

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0019  
NPDES No. CA0081744

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

<b>Discharger</b>	Grizzly Lake Resort Improvement District
<b>Name of Facility</b>	Delleker Wastewater Treatment Plant
<b>Facility Address</b>	73821 Industrial Way Portola, CA 96122 Plumas County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Treated Wastewater	38.809° N	120.497° W	Middle Fork, Feather River

This Order was adopted by the Central Valley Water Board on:	<b>March 16, 2007</b>
This Order shall become effective on:	<b>May 5, 2007</b>
This Order shall expire on:	<b>May 1, 2012</b>
The U.S. Environmental Protection Agency (USEPA) and the Central Valley Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a complete Report of Waste Discharge in accordance with Title 23, California Code of Regulations, <b>not later than 180 days in advance of the Order expiration date</b> as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 5-00-256 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the federal Clean Water Act, and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements herein.

I, Pamela C. Creedon, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on March 16, 2007.

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PAMELA C. CREEDON, Executive Officer

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## I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

<b>Discharger</b>	Grizzly Lake Resort Improvement District
<b>Name of Facility</b>	Delleker Wastewater Treatment Plant
<b>Facility Address</b>	73821 Industrial Way Delleker CA, 96122 Plumas County
<b>Facility Contact, Title, and Phone</b>	Doug Warner, General Manager (530) 832-5225
<b>Mailing Address</b>	119 Delleker Road, Portola CA, 96122
<b>Type of Facility</b>	POTW
<b>Facility Design Flow</b>	0.1 MGD (million gallons per day)

## II. FINDINGS

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

A. **Background.** The Grizzly Lake Resort Improvement District (hereinafter Discharger) is currently discharging under Order No. 5-00-256, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0081744. The Discharger submitted a Report of Waste Discharge, dated June 10, 2005, and applied for a NPDES permit renewal to discharge up to 0.1 MGD of treated wastewater from the Delleker Wastewater Treatment Plant, hereinafter Plant. The initial application was deemed incomplete and additional information was requested. The additional information was supplied on November 7, 2005 at which time the application was deemed complete.

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 wastewater collection, treatment, and disposal Facility (Facility). Treatment consists of a headworks, facultative ponds, mechanical aeration (first two ponds only), and a chlorination/dechlorination system. Between November 1 and May 15, wastewater may be discharged to the Middle Fork of the Feather River, a water of the United States within the Sacramento River Watershed, but only when the Middle Fork of the Feather River flow is 40 cubic feet per second (cfs) or more. Additionally, discharge to the Middle Fork of the Feather River is prohibited from May 16 to October 31. Attachment B provides a topographic map of the Facility and surrounding area.

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as an NPDES permit for point source discharges from this Facility

to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

- D. Background and Rationale for Requirements.** The Central Valley Water Board developed the requirements in this Order based on information submitted as part of the application and through monitoring and reporting programs. Attachments A through H, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.
- E. California Environmental Quality Act (CEQA).** This action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of Division 13 of the Public Resources Code in accordance with Section 13389 of the CWC.
- F. Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR section 122.44(a)<sup>1</sup> requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations complying with Secondary Treatment Standards at 40 CFR Part 133, and protects the beneficial uses of the receiving waters. The Central Valley Water Board has considered the factors listed in CWC section 13241 in establishing these requirements. 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 122.44(d) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) may be established: (1) using USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) on an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed State criterion or policy interpreting the State's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).
- H. Water Quality Control Plans.** The Central Valley Water Board adopted a *Water Quality Control Plan, Fourth Edition (Revised September 2004), for the Sacramento River 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 of the Basins. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the Middle Fork of the Feather River downstream of the discharge are identified in Table II-1 of the Basin Plan are as follows:

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<sup>1</sup> All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

Discharge Point	Receiving Water Name	Beneficial Use(s)
EFF-001	Middle Fork of the Feather River	<p><u>Existing:</u> Municipal and domestic water supply (MUN); Contact recreation and rafting and canoeing (REC-1); Other non-contact recreation (REC-2); Cold freshwater habitat (COLD); Warm freshwater habitat (WARM); Cold Spawning (SPWN) and wildlife habitat (WILD).</p> <p><u>Intermittent:</u> None</p> <p><u>Potential:</u> None</p>
	<b>Underlying Groundwater</b>	Municipal and domestic supply (MUN), industrial service supply (IND), industrial process water supply (PROC), and agricultural supply and stock watering supply (AGR).

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

- I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About 40 criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR, which adopted new water quality criteria and also incorporated the NTR criteria that were applicable in California. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
  
- J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Central Valley Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
  
- K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 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.

- L. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 incorporates the federal antidegradation policy, where the federal policy applies under federal law. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F, Section III.A.2.) the discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16.
- M. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- N. **Stringency of Requirements for Individual Pollutants.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS), and pH. Restrictions on BOD<sub>5</sub> TSS are specified in federal regulations as discussed in Findings II.F, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations 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 and the SIP, which was approved by USEPA on May 1, 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 May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "*applicable water quality standards for purposes of the [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.

- O. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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 except for pH (Refer to the Fact Sheet).
- P. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards 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.
- Q. **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 Central Valley Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).
- R. **Notification of Interested Parties.** The Central Valley 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 for a public hearing and to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.
- S. **Consideration of Public Comment.** The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

### III. DISCHARGE PROHIBITIONS

- A. Discharge of wastewater at a location or in a manner different from that described in this Order is prohibited.
- B. The by-pass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed by Provisions I.G. and I.H. of Attachment D, Federal Standard Provisions.
- C. Neither the discharge nor its treatment shall create a nuisance or pollution as defined in CWC section 13050.
- D. The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
- E. Discharge to the Middle Fork of the Feather River shall not occur between May 16 and October 31.
- F. Discharge to the Middle Fork of the Feather River shall not occur when river flow is less than 40 cfs as measured at the DWR gauging station approximately four miles upstream of the discharge.
- G. Containment or treatment of waste classified as "hazardous" as defined in section 2521(a) of Title 23, California Code of Regulations (CCR), or "designated", as defined in section 13173 of the CWC, in the treatment ponds is prohibited.

### IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

#### A. Effluent Limitations – Discharge Point 001 and Discharge Point 002

##### 1. Final Effluent Limitations

- a. **Effective immediately**, the discharge of treated wastewater shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E, Section IV):

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD	mg/L	45	65	90		
	lbs/day <sup>1</sup>	37.5	54.2	75.1		
Total Suspended Solids	mg/L	45	65	90		
	lbs/day <sup>1</sup>	37.5	54.2	75.1		
pH	standard units	--	--	--	6.0	9.0



- b. **Percent Removal.** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 65 percent. Calculation of percent removal may be performed using a volume-weighted average of influent wastewater and septage pollutant concentrations.
- c. **Acute Whole Effluent Toxicity.** Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:
  - i. 70%, minimum for any one bioassay; and
  - ii. 90%, median for any three consecutive bioassays,
- d. **Total Residual Chlorine.** Effluent total residual chlorine shall not exceed:
  - i. 0.01 mg/L, as a 4-day average;
  - ii. 0.02 mg/L, as a 1-hour average.
- e. **Total Coliform Organisms.** Effluent total coliform organisms shall not exceed:
  - i. 23 most probable number (MPN) per 100 mL as a median of the previous seven samples;
  - ii. 500 MPN/100 mL at any time.
- f. **Average Daily Discharge Flow.** The average daily dry weather discharge flow shall not exceed 0.1 million gallons per day.

## 2. Interim Effluent Limitations-Not Applicable

### B. Land Discharge Specifications-Ponds

- 1. Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the wastewater treatment areas or property owned by the Discharger.
- 2. As a means of discerning compliance with Land Discharge Specifications B.1, the dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/L.

### 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 the Middle Fork of the Feather River:

1. **Dissolved Oxygen.** Concentrations of dissolved oxygen to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent of saturation in the main water mass, and the 95<sup>th</sup> percentile concentration shall not fall below 75 percent of saturation.
2. **Oil and Grease.** Oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or otherwise adversely affect beneficial uses.
3. **Color.** Discoloration that causes nuisance or adversely affects beneficial uses.
4. **pH.** Changes in normal ambient pH levels shall not exceed 0.5 units.
5. **Temperature.** The normal ambient temperature to be altered by more than 5° F.
6. **Settleable Matter.** Substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
7. **Electrical Conductivity.** Electrical conductivity to exceed 150 umho/cm (90<sup>th</sup> percentile) in well mixed waters of the Middle Fork of the Feather River.
8. **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.
  - b. Concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 4 (MCL Radioactivity) of section 64443 of Title 22 of the CCR.
9. **Toxicity.** Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.
10. **Biostimulatory Substances.** Biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
11. **Floating Material.** Floating material in amounts that cause nuisance or adversely affect beneficial uses.
12. **Suspended Sediment.** Suspended sediment concentrations that cause nuisance or adversely affect beneficial uses.
13. **Taste and Odor.** Taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to

fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.

14. **Turbidity.** Changes in turbidity that cause nuisance or adversely affect beneficial uses. Turbidity attributable to controllable water quality factors to exceed the following:

- a. More than 1 Nephelometric Turbidity Units (NTUs) 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 NTUs where natural turbidity is between 50 and 100 NTUs.
- d. More than 10 percent where natural turbidity is greater than 100 NTUs.

In determining compliance with the above limitations, appropriate averaging periods may be applied upon approval by the Executive Officer.

15. **Pesticides.**

- a. Pesticides in individual or combined concentrations that adversely affect beneficial uses.
- b. Pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses.
- c. Total identifiable persistent chlorinated hydrocarbon pesticides in concentrations detectable within the accuracy of analytical methods approved by the USEPA or the Executive Officer.
- d. Concentrations exceeding those allowable by applicable antidegradation policies (see State Water Board Resolution No. 68-16 and 40CFR section 131.12.)
- e. Concentrations exceeding the lowest levels technically and economically achievable.
- f. Concentrations exceeding the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
- g. Concentrations of thiobencarb in excess of 1.0 µg/L.

16. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

17. Esthetically undesirable discoloration.

18. Fungi, slimes, or other objectionable growths.

## **B. Groundwater Limitations**

Release of waste constituents from any storage, treatment, or disposal component associated with the Facility shall not, in combination with other sources of the waste constituents, cause underlying groundwater to contain waste constituents in

concentrations statistically greater than background water quality or total coliform organisms of 2.2 MPN/100 mL over any seven-day period.

## VI. PROVISIONS

### A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Federal Standard Provisions included in Attachment D of this Order.
2. **Central Valley Water Board Standard Provisions.** The Discharger shall comply with the following Central Valley Water Board standard provisions:
  - a. If the Discharger's Plant is publicly owned or subject to regulation by the 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 14.
  - 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:

- i. **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.
- ii. **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.
- iii. **Change in sludge use or disposal practice.** Under 40 CFR section 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 Central Valley Water Board may review and revise this Order at any time upon application of any affected person or the Central Valley 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 Central Valley 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 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, failure of electric power, the discharge shall comply with the terms and conditions of this Order.
  - ii. Upon written request by the Central Valley 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 five 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 Central Valley Water Board.
  - iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Central Valley Water Board not approve the existing safeguards, the Discharger shall, within ninety (90) days of having been advised in writing by the Central Valley Water Board that the existing safeguards are inadequate, provide to the Central Valley 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 Central Valley Water Board, become a condition of this Order.
- k. The Discharger, upon written request of the Central Valley Water Board, shall file with the Central Valley Water Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

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 Central Valley 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.

- I. 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 three 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 four years, the Discharger shall notify the Central Valley Water Board by January 31. 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 Central Valley Water Board may extend the time for submitting the report.
- m. 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.
- n. 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.
- o. The Central Valley 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.
- p. 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 Central Valley Water Board by telephone (530) 224-4845 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Central Valley 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)].
- q. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a

watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (CWC section 1211)

## **B. Monitoring and Reporting Program Requirements**

1. The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.
2. Within **60 days** of permit adoption, the Discharger shall submit a report outlining minimum levels, method detection limits, and analytical methods for approval, with a goal to achieve detection levels below applicable water quality criteria. At a minimum, the Discharger shall comply with the monitoring requirements for CTR constituents as outlined in Section 2.3 and 2.4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, adopted March 2, 2000 by the State Water Board. All peaks identified by analytical methods shall be reported.

## **C. Special Provisions**

### **1. Reopener Provisions**

- a. 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.
- b. **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.
- c. **Ammonia, Electrical Conductivity and Bis (2-ethylhexyl) phthalate.** As a result of effluent and/or receiving water testing, this Order may be reopened to include an effluent limit for ammonia, electrical conductivity, and bis (2-ethylhexyl) phthalate.



## 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 Toxicity Reduction Evaluation (TRE) Work Plan.** **Within 90 days of the effective date of this Order,** the Discharger shall submit to the Central Valley Water Board an Initial Investigative TRE Work Plan for approval by the Executive Officer. This should be a one to two page document including, at 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, if necessary (i.e. 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 **> 10 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 every two 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 to the Central Valley Water Board a TRE Work Plan for approval by the Executive Officer. The TRE Work Plan shall outline the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity. The TRE Work Plan must be developed in accordance with EPA guidance<sup>2</sup>.
- b. **Septage Receiving. Within 365 days of the adoption of this Order,** the Discharger shall submit an analysis of the septage receiving capacity of the Ponds prepared by a California registered civil engineer. The analysis shall report on the amount of septage that is received each year, and the capacity of the Facility to accept septage while complying with the requirements of this Order. If septage in excess of the Facility capacity is being accepted, the Discharger shall submit a plan, at the same time the septage capacity study is submitted, with a time schedule, to decrease its septage receiving to within the Facility's capacity.

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<sup>2</sup> See Attachment F (Fact Sheet) Section VII.B.2.a. for a list of EPA guidance documents that must be considered in development of the TRE Workplan.

- c. **Electrical Conductivity Study.** The Discharger shall complete and submit to the Central Valley Water Board a report on the results of a site-specific investigation of appropriate electrical conductivity levels to maintain the water quality objective of 150 umho/cm (at the 95<sup>th</sup> percentile) for well mixed waters of the Middle Fork of the Feather River. The study shall determine the background electrical conductivity of the receiving water and the effect of the discharge on receiving water conductivity. Based on this information, the study shall recommend an effluent limitation for electrical conductivity that maintains a value in the receiving water at its lowest practicable level. The Central Valley Water Board will evaluate the recommendations, select an appropriate value, reevaluate reasonable potential for electrical conductivity, and reopen the Order, as necessary, to include appropriate effluent limitations for electrical conductivity. The Discharger shall comply with the following time schedule to complete the study and semi-annual progress reports shall be submitted to the Executive Officer in accordance with the Monitoring and Reporting Program:

**Table 8 – Electrical Conductivity Study**

Task	Compliance Date
1 - Submit Workplan	June 30, 2007
2 - Submit Completed Report	December 31, 2007

The Discharger shall submit to the Central Valley Water Board on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule.

If after review of the study results it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of the electrical conductivity water quality objective, this Order will be reopened and effluent limitations added for the subject constituents.

- d. The Discharger shall perform the following water quality studies, and implement the required monitoring program according to the following time schedule. All reports shall be submitted pursuant to Section 13267 of the California Water Code, and shall be prepared by a California Registered Civil Engineer, a Registered Geologist, or a Certified Engineering Geologist.
- i. **Within 365 days of the adoption of this Order**, the Discharger shall submit a workplan for characterization of groundwater quality. The workplan shall describe the installation of monitoring wells to allow evaluation of groundwater quality upgradient and downgradient of the ponds. Each monitoring well shall

be constructed to yield representative samples from the uppermost layer of the uppermost aquifer and to comply with applicable well standards.

- ii. **Within 3 years of the adoption of this Order**, the Discharger shall submit a Monitoring Well Installation Report that describes the installation of groundwater monitoring wells. The report shall include: well construction, well development, well surveying, water sampling, and soil logging.
  - iii. **Within 4 years of the adoption of this Order**, the Discharger shall submit a Groundwater Quality Study Report for each monitoring well. For each groundwater monitoring parameter/constituent identified in the Monitoring and Reporting Program, the report shall present a comparison of groundwater quality of upgradient and downgradient monitoring wells relative to the Facility.
3. **Best Management Practices and Pollution Prevention-Not Applicable**
  4. **Compliance Schedules-Not Applicable**
  5. **Construction, Operation and Maintenance Specifications**

**a. Treatment Pond Operating Requirements.**

- i. The treatment facilities shall be operated and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
- ii. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.
- iii. 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.
- iv. Freeboard shall never be less than two feet (measured vertically to the lowest point of overflow).

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

**a. Sludge/Biosolids Discharge Specifications**

- i. Collected screenings, residual sludge, biosolids, and other solids removed from liquid wastes shall be disposed of in as approved by the Executive

Officer, and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, section 20005, et seq. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, composting sites, soil amendment sites) that are operated in *accordance* with valid waste discharge requirements issued by a Central Valley Water Board will satisfy these specifications.

- ii. Sludge and solid waste shall be removed from screens, sumps, ponds, clarifiers, etc. as needed to ensure optimal Plant performance.
- iii. The treatment and storage of sludge generated at the Facility shall be confined to the Facility property and conducted in a manner that precludes infiltration of waste constituents into soils in a mass or concentration that will violate Groundwater Limitations V.B.
- iv. The use and disposal of biosolids shall comply with existing Federal and State laws and regulations, including permitting requirements, technical standards, and time schedules included in 40 CFR 503. If the State Water Board and the Central Valley Water Board are given the authority to implement regulations contained in 40 CFR 503, this Order may be reopened to incorporate appropriate time schedules and technical standards.

**b. Sludge/Biosolids Disposal Requirements**

- i. The Discharger shall comply with the Monitoring and Reporting Program for biosolids disposal contained in Attachment E.
- ii. Any proposed change in biosolids use or disposal practice from a previously approved practice shall be reported to the Executive Officer and USEPA Central Valley Administrator at least **90 days** in advance of the change.
- iii. The Discharger is encouraged to comply with the "Manual of Good Practice for Agricultural Land Application of Biosolids" developed by the California Water Environment Association.

**c. Pretreatment Requirements.**

- i. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the necessary legal authorities, programs, and controls to ensure that the following incompatible wastes are not introduced to the treatment system, where incompatible wastes are:
  - a) Wastes which create a fire or explosion hazard in the treatment works;

- b) Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0, unless the works is specially designed to accommodate such wastes;
  - c) Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation or treatment works;
  - d) Any waste, including oxygen demanding pollutants (BOD, *etc.*), released in such volume or strength as to cause inhibition or disruption in the treatment works, and subsequent treatment process upset and loss of treatment efficiency;
  - e) Heat in amounts that inhibit or disrupt biological activity in the treatment works, or that raise influent temperatures above 40°C (104°F), unless the Central Valley Water Board approves alternate temperature limits;
  - f) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
  - g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems; and:
  - h) Any trucked or hauled pollutants, except at points predesignated by the Discharger.
- ii. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the legal authorities, programs, and controls necessary to ensure that indirect discharges do not introduce pollutants into the sewerage system that, either alone or in conjunction with a discharge or discharges from other sources:
- a) Flow through the system to the receiving water in quantities or concentrations that cause a violation of this Order, or:
  - b) Inhibit or disrupt treatment processes, treatment system operations, or sludge processes, use, or disposal and either cause a violation of this Order or prevent sludge use or disposal in accordance with this Order.

#### d. **Collection System.**

On May 2, 2006, the State Water Board adopted State Water Board Order 2006-0003, a Statewide General WDR for Sanitary Sewer Systems. The Discharger shall be subject to the requirements of Order 2006-0003 and any future revisions thereto. Order 2006-0003 requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the General WDR within six months. Therefore, the Discharger shall **immediately** apply for coverage under State Water Board Order 2006-0003 for operation of its wastewater collection system if the application has not yet been completed.

Regardless of the coverage obtained under Order 2006-0003, the Discharger's collection system is part of the treatment system that is subject to this Order. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system [40 CFR section 122.41(e)], report any non-compliance [40 CFR section 122.41(l)(6) and (7)], and mitigate any discharge from the collection system in violation of this Order [40 CFR. section 122.41(d)].

### 7. **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 Central Valley 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 Central Valley 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.

## VII. **COMPLIANCE DETERMINATION**

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

### A. **General.**

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For

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

## **B. Multiple Sample Data.**

When determining compliance with 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:

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

**C. Average Monthly Effluent Limitation (AMEL).** If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

**D. Average Weekly Effluent Limitation (AWEL).** If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.



- E. **Maximum Daily Effluent Limitation (MDEL).** If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.
- F. **Instantaneous Minimum Effluent Limitation.** If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).
- G. **Instantaneous Maximum Effluent Limitation.** If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).
- H. **BOD and TSS Effluent Limitations.** Compliance with the final effluent limitations for BOD and TSS shall be ascertained by 24-hour composite samples. Samples obtained from ponds shall be considered to be adequately composited. Compliance with effluent limitations for percent removal shall be calculated using the arithmetic mean of 20°C BOD (5-day) and total suspended solids in effluent samples collected over a monthly period as a percentage of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period.
- I. **Total Coliform Organisms Effluent Limitations.** For each day that an effluent sample is collected and analyzed for total coliform organisms, the 7-day median shall be determined by calculating the median concentration of total coliform bacteria in the effluent utilizing the bacteriological results of the last seven days for which analyses have been completed. If the 7-day median of total coliform organisms exceeds a most probable number (MPN) of 23 per 100 milliliters, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period.
- J. **Average Daily Discharge Flow Effluent Limitations (Section IV.A.1.k.).** The Average Daily Discharge Flow represents the daily average flow when groundwater is at or near normal and runoff is not occurring. Compliance with the Average Daily Discharge Flow effluent limitations will be measured at times when groundwater is at or near normal and runoff is not occurring.

## ATTACHMENT A – DEFINITIONS

**Acute Toxic Unit (TU<sub>a</sub>):** the reciprocal of the effluent concentration that causes 50 percent of the organisms to die in an acute toxicity test (TU<sub>a</sub> = 100/LC<sub>50</sub>) (see LC<sub>50</sub>).

**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 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.” Exceedance of a water quality objective in the Basin Plan constitutes “pollution”.

**Biosolids:** Sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulations as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities.

**Chronic Toxic Unit (TU<sub>c</sub>):** the reciprocal of the effluent concentration that causes no observable effect on the test organisms in a chronic toxicity test (TU<sub>c</sub> = 100/NOEC) (see NOEC).

**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.

**Effect Concentration (EC):** a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in a given

percent of the test organisms, calculated from a continuous model (e.g. Probit Model).  $EC_{25}$  is a point estimate of the toxicant concentration that would cause an observable adverse effect in 25 percent of the test organisms.

**Inhibition Concentration (IC):** a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal biological measurement (e.g. reproduction or growth), calculated from a continuous model (e.g. Interpolation Method).  $IC_{25}$  is a point estimate of the toxicant concentration that would cause a 25 percent reduction in a non-lethal biological measurement.

**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).

**$LC_{50}$ , Lethal Concentration, 50 percent:** the toxic or effluent concentration that would cause death in 50 percent of the test organisms over a specified period of time.

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

**Maximum Daily Effluent Limitation (MDEL):** the highest allowable daily discharge of a pollutant.

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

**Residual Sludge:** sludge that will not be subject to further treatment at the Facility.

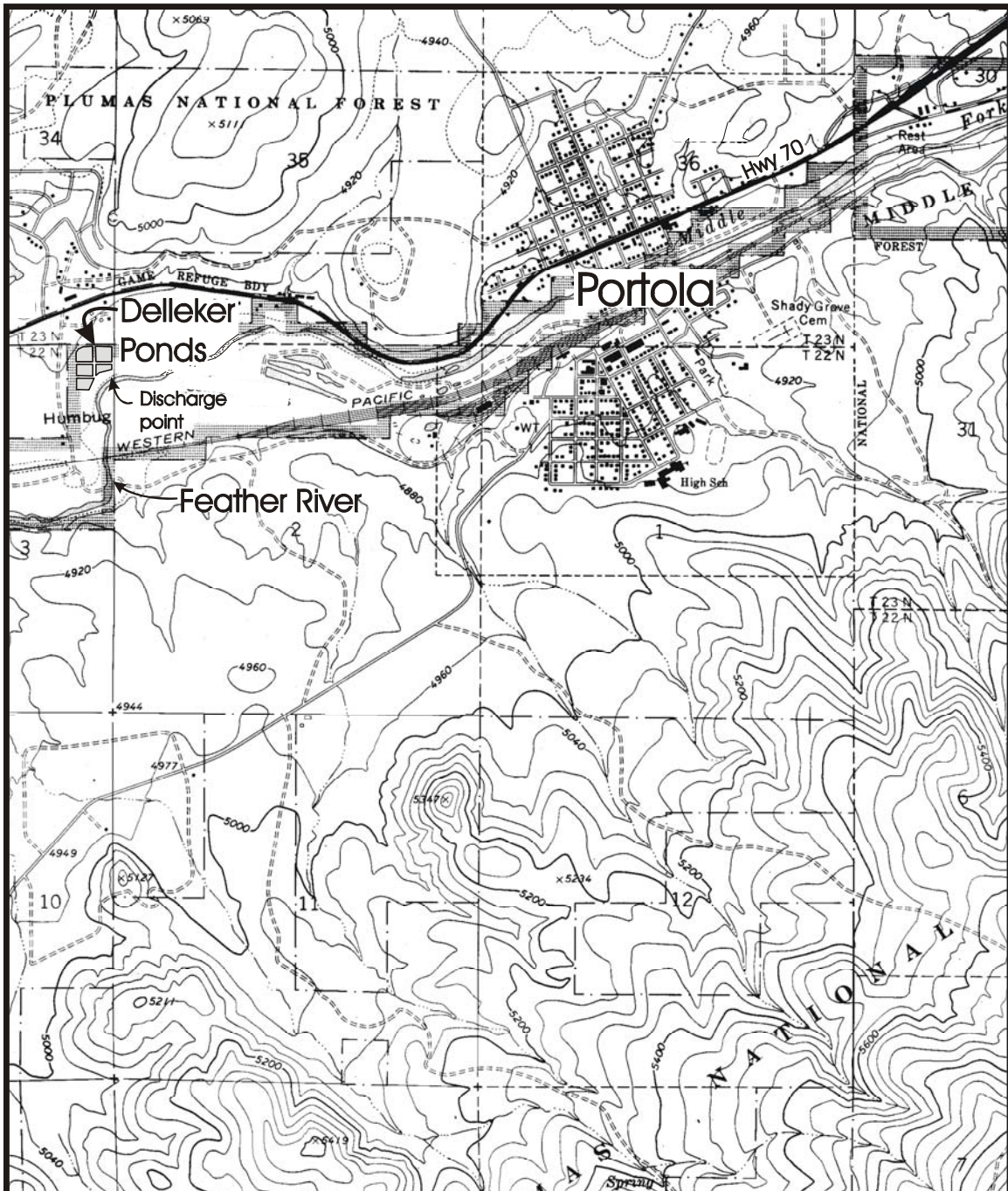
**Six-month Median Effluent Limitation:** the highest allowable moving median of all daily discharges for any 180-day period.

**Sludge:** the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes.

**Solid Waste:** grit and screening material generated during preliminary treatment.

**Toxicity Test:** the procedure using living organisms to determine whether a chemical or an effluent is toxic. A toxicity test measures the degree of the effect of a specific chemical or effluent on exposed test organisms.

**Toxic Unit:** the measure of toxicity in an effluent as determined by the acute toxic units ( $TU_a$ ) or chronic toxic units ( $TU_c$ ) measured. The larger the TU, the greater the toxicity.

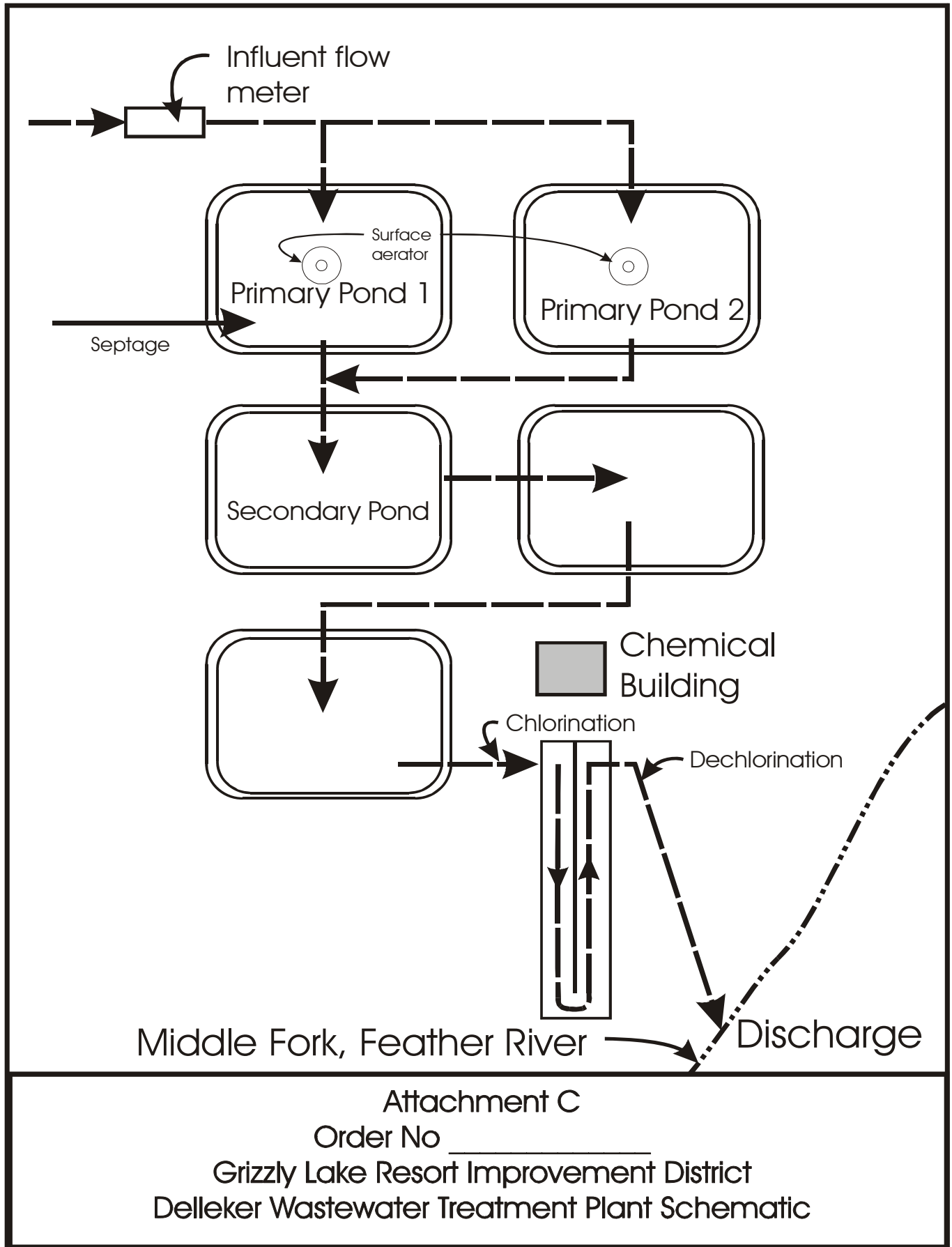


Order Number \_\_\_\_\_

GRIZZLY LAKE RESORT IMPROVEMENT DISTRICT  
DELLEKER WASTEWATER TREATMENT PLANT  
Section 3, T22N, R3E, MDB&M  
USGS 7.5' Delleker Quad



1" = 2000'



## **ATTACHMENT D – FEDERAL STANDARD PROVISIONS**

### **I. STANDARD PROVISIONS – PERMIT COMPLIANCE**

#### **A. Duty to Comply**

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [40 CFR section 122.41(a)].
2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act 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 been modified to incorporate the requirement [40 CFR section 122.41(a)(1)].

#### **B. Need to Halt or Reduce Activity Not a Defense**

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

#### **C. Duty to Mitigate**

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

#### **D. Proper Operation and Maintenance**

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

#### **E. Property Rights**

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

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

## **F. Inspection and Entry**

The Discharger shall allow the Central Valley Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law to [40 CFR section 122.41(i)] [CWC 13383(c)]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR section 122.41(i)(1)];
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR section 122.41(i)(2)];
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR section 122.41(i)(3)];
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [40 CFR section 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 section 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 section 122.41(m)(1)(ii)].
2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5 below [40 CFR section 122.41(m)(2)].



3. Prohibition of bypass – Bypass is prohibited, and the Central Valley Water Board may take enforcement action against a Discharger for bypass, unless [40 CFR section 122.41(m)(4)(i)]:
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR section 122.41(m)(4)(A)];
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR section 122.41(m)(4)(B)]; and
  - c. The Discharger submitted notice to the Central Valley Water Board as required under Standard Provision – Permit Compliance I.G.5 below [40 CFR section 122.41(m)(4)(C)].
4. The Central Valley Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Valley Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [40 CFR section 122.41(m)(4)(ii)].
5. Notice
  - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR section 122.41(m)(3)(i)].
  - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below [40 CFR section 122.41(m)(3)(ii)].

## H. Upset

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

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and

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

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

## II. STANDARD PROVISIONS – PERMIT ACTION

### A. General

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

### B. Duty to Reapply

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

### C. Transfers

This Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley 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 CWC [40 CFR section 122.41(l)(3)] [40 CFR section 122.61].

### III. STANDARD PROVISIONS – MONITORING

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

### IV. STANDARD PROVISIONS – RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Valley Water Board Executive Officer at any time [*40 CFR section 122.41(j)(2)*].
- B. Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements [*40 CFR section 122.41(j)(3)(i)*];
  - 2. The individual(s) who performed the sampling or measurements [*40 CFR section 122.41(j)(3)(ii)*];
  - 3. The date(s) analyses were performed [*40 CFR section 122.41(j)(3)(iii)*];
  - 4. The individual(s) who performed the analyses [*40 CFR section 122.41(j)(3)(iv)*];
  - 5. The analytical techniques or methods used [*40 CFR section 122.41(j)(3)(v)*]; and
  - 6. The results of such analyses [*40 CFR section 122.41(j)(3)(vi)*].
- C. Claims of confidentiality for the following information will be denied [*40 CFR section 122.7(b)*]:
  - 1. The name and address of any permit applicant or Discharger [*40 CFR section 122.7(b)(1)*]; and
  - 2. Permit applications and attachments, permits and effluent data [*40 CFR section 122.7(b)(2)*].

## V. STANDARD PROVISIONS – REPORTING

### A. Duty to Provide Information

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

### B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Central Valley Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [40 CFR section 122.41(k)].
2. All permit applications shall be signed as follows:
  - a. For a corporation: 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 section 122.22(a)(1)];
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [40 CFR section 122.22(a)(2)]; or
  - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [40 CFR section 122.22(a)(3)].
3. All reports required by this Order and other information requested by the Central Valley Water Board, State Water Board, or USEPA shall be signed by a person

described in paragraph (b) of this provision, 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 paragraph (2.) of this provision [40 CFR section 122.22(b)(1)];
  - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [40 CFR section 122.22(b)(2)]; and
  - c. The written authorization is submitted to the Central Valley Water Board, State Water Board, or USEPA [40 CFR section 122.22(b)(3)].
4. If an authorization under paragraph (3.) of this provision 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 paragraph (3.) of this provision must be submitted to the Central Valley Water Board, State Water Board or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR section 122.22(c)].
5. Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:
- “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations” [40 CFR section 122.22(d)].

### **C. Monitoring Reports**

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [40 CFR section 122.41(l)(4)].
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Valley Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [40 CFR section 122.41(l)(4)(i)].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Valley Water Board [40 CFR section 122.41(l)(4)(ii)].
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 CFR section 122.41(l)(4)(iii)].

#### **D. Compliance Schedules**

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

#### **E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 CFR section 122.41(l)(6)(i)].
2. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR section 122.41(l)(6)(ii)]:
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order [40 CFR section 122.41(l)(6)(ii)(A)].
  - b. Any upset that exceeds any effluent limitation in this Order [40 CFR section 122.41(l)(6)(ii)(B)].
  - c. Violation of a maximum daily discharge limitation [40 CFR section 122.41(l)(6)(ii)(C)].
3. The Central Valley Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 CFR section 122.41(l)(6)(iii)].

## **F. Planned Changes**

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

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

## **G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Central Valley 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 section 122.41(l)(2)].

## **H. Other Noncompliance**

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

## **I. Other Information**

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

## **VI. STANDARD PROVISIONS – ENFORCEMENT**

**A.** The Central Valley 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-Not Applicable**

### **B. Publicly-Owned Treatment Works (POTWs)**

All POTWs shall provide adequate notice to the Central Valley Water Board of the following [*40 CFR section 122.42(b)*]:

1. Any new introduction of pollutants into the POTW from an indirect discharge that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants [*40 CFR section 122.42(b)(1)*]; and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [*40 CFR section 122.42(b)(2)*].

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [*40 CFR section 122.42(b)(3)*].



## Attachment E – Monitoring and Reporting Program –

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

40 CFR section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Central Valley 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 Central Valley 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 Central Valley Water Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Central Valley Water Board.
- C. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. 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.
- D. 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:

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Domestic Influent to Facility
001	EFF-001	Effluent discharged through Outfall
--	SEP-001	Septage Discharged to Ponds
--	RSW-001	Middle Fork Feather River, approximately 500 feet upstream of Discharge 001
--	RSW-002	Middle Fork Feather River, approximately 40 feet downstream of Discharge 001, on the North side of the river one foot from the river bank
--	SPL-001	Municipal Water Supply
--	PND-001	Pond 1
--	PND-002	Pond 2
--	PND-003	Pond 3
--	PND-004	Pond 4
--	PND-005	Pond 5
--	RGW-001	Groundwater Well
--	RGW-002	Groundwater Well
--	RGW-003	Groundwater Well

**II. INFLUENT MONITORING REQUIREMENTS**

**A. Monitoring Location INF-001**

- I. The Discharger shall monitor influent to the Facility at INF-001 as follows. Influent samples shall be collected at approximately the same time as effluent samples and shall be representative of the influent.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
BOD 5-day 20°C	mg/L	24-hr Composite	1/week	
Total Suspended Solids	mg/L	24-hr Composite	1/week	
Flow	mgd	Meter	Continuous	
pH	Standard units	Meter	1/week	
Electrical Conductivity	umhos/cm	Grab	1/week	

## B. Septage Monitoring Requirements

1. The Discharger shall monitor septage received at SEP-001 as follows.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
BOD 5-day 20°C	mg/L	Grab	1/month	
Total Suspended Solids	mg/L	Grab	1/month	
Septage Volume	gallons	Pumper Manifest	NA	
Priority Pollutant Metals	mg/L	Grab	Twice/year	

## IV. EFFLUENT MONITORING REQUIREMENTS

### A. Monitoring Location EFF-001

1. The Discharger shall monitor treated effluent discharged to the Middle Fork of the Feather River at Discharge Point 001 as follows. Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples should be representative of the volume and quality of the discharge.

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8,9</sup>	Required Analytical Test Method
Flow	mgd	Meter	Continuous	
Total Residual Chlorine <sup>1</sup>	mg/L	Meter	Continuous	
BOD 5-day 20°C	mg/L	24-hr Composite <sup>8</sup>	1/week	
Total Suspended Solids	mg/L	24-hr Composite <sup>8</sup>	1/week	
Total Coliform Organisms	MPN/100 mL	Grab	1/week	
Electrical Conductivity	umho/cm	24-hr Composite <sup>8</sup>	1/week	
Temperature <sup>2</sup>	°F	Grab	1/month	
pH	Standard Units	Grab	1/month	
Ammonia (as N) <sup>3,4</sup>	mg/L	Grab	1/month	
Nitrate (as N)	mg/L	Grab	1/month	
Standard Minerals <sup>6</sup>	mg/L	Grab	1/year	
Priority Pollutants <sup>5,7</sup>	µg/L	Grab	Every two years <sup>10</sup>	
Acute Toxicity	% survival	24 hr composite	Quarterly	
Chronic Toxicity	Per EPA/821-R-02-013	Per EPA/821-R-02-013	See V.B.1.	

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8,9</sup>	Required Analytical Test Method
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- 1 Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.01 mg/L.
- 2 Effluent Temperature monitoring shall be at the Outfall location.
- 3 Concurrent with pH, temperature, and acute toxicity monitoring
- 4 Report as total.
- 5 Detection limits shall be equal to or less than the lowest minimum level published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Plan or SIP).
- 6 Standard minerals shall include all major cations and anions and include verification that the analysis is complete (i.e., cation/anion balance).
- 7 Concurrent with receiving surface water sampling.
- 8 If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all constituents listed above, except for those required to be monitored annually or less frequency (i.e. Standard Minerals and Priority Pollutants), after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule. Samples obtained from ponds are deemed to be adequately composited.
- 9 Monitoring is not required when discharge to the Middle Fork of the Feather River is not occurring.
- <sup>10</sup> Sampling shall be performed in 2007, 2008, and 2009

**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 quarterly acute toxicity testing, concurrent with effluent ammonia sampling.
2. Sample Types – For Static Non-renewal and Static Renewal testing, the samples shall be 24-hour composites and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at the effluent monitoring location M-001.
3. Test Species – Test species shall be larval stage (0-14 days old) rainbow trout (*Oncorhynchus mykiss*).
4. Methods – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition, or most recent addition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection.
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 within a year of permit adoption and once at least one year prior to permit expiration.

2. Sample Types – Effluent samples shall be 24-hour composites and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at the effluent monitoring location M-001. The receiving water control shall be a grab sample obtained from the R-001 sampling location.
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, or most recent addition.*
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 the dilution series identified in Table E-1, below. The receiving water control shall be used as the diluent (unless the receiving water is toxic). If the receiving water is toxic, laboratory control water may be used as the diluent, in which case, the receiving water should still be sampled and tested to provide evidence of its toxicity.
8. Test Failure – The Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days from the time the Discharger becomes aware of the test failure. A chronic toxicity test fails if:
  - 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.C.2.a.iii.)

**Table E-1  
 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
% Receiving Water	0	25	50	75	87.5	100	0
% Laboratory Water	0	0	0	0	0	0	100

- C. **WET Testing Notification Requirements.** The Discharger shall notify the Central Valley Water Board within 24-hrs from the time the Discharger becomes aware of the 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 Central Valley 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<sub>50</sub>, 100/EC<sub>25</sub>, 100/IC<sub>25</sub>, and 100/IC<sub>50</sub>, 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.
  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:
    - 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. Treatment Ponds**

- (a) Monitoring Locations PND-001, PND-002, PND-003, PND-004, and PND-005

The Discharger shall monitor the Treatment Ponds at PND-001, PND-002, PND-003, PND-004, and PND-005 as follows:

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/month	

The Discharger shall record the following regarding all ponds:

Constituent	Unit	Sample Type	Sampling Frequency
Liquid Depth and Freeboard	Feet	Visual	Monthly
Seepage through pond dikes	Presence/Absence	Visual	Monthly
Excessive odors or other nuisances	Presence/Absence	Observation	Monthly*
Excessive weed growth in pond	Presence/Absence	Visual	Monthly

\* Weekly from April through June

**VII. RECLAMATION MONITORING REQUIREMENTS (NOT APPLICABLE)**

**VIII. RECEIVING WATER MONITORING REQUIREMENTS – Surface Water And Groundwater**

**A. Surface Water Monitoring**

- 1. The Discharger shall monitor the Middle Fork of the Feather River at RSW-001 and RSW-002 as follows :

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/week	
pH	Standard Units	Grab	1/week	
Temperature	°F (°C)	Grab	1/week	
Fecal Coliform Organisms	MPN/100 ml	Grab	1/week	
Electrical Conductivity	umhos/cm	Grab	1/month	
Ammonia (as N) <sup>1</sup>	mg/L	Grab	1/month	
Hardness as CaCO <sub>3</sub>	mg/L	Grab	1/month	
Standard Minerals <sup>2</sup>	mg/L	Grab	1/year	
Priority Pollutants <sup>3,4</sup>	µg/L	Grab	See note 5	



Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
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- <sup>1</sup> Temperature and pH shall be determined at the time of sample collection.
- <sup>2</sup> Standard minerals shall include all major cations and anions and a cation/anion balance.
- <sup>3</sup> Detection limits shall be equal to or less than the lowest minimum level published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Plan).
- <sup>4</sup> Concurrent with effluent sampling.
- <sup>5</sup> Once within 180 days of permit adoption, and once 365 days prior to permit expiration.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-001 and R-002. Attention shall also 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 growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

Receiving water monitoring is required only when there is a discharge to the Middle Fork of the Feather River. However, in any calendar week in which a discharge occurs, receiving water monitoring must be accomplished on a day in that week in which discharge is occurring.

**B. GROUNDWATER MONITORING**

- 1. Prior to collecting samples and after measuring the water level, monitoring wells RGW-001 through RGW-003 shall be adequately purged to remove water that has been standing within the well screen and casing that may not be representative of formation water. The wells shall be analyzed for the following constituents:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
Depth to groundwater	To 0.01 foot (hundredths)	Measured	Monthly <sup>1</sup>
Groundwater Elevation	Above mean sea level, to 0.01 foot (hundredths)	Calculated	Monthly <sup>1</sup>
pH	pH units	Grab	Monthly <sup>1</sup>
Total Coliform	MPN/100mL	Grab	Monthly <sup>1</sup>
Nitrate as N	mg/L	Grab	Quarterly
Standard Minerals <sup>2</sup>	mg/L	Grab	Annually

<sup>1</sup>Quarterly after one year of submittal of required analyses

<sup>2</sup>Standard minerals shall include, at minimum, the following elements/compounds: boron, calcium, chloride,

fluoride, manganese, magnesium, iron, phosphate, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

**IX. OTHER MONITORING REQUIREMENTS**

**A. Municipal Water Supply**

**1. Monitoring Location SPL-001**

The Discharger shall monitor the Municipal Water Supply at SPL-001 as follows. A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Municipal water supply samples shall be collected at approximately the same time as effluent samples.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Dissolved Solids	mg/L	Grab	1/year	
Electrical Conductivity @ 25°C <sup>1</sup>	umhos/cm	Grab	1/year	
Standard Minerals <sup>2</sup>	mg/L	Grab	1/year	

<sup>1</sup> If the water supply is from more than one source, the electrical conductivity shall be reported as a weighted average and include copies of supporting calculations.

<sup>2</sup> Standard minerals shall include all major cations and anions and include verification that the analysis is complete (i.e., cation/anion balance).

**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 Central Valley 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 Central Valley 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.”

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

1. At any time during the term of this permit, the State or Central Valley Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit self-monitoring reports in accordance with the requirements described below.

2. 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.
3. 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.
4. 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.
5. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	30 days after end of month
X / hour	Permit effective date	Hourly	30 days after end of month
X / day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	30 days after end of month
X / week	Permit effective date	Sunday through Saturday	30 days after end of month
X / month	Permit effective date	1 <sup>st</sup> day of calendar month through last day of calendar month	30 days after end of month
X / quarter	Permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	April 30 July 30 October 30 January 30
X / semi-annual period	Permit effective date	January 1 through June 30 July 1 through December 31	July 30 January 30
X / year	Permit effective date	January 1 through December 31	January 30

6. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

7. 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.
8. SMRs must be submitted to the Central Valley 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  
415 Knollcrest Dr., Suite #100  
Redding, CA 96001

### C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Central Valley Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit discharge monitoring reports (DMRs) in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

State Water Resources Control Board  
Discharge Monitoring Report Processing Center  
Post Office Box 671  
Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

### D. Other Reports

1. **Biosolids Reporting Requirements. Annually by January 30**, if appropriate, the Discharger shall submit:
  - a. Certification of compliance with 40 CFR part 503
  - b. Annual sludge production in dry tons and percent solids;

- c. Quantitative results of chemical analyses for the priority pollutants listed in 40 CFR section 122 Appendix D, Tables II and III (excluding total phenols);
  - d. Depth of application and drying time for sludge drying beds (if applicable);  
and
  - e. A description of the disposal method(s) used at the Facility, including the following information. If more than one method is used, include the percentage of annual sludge production disposed by each method.
    - i. For **landfill disposal**, include (1) the Regional Water Board's WDR numbers that regulate the landfill(s) used, (2) the present classifications of the landfill(s) used, and (3) the names and locations of the receiving facility.
    - ii. For **land application**, include (1) location of the site(s), (2) the Regional Water Board's WDR numbers that regulate the site(s), (3) the application rate in lbs/year (specify wet or dry), and (4) subsequent uses of the land.
    - iii. For **incineration**, include (1) name and location of the site(s) where sludge incineration occurs, (2) the Regional Water Board's WDR numbers that regulate the site(s), (3) the disposal method of the ash, and (4) the names and locations of facilities receiving ash (if applicable).
    - iv. For **composting**, include (1) name and location of the site(s) where sludge composting occurs, and (2) the Regional Water Board's WDR numbers that regulate the site(s).
2. **Annual Operations Report.** By **January 30** of each year, the Discharger shall submit a written report to the Executive Officer containing the following:
- a. The names, certificate grades, and general responsibilities of all persons employed at the Facility.
  - b. The names and telephone numbers of persons to contact regarding the Plant for emergency and routine situations.
  - c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.
  - d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the Plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
  - e. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be

made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

**Required Studies.** The following reports or analyses are due within the time frames specified:

- a. **Within 365 days of the adoption of this Order**, the Discharger shall submit an analysis of the septage receiving capacity of the Facility, and a plan for meeting that receiving capacity, if necessary;
- b. **By 30 September 2007**, the Discharger shall submit a completed electrical conductivity study, and propose effluent conductivity limitations;
- c. **Within 365 days of the adoption of this Order**, the Discharger shall submit a workplan for characterization of groundwater quality;
- d. **Within 3 years of the adoption of this Order**, the Discharger shall submit a Monitoring Well Installation Report that describes the installation of groundwater monitoring wells;
- e. **Within 4 years of the adoption of this Order**, the Discharger shall submit a **Groundwater** Quality Study Report for each monitoring well.

## 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.

### I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

<b>WDID</b>	5A321010001
<b>Discharger</b>	Grizzly Lake Resort Improvement District
<b>Name of Facility</b>	Delleker Wastewater Treatment Plant
<b>Facility Address</b>	73821 Industrial Way Portola, CA, 96122 Plumas County
<b>Facility Contact, Title and Phone</b>	Doug Warner, General Manager, (530) 832-5225
<b>Authorized Person to Sign and Submit Reports</b>	SAME
<b>Mailing Address</b>	119 Delleker Road, Portola, CA 96122
<b>Billing Address</b>	SAME
<b>Type of Facility</b>	POTW
<b>Major or Minor Facility</b>	Minor
<b>Threat to Water Quality</b>	Category 2
<b>Complexity</b>	Category B
<b>Pretreatment Program</b>	No
<b>Reclamation Requirements</b>	Not Applicable
<b>Facility Permitted Flow</b>	0.1 mgd
<b>Facility Design Flow</b>	0.1 mgd
<b>Watershed</b>	Sacramento
<b>Receiving Water</b>	Middle Fork Feather River
<b>Receiving Water Type</b>	River

- A.** The Grizzly Lake Resort Improvement District is the owner and operator of the Delleker Wastewater Collection System, Treatment Plant, and Disposal Facility (hereinafter Facility), a POTW.
- B.** The Facility discharges treated wastewater to the Middle Fork of the Feather River, a water of the United States, and is currently regulated by Order No. 5-00-256, which was adopted on December 8, 2000 and expired on December 1, 2005. The terms of the existing Order automatically continued in effect after the permit expiration date.
- C.** The Discharger filed a report of waste discharge and submitted an application for renewal of its WDRs and NPDES permit on June 10, 2005. A site visit to the Facility was conducted on March 22, 2005, to observe operations and collect additional data to develop permit limitations and conditions.

### II. FACILITY DESCRIPTION

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

The Discharger owns and operates a wastewater collection, treatment, and disposal system. Wastewater is collected within the District and consists almost exclusively of residential sanitary waste. The treatment system consists of a headworks, five facultative lagoons with some mechanical aeration (5.5 acres total), and chlorination/dechlorination. Wastewater is discharged from Discharge 001 (see table on cover page) to the Middle Fork of the Feather River, a water of the United States within the Sacramento River Watershed.

**B. Discharge Points and Receiving Waters**

1. The Facility is located in Section 3, T22N, R13E, MDB&M, as shown in Attachment B (Figure B-1), a part of this Order.
2. Treated effluent is discharged at Discharge Point 001, located 150 feet south of the Facility, through a six-inch effluent line. There is currently no diffuser on the discharge line. Discharge Point 001 is at a point latitude 38.809° N and longitude 120.497° W. Discharge is prohibited from May 15 to October 31.

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

1. **Effluent limitations** contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location M001) and representative monitoring data from the term of the previous Order are as follows:

Parameter (units)	Effluent Limitation			Monitoring Data (From Jan 1, 2002– To Jan 1 2004)		
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
BOD(mg/L)	45	65	90	44	52	52
TSS (mg/L)	45	65	90	38	43	43

2. The Report of Waste Discharge describes the existing discharge as follows:

<b>Design Flow (dry weather):</b>	<b>0.1</b>	<b>million gallons per day (mgd)</b>
<b>Annual Average Daily Flow Rate:</b>	<b>0.094</b>	<b>mgd (previous year)</b>
<b>Maximum Daily Flow Rate:</b>	<b>0.383</b>	<b>mgd (previous year)</b>
<b>Average Temperature, Summer:</b>	<b>58</b>	<b>°F</b>
<b>Average Temperature, Winter:</b>	<b>38</b>	<b>°F</b>
<b>Average BOD<sup>1</sup>:</b>	<b>32</b>	<b>mg/L</b>
<b>Average Total Suspended Solids:</b>	<b>22</b>	<b>mg/L</b>

<sup>1</sup> 5-day, 20°C biochemical oxygen demand

**D. Compliance Summary**

1. The Disharger has generally been in compliance with effluent limitations with the exception of percentage removal requirements for TSS. Even though the effluent limitation for percentage solids removal is set at 65 percent, because of the pond

treatment system employed by the Discharger, a weak influent makes it difficult to meet even a modest removal requirement. In part, this problem is also due to the fact that discharge occurs only during months in which precipitation is more likely to dilute the influent, whereas the discharge consists of wastewater that has been treated both during dry (low dilution) and wet months. A third situation that may be contributing to the problem is the Discharger’s receipt of septage at the Facility. Septage is very high in BOD and total suspended solids, as well as other pollutants. Although septage is discharged to the Facility, its pollutant contribution is not taken into account when assessing pollutant removal. This Order requires the Discharger to obtain monthly samples of septage for BOD and TSS analysis, and allows the Discharger to take into account the contribution of septage to the influent BOD and TSS load when calculating percentage removals. Effluent limitations based upon concentration have generally not been a problem for the Discharger.

Following is a list of Discharger violations and dates of occurrence:

Violation	Date
Percentage BOD and TSS Removal	March 2005
Percentage TSS Removal	April 2005
Percentage TSS removal	March 2004
Percentage TSS removal	April 2003

**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 Order. This section provides supplemental information, where appropriate, for the plans, policies, and regulations relevant to the discharge.

**A. State and Federal Regulations, Policies, and Plans**

- 1. Water Quality Control Plans.** The Central Valley Water Board adopted a *Water Quality Control Plan for the Sacramento River 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 Central Valley 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 Middle Fork of the Feather River, as identified in Table II-1 of the Basin Plan, are: Municipal and

domestic water supply; Contact recreation and rafting and canoeing; Other non-contact recreation; Cold freshwater habitat; Warm freshwater habitat; Spawning and wildlife habitat.

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 be 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 November 28, 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.

This Order contains Effluent Limitations requiring a secondary level of treatment, or equivalent, which is necessary to protect the beneficial uses of the receiving water. The Central Valley Water Board has considered the factors listed in CWC section 13241 in establishing these requirements, as discussed in more detail in this attachment, Attachment F, Section IV.C.3.i.

2. **Anti-degradation Policy.** State Water Board Resolution No. 68-16 (Resolution 68-16) and 40 CFR section 131.12, require the Central Valley Water Board, in regulating discharge of waste, to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Central Valley Water Board's policies. Resolution 68-16 requires the discharge be regulated to meet best practicable treatment or control to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State be maintained. This Order does not allow for an increase in the amount of pollutants discharged to the Middle Fork of the Feather River, and is consistent with the Anti-degradation policy.

Although this Order may allow some degradation of the quality of waters of the state, although there will be no additional degradation over current conditions, it is

consistent with Resolution 68-16 because (1) such degradation is consistent with the maximum benefit to the people of the state, and (2) the discharge is the result of wastewater utility service that is necessary to accommodate housing and economic expansion. This Order requires secondary treatment or equivalent and will result in attaining water quality standards applicable to the receiving water. This Order requires compliance with technology-based standards and more stringent water quality-based standards.

**EPCRKA Reporting Requirements.** CWC section 13263.6(a) requires that “*The regional board shall prescribe effluent limitations as part of the waste discharge requirements of a POTW for all substances that the most recent toxic chemical release data reported to the state emergency response commission pursuant to Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. Sec. 11023) indicate as discharged into the POTW, for which the state board or the regional board has established numeric water quality objectives, and has determined that the discharge is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to, an excursion above any numeric water quality objective.*”

The most recent toxic chemical data report does not indicate any reportable off-site releases or discharges to surface waters for this Facility. Based on information from EPCRKA, there is no reasonable potential to cause or contribute to an excursion above any numeric water quality objectives included within the Basin Plan or in any State Water Board plan, so no effluent limitations are included in this permit pursuant to CWC section 13263.6(a).

However, as detailed elsewhere in this Order, available effluent data indicate that there are constituents present in the effluent that have a reasonable potential to cause or contribute to exceedances of water quality standards and require inclusion of effluent limitations based on federal and state laws and regulations.

- 3. Storm Water Requirements.** USEPA promulgated Federal Regulations for storm water on November 16, 1990 in 40 CFR Parts 122, 123, and 124. The NPDES Industrial Storm Water Program regulates storm water discharges from municipal sanitary sewer systems. Wastewater Treatment Plants are applicable industries under the storm water program and are obligated to comply with the Federal Regulations. However, storm water discharges from this Facility are not required to be regulated under the General Permit for Discharges of Storm Water Associated with Industrial Activities (State Water Board, Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001) because the design flow of the Facility is less than 1 mgd.

## **B. Impaired Water Bodies on CWA 303(d) List (Not Applicable)**

### C. Other Plans, Policies and Regulations

1. The State Water Board adopted the *Sources of Drinking Water Policy, Resolution NO. 88-63*, on 19 May 1988. The requirements within this Order are consistent with Resolution No. 88-63.
2. The discharge authorized herein and the treatment and storage facilities associated with the discharge of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the requirements of Title 27 CCR section 20005 *et seq.* (hereafter Title 27). The exemption, pursuant to Title 27 CCR section 20090(a), is based on the following:
  - a. The waste consists primarily of domestic sewage and treated effluent;
  - b. The waste discharge requirements are consistent with water quality objectives; and
  - c. The treatment and storage facilities described herein are associated with a municipal wastewater treatment plant.

### IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE 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 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., section 1311(b)(1)(C); 40 CFR, section 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 section 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, section 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 Central Valley Water Board’s Basin Plan, page IV-17.00 contains an implementation policy (“Policy for Application of Water Quality Objectives”) that specifies that the Central Valley 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 Central Valley Water Board must establish effluent limitations using one or more of three

specified sources, including USEPA's published water quality criteria, a proposed state criterion (*i.e.*, water quality objective), or an explicit state policy interpreting its narrative water quality criteria (*i.e.*, the Central Valley Water Board's "Policy for Application of Water Quality Objectives")(40 CFR 122.44(d)(1) (vi) (A), (B) or (C)). 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*". 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 that adversely affect beneficial uses. The beneficial uses of the Middle Fork of the Feather River, as identified in Table II-1 of the Basin Plan, are: Municipal and domestic water supply (MUN); Contact recreation and rafting and canoeing (REC-1); Other non-contact (REC-2); Cold freshwater habitat (COLD); Warm freshwater habitat (WARM); Spawning (SPAWN) and wildlife habitat (WILD). The beneficial uses of the underlying groundwater are municipal and domestic supply, industrial service supply, and industrial process and agricultural supply. The Basin Plan states that material and relevant information, including numeric criteria and guidelines from other agencies and organizations will be considered in evaluating compliance with narrative water quality objectives, including the toxicity objective. The Basin Plan also limits chemical constituents in concentrations that adversely affect surface water beneficial uses. For waters designated as municipal and domestic supply, the Basin Plan specifies that, at a minimum, waters shall not contain concentrations of constituents that exceed Maximum Contaminant Levels (MCLs) of CCR Title 22. The Basin Plan further states that, to protect all beneficial uses, the Central Valley Water Board may apply limits more stringent than MCLs. When a reasonable potential exists for exceeding a narrative objective, Federal Regulations mandate numerical effluent limitations and the Basin Plan clearly establishes a procedure for translating the narrative objectives into numerical effluent limitations.

## **A. Discharge Prohibitions**

1. As stated in section I.G of Attachment D, Federal 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 Central Valley 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. In the case of *United States v. City of Toledo, Ohio* (63 F. Supp 2d 834, N.D. Ohio 1999) the Federal Court ruled that "*any bypass which occurs because of inadequate plant capacity is unauthorized...to the extent that there are 'feasible alternatives', including the construction or installation of additional treatment capacity*".

**B. Technology-Based Effluent Limitations**

1. **Scope and Authority.** 40 CFR section 133.102 contains regulations describing the minimum level of effluent quality—for biochemical oxygen demand (BOD) and total suspended solids(TSS)—attainable by secondary treatment.
  
2. **Applicable Technology-Based Effluent Limitations.** The Federal Clean Water Act, Section 301, requires that not later than July 1, 1977, publicly owned wastewater treatment works meet effluent limitations based on secondary treatment or any more stringent limitation necessary to meet water quality standards. Federal Regulations, 40 CFR, Part 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for five-day BOD and TSS. BOD is a measure of the amount of oxygen necessary for the biochemical oxidation of organic matter, as well as ammonia in some cases. The secondary treatment standards for BOD and TSS are used as indicators of the effectiveness of the treatment processes. The principal design parameters for wastewater treatment plants are the daily BOD and TSS loading rates and the corresponding removal rate of the system. See Table F-1 for final technology-based effluent limitations required by this Order. In addition, 40 CFR 133.102, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85 percent. 40 CFR 133.105 provides adjustment of these limitations where waste stabilization ponds are the principal processes used for secondary treatment. Pursuant to the regulations at 40 CFR Parts 133.105(a), (b), and 133.103, absent any adjustment, the BO\*D and TSS 30-day average discharge limits for such pond stabilization systems shall not exceed 45 mg/L, the 7-day average shall not exceed 65 mg/L, and the 30-day BOD and TSS percent removal shall not be less than 65 percent. These adjusted limits are those required in this Order as the Discharger employs five facultative ponds for waste treatment and stabilization. This Order contains a limitation requiring an average of 65 percent removal of BOD and TSS over each calendar month.

**Table F-1.  
 Summary of Final Technology-based Effluent Limitations  
 Discharge Point 001**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily (or range)
BOD 5-day 20°C	mg/L	45	60	90
Total Suspended Solids	mg/L	45	60	90
pH	Standard Units			6.0 to 9.0

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

1. **Scope and Authority**



As specified in 40 CFR 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 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 water quality criteria contained in the CTR and NTR.

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

- a. **Beneficial Uses.** The beneficial uses of the Middle Fork of the Feather River and of the underlying groundwater are noted in the findings above.
- b. **Dilution Credits/Mixing Zones.**
  - i. **Regulatory Guidance for Dilution Credits and Mixing Zones.** The CWA directs states to adopt water quality standards to protect the quality of its waters. USEPA's current water quality standards regulation authorizes states to adopt general policies, such as for mixing zones, to implement state water quality standards (40 CFR section 122.44 and section 122.45). The USEPA allows states to have broad flexibility in designing its mixing zone policies. Primary policy and guidance on determining mixing zone and dilution credits is provided by the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (State Implementation Policy or SIP), the USEPA Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001) (TSD), and the Basin Plan. For NPDES permits in California, the SIP policy supersedes the USEPA guidance for priority pollutants, to the extent that it addresses a particular procedure. The Central Valley Water Board generally applies the procedure in the SIP for non-CTR and non-NTR constituents. However in the case of the GLRID, with large assimilative capacities for the Middle Fork of the Feather River, this procedure would result in effluent limitations much higher than any value that has actually been discharged in the Discharger's effluent. Therefore, for the constituents of turbidity, dissolved oxygen, nitrate, nitrite, and ammonia, the procedure in the TSD has been referenced, with appropriate consideration of dilution credits for these pollutants.

The allowance of mixing zones by the Central Valley Water Board is discussed in the Basin Plan, Policy for Application of Water Quality Objectives, which states in part, *"In conjunction with the issuance of NPDES and storm water permits, the Regional Board may designate mixing zones within which water quality objectives will not apply provided the discharger has demonstrated to the satisfaction of the Regional Board that the mixing zone will not adversely impact beneficial uses. If allowed, different mixing zones may be designated for different types of objectives, including, but not limited to, acute aquatic life objectives, chronic aquatic life objectives,*

*human health objectives, and acute and chronic whole effluent toxicity objectives, depending in part on the averaging period over which the objectives apply. In determining the size of such mixing zones, the Regional Board will consider the applicable procedures and guidelines in the EPA's Water Quality Standards Handbook and the [TSD]. Pursuant to EPA guidelines, mixing zones designated for acute aquatic life objectives will generally be limited to a small zone of initial dilution in the immediate vicinity of the discharge."*

*Section 1.4.2 of the SIP states, in part, "...with the exception of effluent limitations derived from TMDLs, in establishing and determining compliance with effluent limitations for applicable human health, acute aquatic life, or chronic aquatic life priority pollutant criteria/objectives or the toxicity objective for aquatic life protection in a basin plan, the Regional Board may grant mixing zones and dilution credits to dischargers ... The applicable priority pollutant criteria and objectives are to be met throughout a water body except within any mixing zone granted by the Regional Board. The allowance of mixing zones is discretionary and shall be determined on a discharge-by-discharge basis. The Regional Board may consider allowing mixing zones and dilution credits only for discharges with a physically identifiable point of discharge that is regulated through an NPDES permit issued by the Regional Board."*

*Section 1.4.2.1 of the SIP defines a dilution credit as, "a numerical value associated with the mixing zone that accounts for the receiving water entrained into the discharge. The dilution credit is a value used in the calculation of effluent limitations. Dilution credits may be limited or denied on a pollutant-by-pollutant basis, which may result in a dilution credit for all, some or no priority pollutants in a discharge."*

*Regarding mixing zones, the SIP states, "A mixing zone shall be as small as practicable. The following conditions must be met in allowing a mixing zone:*

*A: A mixing zone shall not:*

- (1) compromise the integrity of the entire water body;*
- (2) cause acutely toxic conditions to aquatic life passing through the mixing zone;*
- (3) restrict the passage of aquatic life;*
- (4) adversely impact biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws;*
- (5) produce undesirable or nuisance aquatic life;*
- (6) result in floating debris, oil, or scum;*
- (7) produce objectionable color, odor, taste, or turbidity;*

- (8) *cause objectionable bottom deposits;*
- (9) *cause nuisance;*
- (10) *dominate the receiving water body or overlap a mixing zone from different outfalls; or*
- (11) *be allowed at or near any drinking water intake. A mixing zone is not a source of drinking water. To the extent of any conflict between this determination and the Sources of Drinking Water Policy (Resolution No. 88-63), this SIP supersedes the provisions of that policy."*

The mixing zone is thus an administrative construct defined as an area around the outfall that may exceed water quality objectives, but is otherwise protective of the beneficial uses. Dilution is defined as the amount of mixing that has occurred at the edge of this mixing zone under critical conditions, thus protecting the beneficial uses at the concentration and for the duration and frequency required.

- ii. **Evaluation of Available Dilution for Acute Aquatic Life Criteria.** The SIP requires that if a year-round dilution credit is to be considered for establishing effluent limitations for priority pollutants regulated under the California Toxics Rule (CTR), critical receiving water flow and maximum discharged effluent flows must be evaluated as part of the dilution calculation. For acute aquatic life criteria, the SIP requires an evaluation of the lowest one-day receiving water flow with a statistical frequency of once every 10 years (1Q10) compared against the maximum daily effluent flow during the discharge period. The TSD contains similar guidance. Discharge to the Middle Fork of the Feather River is prohibited when river flow is less than 40 cfs; therefore 40 cfs can be used as the appropriate 1Q10 value. The Middle Fork of the Feather River is turbulent in the outfall area because of its location at the outside of a meander bend, where major turbulent and erosive forces occur. Some nearly instantaneous mixing of the effluent will result; best professional judgment by Central Valley Water Board staff allows the assumption of a dilution of at least 10:1 in the area of the outfall, which is less than four per cent of the ultimate dilution in the Middle Fork of the Feather River, even at maximum effluent discharge rate and minimum river flow. Given that the ultimate dilution in the Middle Fork of the Feather River exceeds 260:1 with worst-case conditions of effluent flow (0.1 mgd) and river flow (1Q10 of 40 CFS), this assumption is conservative.

In addition, a mixing model used in the State of Washington for its NPDES permits was consulted to verify the mixing regime of the outfall and river. The model is applicable to point discharges where rapid vertical mixing occurs. At low flow in the receiving water, the Middle Fork of the Feather River is approximately 40 feet wide and approximately one foot deep, so the assumption of rapid vertical mixing is valid. This model predicts that a dilution of 10 to 1 is achieved within 30 feet, or less, downstream of the outfall and at a distance of less than one foot from the river bank. It is also

of note that dilution at two feet or more from the river bank exceeds 35:1 in accordance with the model. According to the documentation supplementing the mixing model spreadsheet, the model is based on *Mixing in Inland and Coastal Waters* by H.B. Fischer et al. (1979, Academic Press Inc.).

- iii. **Evaluation of Available Dilution for Chronic Aquatic Life Criteria.** The TSD states that: “*Concentrations above the chronic criteria are likely to prevent sensitive taxa from taking up long-term residence in the mixing zone. In this regard, benthic organisms and territorial organisms are likely to be of greatest concern. The higher the concentration occurring within the isopleths, the more taxa are likely to be excluded, thereby affecting the structure and function of the ecological community. It is thus important to minimize the overall size of the mixing zone and the size of elevated concentration isopleths within the mixing zone.*”

For the determination of a year-round chronic aquatic life criteria dilution credit, the SIP requires an evaluation of the lowest seven (7) consecutive day receiving water flows with a statistical frequency of once every 10 years (7Q10) compared against the four-day average of daily maximum effluent discharge flows during the discharge period. The TSD contains similar guidance. Discharge to the Middle Fork of the Feather River is prohibited when river flow is less than 40 cfs; therefore 40 cfs can be used as the appropriate 7Q10 value. As noted above, the Middle Fork of the Feather River is turbulent in the outfall area because the outfall is at the outside of a meander bend, where major turbulent and erosive forces occur. Some nearly instantaneous mixing of the effluent will result; best professional judgment by Central Valley Water Board staff allows the assumption of a dilution of at least 10:1 in the area of the outfall, which is less than four per cent of the ultimate dilution in the Middle Fork of the Feather River, even at maximum effluent discharge rate and minimum river flow. Given that the ultimate dilution in the Middle Fork of the Feather River exceeds 260:1 with worst-case conditions of effluent flow (0.1 mgd) and river flow (7Q10 of 40 cfs), this assumption is conservative.

- c. **Evaluation of Available Dilution for Priority Pollutant Human Health Criteria.** The human health-based criteria for carcinogens, other than arsenic, are based on safe levels for lifetime exposure and dilution is based on the harmonic mean flow of the receiving water. In determining the available receiving water dilution for compliance with human carcinogen criteria, the SIP, section 1.4.2.1 requires that the harmonic mean of the receiving water flow be compared against the arithmetic mean of the effluent flow of the observed discharge period. However, no reasonable potential has been found for any carcinogens in the discharge from the Facility.

Although bis(2-ethylhexyl)phthalate was detected at a level above a CTR criterion, it is a plasticizer that has been repeatedly detected, both in receiving waters and in many facility effluents. It is unlikely that it is actually present in the source water at detectable concentrations, or in the effluent above water

quality criterion. When samples have been collected and processed with minimal plastics contact at other locations, the pollutant rarely has been detected. Use of glass sampling containers has been successful in reducing false positives. At the Delleker Plant, the pollutant was detected one time in the effluent in a 2002 sampling; therefore the data is particularly suspect because of its age. If bis(2-ethylhexyl)phthalate continues to be detected in the receiving water, or in the effluent, at a concentration above its criteria, the Order will be reopened to establish an effluent limit, if appropriate.

d. **Evaluation of Available Dilution for Pathogen/Disinfection**

**Considerations.** The Middle Fork Feather River has the designated beneficial use of drinking water/municipal supply and must be protected for that use even if the existing use is several miles downstream. For agricultural use and body contact recreational uses, the impacts to human health can result from very short exposures and can occur at or near the outfall. The quality of the discharge must be protective of drinking water/municipal supply, body contact recreation, and agricultural supply within as short a distance downstream of the outfall as possible. However, the discharge to the receiving water is seasonally restricted; discharge occurs only during the non-recreational season, when human contact is minimal to non-existent.

In a letter to the Central Valley Water Board dated April 8, 1999, the California Department of Health Services (DHS) indicated that they would consider wastewater discharged to water bodies with identified beneficial uses of irrigation, contact recreation, or a drinking water source to be adequately disinfected if: 1) the wastewater receives dilution of more than 20:1; 2) the effluent coliform concentration does not exceed 23 MPN/100 mL as a 7-day median; and 3) effluent coliform density does not exceed 240 MPN/100 mL more than once in any 30 day period. Municipal water supply is a beneficial use of the Middle Fork of the Feather River, as noted above. DHS recommends that samples be obtained for coliform at least twice per week if this coliform effluent limitation is used.

Due to the seasonal restriction on discharge, the dilution of at least 10:1 in a very small mixing zone near the outfall, ultimate dilution of at least 260:1, and the absence of any water intakes in the vicinity of the outfall, the effluent limitation of 23 MPN/100 mL (median), and 500 MPN/100 mL (maximum) is adequately protective of the beneficial uses of municipal water supply and contact recreation in the Middle Fork of the Feather River.

e. **Hardness.** Based on 3 samples collected in 2001, 2002, and 2003, the lowest receiving water hardness was measured as 53 mg/L as CaCO<sub>3</sub>. This is a small dataset, but is the best information available for determination of reasonable potential and effluent limitation derivation for hardness dependant pollutants (e.g. copper, lead, and nickel).

f. **Translators.** The water quality objectives for most metals are defined as dissolved metal. Whereas effluent limitations for metals, and most water

quality data, are expressed as total metal. Therefore, metal translators are used to convert dissolved metal to total metal or vice versa. There have been no approved studies to evaluate discharge-specific metal translators for the discharge to the Middle Fork of the Feather River. Therefore, default USEPA translators have been used for reasonable potential analysis and effluent limitation derivation for metals.

### 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 Central Valley 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. For determining whether the discharge has reasonable potential to cause, or contribute to an in-stream excursion above a narrative objective, federal regulations prescribe three discrete methods (40 CFR 122.44 (d)(vi)). The Central Valley Water Board often relies on the second method, use of USEPA's water quality criteria, because those criteria have been developed using methodologies that are subject to public review, as are the individual recommended criteria guidance documents. USEPA's ambient water quality criteria are used as means of supplementing the integrated approach to toxics control, and in some cases deriving numeric limitations to protect receiving waters from toxicity as required in the Basin Plan's narrative toxicity objective. In addition, when determining effluent limitations for a discharger, the dilution of the effluent in the receiving water may be considered where areas of dilution are defined. However, when a receiving water is impaired by a particular pollutant or stressor, limited or no pollutant assimilative capacity may be available in spite of the available dilution. In these instances, and depending upon the nature of the pollutant, effluent limitations may be set equal to or less than the applicable water quality criteria, which are applied at the point of

discharge such that the discharge will not cause or contribute to the receiving stream exceedance of water quality standards established to protect the beneficial uses.

Reasonable potential for CTR and NTR pollutants was calculated using the methods of the SIP. If the concentration of any pollutant in the effluent or receiving water exceeded a water quality objective, the pollutant was assumed to have reasonable potential. For nitrate, nitrite, ammonia, and turbidity, the SIP was not used to calculate reasonable potential because of the large dilution available in the Middle Fork of the Feather River. The methodology in the TSD was referenced in calculating reasonable potential for these constituents, and the TSD allows the use of dilution credits. See Table F-2 for a summary of the statistics for calculating the MEC for detected CTR and NTR parameters.

- c. 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 Central Valley 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 pH and residual chlorine. Effluent limitations for these constituents are included in this Order. A summary of the reasonable potential analysis is provided in Table F-3, and a detailed discussion of each constituent is provided below.
- d. Effluent Limitations for water quality-based effluent limitations were calculated in accordance with section 1.4 of the SIP and the TSD. Attachment F, Section IV.C.4. describes the methodology used for calculating effluent limitations.
- e. **BOD and TSS.** This Order maintains the water quality-based effluent limitations for BOD and TSS required in the Discharger's previous NPDES permit, Order 5-00-256. Order 5-00-256 included average monthly, average weekly, and maximum daily effluent limitations for BOD and TSS of 45 mg/L, 65 mg/L, and 90 mg/L, respectively.
- f. **Ammonia.** The tentative Order prohibits discharge from May 16 to October 31. Ammonia toxicity to early life stage salmonids, as well as to other aquatic species, is dependant upon water temperature and pH; toxicity increases as pH or temperature increases. At the highest measured pH in the Middle Fork of the Feather River (7.9 S.U.) near the treatment plant and the highest measured temperature (61 degrees F) in the receiving water during this last year, the water quality objective for ammonia is 2.54 mg/L (continuous concentration 30 day average).

Total nitrogen concentration (the sum of organic nitrogen, ammonia, nitrate, and nitrite) in the effluent is expected to be 40 mg/l or less because: 1) significant dilution occurs from Infiltration/Inflow, especially during the months

that wastewater is discharged (during the rainy season); and 2) nitrogen is sequestered to a degree in pond sludge. Some nitrification of the waste is likely to occur because of the long sludge residence time of the ponds, and the warmer temperatures in the ponds concurrent with warmer river temperatures. Mineralization of influent into the ponds (conversion of organic nitrogen to ammonia) will generally be less than complete, leaving some organic nitrogen in the effluent. Therefore, after initial dilution of the effluent in the Middle Fork of the Feather River, with the dilution credit of 10, it is highly unlikely that ammonia beyond the mixing zone will reach toxic levels. The maximum measured effluent ammonia concentration during the last five years was 10 mg/L.

In addition, effluent toxicity is directly measured by the existing acute and chronic toxicity testing requirements. Monitoring for ammonia is also included in the proposed Order; if ammonia toxicity is detected, the Order will be reopened and an effluent limitation added.

- g. **Bis(2-ethylhexyl)phthalate.** Bis(2-ethylhexyl)phthalate is a plasticizer that has been repeatedly detected, both in receiving waters and in many facility effluents. It is unlikely that it is actually present in the source water at detectable concentrations. When samples have been collected and processed with minimal plastics contact, the pollutant rarely has been detected. Use of glass sampling containers has been successful in reducing false positives. At the Delleker Plant, the pollutant was detected one time in the effluent in a 2002 sampling; therefore the data is particularly suspect because of its age. If bis(2-ethylhexyl)phthalate continues to be detected in the receiving water, or in the effluent, at a concentration above its criteria, the Order will be reopened to establish an effluent limitation, if appropriate.
- h. **Nitrate and Nitrite.** The maximum contaminant level (MCL) for nitrate, 10 mg/L as N, will not be exceeded at the edge of the mixing zone unless effluent nitrate is greater than 100 mg/L, which is essentially impossible in light of strength of the domestic wastewater treated by the Discharger (see item g. above) and the assumed dilution of 10:1. Similarly, effluent nitrite would have to exceed 10 mg/L to cause an exceedance of its MCL (1 mg/L); nitrite is normally a short lived intermediary in the nitrification process, and is not generally expected to be present in concentrations exceeding 1 mg/L, let alone 10 mg/L. Certain conditions in the ponds, such as very low temperatures, could cause the nitrite-to-nitrate step in the nitrification process to become rate limited, resulting in a buildup of effluent nitrite. However, by the time the ponds reach this low temperature, flow in the Middle Fork of the Feather River is very often much greater than the minimum of 40 cfs required for river discharge.

The wastewater will be diluted in the Middle Fork of the Feather River at a much greater than 10:1 dilution (the fully mixed dilution is at least 260:1, as earlier indicated) prior to any withdrawal for drinking water.

In consideration of this information, effluent limitations for nitrate or nitrite are



not necessary.

- i. **Chlorine Residual.** The Discharger uses chlorine for disinfection, which is toxic to aquatic organisms. The Discharger uses sodium bisulfite to dechlorinate the effluent prior to discharge to the Middle Fork of the Feather River. Due to the existing chlorine use and the potential for chlorine to be discharged, the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan's narrative toxicity objective.

The TSD contains statistical methods for converting chronic (four-day) and acute (one-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. However, because chlorine is an acutely toxic constituent that can and will be monitored continuously, an average one-hour limitation is considered more appropriate than an average daily limitation. Average one-hour and four-day limitations for chlorine, based on these criteria, are included in this Order. The Discharger can immediately comply with the new effluent limitations for chlorine residual.

- j. **Electrical Conductivity.** The water quality objective for the Middle Fork of the Feather River is 150 umhos/cm as a 90<sup>th</sup> percentile. Limited measurements of river conductivity as measured by the Discharger, and others, upstream of the treatment plant have varied from 135 umhos/cm to 150 umhos/cm. Effluent conductivity was measured at 491 umho/cm. With complete mixing of the effluent in the Middle Fork of the Feather River, the increase in river conductivity would be a maximum of less than 2 umho/cm, at minimum allowed river flow during discharge, and the measured effluent conductivity. Because the maximum measured receiving water electrical conductivity was 150 umho/cm, the 90<sup>th</sup> percentile electrical conductivity in the Middle Fork of the Feather River is less than 150 umho/cm. The Dischargers effluent, causing a potential rise of 2 umho/cm, is therefore unlikely to cause an exceedance of the water quality objective. If electrical conductivity is detected in the receiving water at a concentration above its criteria, the Order will be reopened to establish an effluent limitation.
- k. **Pathogens.** To protect the beneficial uses of the Middle Fork of the Feather River, the Central Valley Water Board finds that the wastewater must be disinfected to remove pathogenic organisms.

This Order contains effluent limitations and a secondary level of treatment, or equivalent, necessary to protect the beneficial uses of the receiving water. In accordance with CWC section 13241, the Central Valley Water Board has considered the following:

- i. The present beneficial uses of the receiving stream.

- ii. Fishable and swimmable water quality conditions can be reasonably achieved through the coordinated control of all factors that affect water quality in the area.
  
- i. **pH.** The Basin Plan includes numeric water quality objectives that the pH “...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.” The receiving water is designated as having both COLD and WARM beneficial uses. Effluent limitations for pH are included in this Order and are based on the Basin Plan water quality objective for pH. This Order includes instantaneous maximum and minimum pH effluent limitations of 9.0 and 6.0, respectively, which are applied to ensure compliance with the Basin Plan objective. Although the effluent limitations in the current adopted Order require an effluent pH range from 6.0 to 8.5, the Fact Sheet for the current Order states that effluent pH is meant to range from a low of 6.0 to a high of 9.0. These latter limitations are common for discharges to streams with high dilution of the effluent in the receiving water. Therefore, to correct the erroneous effluent limitations in the current Order, and to make the tentative Order consistent with similar discharges, the effluent limitations in the tentative Order require a minimum effluent pH of 6.0, and a maximum effluent pH of 9.0.
  
- m. **Toxicity.** See Section IV.C.5. of the Fact Sheet regarding whole effluent toxicity.

**Table F-2**  
**Statistics for Effluent Constituents with Detectable Results<sup>1, 2</sup>**  
**(All results ppb unless indicated otherwise)**

Constituent	MEC	B	CV	# of Samples
Antimony	0.19	0.05	0.6	2
Arsenic	2.3	0.9	0.6	2
Bis-2-ethylhexyl-phthalate	4.0	ND	0.6	2
Copper	4.0	1.2	0.6	2
Di-n-Octyl-phthalate	2	ND	0.6	2
Di-n-Butyl-phthalate	3	ND	0.6	2
Lead	0.33	0.23	0.6	2
Mercury (parts per trillion)	3.84	1.67	0.6	2
Nickel	1		0.6	2
Octa-CDD (parts per quadrillion)	48.3	ND	0.6	2
Selenium	0.3	ND	0.6	2
Zinc	24	12	0.6	2

TABLE F-3  
SUMMARY OF REASONABLE POTENTIAL ANALYSIS<sup>(1)</sup>

Constituent	Units	MEC	B	C	CCC	CMC	Water & Org.	Org only	Basin Plan	MCL	Reasonable Potential
Antimony	ug/L	0.19	0.05	14	—	—	14	4300	—	6	No
Arsenic	ug/L	2.3	0.9	10	340	150	—	—	—	10	No
Bis-2-ethylhexyl-pthalate	ug/L	4.0	ND	1.8	—	—	1.8	5.9	—	-	No
Copper	ug/L	4.0	1.2	5.4	7.7 <sup>2</sup>	5.4 <sup>2</sup>	1300	—	10.4	1300	No
Di-n-Octyl-pthalate	ug/L	2	ND	—	—	—	—	—	—	—	No
Di-n-Butyl-pthalate	ug/L	3	ND	2,700	—	—	2,700	12,000	—	—	No
Lead	ug/L	0.33J	0.23	1.4	36.4 <sup>2</sup>	1.4 <sup>2</sup>	—	—	—	15	No
Mercury	ng/L	3.84	1.67	0.050	—	—	0.050	0.051	—	2	No
Nickel	ug/L	1	ND	30.5	274 <sup>2</sup>	30.5 <sup>2</sup>	610	4600	—	100	No
Octa-CDD	pg/L	48.3	ND	—	—	—	—	—	—	—	No
Selenium	ug/L	0.3J	ND	5	20	5	—	—	—	50	No
Zinc	ug/L	24	12	70	70 <sup>2</sup>	70 <sup>2</sup>	—	—	100	5000	No

Concentrations are given as total recoverable for inorganics.  
 MEC = Projected Maximum Effluent Concentration  
 B = Maximum Receiving Water Concentration or lowest detection level  
 C = Criterion used for Reasonable Potential Analysis  
 CMC = Criterion Maximum Concentration (CTR criterion unless otherwise noted)  
 CCC = Criterion Continuous Concentration (CTR criterion unless otherwise noted)  
 J = Detected but not quantified (estimated concentration)  
 MCL = Drinking Water Standards Maximum Contaminant Levels  
 Basin Plan = Numeric Site-specific Basin Plan Water Quality Objective

Footnotes:  
<sup>1</sup> Based on data from 2002 and 2003  
<sup>2</sup> Based on a receiving water hardness of 53 mg/L

## WQBEL Calculations

- a. Effluent limitations for water quality-based limitations were calculated in accordance with section 1.4 of the SIP and/or the TSD. The following paragraphs describe the methodology used for calculating effluent limitations.
- b. **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.
- c. **Averaging Periods for Effluent Limitations.** Title 40 CFR 122.45 (d) requires average weekly and average monthly discharge limitations for publicly owned treatment works (POTWs) unless impracticable. However, for toxic pollutants and pollutant parameters in water quality permitting, the US EPA recommends the use of a maximum daily effluent limitation in lieu of average weekly effluent limitations for two reasons. *“First, the basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for assuring achievement of water quality standards. Second, a 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations and therefore the discharge’s potential for causing acute toxic effects would be missed.”* (TSD, pg. 96) This Order uses a maximum daily effluent limitation in lieu of average weekly effluent limitations for residual chlorine as recommended by the TSD for the achievement of water quality standards and for the protection of the beneficial uses of the receiving stream

## 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 states that “...*effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate...*” Effluent limitations for acute toxicity have been included in this Order. WDR Order No. 5-00-256 required compliance with the testing procedures contained in EPA/600/4-90/027F. EPA/600/4-90/027F required the use of larval fathead minnows. In October 2002, the USEPA promulgated EPA-821-R-02-012, revising the previous edition. The new USEPA procedure requires the use of larval stage (0 to 14 days old) test species. Larvae are much more sensitive to ammonia levels than the juvenile species. Compliance with the new USEPA procedure for the acute bioassay test constitutes a more stringent acute toxicity limitation than was previously allowed. This Order requires that the Discharger comply with the new USEPA procedure.
- b. **Chronic 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) Adequate WET data is not available to determine if the discharge has reasonable potential to cause or contribute to an in-stream excursion above of the Basin Plan’s narrative toxicity objective. Attachment E of this Order requires chronic WET monitoring for demonstration of compliance with the narrative toxicity objective.

In addition to WET monitoring, Special Provisions VI.C.2.a. requires the Discharger to submit to the Central Valley Water Board an Initial Investigative TRE Work Plan 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 and requirements for accelerated monitoring, as well as, requirements for TRE initiation if a pattern of toxicity is demonstrated.

#### **D. Interim Effluent Limitations-Not Applicable**

#### **E. Land Discharge Specifications**

1. Ponds containing waste classified as “hazardous” as defined in section 2521(a) of Title 23, CCR, or “designated”, as defined in section 13173 of the CWC, must be lined in accordance with Title 23 and Title 27, respectively. The discharge of “hazardous” or “designated” waste to the unlined treatment ponds at this Facility is prohibited.
2. The Land Discharge Specifications are necessary to protect the beneficial uses of the groundwater

#### **F. 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

1. CWA section 303(a-c), requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Central Valley 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 Board will apply to regional waters in order to protect the beneficial uses.” The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This Order contains Receiving Surface Water Limitations based on the Basin Plan numerical and narrative water quality objectives for biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, salinity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, turbidity, and electrical conductivity.

Numeric Basin Plan objectives for bacteria, dissolved oxygen, pH, temperature, and turbidity are applicable to this discharge and have been incorporated as Receiving Surface Water Limitations. Rationale for these numeric receiving surface water limitations are as follows:

- a. **Bacteria.** The Basin Plan includes a water quality objective that “[i]n water designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.” Numeric Receiving Water Limitations for bacteria are included in this Order and are based on the Basin Plan objective.

- b. **Dissolved Oxygen.** The Basin Plan includes a water quality objective that *“For surface water bodies outside the legal boundaries of the Delta, the monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation. The dissolved oxygen concentrations shall not be reduced below the following minimum levels at any time:*

*Waters designated WARM 5.0 mg/L  
Waters designated COLD 7.0 mg/L  
Waters designated SPWN 7.0 mg/L”*

Numeric Receiving Water Limitations for dissolved oxygen are included in this Order and are based on the Basin Plan objective.

- c. **pH.** The Basin Plan includes water quality objectives that the pH *“...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.”* The Middle Fork of the Feather River is designated as having both COLD and WARM beneficial uses. The change in pH of 0.5 (standard pH units) is not included as necessary to protect aquatic life in U.S. EPA’s Ambient Criteria for the Protection of Freshwater Aquatic Life as long as pH does not fall below 6.5 or exceed 8.5 units. The Discharger may apply for consideration of an averaging period for compliance with pH effluent limitations.
- d. **Temperature.**
- e. **Turbidity.** The Basin Plan includes a water quality objective that *“[I]ncreases in turbidity attributable to controllable water quality factors shall not exceed the following limits:*
- *Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU.*
  - *Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent.*
  - *Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs.*
  - *Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.”*

A numeric Receiving Surface Water Limitation for turbidity is included in this Order and is based on the Basin Plan objective for 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 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 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 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 organism densities 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. Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

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

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, 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 Monitoring and Reporting Program for this Facility.

### **A. Influent Monitoring**

Domestic influent monitoring for the Facility is required in this Order. The Monitoring and Reporting Requirements (Attachment E) includes influent monitoring requirements in Attachment E, Section III.A.

### **B. Effluent Monitoring**

Pursuant to the requirements of 40 CFR 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. The Monitoring and Reporting Requirements include effluent monitoring requirements in Attachment E, Section IV.



### C. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity.** Quarterly 96-hour bioassay testing is required to demonstrate compliance with the effluent limitation for acute toxicity (Effluent Limitations IV.A.1.c.).
2. **Chronic Toxicity.** Chronic whole effluent toxicity testing is required to demonstrate compliance with the Basin Plan's narrative toxicity objective.

### D. Receiving Water Monitoring

1. **Surface Water.** Receiving water monitoring is required to demonstrate compliance with the Receiving Water Limitations.
2. **Groundwater.** Groundwater monitoring is required to demonstrate compliance with the Groundwater Limitations.

### E. Other Monitoring Requirements

1. **Biosolids Monitoring. Biosolids Monitoring.** The Discharger is required to monitor biosolids to ensure compliance with the biosolids disposal requirements (Special Provisions VI.C.7.a.). Biosolids disposal requirements are imposed pursuant to 40 CFR Part 503 to protect public health and prevent groundwater degradation.
2. **Municipal Water Supply Monitoring.** The Discharger is required to monitor the municipal water supply annually.

## VII. RATIONALE FOR PROVISIONS

### A. Standard Provisions

1. **Federal Standard Provisions.** In accordance with 40 CFR section 122.41 and 122.42, the Federal Standard Provisions provided in Attachment D of this Order apply to this discharge.
2. **Central Valley Water Board Standard Provisions.** In addition to the Federal Standard Provisions (Attachment D), the Discharger must comply with the Central Valley Water Board Standard Provisions provided in Standard Provisions VI.A.2.

40 CFR Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR Section 123.25(a)(12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with Section 123.35, this Order omits federal conditions that address enforcement authority specified in 40 CFR Sections 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more

stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

## B. Special Provisions

### 1. Reopener Provisions

- a. **Special Provisions VI.C.1.a.** Conditions that necessitate a major modification of a permit are described in 40 CFR section 122.62, which include the following:
  - i. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if more or less stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Federal Water Pollution Control Act or amendments thereto, the Central Valley Water Board will revise and modify this Order in accordance with such more or less stringent 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.
- b. **Whole Effluent Toxicity (Special Provisions VI.C.1.c.).** This Order requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity, if present, 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.
- c. **Biosolids (Special Provisions VI.C.1.c.).** This Order requires that the use and disposal of biosolids comply with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR Part 503. This reopener provision allows the Central Valley Water Board to reopen this Order to incorporate appropriate time schedules and technical standards in the event the State Water Board and the Central Valley Water Board are given the authority to implement regulations contained in 40 CFR Part 503.
- d. **Electrical Conductivity Study.** Based on the study information, including effluent and receiving water electrical conductivity, the Discharger must recommend an effluent limitation for electrical conductivity that maintains a value in the receiving water at its lowest practicable level. The Central Valley Water Board will evaluate the recommendations, select an appropriate value, reevaluate reasonable potential for electrical conductivity, and reopen the

Order, if necessary, to include appropriate effluent limitations for electrical conductivity.

- e. **Ammonia and Bis(2-ethylhexyl)phthalate.** As a result of effluent and/or receiving water testing, a finding of reasonable potential may be made regarding ammonia or bis (2-ethylhexyl)phthalate, and the Order may be reopened to establish an effluent limit for these constituents.

## 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.) Adequate WET data is not available to determine if the discharge has reasonable potential to cause or contribute to an in-stream excursion above of the Basin Plan's narrative toxicity objective. Attachment E of this Order requires Quarterly 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 Central Valley Water Board an Initial Investigative TRE Work Plan 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 and requirements for accelerated monitoring, as well as, requirements for TRE initiation if a pattern of toxicity is demonstrated

**Monitoring Trigger.** A numeric toxicity monitoring trigger of  $> 10 \text{ TUc}$  (where  $\text{TUc} = 100/\text{NOEC}$ ) is applied in the provision. At Facility design flow discharge into the receiving water is diluted greater than 260:1. The configuration of the outfall pipe and the morphology of the Middle Fork of the Feather River at the point of discharge should result in a dilution of at least 10 to one a short distance from the discharge. Therefore, a TRE is triggered when the effluent exhibits a pattern of toxicity at 10% 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 two 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 the monitoring trigger is not exceeded 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.

**TRE Guidance.** The Discharger is required to prepare the 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.*

- b. **Septage Receiving (Special Provisions VI.C.2.b.).** Within 365 days of the adoption of this Order, the Discharger must submit an analysis of the septage receiving capacity of the Ponds prepared by a California registered civil engineer. The analysis must report on the amount of septage that is received each year, and the capacity of the Facility to accept septage while complying with the requirements of this Order. If septage in excess of the Facility capacity is being accepted, the Discharger must submit a plan, with a time schedule, to decrease its septage receiving to within the Facility's capacity at the same time the capacity study is submitted.
- c. **Electrical Conductivity Study (Special Provisions VI.C.2.c.).** The Discharger must complete and submit to the Central Valley Water Board a report on the results of a site-specific investigation of appropriate electrical conductivity levels to maintain the water quality objective for electrical conductivity. Based on the study information, the study must recommend an effluent limitation for electrical conductivity that maintains a value in the receiving water at its lowest practicable level. The Regional Water Board will evaluate the recommendations, select an appropriate value, reevaluate reasonable potential for electrical conductivity, and reopen the Order, if necessary, to include appropriate effluent limitations for electrical conductivity.
- d. **Groundwater Monitoring (Special Provisions VI.C.2.d.).** To determine compliance with Groundwater Limitations V.B., the Discharger is required to evaluate the groundwater quality with a monitoring network. This provision requires the Discharger to ensure there are one or more background monitoring wells and a sufficient number of designated monitoring wells downgradient of the Facility. The Discharger must install groundwater monitoring wells, collect monitoring data, and submit a report evaluating the underlying groundwater quality.

#### **4. Compliance Schedules-Not Applicable**

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

**Pond Operating Requirements (Special Provisions VI.C.6.).** Pond operating requirements are required to prevent nuisance, to protect public health, and ensure proper operation of the treatment ponds.

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

##### **a. Pretreatment Requirements (Special Provisions VI.C.6.b.).**

- i. The Federal Clean Water Act, Section 307(b), and Federal Regulations, 40 CFR Part 403, require publicly owned treatment works to develop an acceptable industrial pretreatment program. A pretreatment program is required to prevent the introduction of pollutants, which will interfere with treatment plant operations or sludge disposal, and prevent pass through of pollutants that exceed water quality objectives, standards or permit

limitations. Pretreatment requirements are imposed pursuant to 40 CFR Part 403.

- ii. The Discharger shall implement and enforce its approved pretreatment program and is an enforceable condition of this Order. If the Discharger fails to perform the pretreatment functions, the Central Valley Water Board, the State Water Board or the U.S. EPA may take enforcement actions against the Discharger as authorized by the CWA.

## **7. Other Special Provisions**

## **VIII. PUBLIC PARTICIPATION**

The Central Valley Water Board is considering the issuance of waste discharge requirements (WDRs) that will serve as an NPDES permit for the Grizzly Lake Resort Improvement District Plant. As a step in the WDR adoption process, the Central Valley Water Board staff has developed tentative WDRs. The Central Valley Water Board encourages public participation in the WDR adoption process.

### **A. Notification of Interested Parties**

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

### **B. Written Comments**

The written comment period for this agenda item ended on 22 October 2006 and no more written comments will be accepted. Interested persons will have an opportunity to make oral comments at the March 15 and 16, 2007 meeting.

### **C. Public Hearing**

The Central Valley 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: 15 or 16 March 2007  
Time: 8:30 am  
Location: Regional Water Quality Control Board, Central Valley Region  
11020 Sun Center Dr., Suite #200  
Rancho Cordova, CA 95670

Interested parties are invited to attend. At the public hearing, the Central Valley 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 Board to review the decision of the Central Valley Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Central Valley 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, related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at 415 Knollcrest Drive, Suite 100, Redding, CA, 96002, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Central Valley Water Board by calling Mr. Ron Dykstra at (530) 224-4858.

#### **F. Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Central Valley 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 Mr. Ron Dykstra at (530) 224-4858.

## **Attachment G – Bibliography**

1. US EPA, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001 (TSD), March 1991
2. State Water Resources Control Board, California Environmental Protection Agency, *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California*, March 2, 2000 (Revised February 24, 2005)
3. California Regional Water Quality Control Board, Central Valley Region, *Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and the San Joaquin River Basins*, September 15, 1998 (Revised September 2004)
4. US EPA, *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (California Toxics Rule)*, 40 CFR Part 131, Federal Register/Volume 65, No. 97, May 18, 2000
5. Kennedy and Neville, *Basic Statistical Methods for Engineers and Scientists, Second Edition*, Harper and Row, New York, 1976



## Attachment H-List of Acronyms and Abbreviations

**1Q10**- One-day average low flow with a 10 year  
return frequency

**7Q10**- 7-day average low flow with a 10 year  
return frequency

**AMEL**- Average Monthly Effluent Limit

**AWEL**- Average Weekly Effluent Limit

**B**- Background Concentration (Receiving Water)

**BOD<sub>5</sub>**- 5 day Biochemical Oxygen Demand

**BPTC**- Best Practicable Treatment or Control

**CCC**- Criterion Chronic Concentration

**CCR**- California Code of Regulations

**CEQA**- California Environmental Quality Act

**CFR**- Code of Federal Regulations

**cfs**- Cubic Feet per Second

**CMC**- Criterion Maximum Concentration

**CTR**- California Toxics Rule

**CWA**- Clean Water Act (Federal Statute)

**CWC**- California Water Code

**D**- Dilution Credit

**DHS**- Department of Health Services, State of  
California

**DMQA**

**DMR**- Discharger Monitoring Report

**EC**- Effect Concentration

**ECA**- Effluent Concentration Allowance

**HH**- Human Health Protection Criterion

**IC**- Inhibition Concentration

**LC50**- Lethal Concentration, 50%

**LOEC**- Lowest Observed Effect Concentration

**LTA**- Long Term Average

- MDEL-** Maximum Daily Effluent Limitation
- MDL-** Method Detection Limit
- MEC-** Maximum Effluent Concentration
- MGD-** Million Gallons per Day
- ML-** Method Limit
- MPN-** Most Probable Number
- MRP-** Monitoring and Reporting Program
- NOEC-** No Observed Effect Concentration
- NPDES-** National Pollutant Discharge Elimination System
- NTR-** National Toxics Rule
- NTU-** Nephelometric Turbidity Unit
- PMSD-** Percent Minimum Significant Difference
- POTW-** Publicly Owned Treatment Works
- QA/QC-** Quality Assurance/Quality Control
- RWQCB-** Regional Water Quality Control Board
- SIP-** State Implementation Policy
  
- TDS-** Total Dissolved Solids
- TMDL-** Total Maximum Daily Load
- TRE-** Toxicity Reduction Evaluation
- TSD-** Technical Support Document for Water Quality  
Based Toxics Control
- TSS-** Total Suspended Solids
- USEPA-** United States Environmental Protection Agency
- TU<sub>a</sub>-** Acute Toxicity Unit
- TU<sub>c</sub>-** Chronic Toxicity Unit
- WDID-** Waste Discharge Identification
- WDRs-** Waste Discharge Requirements
- WQBEL-** Water Quality Based Effluent Limitation