001

1. The Discharger shall monitor the land application area as follows:

Table E-4. Land Discharge Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	1/Day	--
Application Area	acres	Calculate	1/Day	--
Hydraulic Loading Rate	inches/acres/month	Calculate	1/Month	--

2. In addition, the Discharger shall maintain a log of discharges to the land application area. Notations shall be made in a bound logbook on the condition of the receiving wastewater and observations of ponding water, soil clogging, odors, insects, or other potential nuisance conditions. The notations shall also document any corrective actions taken. A copy of the entries made in the log during each month shall be submitted along with monthly monitoring reports.

B. Monitoring Locations LND-002 and LND-003

1. The Discharger shall monitor the irrigation pond at LND-002 and the Log Deck Settling Pond at LND-003 as follows:

Table E-5. Land Discharge Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Freeboard	feet	Measure	1/Month	--
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	[1]
Dissolved Oxygen	mg/L	Grab	1/Month	[1]

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

VII. RECLAMATION MONITORING REQUIREMENTS

[Not Applicable]

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Location RSW-001

1. A log shall be kept of the weekly receiving water conditions. Attention shall be given to the presence or absence of:

   a. Floating or suspended matter;
   b. Discoloration;
   c. Bottom deposits;
   d. Aquatic life;
   e. Visible films, sheens or coatings;
   f. Fungi, slimes or objectionable growth; and
   g. Potential nuisance conditions.

B. Monitoring Location GW-001, GW-002, and GW-003

1. The Discharger shall monitor the groundwater at Monitoring Locations GW-001, GW-002, and GW-003 as follows:

Table E-6. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Groundwater Elevation	feet	Measure	1/Quarter	--
pH	standard units	Grab	1/Quarter	[1]
Total Dissolved Solids	mg/L	Grab	1/Quarter	[1]
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Quarter	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

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

IX. OTHER MONITORING REQUIREMENTS

[Not Applicable]

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. Upon written request of the Regional Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).

3. The Discharger shall report to the Regional Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986.

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

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

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

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

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

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. **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.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. Monitoring results shall be submitted to the Regional Water Board by the **first day** of the second month following sample collection. Quarterly and annual monitoring results shall be submitted by the **first day of the second month following each calendar quarter, semi-annual period, and year**, respectively.

3. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, and removal efficiencies (%) for BOD and Total Suspended Solids, shall be determined and recorded as needed to demonstrate compliance.

4. With the exception of flow, all constituents monitored on a continuous basis (metered), shall be reported as daily maximums, daily minimums, and daily

averages; flow shall be reported as the total volume discharged per day for each day of discharge.

5. If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

6. A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions.

7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

   Regional Water Quality Control Board
   Central Valley Region
   NPDES Compliance and Enforcement Unit
   11020 Sun Center Dr., Suite #200
   Rancho Cordova, CA 95670-6114

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

Table E-7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/Day	Permit effective date	Any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling.
1/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
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	First day of calendar month through last day of calendar month	First day of second calendar month following month of sampling.
1/Quarter	Closest of 1 January, 1 April, 1 July, or 1 October following (or on) permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/Year	1 January following (or on) permit effective date	1 January through 31 December	1 February

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

1. **Progress Reports.** As specified in the Special Provisions, progress reports shall be submitted in accordance with the following reporting requirements.

Table E-8. Reporting Requirements for Special Provisions Progress Reports

Special Provision	Reporting Requirements
Annual report describing the overall status of BPTC implementation (if applicable) and compliance with groundwater limitations over the past reporting year (Section VI.C.2.c)	**1 June**, annually (if applicable)

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	5B032000001
Discharger	SierraPine Limited
Name of Facility	SierraPine – Ampine Division
Facility Address	11300 Ridge Road
	Martell, CA 95654
	Amador County
Facility Contact, Title and Phone	Dave Scott, EH & S Manager, (209) 223-1690
Authorized Person to Sign and Submit Reports	Laine Atkinson, General Manager, (209) 223-6070
Mailing Address	SierraPine Limited
	P.O. Box 115
	Martell, CA 95654
Billing Address	Same as mailing address
Type of Facility	Particleboard Manufacturing Facility (SIC 2493)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Not Applicable
Reclamation Requirements	Not Applicable
Facility Permitted Flow	Not Applicable
Facility Design Flow	Not Applicable
Watershed	Sacramento – San Joaquin Delta
Receiving Water	Stony Creek
Receiving Water Type	Inland surface water

A. SierraPine Limited (hereinafter Discharger) is the owner and operator of SierraPine – Ampine Division (hereinafter Facility), a particleboard manufacturing facility.

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 Stony Creek, a water of the United States, and a tributary to the Mokelumne River within the Sacramento–San Joaquin River Delta via Sutter Creek and Dry Creek. The discharge is currently regulated by Order No. R5-2002-0018 which was adopted on 1 March 2002 and expired 1 March 2007. The terms and conditions of Order No. R5-2002-0018 have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on 31 August 2006. Supplemental information was requested on 8 May 2008 and received on 1 July 2008. A site visit was conducted on 12 March 2008 to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

Order No. R5-2002-0018 was held by three parties: Wheelabrator Martell, Sierra Pacific Industries, and the Discharger. The application for renewal was intended solely for the Discharger's particleboard manufacturing facility. The co-generation facility which was owned and operated by Wheelabrator Martell no longer exists and storm water run-off from properties owned by Sierra Pacific Industries no longer enters the permitted drainage course. The Discharger has eliminated discharges of process waters by means of spray irrigation with a catch basin for containment and has not discharged process water from the Facility since March 2004. The Discharger also connected the domestic outfall from the plant to the service area sewer system. The septic tank and leach field system was dismantled and abandoned under the oversight of the Amador Water Agency.

The Facility is a particleboard manufacturing facility. Wastewater is discharged to a series of ponds and is land applied using a sprinkler system. The wastewater includes boiler blowdown, cooling tower water, and material storage yard equipment and facilities wash water. The Discharger's particleboard manufacturing process is a dry process and no *process wastewater,* as defined at 40 CFR 429.11(c), is discharged by the Facility. The boiler blowdown, cooling tower water, and material storage yard equipment and facilities wash water are directed, via a combination of overland flow and a concrete ditch, to an unlined process water catch basin. From the unlined process water catch basin, flow is directed through an unlined ditch to the northwest corner of the Facility to the horseshoe-shaped Log Deck Settling Pond, and then through an unlined drainage ditch to the Irrigation Pond. From the Irrigation Pond, water is pumped to a spray irrigation field. The spray irrigation field is bermed to collect any overland runoff which is then directed to an

irrigation field catch basin. The preferred method of emptying the irrigation field catch basin is to reroute the water back to the Irrigation Pond. If capacity is exceeded in the irrigation field catch basin or the Irrigation Pond, then water overflows are directed to an unlined ditch where it eventually combines with the storm water that discharges to Stony Creek. Discharge of wastewater from the Facility has not occurred since March 2004.

The Discharger estimated in the permit renewal application that the total average flow from the Facility is 47,000 gallons per day (gpd) or 0.047 million gallons per day (mgd), based on the following:

Operation	Average Flow (gpd)
Cooling Tower/Humidifier	420
Boiler Blowdown	1,440
Storm Water	36,390 (seasonal average)
Facility/Equipment Wash Water	5,000
Biofilter Blowdown	2,880

The Discharger uses chemicals at the Facility for controlling corrosion, scale, and biological growth in the boilers and cooling towers. The following chemicals are added to the cooling towers or boilers: sodium hydroxide, sodium hypochlorite, sodium nitrite, and diethylaminethanol.

The permit renewal application indicated that in order to comply with recent Maximum Achievable Control Technology (MACT) air emission standards, the Discharger is planning the construction and start-up of a biofilter. According to the application, the Facility is expecting to start biofilter operations in October 2008 and expects to generate wastewater in the form of blowdown from the biofilter with an estimated discharge flow volume ranging from 1,500 to 4,500 gallons per day (gpd). As a result, the Discharger has requested that discharge of biofilter blowdown be authorized under the revised Order.

Storm water from the Discharger's site is collected in a series of four unlined settling ponds that overflow to Stony Creek. The storm water discharges from the Facility are covered under the state-wide Industrial NPDES Storm Water General Order.

Order No. R5-2002-0018 regulated discharges from an onsite cogeneration facility and storm water from land disposal sites adjacent to the Facility. The cogeneration facility is no longer in operation and the Discharger has redirected storm water flows from the land disposal sites so that they no longer enter the permitted drainage course. The storm water from the land disposal sites is covered under the state-wide Industrial NPDES Storm Water General Order.

By letter dated 4 August 2008, the Regional Water Board requested the Discharger to report on the feasibility of connecting some or all industrial waste discharges to the municipal wastewater treatment system. The Discharger submitted their response on 11 August 2008 and forwarded 21 May 2008 correspondence from the Amador Water Agency which stated that there is not adequate wastewater capacity to serve the Facility as their system is fully allocated and additional capacity from the City of Sutter Creek is

not currently available. The Amador Water Agency issued a Conditional Will Serve Commitment to the Discharger and agreed to service the Facility at such time that capacity is available and all conditions of the Commitment are met.

A. Description of Wastewater and Biosolids Treatment or Controls

Wastewater from the Facility is discharged to a series of ponds. The Discharger maximizes the disposal of wastewater to land by spray irrigation of 6 to 8 acres of pasture from May to October. Discharge to Stony Creek occurs when water overflows from the Irrigation Pond and flows through an unlined channel to the discharge point. The wastewater and storm water flow channels combine at the discharge point.

B. Discharge Points and Receiving Waters

1. The Facility is located in Sections 17, 18, 19, and 24, T6N, R11E, MDB&M, as shown in Attachment B, a part of this Order.

2. Process wastewater is discharged at Discharge Point No. 001 to Stony Creek, a water of the United States, and a tributary to the Sacramento – San Joaquin Delta at a point Latitude 38º 22' 02" N and longitude 120º 48' 57" W.

3. Stony Creek is an ephemeral stream that emanates from the Facility site and flows into Sutter Creek. Sutter Creek flows into Dry Creek, which flows into the Mokelumne River at a point within the boundaries of the Sacramento – San Joaquin Delta. Stony Creek is typically dry from May to October.

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

Effluent limitations contained in Order No. R5-2002-0018 for discharges from Discharge Point No. 001 (Monitoring Location No. 001) and representative monitoring data from the term of the Order are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Monitoring Data (From March 2002 through April 2008[1])		
		Annual Average	30-Day Average	Maximum Daily	Highest Annual Average Discharge	Highest 30-day Average Discharge	Highest Daily Discharge
Biological Oxygen Demand	mg/L	--	20	40	--	<2	<2
Total Suspended Solids	mg/L	--	20	40	--	28	28
Settleable Solids	ml/L	--	0.1	0.2	--	<1	<1
Oil & Grease	mg/L	--	15	20	--	NA	NA
Electrical Conductivity	µmhos/cm	450	900	1,600	384	448	679

Parameter	Units	Effluent Limitation			Monitoring Data (From March 2002 through April 2008[1])		
		Annual Average	30-Day Average	Maximum Daily	Highest Annual Average Discharge	Highest 30-day Average Discharge	Highest Daily Discharge
pH	standard units	--	--	[2]	--	--	8.4
Acute Toxicity	% survival	--	--	[3]	--	--	NA
Chlorine, Residual	mg/L	--	0.01[4]	0.02	--	<0.1	<0.1
Nitrite	mg/L	--	1.0	--	--	2.0	2.0
Nitrate as N	mg/L	--	10	--	--	3.6	3.6
Chloride	mg/L	106	--	--	26	--	26
Sulfate	mg/L	250	--	--	36	--	36
Dioxin / Furan TEQ[5]	µg/L	--	1.3×10^{-8}	--	--	0.00474	0.00474
Cyclohexamine	µg/L	1400	--	--	NA	--	--
Diethylaminethanol	mg/L	22,000	--	--	NA	--	--
Pentachlorophenol	µg/L	0.28	--	--	1.0	--	1.0

NA – Not Available

1 Discharge from the Facility has not occurred since March 2004. Summary includes monitoring data for discharges from March 2002 through March 2004 as well as results of Irrigation Pond monitoring that occurred on 10 April 2008.

2 The discharge shall not have a pH less than 6.5 nor greater than 8.5.

3 Survival of test fish in a 96-hour bioassay of undiluted waste shall be no less than
Minimum for any one bioassay~~~~~~~~~~~~~~~~~~~~~~~~ 70%
Median for any three or more consecutive bioassays~~~~~~~~ 90%

4 Applied as a 4-day average effluent limitation.

5 TEQ = Toxicity equivalence relative to 2,3,7,8-TCDD.

D. Compliance Summary

1. The Regional Water Board issued Cease and Desist Order No. R5-2002-0019 on 1 March 2002 requiring the Discharger to comply with effluent limitations for chlorine, nitrite, nitrate, chloride, sulfate, dioxin/furan, cyclohexane, diethylaminethanol, and pentachlorophenol. In order to comply with the Cease and Desist Order, the Discharger implemented the following:

   a. The Discharger connected the domestic outfall from the plant to the service area sewer system. The onsite septic tank and leach field system was dismantled and abandoned under the oversight of the Amador Water Agency.

   b. The Discharger installed a spray irrigation system and associated catchment basin in an effort to eliminate discharges of process wastewater. As a result, the Facility has not discharged wastewater to Stony Creek since March 2004.

2. The Regional Water Board issued Administrative Civil Liability (ACL) Complaint No. R5-2008-0505 to the Discharger on 6 February 2008 for a serious violation of the 30-day average total suspended solids effluent limit (20 mg/L) contained in Order

No. R5-2002-0018 that occurred on 24 February 2004. The ACL included a mandatory minimum penalty of $3,000.

E. Planned Changes

[Not Applicable]

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the applicable plans, policies, and regulations identified in section II of the Limitations and Discharge Requirements (Findings). This section provides supplemental information, where appropriate, for the plans, policies, and regulations relevant to the discharge.

A. Legal Authority

See Limitations and Discharge Requirements - Findings, Section II.C.

B. California Environmental Quality Act (CEQA)

See Limitations and Discharge Requirements - Findings, Section II.E.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans**. The Regional Water Board adopted a *Water Quality Control Plan, Fourth Edition (Revised October 2007), for the Sacramento and San Joaquin River Basins* (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Board Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. The beneficial uses of the Stony Creek, which is tributary to the Sacramento – San Joaquin Delta, downstream of the discharge are municipal and domestic supply; agricultural supply, including irrigation and stock watering; industrial process water supply; industrial service supply; water contact recreation, including canoeing and rafting; other non-contact water recreation, including aesthetic enjoyment; warm freshwater aquatic habitat; cold freshwater aquatic habitat; warm and cold fish migration habitat; warm spawning habitat; wildlife habitat; navigation; and groundwater recharge.

   The Basin Plan on page II-1.00 states: "*Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning…*" and with respect to disposal of wastewaters states that "...*disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses.*"

   The federal CWA section 101(a)(2), states: "*it is the national goal that wherever*

attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983." Federal Regulations, developed to implement the requirements of the CWA, create a rebuttable presumption that all waters be designated as fishable and swimmable. Federal Regulations, 40 CFR sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shell fish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. Section 131.3(e), 40 CFR, defines existing beneficial uses as those uses actually attained after 28 November 1975, whether or not they are included in the water quality standards. Federal Regulation, 40 CFR section 131.10 requires that uses be obtained by implementing effluent limitations, requires that all downstream uses be protected and states that in no case shall a state adopt waste transport or waste assimilation as a beneficial use for any waters of the United States.

In reviewing whether the existing and/or potential uses of the Sacramento – San Joaquin Delta apply to Stony Creek, the Regional Water Board has considered the following facts:

a. Domestic Supply and Agricultural Supply

   The State Water Board has issued water rights to existing water users along Sutter Creek, Dry Creek, and the Mokelumne River downstream of the discharge for domestic and irrigation uses. In addition to the existing water uses, growth in the area downstream of the discharge is expected to continue, which presents a potential for increased domestic and agricultural uses of the water in Sutter Creek, Dry Creek, and the Mokelumne River.

b. Water Contact and Non-Contact Recreation and Aesthetic Enjoyment

   The Regional Water Board finds that the discharge flows through residential areas, there is ready public access to Sutter Creek, exclusion of the public is unrealistic, contact recreational activities currently exist along Sutter Creek and downstream waters and these uses are likely to increase as the population in the area grows.

c. Groundwater Recharge

   In areas where groundwater elevations are below the stream bottom, water from the stream will percolate to groundwater. Since Sutter Creek is at times dry, it is reasonable to assume that the stream water is lost by evaporation, flow downstream, and percolation to groundwater providing a source of municipal and irrigation water supply.

2. **Bay-Delta Plan.** The *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay-Delta Plan) was adopted in May

1995 by the State Water Board superseding the 1991 Bay-Delta Plan. The Bay-Delta Plan identifies the beneficial uses of the estuary and includes objectives for flow, salinity, and endangered species protection.

The Bay-Delta Plan attempts to create a management plan that is acceptable to the stakeholders while at the same time is protective of beneficial uses of the San Joaquin River. The State Water Board adopted Decision 1641 (D-1641) on 29 December 1999. D-1641 implements flow objectives for the Bay-Delta Estuary, approves a petition to change points of diversion of the Central Valley Project and the State Water Project in the Southern Delta, and approves a petition to change places of use and purposes of use of the Central Valley Project. The water quality objectives of the Bay-Delta Plan are implemented as part of this Order.

3. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet (Attachment F, Section IV.D.4.) the discharge is consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

4. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. Compliance with the anti-backsliding requirements is discussed in Section IV.D.3.

5. **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 the applicable Endangered Species Act.

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

1. Under Section 303(d) of the 1972 Clean Water Act, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On 30

November 2006 USEPA gave final approval to California's 2006 Section 303(d) List of Water Quality Limited Segments. The Basin Plan references this list of Water Quality Limited Segments (WQLSs), which are defined as "…*those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate limitations for point sources (40 CFR 130, et seq.)*." The Basin Plan also states, "*Additional treatment beyond minimum federal standards will be imposed on dischargers to [WQLSs]. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment.*" Stony Creek, Sutter Creek, and Dry Creek are not listed on the 303(d) list of impaired water bodies. The listing for the Lower Mokelumne River includes copper and zinc. The listing for the Sacramento – San Joaquin Delta (eastern portion) includes: chlorpyrifos, DDT, diazinon, exotic species, Group A pesticides, mercury, and unknown toxicity.

2. **Total Maximum Daily Loads.** The USEPA requires the Regional Water Board to develop total maximum daily loads (TMDLs) for each 303(d) listed pollutant and water body combination. For the Mokelumne River copper and zinc are assigned low priority for TMDL development and the potential sources are resource extraction. For the Sacramento – San Joaquin Delta (eastern portion) unknown toxicity, Group A pesticides, and unknown toxicity are assigned low priority for TMDL development; mercury is assigned medium priority for TMDL development.

   The Regional Water Board established TMDLs for diazinon and chlorpyrifos in the Sacramento – San Joaquin Delta in September 2006. The TMDL for diazinon is 0.16 µg/L as a 1-hour average and 0.10 µg/L as a 4-day average, not to be exceeded more than once in a 3-year period. The TMDL for chlorpyrifos is 0.025 µg/L as a 1-hour average and 0.015 µg/L as a 4-day average, not to be exceeded more than once in a 3-year period. The impairment of the Sacramento – San Joaquin Delta by diazinon and chlorpyrifos is contributed to agricultural discharges, and these constituents are not expected in to be present in the effluent from the Facility.

E. Other Plans, Polices and Regulations

1. The State Water Board adopted the *Water Quality Control Policy for the Enclosed Bays and Estuaries of California*. The requirements within this Order are consistent with the Policy.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DSCHARGE SPECIFICATIONS

Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.

The Federal CWA mandates the implementation of effluent limitations that are as

stringent as necessary to meet water quality standards established pursuant to state or federal law [33 U.S.C., §1311(b)(1)(C); 40 CFR, §122.44(d)(1)]. NPDES permits must incorporate discharge limits necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as to criteria specifying maximum amounts of particular pollutants. Pursuant to Federal Regulations, 40 CFR §122.44(d)(1)(i), NPDES permits must contain limits that control all pollutants that "*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, including state narrative criteria for water quality*." Federal Regulations, 40 CFR, §122.44(d)(1)(vi), further provide that "[w]*here a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits.*"

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards, and 40 CFR §122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water where numeric water quality objectives have not been established. The Regional Water Board's Basin Plan, page IV-17.00, contains an implementation policy ("Policy for Application of Water Quality Objectives") that specifies that the Regional Water Board "*will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives*." This Policy complies with 40 CFR §122.44(d)(1). With respect to narrative objectives, the Regional Water Board must establish effluent limitations using one or more of three specified sources, including (1) USEPA's published water quality criteria, (2) a proposed state criterion (*i.e*., water quality objective) or an explicit state policy interpreting its narrative water quality criteria (*i.e*., the Regional Water Board's "Policy for Application of Water Quality Objectives")(40 CFR §§122.44(d)(1) (vi) (A), (B) or (C)), or (3) an indicator parameter. The Basin Plan contains a narrative objective requiring that: "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life*" (narrative toxicity objective). The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, discoloration, toxic substances, radionuclides, or taste and odor producing substances that adversely affect beneficial uses. The Basin Plan states that material and relevant information, including numeric criteria, and recommendations from other agencies and scientific literature will be utilized in evaluating compliance with the narrative toxicity objective. The Basin Plan also limits chemical constituents in concentrations that adversely affect surface water beneficial uses. For waters designated as municipal, the Basin Plan specifies that, at a minimum, waters shall not contain concentrations of constituents that exceed Maximum Contaminant Levels (MCL) of CCR Title 22. The Basin Plan further states that, to

protect all beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.

A. Discharge Prohibitions

1. Discharge Prohibitions were established based on the requirements of Order No. R5-2002-0018, and applicable State and federal regulations.

2. As stated in section I.G of Attachment D, Standard Provisions, this Order prohibits bypass from any portion of the treatment facility. Federal Regulations, 40 CFR 122.41 (m), define "bypass" as the intentional diversion of waste streams from any portion of a treatment facility. This section of the Federal Regulations, 40 CFR 122.41 (m)(4), prohibits bypass unless it is unavoidable to prevent loss of life, personal injury, or severe property damage. In considering the Regional Water Board's prohibition of bypasses, the State Water Board adopted a precedential decision, Order No. WQO 2002-0015, which cites the Federal Regulations, 40 CFR 122.41(m), as allowing bypass only for essential maintenance to assure efficient operation.

3. **Dry Season Discharges.** The receiving water emanates from the Facility and is ephemeral. Because of the Facility's land discharge practices, flows from the Facility are almost entirely dependent on storm water flows. During dry weather the Facility's land discharge system has the capacity to handle all of the boiler blowdown, cooling tower water, and facility equipment washwater. Therefore, during the dry season (1 May through 31 October) it is expected that the Facility does not need to discharge. In addition, discharges during the dry season have the potential to have greater impacts on the receiving water because of a lack of storm water flows to dilute the discharge. The previous Order contained the requirement that the Facility is prohibited from discharging from 1 May through 31 October. This Order retains the requirement that discharges are prohibited from 1 May through 31 October.

4. **Process Wastewater.** Based on best practicable treatment control technology (BPT) and best available technology economically achievable (BAT), as established at 40 CFR Part 429, Subpart M, the discharge of particleboard manufacturing process wastewater from the Facility is prohibited. As defined at 40 CFR 429.11(c), process wastewater specifically excludes non-contact cooling water, material storage yard runoff, and boiler blowdown. The Facility's equipment wash water is produced from washing equipment associated with the material storage yard, and is considered to be equivalent to material storage yard runoff. Therefore, the flows reported by the Discharger that are discharged to the irrigation pond and have the potential to be discharged to the receiving water are not considered process wastewater as defined at 40 CFR 429.11(c), and are allowed. Based on BPT and BAT, discharge of particleboard manufacturing process wastewater is prohibited.

B. Technology-Based Effluent Limitations

1. Scope and Authority

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

- BPT represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

- BAT represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

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

2. Applicable Technology-Based Effluent Limitations

a. **Process Wastewater.** As described in section IV.A.4 of this Fact Sheet, based on BPT and BAT, as established at 40 CFR Part 429, Subpart M, the discharge of particleboard manufacturing process wastewater from the Facility is prohibited.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in section 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an in-stream excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water

quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. **Receiving Water.** Stony Creek emanates from the Facility site and flows into Sutter Creek. Sutter Creek flows into Dry Creek, which flows into the Mokelumne River at a point within the boundaries of the Sacramento – San Joaquin Delta. Stony Creek is typically dry from May to October. The beneficial uses of Stony Creek, which is tributary to the Sacramento – San Joaquin Delta, are given in Attachment F, Section III.C.1.

b. **Hardness.** While no effluent limitation for hardness is necessary in this Order, hardness is critical to the assessment of the need for, and the development of, effluent limitations for certain metals. The *California Toxics Rule*, at (c)(4), states the following:

"Application of metals criteria. (i) *For purposes of calculating freshwater aquatic life criteria for metals from the equations in paragraph (b)(2) of this section, for waters with a hardness of 400 mg/L or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations*." [emphasis added]

The State Water Board, in footnote 19 to Water Quality Order No. 2004-0013, stated: "*We note that…the Regional Water Board…applied a variable hardness value whereby effluent limitations will vary depending on the actual, current hardness values in the receiving water. We recommend that the Regional Water Board establish either fixed or seasonal effluent limitations for metals, as provided in the SIP, rather than 'floating' effluent limitations*."

Effluent limitations for the discharge must be set to protect the beneficial uses of the receiving water for all discharge conditions. In the absence of the option of including condition-dependent, "floating" effluent limitations that are reflective of actual conditions at the time of discharge, effluent limitations must be set using a reasonable worst-case condition in order to protect beneficial uses for all discharge conditions. Receiving water hardness data is not available. Because Stony Creek is an effluent dominated stream which emanates from the site, the lowest hardness of the effluent (68 mg/L as $CaCO_3$) was used to represent a reasonable worst case downstream hardness value under critical low flow conditions for calculating water quality criteria for Discharge Point No. 001.

c. **Assimilative Capacity/Mixing Zone.** Stony Creek is an ephemeral stream that emanates from the Facility site and is typically dry from May to October. Because of the ephemeral nature of the receiving water, the worst-case dilution is assumed to be zero to provide protection for the receiving water beneficial uses. The impact of assuming zero assimilative capacity within the receiving

water is that the discharge limitations are end-of-pipe limits with no allowance for dilution within the receiving water.

3. Determining the Need for WQBELs

a. CWA section 301 (b)(1) requires NPDES permits to include effluent limitations that achieve technology-based standards and any more stringent limitations necessary to meet water quality standards. Water quality standards include Regional Water Board Basin Plan beneficial uses and narrative and numeric water quality objectives, State Water Board-adopted standards, and federal standards, including the CTR and NTR. The Basin Plan includes numeric site-specific water quality objectives and narrative objectives for toxicity, chemical constituents, and tastes and odors. The narrative toxicity objective states: "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.*" (Basin Plan at III-8.00.) With regards to the narrative chemical constituents objective, the Basin Plan states that waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. At minimum, "…*water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs)*" in Title 22 of CCR. The narrative tastes and odors objective states: "*Water shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses.*"

b. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. Based on information submitted as part of the application, in studies, and as directed by monitoring and reporting programs, the Regional Water Board finds that the discharge has a reasonable potential to cause or contribute to an in-stream excursion above a water quality standard for diethylaminethanol, electrical conductivity, TCDD-equivalents, and pH. WQBELs for these constituents are included in this Order. A summary of the reasonable potential analysis (RPA) is provided in Attachment G, and a detailed discussion of the RPA for each constituent is provided below.

c. The Regional 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 Regional Water Board may use the SIP as guidance for water quality-based toxics control.[5] 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

[5] See, Order WQO 2001-16 (Napa) and Order WQO 2004-0013 (Yuba City).

procedures from the SIP were used to evaluate reasonable potential for both CTR and non-CTR constituents.

d. WQBELs were calculated in accordance with section 1.4 of the SIP, as described in Attachment F, Section IV.C.4.

e. The discharge of process water from the Facility has not occurred since March 2004. At the request of the Regional Water Board the Discharger sampled wastewater from the irrigation pond on 10 April 2008 to provide more recent data that would be characteristic of the wastewater should a discharge occur from the irrigation pond. This data was used to conduct the RPA.

f. **BOD and TSS.** Order No. R5-2002-0018 established effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS). The Information Sheet and permit findings in Order No. R5-2002-0018 do not discuss the rationale for establishing these effluent limitations. Based on the reconfiguration of the Facility and the removal of storm water and discharges from the cogeneration facility, the Regional Water Board has reconsidered the applicability of these effluent limitations to the discharge.

   Effluent limitation guidelines for particleboard manufacturing at 40 CFR 149.140 do not establish technology-based effluent limitations for BOD or TSS. In addition, numeric water quality criteria for BOD and TSS have not established. Based on monitoring data conducted over the term of Order No. R5-2002-0018, BOD was not detected in the effluent and the maximum observed effluent concentration of TSS was 2.2 mg/L. Thus, BOD and TSS do not appear to be pollutants of concern for the discharge from the Facility, and the effluent limitation is not retained in this Order. The removal of the effluent limitation for BOD and TSS based on the facility modifications, elimination of cogeneration discharges and storm water, and effluent data, is in compliance with State and federal anti-backsliding regulations.

g. **Chlorine Residual.** The USEPA *Technical Support Document for Water Quality-Based Toxics Control* [EPA/505/2-90-001] contains statistical methods for converting chronic (4-day) and acute (1-hour) aquatic life criteria to average monthly and maximum daily effluent limitations based on the variability of the existing data and the expected frequency of monitoring.

   Effluent limitations for residual chlorine were established in Order No. R5-2002-0018 because chlorine was used as an algaecide. The Facility does not use chlorine as an algaecide and monitoring data indicates residual chlorine was not detected in the effluent. In addition, the report of waste discharge indicates that residual chlorine is "believed absent" from the effluent. Therefore, effluent limitations for residual chlorine are not retained in this Order. The removal of the effluent limitations for chlorine residual based on the Facility modifications, elimination of cogeneration discharges and storm water, and effluent data, is in compliance with State and federal anti-backsliding regulations.

h. **Cyclohexamine.** An annual average effluent limitation for cyclohexamine of 1,400 µg/L was established in Order No. R5-2002-0018 based on its use as a corrosion inhibitor at the particleboard facility. The Discharger has discontinued the use of cyclohexamine and is no longer expected to be present in the discharge. Based on this information, reasonable potential no longer exists for cyclohexamine and effluent limitations have not been retained in this Order.

i. **Diethylaminethanol.** In Order No. R5-2002-0018, the Regional Water Board determined that diethylaminethanol exhibited reasonable potential based on its use as a corrosion inhibitor at the particleboard facility. Therefore, an annual average effluent limitation of 22,000 mg/L was established for diethylaminethanol. Monitoring data is not available for diethylaminethanol, however the Discharger continues to use diethylaminethanol at the Facility. Therefore, this Order retains the annual average effluent limitation for diethylaminethanol.

j. **Iron.** The Secondary MCL - Consumer Acceptance Limit for iron is 300 µg/L. The MEC for iron was 560 µg/L, based on one sample collected on 10 April 2008. Based on the limited data set, reasonable potential to cause or contribute to an in-stream excursion above the secondary MCL consumer acceptance limit criterion for iron cannot be determined and effluent limitations for iron are not being established at this time. Instead of limitations, additional monitoring has been established for iron; should monitoring results indicate that the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality standard, then this Order may be reopened and modified by adding an appropriate effluent limitation.

k. **Nitrite and Nitrate.** The California DHS has adopted Primary MCLs at Title 22 of the California Code of Regulations (CCR), Table 64431-A, for the protection of human health for nitrite and nitrate that are equal to 1 mg/L and 10 mg/L (measured as nitrogen), respectively. Title 22 CCR, Table 64431-A, also includes a primary MCL of 10,000 µg/L for the sum of nitrate and nitrite, measured as nitrogen.

   USEPA has developed a primary MCL and an MCL goal of 1,000 µg/L for nitrite (as nitrogen). For nitrate, USEPA has developed Drinking Water Standards (10,000 µg/L as Primary MCL) and Ambient Water Quality Criteria for protection of human health (10,000 µg/L for non-cancer health effects). Recent toxicity studies have indicated a possibility that nitrate is toxic to aquatic organisms.

   The MEC for nitrite was 0.045 mg/L (the value was estimated or j-flagged). Thus, nitrite no longer exhibits reasonable potential to exceed water quality objectives and the effluent limitation for nitrite will not be retained in this Order. Data for nitrate was not provided by the Discharger, however Order No. R5-2002-0018 included effluent limitations for nitrate based on the demineralization process used in the cogeneration facility. The discharge from the cogeneration facility no longer occurs. Thus, the effluent limitation for nitrate will not be

retained in the Order. However, because the report of waste discharge indicates that nitrate-nitrite (as N) is believed present, effluent monitoring has been established for nitrate and nitrite.

The removal of the effluent limitations for nitrite and nitrate based on the Facility modifications, elimination of cogeneration discharges and storm water, and effluent data, is in compliance with State and federal anti-backsliding regulations.

l. **Oil and Grease.** Order No. R5-2002-0018 established effluent limitations for oil and grease. The Information Sheet and permit findings in Order No. R5-2002-0018 do not discuss the rationale for establishing these effluent limitations. Based on the reconfiguration of the Facility and the removal of storm water and discharges from the cogeneration facility, the Regional Water Board has reconsidered the applicability of these effluent limitations to the discharge. Based on the report of waste discharge, oil and grease is not expected to be present in the effluent. Based on the types of wastes directed to the Irrigation Pond, the effluent limitations for oil and grease are not retained in this Order. The removal of the effluent limitations for oil and grease based on the Facility modifications, elimination of cogeneration discharges and storm water, and new report of waste discharge, is in compliance with State and federal anti-backsliding regulations.

m. **Pentachlorophenol.** Effluent limitations for pentachlorophenol were included in Order No. R5-2002-0018 based on its presence in the dip tank area of the Facility prior to its reconfiguration. The report of waste discharge states that pentachlorophenol is now believed absent from the effluent. In addition, the CTR criterion for human health protection for consumption of water and aquatic organisms is 0.28 µg/L. Pentachlorophenol was not detected with a method detection limit of 0.057 µg/L on 10 April 2008. Therefore, reasonable potential to exceed water quality objectives no longer exists, and the effluent limitations have not been carried over.

The removal of the effluent limitations for pentachlorophenol based on the Facility modifications, elimination of cogeneration discharges and storm water, effluent data, and report of waste discharge, is in compliance with State and federal anti-backsliding regulations.

n. **pH.** The Basin Plan includes a water quality objective for surface waters (except for Goose Lake) that the "…*pH shall not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters with designated COLD or WARM beneficial uses.*" Effluent Limitations for pH are included in this Order based on the Basin Plan objectives for pH.

o. **Salinity.** Total dissolved solids (TDS), chloride, sulfate, and electrical conductivity (EC) are water quality parameters that are indicative of the salinity of the water. Their presence in water can be growth limiting to certain agricultural crops and can affect the taste of water for human consumption. There are no USEPA water quality criteria for the protection of aquatic organisms for these

constituents. The Basin Plan contains a chemical constituent objective that incorporates State MCLs, contains a narrative objective, and contains numeric water quality objectives for EC, TDS, sulfate, and chloride.

Table F-3. Salinity Water Quality Criteria/Objectives

Parameter	Agricultural WQ Goal[1]	Secondary MCL[3]	Bay-Delta Plan[4]	Maximum Effluent Concentration
EC (µmhos/cm)	Varies[2]	900, 1600, 2200	450	380
TDS (mg/L)	Varies	500, 1000, 1500	N/A	N/A
Sulfate (mg/L)	Varies	250, 500, 600	N/A	26
Chloride (mg/L)	Varies	250, 500, 600	N/A	N/A

1 Agricultural water quality goals based on *Water Quality for Agriculture*, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985)

2 Agricultural water quality goals listed provide no restrictions on crop type or irrigation methods for maximum crop yield. Higher concentrations may require special irrigation methods to maintain crop yields or may restrict types of crops grown.

3 The secondary MCLs are stated as a recommended level, upper level, and a short-term maximum level.

4 Maximum 14-day running average of mean daily EC. Applies to the South Fork of the Mokelumne River at Terminous from 1 April to 15 August.

i. **Chloride**. The secondary MCL for chloride is 250 mg/L, as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum. The recommended agricultural water quality goal for chloride, that would apply the narrative chemical constituent objective, is 106 mg/L as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985). The 106 mg/L water quality goal is intended to protect against adverse effects on sensitive crops when irrigated via sprinklers. Monitoring data for chloride in the effluent is not available.

ii. **Electrical Conductivity (EC)**. The secondary MCL for EC is 900 µmhos/cm as a recommended level; 1,600 µmhos/cm as an upper level; and 2,200 µmhos/cm as a short-term maximum. The Bay-Delta plan contains an objective for the protection of agriculture of 450 µmhos/cm as maximum 14-day running average of mean daily EC which applies to the South Fork of the Mokelumne River at Terminous from 1 April to 15 August. A review of the Discharger's monitoring report from 10 April 2008 shows an effluent EC concentration of 380 µmhos/cm.

iii. **Sulfate**. The secondary MCL for sulfate is 250 mg/L as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum. Sulfate was detected in the effluent at a concentration of 26 mg/L for the sample collected by the Discharger on 10 April 2008.

iv. **Total Dissolved Solids (TDS)**. The secondary MCL for TDS is 500 mg/L as a recommended level, 1000 mg/L as an upper level, and 1500 mg/L as a short-term maximum. The recommended agricultural water quality goal for

TDS, that would apply the narrative chemical constituent objective, is 450 mg/L as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985). Water Quality for Agriculture evaluates the impacts of salinity levels on crop tolerance and yield reduction, and establishes water quality goals that are protective of the agricultural uses. The 450 mg/L water quality goal is intended to prevent reduction in crop yield, i.e., a restriction on use of water, for salt-sensitive crops. Only the most salt sensitive crops require irrigation water of 450 mg/L or less to prevent loss of yield. Most other crops can tolerate higher TDS concentrations without harm, however, as the salinity of the irrigation water increases, more crops are potentially harmed by the TDS, or extra measures must be taken by the farmer to minimize or eliminate any harmful impacts. Monitoring data for total dissolved solids in the effluent is not available.

v. **Salinity Effluent Limitations.** Effluent limitations for electrical conductivity were established in Order No. R5-2002-0018 based on the use of sodium nitrate, sodium hydroxide, sodium hypochlorite, mono-, di-, and trisodium phosphate in the particleboard facility and the cogeneration facility and were based on the Secondary MCL – Recommended Level (900 µmhos/cm as a 30-day average), the Secondary MCL – Upper Level (1,600 µmhos/cm), and the Basin-Delta Plan agricultural water quality goal for the South Fork Mokelumne River at Terminous (450 µmhos/cm as an annual average). Based on the relatively low reported salinity, the discharge currently does not have reasonable potential to cause or contribute to an in-stream excursion of water quality objectives for salinity. However, the Discharger continues to use sodium nitrate, sodium hydroxide, and sodium hypochlorite at the Facility and, since the Discharger discharges to a tributary of the Sacramento-San Joaquin Delta, of additional concern is the salt contribution to Delta waters. Therefore, effluent limitations for electrical conductivity are retained in this Order.

Effluent limitations for chloride and sulfate were established in Order No. R5-2002-0018 due to the demineralization process used in the cogeneration facility. Electrical conductivity is an indicator parameter for salinity, including chloride and sulfate. Establishing effluent limitations for electrical conductivity is expected to effectively limit the constituents that contribute to salinity, including chloride and sulfate. Because discharge from the cogeneration facility has been discontinued and effluent limitations are established for electrical conductivity as an indicator parameter for salinity, effluent limitations for chloride and sulfate have not been retained from Order No. R5-2002-0018. However, monitoring requirements for chloride, sulfate, and total dissolved solids have been included in this Order in order to continue characterization of salinity in the effluent.

p. **Settleable Solids.** Order No. R5-2002-0018 established effluent limitations for settable solids. The Information Sheet and permit findings for Order No. R5-2002-0019 do not discuss the rationale for establishing these effluent limitations. Based on the reconfiguration of the Facility and the removal of storm water and discharges from the cogeneration facility, the Regional Water Board has reconsidered the applicability of these effluent limitations to the discharge. For inland surface waters, the Basin Plan states that "[w]*ater shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses*." Settleable solids were not detected with an MDL of 1.0 ml/L on 10 April 2008. Based on the data it does not appear that the discharge has reasonable potential to result in the deposition of material that would cause a nuisance or adversely affect the beneficial uses of the receiving water. Thus, the effluent limitations for settleable solids are not retained in this Order. The removal of the effluent limitations for settleable solids based on the Facility modifications, elimination of cogeneration discharges and storm water, and effluent data, is in compliance with State and federal anti-backsliding regulations.

q. **TCDD-Equivalents**. The CTR includes a criterion for 2,3,7,8-TCDD of 1.30 X 10^{-8} µg/L for the protection of human health based on consumption of water and organisms. The CTR does not list criteria for other dioxin and furan congeners but states in its preamble (65 FR 31695; May 18, 2000) that for waters in California "*…if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric water quality-based effluent limits for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme*." The TEQ scheme used for inland surface waters, enclosed bays, and estuaries of California is provided in Section 3 of the SIP. Consistent with the CTR and SIP, a TCDD-equivalents criterion of 1.30 x 10^{-8} µg/L for the protection of human health was used which is based on a one-in-a-million cancer risk for waters from which both water and organisms are consumed.

Monitoring of the dioxin and furan congeners in the Facility effluent was performed by the Discharger on 10 April 2008. The MEC for TCDD-equivalents was 8.25 x 10^{-8} µg/L, based on a samples collected on 10 April 2008. In the effluent, two of the congeners (1,2,3,4,6,7,8-HpCDD and OCDD) were reported as detected and both were estimated values (i.e., j-flagged).

Order No. R5-2002-0018 included effluent limitations for TCDD-equivalents because the area adjacent to the Facility (Dip Tank Area) was previously contaminated by dioxins/furans. Based on the detections of the congeners and the previous contamination, the Regional Water Board finds that the discharge continues to exhibit reasonable potential to cause or contribute to an excursion of water quality criteria for TCDD-equivalents. This Order includes an AMEL and MDEL for TCDD-equivalents of 1.30 x 10^{-8} µg/L and 2.61 x 10^{-8} µg/L. Due to the bioaccumulative nature of TCDD-equivalents, this Order also includes an AMEL and a MDEL for TCDD-equivalents of 5.10 x 10^{-12} lbs/day and 10.23 x 10^{-12}

lbs/day, based on a flow of 0.047 mgd from the Facility (see Attachment F, Table F-4 for WQBEL calculations). The effluent limitations for TCDD-equivalents are based on the CTR criterion for the protection of human health.

r. **Toxicity.** See Section IV.C.5. of the Fact Sheet regarding whole effluent toxicity.

4. WQBEL Calculations

a. Effluent limitations for electrical conductivity were established in Order No. R5-2002-0018 and were based on the Secondary MCL – Recommended Level (900 µmhos/cm as a 30-day average), the Secondary MCL – Upper Level (1,600 µmhos/cm), and the Basin-Delta Plan agricultural water quality goal for the South Fork Mokelumne River at Terminous (450 µmhos/cm as an annual average). An annual average effluent limitation for diethylaminethanol was established in Order No. R5-2002-0018 based on the taste and odor threshold. These effluent limitations are retained in this Order.

b. Effluent limitations for pH are based on Basin Plan objectives and were established directly as instantaneous limitations.

c. Effluent limitations for TCDD-equivalents were calculated in accordance with section 1.4 of the SIP. The following paragraphs describe the methodology used for calculating effluent limitations for these parameters.

d. **Effluent Limitation Calculations.** In calculating maximum effluent limitations, the effluent concentration allowances were set equal to the criteria/standards/objectives.

$$ECA_{acute} = CMC \qquad ECA_{chronic} = CCC$$

For the human health, agriculture, or other long-term criterion/objective, a dilution credit can be applied. The ECA is calculated as follows:

$$ECA_{HH} = HH + D(HH - B)$$

where:

ECA_{acute} = effluent concentration allowance for acute (1-hour average) toxicity criterion

$ECA_{chronic}$ = effluent concentration allowance for chronic (4-day average) toxicity criterion

ECA_{HH} = effluent concentration allowance for human health, agriculture, or other long-term criterion/objective

CMC = criteria maximum concentration (1-hour average)

CCC = criteria continuous concentration (4-day average, unless otherwise noted)

HH = human health, agriculture, or other long-term criterion/objective

D = dilution credit

B = maximum receiving water concentration

Acute and chronic toxicity ECAs were then converted to equivalent long-term averages (LTA) using statistical multipliers and the lowest is used. Additional statistical multipliers were then used to calculate the maximum daily effluent limitation (MDEL) and the average monthly effluent limitation (AMEL).

Human health ECAs are set equal to the AMEL and a statistical multiplier is used to calculate the MDEL.

LTA_{acute}

$$AMEL = mult_{AMEL}\left[\min\left(M_A ECA_{acute}, M_C ECA_{chronic}\right)\right]$$

$$MDEL = mult_{MDEL}\left[\min\left(M_A ECA_{acute}, M_C ECA_{chronic}\right)\right]$$

$LTA_{chronic}$

$$MDEL_{HH} = \left(\frac{mult_{MDEL}}{mult_{AMEL}}\right) AMEL_{HH}$$

where: $mult_{AMEL}$ = statistical multiplier converting minimum LTA to AMEL
$mult_{MDEL}$ = statistical multiplier converting minimum LTA to MDEL
M_A = statistical multiplier converting CMC to LTA
M_C = statistical multiplier converting CCC to LTA

WQBELs were calculated TCDD-equivalents as follows in Tables F-4 below.

Table F-4. WQBEL Calculations for TCDD-Equivalents

	Human Health
Criteria (µg/L)	1.30×10^{-8}
Dilution Credit	No Dilution
ECA	1.30×10^{-8}
AMEL (µg/L)[1]	**1.30×10^{-8}**
MDEL/AMEL Multiplier[2]	2.01
MDEL (µg/L)	**2.61×10^{-8}**

(1) AMEL = ECA per section 1.4.B, Step 6 of SIP.
(2) Assumes sampling frequency n<=4. Uses MDEL/AMEL multiplier from Table 2 of the SIP.

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

Table F-5. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	standard units	--	--	6.5	8.5
Priority Pollutants					
TCDD-Equivalents	µg/L	1.30×10^{-8}	2.61×10^{-8}	--	--
	lbs/day[1]	5.10×10^{-12}	10.23×10^{-12}	--	--
Non-Conventional Pollutants					
Diethylaminethanol	mg/L	--	--	22,000[2]	
Electrical Conductivity @ 25°C	µmhos/cm	900	1,600	450[2]	--

[1] Based on a flow of 0.047 mgd from the Facility.
[2] Applied as an annual average effluent limitation.

5. Whole Effluent Toxicity (WET)

For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct whole effluent toxicity testing for acute and chronic toxicity, as specified in the Monitoring and Reporting Program (Attachment E, Section V). This Order also contains effluent limitations for acute toxicity and requires the Discharger to implement best management practices to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

a. **Acute Aquatic Toxicity.** The Basin Plan contains a narrative toxicity objective that states, "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.*" (Basin Plan at III-8.00) The Basin Plan also states that, "…*effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate*…". USEPA Region 9 provided guidance for the development of acute toxicity effluent limitations in the absence of numeric water quality objectives for toxicity in its document titled "Guidance for NPDES Permit Issuance", dated February 1994. In section B.2. "Toxicity Requirements" (pgs. 14-15) it states that, "*In the absence of specific numeric water quality objectives for acute and chronic toxicity, the narrative criterion 'no toxics in toxic amounts' applies. Achievement of the narrative criterion, as applied herein, means that ambient waters shall not demonstrate for acute toxicity: 1) less than 90% survival, 50% of the time, based on the monthly median, or 2) less than 70% survival, 10% of the time, based on any monthly median. For chronic toxicity, ambient waters shall not demonstrate a test result of greater than 1 TUc."* Consistent with Order No. R5-2002-0018, effluent limitations for acute toxicity have been included in this Order as follows:

Acute Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay----------	70%
Median for any three or more consecutive bioassays ---------	90%

b. **Chronic Aquatic Toxicity.** Numeric chronic WET effluent limitations have not been included in this order. The SIP contains implementation gaps regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the Los Angeles Region[6] that contained numeric chronic toxicity effluent limitations. To address the petition, the State Water Board adopted WQO 2003-012 directing its staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012*, "In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits."* The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process. Since the toxicity control provisions in the SIP are under revision it is infeasible to develop numeric effluent limitations for chronic toxicity. Therefore, this Order requires that the Discharger meet best management practices for compliance with the Basin Plan's narrative toxicity objective, as allowed under 40 CFR 122.44(k).

During the previous permit term, no chronic toxicity data was provided. However, to ensure compliance with the Basin Plan's narrative toxicity objective, the Discharger is required to conduct chronic whole effluent toxicity testing, as specified in the Monitoring and Reporting Program (Attachment E, Section V). Furthermore, Special Provisions VII.B.2.a. of this Order requires the Discharger to investigate the causes of, and identify and implement corrective actions to reduce or eliminate effluent toxicity. If the discharge demonstrates a pattern of toxicity exceeding the numeric toxicity monitoring trigger, the Discharger is required to initiate a Toxicity Reduction Evaluation (TRE), in accordance with an approved TRE work plan. The numeric toxicity monitoring trigger is not an effluent limitation, it is the toxicity threshold at which the Discharger is required to

[6] In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a)

perform accelerated chronic toxicity monitoring, as well as the threshold to initiate a TRE if a pattern of effluent toxicity has been demonstrated.

D. Final Effluent Limitations

1. Mass-based Effluent Limitations

Title 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 (e.g., CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations for TCDD-equivalents were calculated by multiplying the concentration limitation by the Facility's reasonable measure of actual flow and the appropriate unit conversion factor. Because discharge from the Facility has not occurred since March 2004, a long-term average flow could not be calculated. Therefore, the total average flow of 0.047 mgd from the cooling tower, boiler blowdown, storm water, facility/equipment wash water, and biofilter blowdown as reported in the Discharger's application is considered a reasonable measure of actual flow and was used to calculate mass-based effluent limitations.

2. Averaging Periods for Effluent Limitations

40 CFR 122.45 (d) requires maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works unless impracticable. Effluent limitations for pH are based on Basin Plan objectives and have been applied directly as instantaneous effluent limitations. Annual average effluent limitations are established in this Order for electrical conductivity and diethylaminethanol. The rationale for using alternative averaging periods for these constituents is discussed in Attachment F, Section IV.C.3, above.

3. Satisfaction of Anti-Backsliding Requirements

The effluent limitations in this Order are at least as stringent as the effluent limitations in the existing Order, with the exception of effluent limitations for BOD, chloride, chlorine residual, cyclohexamine, nitrate, nitrite, oil and grease, pentachlorophenol, settleable solids, sulfate, and TSS. The effluent limitations for these pollutants are less stringent than those in Order No. R5-2002-0018. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

The Facility has changed significantly since the issuance of Order No. R5-2002-0018. Order No. R5-2002-0018 was held by three parties: Wheelabrator Martell,

Sierra Pacific Industries, and the Discharger. The renewal is only for the Discharger's particleboard manufacturing facility. The cogeneration facility no longer exists and storm water run-off from properties owned by Sierra Pacific Industries no longer enters the permitted drainage course. The Discharger has eliminated discharges of process waters by means of spray irrigation with a catch basin for containment and has not discharged process water from the Facility since March 2004. The Discharger also connected the domestic outfall from the plant to the service area sewer system. The septic tank and leach field system was dismantled and abandoned under the oversight of the Amador Water Agency. Order No. R5-2002-0018 regulated discharges from an onsite cogeneration facility and storm water from land disposal sites adjacent to the Facility. The applicability of the effluent limitations contained in Order No. R5-2002-0018 has been reconsidered in light of the reconfiguration of the Facility and new data sampled at the request of the Regional Water Board on 10 April 2008. Consequently, many of the effluent limitations contained in Order No. R5-2002-0018 have not been retained in this Order.

Order No. R5-2002-0018 established effluent limitations for BOD, TSS, and settleable solids. ELGs are not established for BOD, TSS, and setteable solids for particleboard manufacturing. BOD and setteable solids were not detected in the effluent based on monitoring conducted 10 April 2008, while the MEC for TSS was only 2.2 mg/L (j-flagged). Thus, monitoring data does not indicate that the effluent has reasonable potential for BOD, TSS, or settleable solids to impact receiving water quality. Therefore, effluent limitations for BOD, TSS, and settleable solids have not been retained in this Order.

Monitoring data was not available for oil and grease for the 10 April 2008 monitoring event. However, the permit application states that oil and grease is "believed absent." Based on the types of wastes currently directed to the Irrigation Pond and the activities now associated with the Facility, oil and grease is not expected to be present in the effluent. Thus, effluent limitations for oil and grease are not retained in this Order.

In Order No. R5-2002-0018, effluent limitations for residual chlorine were established because chlorine was used as an algaecide. The Discharger no longer uses chlorine as an algaecide and chlorine was not detected in the effluent based on monitoring data from 10 April 2008. The permit application also states that residual chlorine is "believed absent". Therefore, the effluent limitations for residual chlorine are not retained in this Order.

Effluent limitations for chloride and sulfate were established in Order No. R5-2002-0018 based on the demineralization process used in the cogeneration facility. Monitoring data for chloride was not available and the MEC for sulfate was 26 mg/L based on monitoring conducted 10 April 2008. Because the cogeneration facility is no longer in operation and the effluent stream for which the effluent limitations were established is no longer contributing to this discharge, effluent limitations for chloride and sulfate are not retained in this Order. However, since the permit application

states that sulfate is "believed present", effluent monitoring of both chloride and sulfate will be required as part of the monitoring and reporting program.

A nitrite concentration of 0.045 mg/L (j-flagged) was reported from a sample taken on 10 April 2008. The USEPA primary MCL for nitrite is 1 mg/L, so no reasonable potential to exceed water quality standards exists and the effluent limitation is not retained in this Order. No recent monitoring data was provided for nitrate by the Discharger. However, the previous effluent limitation for nitrate was based on the demineralization process used in the cogeneration facility (the discharge from which no longer occurs). Therefore, the effluent limitation for nitrate is not retained in this Order. However, since the permit application states that nitrate-nitrite (as N) is "believed present", effluent monitoring of both nitrite and nitrate will be required in the Order.

The establishment of cyclohexamine effluent limitations in Order No. R5-2002-0018 was based on its use as a corrosion inhibitor at the particleboard facility. The Discharger has discontinued the use of cyclohexamine. Therefore, cyclohexamine no longer demonstrates reasonable potential to exceed water quality standards and effluent limitations are not retained in this Order.

Effluent limitations for pentachlorophenol were included in Order No. R5-2002-0018 based on its presence in the dip tank area of the Facility prior to its reconfiguration. Pentachlorophenol was not detected in the effluent based on monitoring conducted 10 April 2008. Further, the permit application also states that pentachlorophenol is "believed absent". Therefore, pentachlorophenol no longer demonstrates reasonable potential to exceed water quality standards and effluent limitations are not retained in this Order.

Due to the reconfiguration of the Facility as described above, and the availability of monitoring data that is representative of the potential discharge of the wastewater, new information is available indicating that effluent limitations for BOD, chlorine residual, chloride, cyclohexamine, nitrite, nitrate, oil and grease, pentachlorophenol, settleable solids, sulfate, and TSS are no longer applicable or necessary to ensure protection of applicable water quality objectives. The removal of effluent limitations for BOD, chlorine residual, chloride, cyclohexamine, nitrite, nitrate, oil and grease, pentachlorophenol, settleable solids, sulfate, and TSS is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16. Any impact on existing water quality is expected to be insignificant.

4. Satisfaction of Antidegradation Policy

a. **Surface Water.** The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

b. **Groundwater.** The Discharger utilizes a series of three unlined ponds. The wastewater contains constituents such as total dissolved solids (TDS), specific conductivity, nitrates, and metals. Percolation from the ponds may result in an increase in the concentration of these constituents in groundwater. The increase in the concentration of these constituents in groundwater must be consistent with Resolution No. 68-16. Any increase in pollutant concentrations in groundwater must be shown to be necessary to allow wastewater utility service necessary to accommodate housing and economic expansion in the area and must be consistent with maximum benefit to the people of the State of California. Some degradation of groundwater by the Discharger is consistent with Resolution No. 68-16 provided that:

i. the degradation is limited in extent;

ii. the degradation after effective source control, treatment, and control is limited to waste constituents typically encountered in municipal wastewater as specified in the groundwater limitations in this Order;

iii. the Discharger minimizes the degradation by fully implementing, regularly maintaining, and optimally operating best practicable treatment and control (BPTC) measures; and

iv. the degradation does not result in water quality less than that prescribed in the Basin Plan.

Summary of Final Effluent Limitations
Discharge Point No. 001

Table F-6. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	standard units	--	--	6.5	8.5
Priority Pollutants					
TCDD-Equivalents	µg/L	1.30×10^{-8}	2.61×10^{-8}	--	--
	lbs/day[1]	5.1×10^{-12}	10.2×10^{-12}	--	--
Non-Conventional Pollutants					
Diethylaminethanol	mg/L	--	--	22,000[2]	--
Electrical Conductivity @ 25°C	µmhos/cm	900	1,600	450[2]	--

[1] Based on a flow of 0.047 mgd from the particleboard facility.
[2] Applied as an annual average.

E. Interim Effluent Limitations

[Not Applicable]

F. Land Discharge Specifications

[Not Applicable]

G. Reclamation Specifications

[Not Applicable]

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

Basin Plan water quality objectives to protect the beneficial uses of surface water and groundwater include numeric objectives and narrative objectives, including objectives for chemical constituents, toxicity, and tastes and odors. The toxicity objective requires that surface water and groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective requires that surface water and groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use or that exceed the maximum contaminant levels (MCLs) in Title 22, CCR. The tastes and odors objective states that surface water and groundwater shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances in concentrations that adversely affect domestic drinking water supply, agricultural supply, or any other beneficial use.

A. Surface Water

CWA section 303(a-c), requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Regional Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that "*[t]he numerical and narrative water quality objectives define the least stringent standards that the Regional Water Board will apply to regional waters in order to protect the beneficial uses*." The Basin Plan includes numeric and narrative water quality objectives for ammonia, bacteria, biostimulatory substances, color, chemical constituents, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, suspended sediment, settleable substances, suspended material, tastes and odors, temperature, toxicity, and turbidity.

B. Groundwater

1. The beneficial uses of the underlying ground water are municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply.

2. Basin Plan water quality objectives include narrative objectives for chemical constituents, tastes and odors, and toxicity of groundwater. The toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective states groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use. The tastes and odors objective prohibits taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan also establishes numerical water quality objectives for chemical constituents and radioactivity in groundwaters designated as municipal supply. These include, at a minimum, compliance with MCLs in Title 22 of the CCR. The bacteria objective prohibits coliform organisms at or above 2.2 MPN/100 mL. The Basin Plan requires the application of the most stringent objective necessary to ensure that waters do not contain chemical constituents, toxic substances, radionuclides, taste- or odor-producing substances, or bacteria in concentrations that adversely affect municipal or domestic supply, agricultural supply, industrial supply or some other beneficial use.

3. Order No. R5-2002-0018 contained groundwater limitations due to the potential for percolation of wastewater from the ponds and spray irrigation fields. Although monitoring by the Discharger during the term of Order No. R5-2002-0018 indicated no impact from the ponds and spray irrigation fields (in terms of pH, total dissolved solids, and electrical conductivity concentrations), these units are still in use and therefore the groundwater limitations are being retained from Order No. R5-2002-0018 to protect the beneficial uses of the underlying groundwater.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

[Not Applicable]

B. Effluent Monitoring

1. Pursuant to the requirements of 40 CFR §122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.

2. Effluent monitoring of the discharge to Stony Creek (Discharge Point No. 001) at Monitoring Location EFF-001 has been established as follows:

   a. Effluent monitoring frequency and sample type for pH (weekly) has been retained from Order No. R5-2002-0018 to determine compliance with effluent limitations.

   b. Because estimated values for 1,2,3,4,6,7,8-HpCDD and OCDD exceeded applicable CTR criteria and because the area adjacent to the Facility was previously contaminated by dioxins/furans, effluent limitations for TCDD-equivalents are included in this Order. Quarterly effluent monitoring for TCDD-equivalents has been established to determine compliance with the applicable effluent limitations.

   c. Monitoring of flow has been decreased to weekly and the sample type has been changed from a meter to an estimate. Since this Order is only for the particleboard facility, only the flow from the particleboard facility is taken into account. Furthermore, discharge of process water from the Facility has not occurred since March 2004. Due to the changes in the configuration of the Facility since the issuance of Order No. R5-2002-0018, flow monitoring has been modified accordingly.

   d. Effluent limitations for chloride and sulfate are not retained from Order No. R5-2002-0018 since there is no longer discharge from the cogeneration facility and because the reported salinity was relatively low. However, since the Discharger discharges to a tributary of the Sacramento-San Joaquin Delta, of additional concern is the salt contribution to Delta waters. Also the permit application indicated that sulfate was “believed present”. Therefore, monitoring of chloride and sulfate has been increased from every other month to monthly.

   e. Weekly monitoring for TDS has been retained for the continued characterization of salinity in the effluent.

   f. Weekly monitoring of electrical conductivity has been retained to determine compliance with the applicable effluent limitations and continue characterization of salinity in the effluent.

   g. As discussed elsewhere in this Fact Sheet there is no reasonable potential for either nitrite or nitrate and effluent limitations are not retained from Order No. R5-2002-0018. However, the monitoring of total nitrite nitrogen (as N) and total nitrate nitrogen (as N) has been increased from every other month to monthly since the permit application states that nitrate-nitrite (as N) is “believed present”.

   h. As discussed in section IV.C.3 of this Fact Sheet, it is uncertain whether reasonable potential for iron actually exists and therefore effluent limitations for iron are not being established at this time. To collect the data necessary to

determine reasonable potential, this Order establishes monthly effluent monitoring for iron.

i. Order No. R5-2002-0018 included effluent limitations for diethylaminethanol based on its use at the Facility as a corrosion inhibitor, which have been retained in this Order. Monitoring data for diethylaminethanol is not available. This Order increases the monitoring frequency from every other month to monthly in order to determine compliance with effluent limitations for diethylaminethanol and to collect data on the prevalence of diethylaminethonal in the effluent.

j. Hardness is critical to the assessing the need for, and the development of, effluent limitations for certain metals. The CTR and the NTR contain water quality criteria for seven metals that vary as a function of hardness, the lower the hardness the lower the water quality criteria. Therefore, in order to conduct future reasonable potential analyses monitoring data for hardness (as $CaCO_3$) is necessary. The monitoring frequency for hardness has been increased from every other month to monthly. The increase in frequency will provide additional data to more accurately characterize the effluent for future RPAs.

k. Priority pollutant data for the effluent has been provided by the Discharger on 10 April 2008, and was used to conduct a meaningful reasonable potential analysis. In accordance with Section 1.3 of the SIP, periodic monitoring for priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Periodic priority pollutant monitoring is also necessary to provide data that would account for changes in the service population. The monitoring frequency for priority pollutants has been reduced from four times per discharge season to once during the third year following the date of permit adoption because the data provided indicated no reasonable potential for those pollutants for which no WQBELs were established.

l. Monitoring was established in Order No. R5-2002-0018 for a variety of other parameters based on their expected presence and/or use at the cogeneration facility or from runoff from the landfill, former ash disposal area and former dip tank area. These parameters included color, temperature, phosphate, polycyclic aromatic hydrocarbons, tannins and lignins, tetrachlorophenol, cyclohexamine, phenylmercuric acetate, volatile organics, semi-volatile organics, BOD, settleable solids, TSS, zinc, and pentachlorophenol. Because monitoring data for these constituents did not exhibit reasonable potential to exceed water quality objectives and because discharges to the treatment ponds of storm water runoff no longer occur, monitoring requirements for these constituents have not been retained in this Order.

m. Effluent limitations for residual chlorine were originally established because chlorine was used as an algaecide. The Facility no longer uses chlorine as an algaecide and monitoring data indicate residual chlorine was not detected in the effluent. The permit application also states that chlorine residual is “believed

n. Monitoring data was not provided for oil and grease and the permit application stated that oil and grease is "believed absent". Based on the types of wastes directed to the Irrigation Pond, the effluent limitations and monitoring requirements for oil and grease are not retained in this Order.

o. Copper was originally detected in storm water and landfill runoff and used as a fungicide. Storm water runoff no longer enters the permitted drainage course and copper is no longer used as a fungicide. In addition, monitoring data does not indicate reasonable potential for copper to exceed water quality criteria. Therefore, monitoring requirements for copper have not been retained in this Order.

p. Order No. R5-2002-0018 contained monitoring requirements for polycyclic aromatic hydrocarbons (PAHs) based on the potential presence of these constituents in storm water runoff from the landfill, former ash disposal area, and former dip tank area. No PAHs were detected in the effluent and therefore monitoring requirements for these constituents have not been retained in this Order.

C. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity.** Order No. R5-2002-0018 established effluent limitations for acute toxicity, but did not include monitoring requirements. This Order retains the effluent limitations from Order No. R5-2002-0018 and requires 96-hour bioassay testing once per year during a discharge event to demonstrate compliance with the effluent limitation for acute toxicity. [7]

2. **Chronic Toxicity.** Order No. R5-2002-0018 required the Discharger to conduct chronic toxicity testing four times per discharge season. If no toxicity was found in any of the tests during the first year, the frequency could be reduced to every other month during the discharge season. Because a discharge from the Facility has not occurred since March 2004 and because the Facility has recently undergone significant changes, chronic toxicity monitoring representative of current operations is not available. However, due to the infrequent nature of the discharge, the monitoring frequency has been decreased to once per year during a discharge event in order to demonstrate compliance with the Basin Plan's narrative toxicity objective.[1]

[7] Sampling should occur during the first discharge event of the year to ensure that a sample is taken during that year. If no discharge event occurs during the year, then sampling is not required.

D. Receiving Water Monitoring

1. Surface Water

a. Because the receiving water emanates from the Facility, effluent conditions are representative of receiving water conditions in the vicinity of the discharge. Therefore, receiving water sampling requirements are not included in this Order. However, the receiving water observation requirements from Order No. R5-2002-0018 are retained in this Order. The requirements include a weekly log of conditions in the receiving water including: floating or suspended matter, discoloration, bottom deposits, aquatic life, visible films or sheens, objectionable growth, and other potential nuisance conditions.

2. Groundwater

a. Section 13267 of the California Water Code states, in part, *"(a) A Regional Water Board, in establishing…waste discharge requirements… may investigate the quality of any waters of the state within its region*" and *"(b) (1) In conducting an investigation…, the Regional Water Board may require that any person who… discharges… waste…that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports*." The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Regional Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports. The Monitoring and Reporting Program (Attachment E) is issued pursuant to California Water Code Section 13267. The groundwater monitoring and reporting program required by this Order and the Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. The Discharger is responsible for the discharges of waste at the facility subject to this Order.

b. Monitoring of the groundwater must be conducted to determine if the discharge has caused an increase in constituent concentrations, when compared to background. The monitoring must, at a minimum, require a complete assessment of groundwater impacts including the vertical and lateral extent of degradation, an assessment of all wastewater-related constituents which may have migrated to groundwater, an analysis of whether additional or different methods of treatment or control of the discharge are necessary to provide best practicable treatment or control to comply with Resolution No. 68-16. Economic analysis is only one of many factors considered in determining best practicable treatment or control. If monitoring indicates that the discharge has incrementally increased constituent concentrations in groundwater above background, this permit may be reopened and modified. Until groundwater monitoring is sufficient,

this Order contains Groundwater Limitations that allow groundwater quality to be degraded for certain constituents when compared to background groundwater quality, but not to exceed water quality objectives. If groundwater quality has been degraded by the discharge, the incremental change in pollutant concentration (when compared with background) may not be increased. If groundwater quality has been or may be degraded by the discharge, this Order may be reopened and specific numeric limitations established consistent with Resolution 68-16 and the Basin Plan.

c. This Order requires the Discharger to continue groundwater monitoring in accordance with the approved Martell Facility Groundwater Characterization Work Plan (12 June 2003) and associated addendum (29 September 2003) and includes a regular schedule of groundwater monitoring in the attached Monitoring and Reporting Program. The groundwater monitoring reports are necessary to evaluate impacts to waters of the State to assure protection of beneficial uses and compliance with Regional Water Board plans and policies, including Resolution No. 68-16.

E. Other Monitoring Requirements

1. Water Supply Monitoring

Order No. R5-2002-0018 established monitoring for standard minerals, electrical conductivity, and total dissolved solids of the municipal water supply. Due to the relatively low levels of salinity reported in the effluent, the Discharger should be able to attain effluent limitations for electrical conductivity and monitoring of the municipal water supply are not required in this Order.

2. Land Application Area Monitoring

Monitoring of the land application area is required to prevent overloading the area with wastewater constituents that can cause groundwater degradation and to determine compliance with land discharge specifications.

3. Pond Monitoring

Monitoring of the ponds is required to determine compliance with the treatment pond operation requirements.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must

comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

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

B. Special Provisions

1. Reopener Provisions

a. **Whole Effluent Toxicity.** This Order requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity through a Toxicity Reduction Evaluation (TRE). This Order may be reopened to include a numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if a numeric chronic toxicity water quality objective is adopted by the State Water Board, this Order may be reopened to include a numeric chronic toxicity limitation based on that objective.

b. **Biofilter Blowdown.** This Order requires the Discharger to complete and submit a report on the characteristics of the biofilter blowdown wastewater. The studies shall be completed and submitted to the Regional Water Board as specified in section VI.C.2.d of this Order. Based on a review of the results of the report on the characteristics of the biofilter blowdown wastewater, this Order may be reopened to include limitations and/or discharge specifications for biofilter blowdown wastewater.

2. Special Studies and Additional Monitoring Requirements

a. **Chronic Whole Effluent Toxicity Requirements.** The Basin Plan contains a narrative toxicity objective that states, "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.*" (Basin Plan at III-8.00.)

The Monitoring and Reporting Program of this Order requires chronic WET monitoring for demonstration of compliance with the narrative toxicity objective. In addition to WET monitoring, this provision requires the Discharger to submit to the Regional Water Board an Initial Investigative TRE Workplan for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with the initial tiers of a TRE, in the event effluent toxicity is encountered

in the future. The provision also includes a numeric toxicity monitoring trigger, requirements for accelerated monitoring, and requirements for TRE initiation if a pattern of toxicity is demonstrated.

Monitoring Trigger. A numeric toxicity monitoring trigger of > 1 TUc (where TUc = 100/NOEC) is applied in the provision, because this Order does not allow any dilution for the chronic condition. Therefore, a TRE is triggered when the effluent exhibits a pattern of toxicity at 100% effluent.

Accelerated Monitoring. The provision requires accelerated WET testing when a regular WET test result exceeds the monitoring trigger. The purpose of accelerated monitoring is to determine, in an expedient manner, whether there is a pattern of toxicity before requiring the implementation of a TRE. Due to possible seasonality of the toxicity, the accelerated monitoring should be performed in a timely manner, preferably taking no more than 2 to 3 months to complete.

The provision requires accelerated monitoring consisting of four chronic toxicity tests every 2 weeks using the species that exhibited toxicity. Guidance regarding accelerated monitoring and TRE initiation is provided in the *Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991* (TSD). The TSD at page 118 states, "EPA recommends if toxicity is repeatedly or periodically present at levels above effluent limits more than 20 percent of the time, a TRE should be required." Therefore, four accelerated monitoring tests are required in this provision. If no toxicity is demonstrated in the four accelerated tests, then it demonstrates that toxicity is not present at levels above the monitoring trigger more than 20 percent of the time (only 1 of 5 tests are toxic, including the initial test). However, notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity (i.e. toxicity present exceeding the monitoring trigger more than 20 percent of the time), the Executive Officer may require that the Discharger initiate a TRE.

See the WET Accelerated Monitoring Flow Chart (Figure F-1), below, for further clarification of the accelerated monitoring requirements and for the decision points for determining the need for TRE initiation.

TRE Guidance. The Discharger is required to prepare a TRE Work Plan in accordance with USEPA guidance. Numerous guidance documents are available, as identified below:

- *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants,* EPA/833B-99/002, August 1999.

- Generalized Methodology for Conducting Industrial TREs, EPA/600/2-88/070, April 1989.

- *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures,* Second Edition, EPA 600/6-91/005F, February 1991.

- *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I*, EPA 600/6-91/005F, May 1992.

- *Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting acute and Chronic Toxicity,* Second Edition, EPA 600/R-92/080, September 1993.

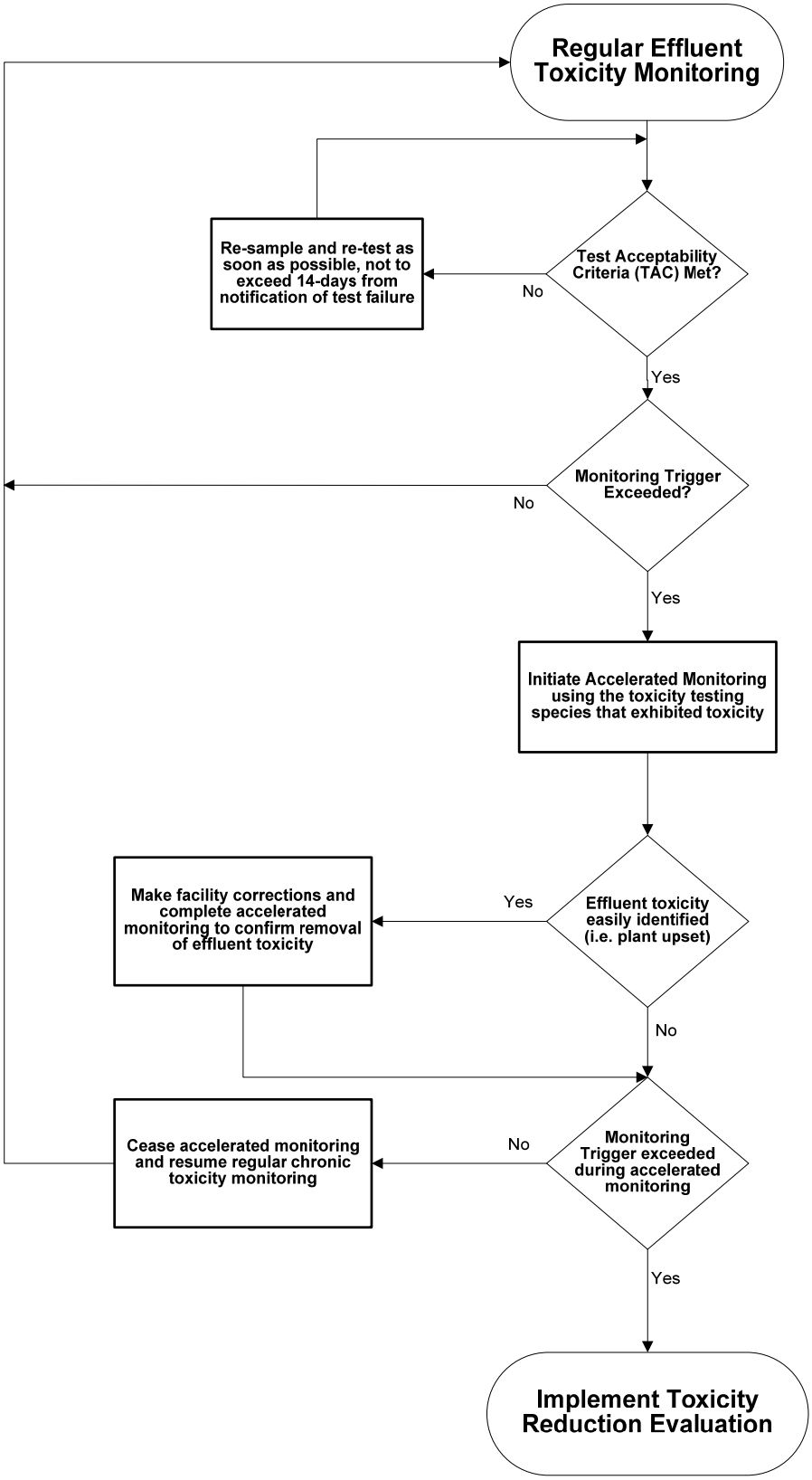
- *Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity*, Second Edition, EPA 600/R-92/081, September 1993.

- *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, EPA-821-R-02-012, October 2002.

- *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, EPA-821-R-02-013, October 2002.

- *Technical Support Document for Water Quality-based Toxics Control,* EPA/505/2-90-001, March 1991.

Figure F-1
WET Accelerated Monitoring Flow Chart



b. **Groundwater Monitoring**. To determine compliance with the groundwater limitations established in Section V.B of the Order, the Discharger is required to monitor the groundwater in the vicinity of the ponds and irrigation field. If the monitoring shows that any constituent concentrations are increased above background water quality, by 30 months after the effective date of this Order, the Discharger shall submit a technical report describing the groundwater evaluation report results and critiquing each evaluated facility component with respect to BPTC and minimizing the discharge's impact on groundwater quality.

c. **Best Practical Treatment or Control (BPTC)**. If the groundwater monitoring results show that the discharge of waste is threatening to cause or has caused groundwater to contain waste constituents in concentrations statistically greater than background water quality, the Discharger shall submit, within 6 months following the first year of monitoring that documents constituent concentrations increased beyond background water quality, a BPTC Evaluation Work Plan. This work plan shall set forth a scope and schedule for a systematic and comprehensive technical evaluation of each component of the Facilities' waste management system to determine best practicable treatment or control for each of the waste constituents of concern. The work plan shall include a preliminary evaluation of each component of the waste management system and propose a time schedule for completing the comprehensive technical evaluation. The schedule to complete the evaluation shall be as short as practicable, and shall not exceed 1 year.

d. **Biofilter Monitoring Study.** The Facility is expecting to start biofilter operations in October 2008 and expects to generate wastewater in the form of blowdown from the biofilter with an estimated discharge flow volume ranging from 1,500 to 4,500 gpd. Due to the uncertainty regarding the characteristics of the biofilter blowdown, a monitoring study is required in this Order.

3. Best Management Practices and Pollution Prevention

a. **Best Management Practices (BMP) Plan.** Due to the fact that the discharge from the Facility will occur infrequently, and only when the capacity of the irrigation pond system is exceeded during large rainfall events, this Order will require the Facility to develop and implement a BMP plan that is designed to minimize the potential for discharges of pollutants to Stony Creek from the irrigation pond system. This requirement is also based on the findings from the 2007 compliance evaluation inspection which indicated that BMPs did not appear to be maintained or deployed in such a manner to minimize the potential for pollutant transport. Therefore, a BMP Plan is included in this Order.

4. Construction, Operation, and Maintenance Specifications

a. For the protection of public health, avoidable nuisances, and for the protection of ground water, treatment pond operating requirements have been retained from Order No. R5-2002-0018.

b. The land applications specifications for the spray irrigation system are necessary to protect the beneficial uses of the groundwater and are based on the requirements contained in Order No. R5-2002-0018.

5. Special Provisions for Municipal Facilities (POTWs Only)

[Not Applicable]

6. Other Special Provisions

a. **Ownership Change.** To maintain the accountability of the operation of the Facility, the Discharger is required to notify the succeeding owner or operator of the existence of this Order by letter if, and when, there is any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger.

7. Compliance Schedules

[Not Applicable]

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for SierraPine – Ampine Division. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through by posting in public areas (the nearest courthouse or city hall, the post office nearest the Facility, and near the entrance of the Facility by 5 September 2008.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in

person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on 29 September 2008.

C. Public Hearing

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

Date: 23/24 October 2008
Time: 8:30 am
Location: Regional Water Quality Control Board, Central Valley Region
11020 Sun Center Dr., Suite #200
Rancho Cordova, CA 95670

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

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/rwqcb5/ where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

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

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

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (916) 464-3291.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Ken Landau at (916) 464-4726.

ATTACHMENT G – SUMMARY OF REASONABLE POTENTIAL ANALYSIS

Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	Reasonable Potential
Aluminum	µg/L	53	--	87[2]	--	--	--	--	--	200	No
Anthracene	µg/L	0.14	--	9,600	--	--	9,600	110,000	--	--	No
Antimony	µg/L	3.3	--	6	--	--	14	4,300	--	6	No
Arsenic	µg/L	1.2	--	10	340	150	--	--	--	10	No
Beryllium	µg/L	0.41	--	4	--	--	--	--	--	4	No
Cadmium	µg/L	0.29	--	1.82	2.92	1.82	--	--	--	5	No
Chromium (total)	µg/L	9.9	--	50	--	--	--	--	--	50	No
Copper	µg/L	4.5	--	6.71	9.73	6.71	1,300	--	--	1,000	No
Electrical Conductivity @ 25°C	µmhos/cm	380	--	700[3]	--	--	--	--	450	900	No
Iron	µg/L	560	--	300	--	--	--	--	--	300	Yes
Lead	µg/L	0.28	--	1.95	50	1.95	--	--	--	15	No
Manganese	µg/L	40	--	50	--	--	--	--	--	50	No
Mercury	µg/L	0.00222	--	0.050	--	--	0.050	0.051	--	2	No
Nickel	µg/L	14	--	37.64	339	37.64	610	4,600	--	100	No
Nitrite	mg/L	0.045	--	1	--	--	--	--	--	1	No
Phenanthrene	µg/L	0.19	--	No Criteria	--	--	--	--	--	--	No
Phenol	µg/L	0.68	--	300[1]	--	--	21,000	4,600,000	--	--	No
Phosphorus	µg/L	58	--	No Criteria	--	--	--	--	--	--	No
Silver	µg/L	0.28	--	2.09	2.09	--	--	--	--	100	No
Sulfate	mg/L	26	--	250	--	--	--	--	--	250	No
TCDD-Equivalents	µg/L	8.25×10^{-8}	--	1.30×10^{-8}	--	--	1.30×10^{-8}	1.40×10^{-8}	--	--	Yes
Zinc	µg/L	3.7	--	86.42	86.42	86.42	--	--	--	5,000	No

General Note: All inorganic concentrations are given as a total recoverable.
MEC = Maximum Effluent Concentration
B = Maximum Receiving Water Concentration or lowest detection level, if non-detect
C = Criterion used for Reasonable Potential Analysis
CMC = Criterion Maximum Concentration (CTR or NTR)
CCC = Criterion Continuous Concentration (CTR or NTR)
Water & Org = Water and Organism Criterion Concentration (CTR or NTR)
Basin Plan = Numeric Site-specific Basin Plan Water Quality Objective
MCL = Drinking Water Standards Maximum Contaminant Level

Footnotes:
1 Odor Threshold (Amoore and Hautala)
2 National Ambient Water Quality Criteria
3 Water Quality for Agriculture
4 As further described in section IV.C.3.j of the Fact Sheet (Attachment F), based on the limited data set, reasonable potential to cause or contribute to an in-stream excursion above the secondary MCL consumer acceptance limit criterion for iron cannot be determined and effluent limitations for iron are not being established at this time.

ATTACHMENT H – BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

I. Implementation

The Discharger shall develop and implement a Best Management Practices (BMP) Plan which achieves the objectives and the specific requirements listed below. A copy of the BMP Plan shall be submitted to the Regional Water Board. The BMP Plan shall be implemented as soon as possible but no later than 1 year from the effective date of the Order.

II. Purpose

Through implementation of the BMP Plan, the Discharger shall prevent or minimize the generation and the potential for the release of pollutants from the Facility to the waters of the United States through normal operations and ancillary activities.

III. Objectives

The Discharger shall develop and amend the BMP Plan consistent with the following objectives for the control of pollutants.

A. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the facility shall be minimized by the Discharger to the extent feasible by managing each influent waste stream in the most appropriate manner.

B. Under the BMP Plan, and any Standard Operating Procedures (SOPs) included in the Plan, the Discharger shall ensure proper operation and maintenance of the treatment facility.

C. The Discharger shall establish specific objectives for the control of pollutants by conducting the following evaluations.

   1. Each component or system shall be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, and natural phenomena such as rain or snowfall, etc. The examination shall include all normal operations and ancillary activities related to particleboard creation, including material storage areas, process and material handling areas, loading or unloading operations, and waste disposal.

   2. Where experience indicates a reasonable potential for a natural condition, or other circumstances to result in significant amounts of pollutants reaching surface waters, the program should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the Facility as a result of each condition or circumstance.

IV. Requirements

The BMP Plan shall be consistent with the objectives in Part 3 above and the general guidance contained in the publication entitled *Guidance Manual for Developing Best Management Practices (BMPs)* (USEPA, 1993) or any subsequent revisions to the guidance document. The BMP Plan shall:

A. Be documented in narrative form, shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structure.

1. Name and location of the facility
2. Statement of BMP policy
3. Structure, functions, and procedures of the BMP Committee
4. Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:
    a. modification of equipment, facilities, technology, processes, and procedures;
    b. reformulation or redesign of products;
    c. substitution of materials; and
    d. improvement in management, inventory control, materials handling or general operational phases of the Facility.
5. Risk identification and assessment.
6. Reporting of BMP incidents.
7. Materials compatibility.
8. Good housekeeping.
9. Preventative maintenance.
10. Inspections and records.
11. Security.
12. Employee training.

B. Include the following provisions concerning BMP Plan review:

1. Be reviewed by plant engineering staff and the plant manager.

2. Be reviewed and endorsed by the Facility's BMP Committee.

3. Include a statement that the above reviews have been completed and that the BMP Plan fulfills the requirements set forth in this permit. The statement shall be certified by the dated signatures of each BMP Committee member.

C. Establish specific BMPs to meet the objectives identified in section III, addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventative or remedial measures to be implemented.

D. Establish specific BMPs or other measures which ensure that the following specific requirements are met:

1. Ensure proper management of solid and hazardous waste in accordance with regulations promulgated under the Resource Conservation and Recovery Act (RCRA). Management practices required under RCRA regulations shall be referenced in the BMP Plan.

2. Reflect requirements for Spill Prevention, Control, and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 112 and may incorporate any part of such plans into the BMP Plan by reference.

V. Documentation

The Discharger shall maintain a copy of the BMP Plan at the Facility and shall make the plan available to the Regional Water Board upon request. All offices of the Facility which are required to maintain a copy of the NPDES permit shall also maintain a copy of the BMP Plan.

VI. BMP Plan Modification

The Discharger shall amend the BMP Plan whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to the receiving waters. The Discharger shall also amend the Plan, as appropriate, when plant operations covered by the BMP Plan change. Any such changes to the BMP Plan shall be consistent with the objectives and specific requirements listed above. All changes in the BMP Plan shall be reported to the Regional Water Board in writing.

VII. Modification for Ineffectiveness

At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or the specific requirements above, the permit and/or the BMP Plan shall be subject to modification to incorporate revised BMP requirements.