California Regional Water Quality Control Board
North Coast Region
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ORDER NO. R1-2007-0007
NPDES NO. CA0022730

WASTE DISCHARGE REQUIREMENTS
FOR THE
CITY OF FORTUNA
MUNICIPAL WASTEWATER TREATMENT PLANT

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

Table 1. Discharger Information

Discharger	**City of Fortuna**
Name of Facility	**City of Fortuna Municipal Wastewater Treatment Plant, Fortuna**
Facility Address	**180 Dinsmore Drive**
	Fortuna, CA 95540
	Humboldt County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a **major** discharge.	

The discharge by the **City of Fortuna** from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	**Treated Municipal Wastewater**	**40º**, **35**', **34**" N	**124** º, **09**', **30**" W	**Strongs Creek/Eel River**
003	**Treated Municipal Wastewater**	**40º**, **35**', **34**" N	**124** º, **09**', **25**" W	**Percolation Ponds/ Groundwater**

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	June 14, 2007
This Order shall become effective on:	August 1, 2007
This Order shall expire on:	August 1, 2012
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	February 3, 2012

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IT IS HEREBY ORDERED, that Order No. R1-2001-41 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Catherine Kuhlman, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on June 14, 2007.

_____

Catherine Kuhlman, Executive Officer

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Table of Contents

I. Facility Information 5
II. Findings 6
III. Discharge Prohibitions 12
IV. Effluent Limitations and Discharge Specifications 14
A. Effluent Limitations 14
B. Land Discharge Specifications – Discharge Point 003 – Percolation Pond 16
C. Reclamation Specifications 16
V. Receiving Water Limitations 16
A. Surface Water Limitations 16
B. Groundwater Limitations 18
VI. Provisions 18
A. Standard Provisions 18
B. Monitoring and Reporting Program (MRP) Requirements 19
C. Special Provisions 19
1. Reopener Provisions 19
2. Special Studies, Technical Reports and Additional Monitoring Requirements 19
3. Best Management Practices and Pollution Prevention 23
4. Construction, Operation and Maintenance Specifications 25
5. Special Provisions for Municipal Facilities (POTWs Only) 25
6. Other Special Provisions 29
7. Compliance Schedules 30
VII. Compliance Determination 31
A. Acute Toxicity Testing 4
B. Chronic Toxicity Testing 5
C. Acute and Chronic Toxicity Reporting 7
Standard Mail 13
FedEx/UPS/ 13
Other Private Carriers 13

List of Tables

Table 1. Discharger Information 1
Table 2. Discharge Location 1
Table 3. Administrative Information 1
Table 4. Facility Information 5
Table 5. Basin Plan Beneficial Uses 9
Table 6. Effluent Limitations 14
Table 7. Interim Effluent Limitations 15
Table 8. Land Discharge Specifications 16

DRAFT

List of Attachments

Attachment A – Definitions A-1
Attachment B – Map B-1
Attachment C – Flow Schematic C-1
Attachment D – Standard Provisions D-1
Attachment E – Monitoring and Reporting Program (MRP) E-1
Attachment F – Fact Sheet F-1

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I. FACILITY INFORMATION

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

Table 4. Facility Information

Discharger	**City of Fortuna**
Name of Facility	**City of Fortuna Municipal Wastewater Treatment Plant**
Facility Address	**180 Dinsmore Drive**
	Fortuna, CA 95540
	Humboldt County
Facility Contact, Title, and Phone	**Bruce Gehrke, Environmental Services Director, (707) 725-7650**
Mailing Address	**P.O Box 545, Fortuna, CA 95540**
Type of Facility	**Publicly Owned Treatment Works**
Facility Design Flow	**1.5 MGD (million gallons per day)**

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II. FINDINGS

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

A. Background. The City of Fortuna (hereinafter Discharger) is currently discharging pursuant to Order No. R1-2001-41 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0022730. The Discharger submitted a Report of Waste Discharge, dated October 28, 2005**,** and applied for a NPDES permit renewal to discharge up to 1.5 MGD of treated wastewater from the City of Fortuna Municipal Wastewater Treatment Plant, hereinafter Facility. The application was deemed complete on February 2, 2007.

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 municipal wastewater treatment plant and associated collection system and disposal facilities. The Facility serves approximately 7,000 residential, commercial, and institutional users in the City of Fortuna and 4,000 residential users in the Rohnerville-Campton Heights Area. The current wastewater treatment system consists of screening, grit removal, influent pumping, primary sedimentation, activated sludge processes, secondary sedimentation, chlorination, de-chlorination, as well as anaerobic biosolids digestion, dewatering and composting. The Facility is currently designed to treat an average dry-weather flow (ADWF) of 1.5 million mgd and reports an influent peak wet weather flow (PWWF) capacity of 7.0 mgd. Peak influent flows over 3-4 mgd are diverted to three equalization ponds and returned for treatment during low flow periods.

Between October 1 and May 15 each year, wastewater is discharged through Discharge Point 001 (see table on cover page) to Strongs Creek, a water of the United States, and a tributary to the Eel River within the Ferndale hydrologic subarea. During the summer months (May 15 through September 30), treated wastewater is discharged to three percolation ponds adjacent to the Eel River at Discharge Point 003.

The solids handling facilities are designed to accommodate the approved General Plan build out with a capacity of 1.9 mgd. Biosolids generated during the treatment process are thickened, anaerobically digested and dewatered using a belt filter press. A portion of the biosolids are composted to Class A requirements, the remainder are Class B as a result of anaerobic digestion. The dewatered biosolids are currently stored up to one year on-site and land applied in accordance with EPA 503 requirements once each year on property located at 2000 S. Rohnerville Road, Fortuna, CA. Disposal activities are currently regulated in accordance with Waste Discharge Requirements Order No. 98-88. However, Provision VI.C.5.d. of this Order requires the Discharger to submit a Notice of Intent to comply with State Water Resources Control Board Water Quality

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Order No. 2004-0012 – DWQ General Waste Discharge Requirements For The Discharge of Biosolids to Land Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities. Upon enrollment under Order No. 2004 - 0012 – DWQ, Order No. 98-88 will be rescinded.

The entire treatment plant site slopes to the southwest. Stormwater that falls on the site drains to the equalization ponds. At low flow periods, storm drainage is returned to the wastewater treatment process for treatment before it is discharged in accordance with this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. Legal Authorities. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

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

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

F. Technology-based Effluent Limitations. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations[1], require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133 and Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet.

G. Water Quality-Based Effluent Limitations. Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality

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

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

H. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the North Coast Region (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan at page 2-1 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan does not specifically identify beneficial uses for Strongs Creek, but does identify present and potential uses for the Eel River, to which Strongs Creek is tributary. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, as discussed in detail in the Fact Sheet, beneficial uses applicable to the Eel River are as follows:

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Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Strongs Creek/Eel River	Existing: MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply GWR – Groundwater Recharge FRSH – Freshwater Replenishment NAV – Navigation REC1 – Water Contact Recreation REC2 – Non-Contact Water Recreation COMM – Commercial and Sport Fishing COLD – Cold Freshwater Habitat WILD – Wildlife Habitat RARE – Preservation of Rare, Threatened, or Endangered Species MIGR – Migration of Aquatic Organisms SPWN – Spawning, Reproduction, and/or Early Development AQUA – Aquaculture Potential: PRO – Industrial Process Supply POW – Hydropower Generation WARM – Warm Freshwater Habitat
003	Groundwater	Existing: MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply FRSH – Freshwater replenishment to Surface Waters CUL – Native American Culture Potential: PRO – Industrial Process Supply AQUA – Aquaculture

Requirements of this Order implement the Basin Plan.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

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

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became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

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 includes compliance schedules and interim effluent limitations. A detailed discussion of the basis for the compliance schedules and interim effluent limitations is included in the Fact Sheet.

L. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on biological oxygen demand, total suspended solids, and pH. Restrictions on biological oxygen demand, total suspended solids, and pH are discussed in Section B.1. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

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 section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

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

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

P. **Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

Q. **Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and

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reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

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

S. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B and V.B of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

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

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

III. DISCHARGE PROHIBITIONS

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

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

C. The discharge of sludge or digester supernatant is prohibited, except as authorized under Section VI.C.6.d. Solids Disposal and Handling Requirements.

D. The discharge or reclamation of untreated or partially treated waste (receiving a lower level of treatment than described in Finding No. II.B. of this Order) from anywhere within the collection, treatment, or disposal facility is prohibited, except as provided for in Attachment D, Standard Provision I. G (Bypass Provision).

E. Discharges of waste to the Eel River or its tributaries are prohibited during the period May 15 through September 30 each year.

F. During the period of October 1 through May 14 of each year, discharges of wastewater shall not exceed one percent of the flow of the Eel River. To comply with this flow prohibition, (1) the Discharger shall adjust the discharge rate of treated wastewater at least once daily to avoid exceeding, to the extent practicable, one percent of the most recent daily flow measurement of the Eel River as measured at the Scotia gauging station (USGS Station 11477000) combined with the flow as measured at the Grizzly Creek gauging station (USGS Station 11478500); and (2) the total volume of treated wastewater discharged in a calendar month shall not exceed, in any circumstances, one percent of the total volume of the Eel River passing the Scotia and Grizzly Creek gauging stations in the same calendar month.

G. During periods of discharge, USGS Stations 11477000 and 11478500 shall be read at least once daily, and the discharge flow rate shall be set for no greater than one percent of the flow of the river at the time of the daily reading. At the beginning of the discharge season, the first monthly flow comparisons shall be determined from the date when the discharge commenced to the end of the calendar month. At the end of the discharge season, the final monthly flow volume shall be determined from the first day of the calendar month to the date when the discharge ended for the season.

H. The discharge of waste to land that is not owned by or under agreement to use by the Discharger is prohibited.

I. The discharge of waste at any point not described in Finding II.B. or authorized by any State Water Board or other Regional Water Board permit is prohibited.

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IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations – Discharge Point 001 – Strongs Creek/Eel River

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location M-001 as described in the attached Monitoring and Reporting Program (MRP):

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations – 001				
		Average Monthly[1]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	---	---	---
	lbs/day[2,3]	375	563	---	---	---
Total Suspended Solids	mg/L	30	45	---	---	---
	lbs/day	375	563	---	---	---
Settleable Solids	ml/L	0.1	---	0.2		
Coliform Bacteria	MPN/100 ml	23 [4]	---	230		
pH	standard units	---	---	---	6.5	8.5
Copper	µg/L	13	---	6.2	---	---
Chlorodibromomethane	µg/L	0.4	---	0.8	---	---
Dichlorobromomethane	µg/L	0.6	---	1.1	---	---

b. Treated wastewater discharged to Strongs Creek/the Eel River shall not contain detectable levels of chlorine, using an analytical method or chlorine analyzer with a minimum detection level of 0.1 mg/L.

c. The average monthly percent removal of Biological Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) shall not be less than 85 percent. Percent

[1] See Attachment A for definitions

[2] The mass discharge (lbs/day) is obtained from the following calculation for any calendar week or month:

$$\frac{8.34}{N}\sum_{i}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar week or month. Q_i and C_i are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the N grab samples, which may be taken in any calendar week or month. If a composite sample is taken, C_i is the concentration measured in the composite sample; and Q_i is the average flow rate occurring during the period over which samples are composited

[3] Mass-based effluent limitations are based on the design flow of 1.5 MGD.

[4] Median

removal shall be determined from the 30-day average value of influent wastewater concentration in comparison to the 30-day average value of effluent concentration for the same constituent over the same time period. [40 C.F.R. §133.101(j)]

d. The mean daily dry weather flow shall not exceed 1.5 mgd averaged over a period of a calendar month.

e. There shall be no acute toxicity in the effluent when discharging to Strongs Creek/ Eel River, as measured at Monitoring Location M-001. The Discharger will be considered in compliance with this limitation when the survival of aquatic organisms in a 96-hour bioassay using undiluted effluent complies with the following:

   i. Minimum for any one bioassay: 70 percent survival.

   ii. Median for any three or more consecutive bioassays: at least 90 percent survival.

   Compliance with this effluent limitation shall be determined in accordance with Section V.A. of Monitoring and Reporting Program No. R1-2007-0007.

2. Interim Effluent Limitations Discharge Point 001 – Strongs Creek/Eel River

a. During the period beginning August 1, 2007 and ending on May 18, 2010, the Discharger shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Location M-001 as described in the attached MRP. These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Table 7. Interim Effluent Limitations

Parameter	Units	Interim Effluent Limitations – 001				
		Average Monthly[5]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper	µg/L	---	---	44	---	---
Chlorodibromo methane	µg/L	---	---	2	---	---
Dichlorobromo methane	µg/L	---	---	6.7	---	---

[5] See Attachment A for definitions

B. Land Discharge Specifications – Discharge Point 003 – Percolation Pond

1. **Final Discharge Specifications – Discharge Point 003 – Percolation Ponds**
   a. Beginning August 1, 2007, the Discharger shall maintain compliance with the following limitations at Discharge Point 003, with compliance measured at Monitoring Location M-003 as described in the attached MRP:

Table 8. Land Discharge Specifications

Parameter	Units	Effluent Limitations – 003				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	---	---	---
Total Suspended Solids	mg/L	30	45	---	---	---
Coliform Bacteria	MPN/100 ml	23 [6]	---	230		
pH	standard units	---	---	---	6.0	9.0

   b. The average monthly percent removal of BOD and TSS shall not be less than 85 percent. Percent removal shall be determined from the 30-day average value of influent wastewater concentration in comparison to the 30-day average value of effluent concentration for the same constituent over the same time period. (40 C.F.R. §133.101(j)).

C. Reclamation Specifications

This Section does not apply to the City of Fortuna Wastewater Treatment Plant.

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 Strongs Creek/the Eel River:

1. The discharge shall not cause the dissolved oxygen concentration of the receiving waters to be depressed below 7.0 mg/L. Additionally, the discharge shall not cause the dissolved oxygen content of the receiving water to fall below 10.0 mg/L more than 50 percent of the time, or below 7.5 mg/L more than 10 percent of the time. In the event that the receiving waters are determined to have dissolved oxygen concentration of less than 7.0 mg/L, the discharge shall not depress the dissolved oxygen concentration below the existing level.

[6] Median

2. The discharge shall not cause the specific conductance (micromhos[7]) concentration of the receiving waters to increase above 225 micromhos 50 percent of the time, or above 375 micromhos more than 10 percent of the time.

3. The discharge shall not cause the total dissolved solids concentration of the receiving waters to increase above 140 mg/l more than 50 percent of the time, or above 275 mg/l more than 10 percent of the time.

4. The discharge shall not cause the pH of the receiving waters to be depressed below 6.5 nor raised above 8.5. Within this range, the discharge shall not cause the pH of the receiving waters to be changed at any time more than 0.5 units from normal ambient pH levels. If the pH of the receiving water is less than 6.5, the discharge shall not cause a further depression of the pH of the receiving water. If the pH of the receiving water is greater than 8.5, the discharge shall not cause a further increase in the pH of the receiving water.

5. The discharge shall not cause the turbidity of the receiving waters to be increased more than 20 percent above naturally occurring background levels.

6. The discharge shall not cause the receiving waters to contain floating materials, including, but not limited to, solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

7. The discharge shall not cause the receiving waters to contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

8. The discharge shall not cause coloration of the receiving waters that causes nuisance or adversely affects beneficial uses.

9. The discharge shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.

10. The discharge shall not cause or contribute to receiving water concentrations of biostimulants that promote objectionable aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses of the receiving waters.

11. The discharge shall not cause the receiving waters to contain toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Water Board. [See Order section IV.A.1.g and Monitoring and Reporting Program section V.]

12. The discharge shall not alter the natural temperature of the receiving waters.

[7] Measured at 77º F.

13. The discharge shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses. There shall be no bioaccumulation of pesticide concentrations found in bottom sediments or aquatic life as a result of the discharge. The discharge shall not cause the receiving waters to contain concentrations of pesticides in excess of the limiting concentrations set forth in Table 3-2 of the Basin Plan.

14. The discharge shall not cause the receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that cause nuisance or that otherwise adversely affect beneficial uses.

15. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with the more stringent standards.

16. The discharge shall not cause concentrations of chemical constituents to occur in excess of limiting concentrations specified in Table 3-2 of the Basin Plan or in excess of more stringent MCLs established for these pollutants in title 22, California Code of Regulations.

B. Groundwater Limitations

1. The collection, storage, use, and disposal of wastewater or recycled water shall not cause or contribute to a statistically significant degradation of groundwater quality.

2. The collection, storage, use, and disposal of wastewater or recycled water shall not cause alterations of groundwater that result in taste or odor producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

VI. PROVISIONS

A. Standard Provisions

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

2. The Discharger shall comply with the following provisions:

   a. A minimum total chlorine residual of 1.5 mg/L shall be maintained at the end of the disinfection process.

   b. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may

DRAFT

subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

c. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Wat. Code § 1211.)

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

The Regional Water Board may modify, or revoke and reissue this Order, if on-going or future investigations demonstrate that the Discharger governed by this Order is causing or significantly contributing to adverse impacts to water quality and/or beneficial uses of receiving waters.

In the event that the Regional Water Board's interpretation of the narrative toxicity objective in the Basin Plan is modified or invalidated by an order of the State Water Board, a court decision, or State or federal statute or regulation, effluent limitations for toxic pollutants that may be established by this Order may be revised to be consistent with the order, decision, statute, or regulation.

The Regional Water Board may reopen this Order within five years of its adoption, if effluent monitoring results or other new information demonstrates reasonable potential for any pollutant or pollutant parameter with applicable water criteria established by the NTR, CTR, or Basin Plan.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. The Discharger shall comply with one of the following special study tracks (option 1 <u>or</u> option 2) in order to assure compliance with the Basin Plan's seasonal discharge prohibitions for the Eel River and its tributaries, described in this Order:

DRAFT

Option 1

i. By **February 1, 2008**, submit for Executive Officer approval, a workplan for a hydrogeologic study to determine the fate and transport of wastewater pollutants discharged via the Discharger's disposal ponds. The workplan proposal shall contain milestones and a time schedule for completion of the study. The study time schedule shall be as short as practicable, and in no case extend beyond three and a half years following the effective date of this Order. The study time schedule shall include provision for the submittal of semi-annual progress reports. The workplan proposal should be designed to investigate:

1. current and/or projected surveyed elevations of pond features referenced to mean sea level (e.g., pond bottom, peak water surface level) and nearby surface water features (e.g., channel bed, top of bank, seasonal average and maximum water surface elevations);
2. site specific lithology;
3. depth to groundwater across seasonal variations;
4. seasonal groundwater gradients;
5. transmissivity of areal soil;
6. concentration gradients of targeted wastewater constituents[8] measured at various points extending away from the disposal area towards the Eel River.

ii. By **February 1, 2011**, submit for Executive Officer approval a report describing the findings and conclusions of the hydrogeologic study that models the fate and transport of wastewater pollutants. The report should include all pertinent information from groundwater monitoring wells used to collect data, including well locations, well logs, etc.

iii. If the hydrogeologic study demonstrates that wastewater pollutants discharged to the disposal ponds reach the Eel River, **by August 1, 2011**, the Discharger shall submit a written proposal for Executive Officer approval to study alternatives to comply with the Basin Plan discharge prohibitions. The study plan shall be as short as practicable and contain milestones and a time schedule for selection and implementation of alternative disposal methods.

OR

Option 2

i. By **August 1, 2008**, submit for Executive Officer approval, a written commitment to modify existing disposal methods in order to ensure compliance with the Basin Plan seasonal discharge prohibitions. The

[8] For the purpose of this study, the use of conservative indicator pollutants would be adequate.

commitment shall include a preliminary schedule of tasks necessary to develop a subsequent detailed study plan containing milestones and a time schedule for selection and implementation of an alternative disposal method during the prohibition season.

ii. By **February 1, 2010**, submit for Executive Officer approval a written proposal to study disposal alternatives to comply with the Basin Plan seasonal discharge prohibitions. The study plan shall contain milestones and a time schedule for selection and implementation of an alternative disposal method. The study time schedule shall be as short as practicable but no longer than 5 years from the scheduled expiration date of this Order.

b. The Discharger shall comply with one of the following special study tracks (option 1 <u>or</u> option 2) in order to assure compliance with the Basin Plan's discharge rate restriction of 100:1 for discharges to the Eel River and its tributaries, described in this Order:

<u>Option 1</u>

i. By **February 1, 2008**, submit for Executive Officer approval, a workplan hydraulic study to determine the ratio of wastewater discharge to receiving water flow in Strongs Creek in order to ensure compliance with the Basin Plan discharge rate restrictions. The workplan proposal shall contain milestones and a time schedule for completion of the study. The study time schedule shall be as short as practicable, and in no case, extend beyond 2.5 years following the effective date of this Order. The study time schedule shall include provision for the submittal of semi-annual progress reports.

ii. By **February 1, 2011**, submit for Executive Officer approval a report describing the findings and conclusions of the hydraulic study determining the ratio of wastewater discharge to receiving water flow in Strongs Creek.

iii. If the hydraulic study demonstrates that wastewater discharged to Strongs Creek exceeds a dilution ratio of 100:1, **by August 1, 2011**, the Discharger shall submit a written proposal for Executive Officer approval to study alternatives to comply with the Basin Plan discharge restrictions. The study plan shall be as short as practicable and contain milestones and a time schedule for selection and implementation of alternative methods. The implementation time schedule shall be as short as practicable and implementation shall be completed no longer than five (5) years from the effective date of this Order.

OR

<u>Option 2</u>

i. By **February 1, 2008**, submit for Executive Officer approval, a written commitment to modify the existing discharge location from Strongs Creek to the Eel River in order to ensure compliance with the Basin Plan discharge

DRAFT

rate restrictions. The commitment shall include a preliminary schedule of tasks necessary to design and implement the alternate disposal location. The design and implementation time schedule shall be as short as practicable but no longer than three (3) years from the effective date of this Order.

c. Toxicity Reduction Requirements

i. **Whole Effluent Toxicity.** In addition to a limitation for whole effluent acute toxicity, the Monitoring and Reporting Program (MRP) of this Order requires routine monitoring for whole effluent chronic toxicity to determine compliance with the Basin Plan's narrative water quality objective for toxicity. As established by the MRP, if either the acute toxicity effluent limitation or a chronic toxicity monitoring trigger of 1.0 TUc is exceeded, the Discharger shall conduct accelerated toxicity monitoring. Results of accelerated toxicity monitoring will indicate a need to conduct a Toxicity Reduction Evaluation (TRE), if toxicity persists; or it will indicate that a return to routine toxicity monitoring is justified because persistent toxicity has not been identified by accelerated monitoring. TREs shall be conducted in accordance with the TRE workplan prepared by the Discharger pursuant to Section VI. C. 2. b of this Order, below.

ii. **Toxicity Reduction Evaluations (TRE) workplan.** The Discharger shall prepare and submit to the Regional Water Board Executive Officer a TRE workplan within **180 days of the effective date of this Order**. This plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include at least the following items:

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

(b) A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices.

(c) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

iii. **Toxicity Reduction Evaluations (TRE).** The TRE shall be conducted in accordance with the following:

DRAFT

(a) The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test, required by Section V of the MRP, observed to exceed either the acute or chronic toxicity parameter.

(b) The TRE shall be conducted in accordance with the Discharger's workplan.

(c) The TRE shall be in accordance with current technical guidance and reference material including, at a minimum, the USEPA manual EPA/833B-99/002.

(d) The TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity.

(e) The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. As guidance, the Discharger shall use the USEPA acute and chronic manuals, EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).

(f) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with chronic toxicity parameters.

(g) Many recommended TRE elements accompany required efforts of source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements of recommendations of such programs may be acceptable to comply with requirements of the TRE.

(h) The Regional Water Board recognizes that chronic toxicity may be episodic and identification of a reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The Discharger shall, as required by the Executive Officer, develop and conduct a Pollutant Minimization Program (PMP) as further described below when there

DRAFT

is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the RL; or

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

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Executive Officer:

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

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

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

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

v. An annual status report that shall be sent to the Regional Water Board including:

    1. All PMP monitoring results for the previous year;

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

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

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

DRAFT

4. Construction, Operation and Maintenance Specifications

a. The Discharger shall maintain an updated Operation and Maintenance (O&M) Manual for the Facility. The Discharger shall update the O&M Manual, as necessary, to conform with changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

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

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

iii. Description of laboratory and quality assurance procedures.

iv. Process and equipment inspection and maintenance schedules.

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

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

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Statewide General WDRs for Sanitary Sewer Systems

i. On May 2, 2006, the State Water Board adopted State Water Board Order 2006-0003-DWQ, Statewide General WDRs for Sanitary Sewer Systems. Order 2006-0003-DWQ requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the General WDRs. The deadline for the Discharger to apply for coverage under State Water Board Order 2006-0003-DWQ for operation of its wastewater collection system was

DRAFT

November 2, 2006. The Discharger shall be subject to the requirements of Order 2006-0003-DWQ and any future revisions thereto.

ii. The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 C.F.R. § 122.41(e)). The Discharger must report any non-compliance (40 C.F.R. § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 C.F.R. § 122.41(d)). Standard Provision VI.A.2. and Attachment D, subsections I.D, V.E, V.H, and I.C.

b. Sanitary Sewer Overflows

i. The written report requirements as specified below in this subsection shall terminate when the Discharger commences electronic and/or telefax reporting of sanitary sewer overflows (SSOs) pursuant to Provision D.15 and General Monitoring and Reporting Requirement G.2 of Order No. 2006-0003-DWQ and Monitoring and Reporting Program No. 2006-0003-DWQ. Oral reporting[9] of SSOs as specified below in this subsection shall continue through the term of this Order.

ii. SSOs shall be reported orally and in writing to the Regional Water Board staff in accordance with the following:SSOs in excess of 1,000 gallons or any SSO that results in sewage reaching surface waters, or if it is likely that more than 1,000 gallons has escaped the collection system, shall be reported immediately by telephone. A written description of the event shall be submitted in conjunction with the monthly monitoring report.

iii. SSOs that result in a sewage spill between 100 gallons and 1,000 gallons that do not reach a surface waterway shall be reported orally within 24 hours. A written description of the event shall be submitted with the next monthly monitoring report.

iv. Information to be provided orally includes:
   a.) Name and contact information of caller.
   b.) Date, time and location of SSO occurrence.
   c.) Estimates of spill volume, rate of flow, and spill duration.
   d.) Surface water bodies impacted.
   e.) Cause of spill.
   f.) Cleanup actions taken or repairs made.
   g.) Responding agencies.

v. Information to be provided in writing includes:

[9] Oral reporting means direct contact with a Regional Water Board staff person. The oral report may be given in person or by telephone. After business hours, oral contact must be made by calling the State Office of Emergency Services or the Regional Water Board spill officer.

a.) Information provided in verbal notification.
b.) Other agencies notified by phone.
c.) Detailed description of cleanup actions and repairs taken.
d.) Description of actions that will be taken to minimize or prevent future spills.

c. Source Control Provisions

Beginning January 1, 2008, the Discharger shall perform source control functions, to include the following:

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

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

iii. Conduct a waste survey to identify all industrial dischargers that might discharge pollutants that could pass through or interfere with the operation or performance of the Facility

iv. Perform ongoing industrial inspections and monitoring, as necessary, to ensure adequate source control.

d. Statewide General WDRs for Discharge Of Biosolids To Land

For the discharge of biosolids from the wastewater treatment plant, the Discharger shall seek authorization to discharge under and meet the requirements of the State Water Resources Control Board Water Quality Order No. 2004-0012–DWQ General Waste Discharge Requirements For The Discharge Of Biosolids To Land or Use As A Soil Amendment In Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities. The Discharger shall submit a notice of intent for coverage and under Order No. 2004-0012–DWQ by April 15, 2008.

e. Solids Disposal and Handling Requirements

i. All collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a municipal solid waste landfill, reused by land application, disposed of in a sludge only landfill, or incinerated in accordance with 40 CFR Parts 257, 258, 501, and 503, and the State Water Board promulgated provisions of Title 27 CCR Division 2. If the Discharger desires to dispose of solids or sludge by a different method, a request for Order modification shall be submitted to the USEPA and the Regional Water Board 180 days prior to the alternative disposal.

DRAFT

ii. The Discharger shall notify the Regional Water Board Executive Officer at least 60 days prior to the initiation of any disposal project, with the exception of regular disposal of screenings at a permitted landfill.

iii. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES Order or other Order issued to the Discharger. The Regional Water Board shall be copied on relevant correspondence and reports forwarded to the USEPA regarding sludge management practices.

iv. Sludge that is disposed of in a municipal solid waste landfill or used as daily landfill cover shall meet the applicable requirements of 40 CFR 258. In the annual self-monitoring report, the Discharger shall report the amount of sludge placed in a landfill and the landfill(s) which received the sludge.

v. Sludge that is applied to land as soil amendment shall meet pollutant ceiling concentrations, pathogen reduction and vector attraction reduction requirements, and annual and cumulative discharge limitations of 40 CFR Part 503.

vi. Sludge that is disposed of through surface disposal, including but not limited to trench systems, area-fill systems, active waste piles, and active impoundments or lagoons, shall meet the applicable requirements of 40 CFR 503. Sludge stored beyond two years may be considered as disposed and regulated as a waste pile or surface impoundment under Title 27 CCR Division 2.

vii. The Discharger is responsible for ensuring compliance with applicable regulations whether the Discharger uses or disposes of the sludge itself or contracts with another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of the requirements they must meet under 40 CFR Parts 257, 258, and 503.

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

ix. Solids and sludge treatment, storage, and disposal and reuse shall not create a nuisance, such as objectionable odors and flies, and shall not result in ground water contamination.

x. Solids and sludge treatment and storage sites shall have facilities adequate to divert surface water runoff from adjacent areas, to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage

DRAFT

site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

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

f. Operator Certification

Supervisors and operators of municipal WWTPs shall possess a certificate of appropriate grade in accordance with Title 23, CCR, section 3680. The State Water Board may accept experience in lieu of qualification training. In lieu of a properly certified WWTP operator, the State Water Board may approve use of a water treatment plant operator of appropriate grade certified by the State Department of Health Services where water reclamation is involved.

g. Adequate Capacity

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

6. Other Special Provisions

Storm Water

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

DRAFT

7. Compliance Schedules

Copper; Chlorodibromomethane; Dichlorobromomethane: During the term of this Order, the Discharger shall complete the following tasks for copper, chlorodibromomethane, and dichlorobromomethane and in compliance with the following time schedule to achieve compliance with the final effluent limitations for copper, chlorodibromomethane, and dichlorobromomethane in Section IV.A.1.g.of this Order by May 18, 2010.

a. By August 1, 2008, the Discharger shall summarize all available data for copper, chlorodibromomethane, and dichlorobromomethane. The data shall be evaluated and a summary developed reporting the Discharger's existing ability to achieve final effluent limitations.
b. By August 1, 2008 and in concert with actions taken to comply with Task number 7a. above, implement source control efforts for copper, chlorodibromomethane, and dichlorobromomethane, including a review of vendor product data, evaluate treatment plant processes, and optimize processes wherever possible.
c. If the copper, chlorodibromomethane, and dichlorobromomethane source control efforts in Task 7b. do not result in removal of reasonable potential for these pollutants in excess of final effluent limitations, by November 1, 2008, the Discharger shall submit a workplan for the Executive Officer's approval, describing studies that will be conducted to determine the feasibility of an engineered alternative.
d. By May 1, 2009, submit, for Executive Officer approval, an implementation plan to achieve compliance with the final effluent limitations for copper, chlorodibromomethane, and dichlorobromomethane.
e. Comply with final CTR effluent limitations for copper, chlorodibromomethane, and dichlorobromomethane no later than May 18, 2010.

DRAFT

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

B. Multiple Sample Data.

When determining compliance with an AMEL 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).

When less than daily monitoring is required, the monthly average shall be determined by summing the daily values and dividing by the number of days during the calendar month when monitoring occurred. If only one sample is collected in a calendar month, the value of the single sample shall constitute the monthly average.

D. Average Weekly Effluent Limitation (AWEL).

When less than daily monitoring is required, the weekly average shall be determined by summing the daily values and dividing by the number of days during the calendar week when monitoring occurred. If only one sample is collected in a calendar week, the value of the single sample shall constitute the weekly average. For any one calendar week

DRAFT

during which no sample is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge <(or when applicable, the median determined by subsection B above for multiple sample data of a daily discharge)> exceeds the MDEL for a given parameter, 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, 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, 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).

DRAFT

ATTACHMENT A – DEFINITIONS

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

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

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

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

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

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

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

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

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

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

DRAFT

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

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

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

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

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

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

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

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

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

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

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

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.
Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

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

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

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

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

Pollutant Minimization Program (PMP) means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent

DRAFT

bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

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

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

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

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

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

where:

x is the observed value;
μ is the arithmetic mean of the observed values; and
n is the number of samples.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices,

and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

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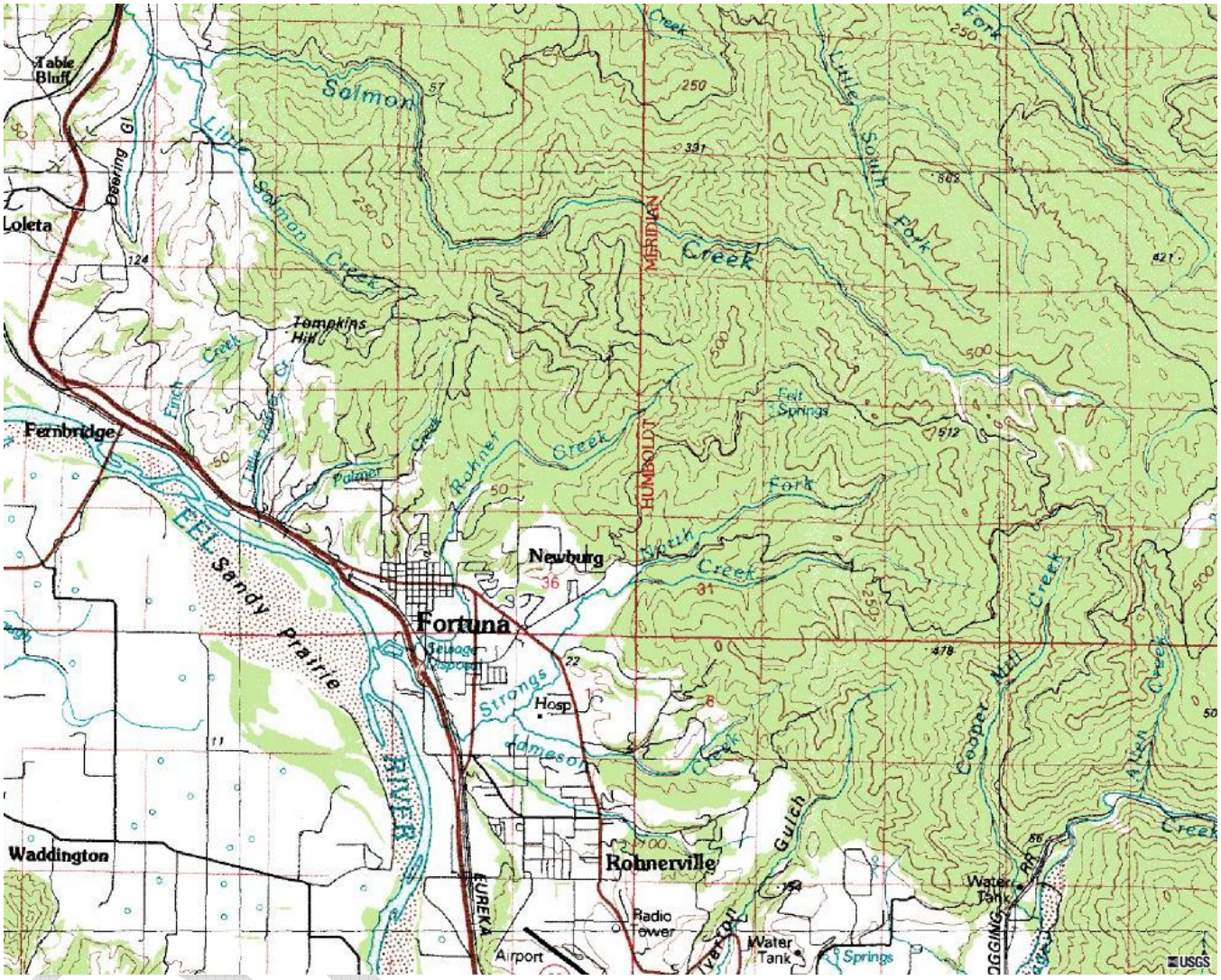
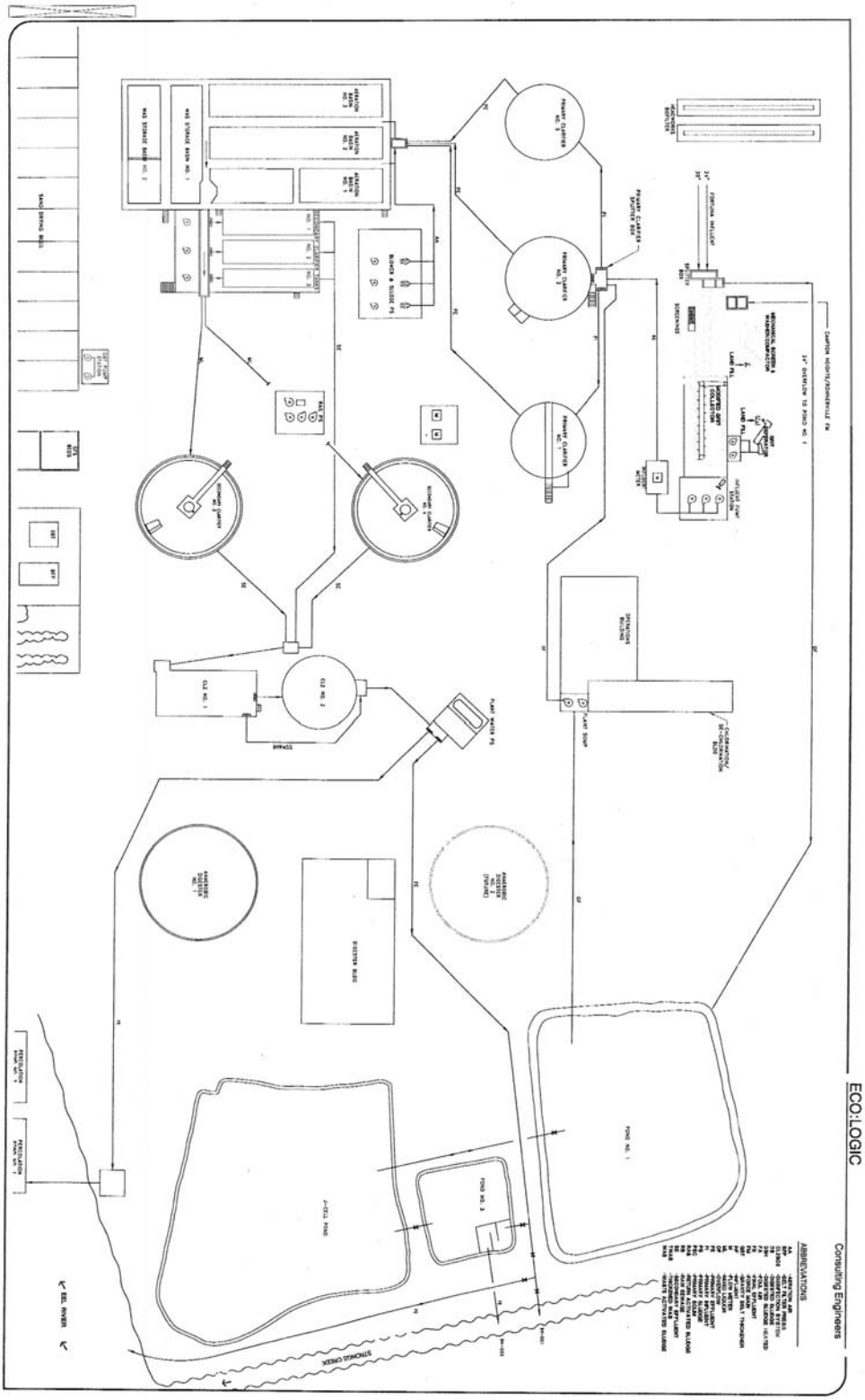
ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



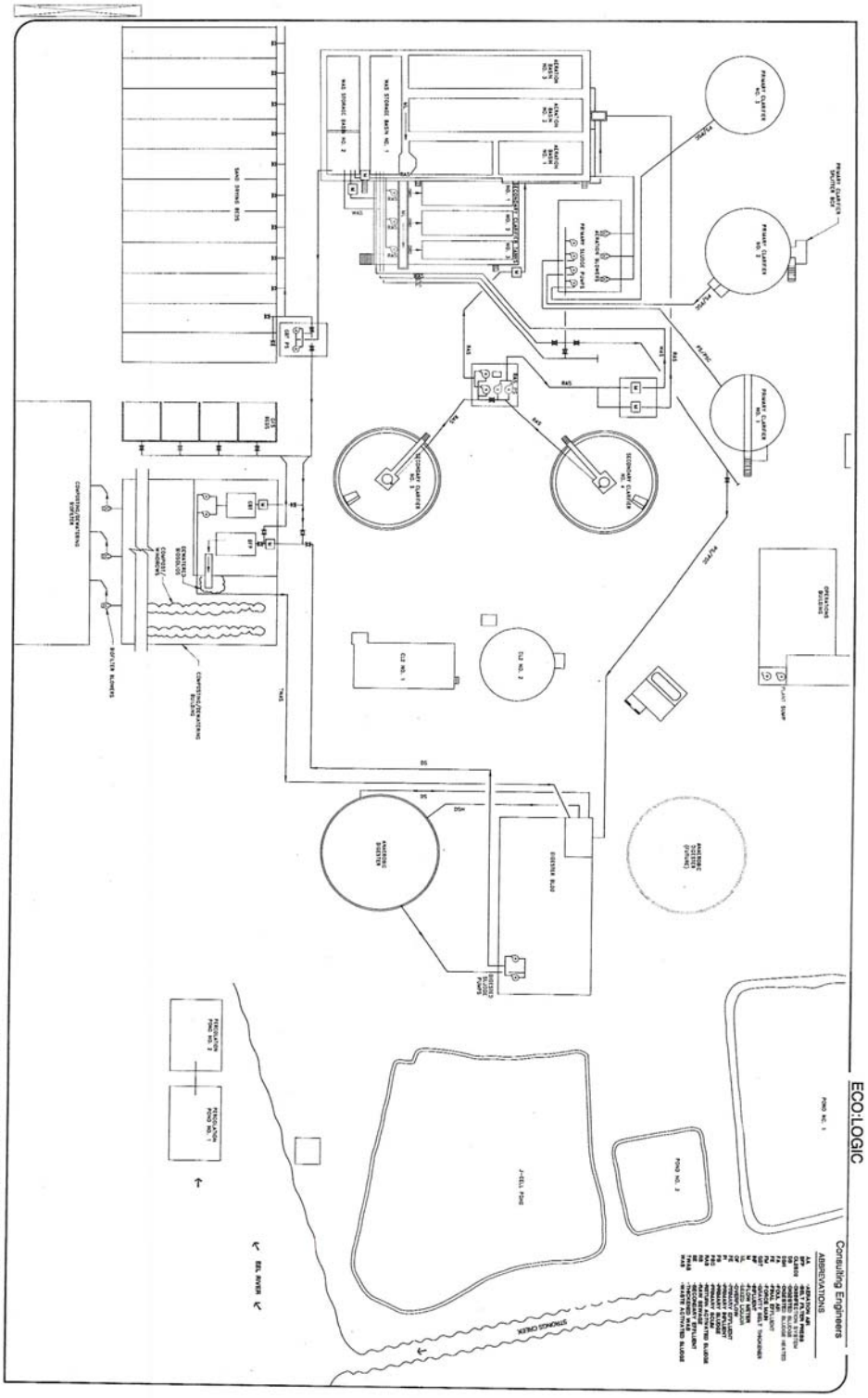


FIGURE 1-2: SOLIDS TRAIN DIAGRAM

ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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

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

B. Need to Halt or Reduce Activity Not a Defense

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

E. Property Rights

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

DRAFT

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

F. Inspection and Entry

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

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 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 C.F.R. § 122.41(i)(2));

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

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

G. Bypass

1. Definitions

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

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

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

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

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

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

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

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

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 C.F.R. § 122.41(m)(3)(i).)

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

H. Upset

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

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the

requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).).

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

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

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

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

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

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

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and

DRAFT

reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

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

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

IV. STANDARD PROVISIONS – RECORDS

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

B. Records of monitoring information shall include:

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

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

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

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

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

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

DRAFT

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

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

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

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

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

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of

DRAFT

plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

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

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

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

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

C. Monitoring Reports

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

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

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

DRAFT

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

D. Compliance Schedules

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

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 C.F.R. § 122.41(l)(6)(i).)

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

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

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

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

F. Planned Changes

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

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

DRAFT

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

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

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

I. Other Information

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

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

DRAFT

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

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

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

DRAFT

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Table of Contents

Attachment E – Monitoring and Reporting Program (MRP) 2
I. General Monitoring Provisions 2
II. Monitoring Locations 2
III. Influent Monitoring Requirements 3
A. Monitoring Location M-INF 3
IV. Effluent Monitoring Requirements 3
A. Monitoring Location M-CCC 3
B. Monitoring Location M-001 3
V. Whole Effluent Toxicity Testing Requirements 4
VI. Land Discharge Monitoring Requirements 8
A. Monitoring Location M-003 8
VII. Reclamation Monitoring Requirements 8
VIII. Receiving Water Monitoring Requirements – Surface Water and Groundwater 8
A. Monitoring Location 001 9
B. Monitoring Location R-002s 9
IX. Other Monitoring Requirements 10
X. Reporting Requirements 10
A. General Monitoring and Reporting Requirements 10
B. Self Monitoring Reports (SMRs) 10
C. Discharge Monitoring Reports (DMRs) 12
D. Other Reports 13

List of Tables

Table 1. Monitoring Station Locations 2
Table 2. Influent Monitoring 3
Table 3. Internal Monitoring 3
Table 4. Effluent Monitoring 3
Table 5. Land Discharge Monitoring Requirements 8
Table 6a. Receiving Water Monitoring Requirements 9
Table 6b. Receiving Water Monitoring Requirements 9
Table 7. Monitoring Periods and Reporting Schedule 11

DRAFT

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

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

B. If the Discharger monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 Code of Federal Regulations (CFR) Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual discharger monitoring reports.

C. Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

II. MONITORING LOCATIONS

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

Table 1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	M-INF	Untreated wastewater influent collected at the plant headworks
---	M-CCC	Effluent from the chlorine contact chamber prior to dechlorination for purposes of measuring chlorine residual
001	M-001	Treated wastewater downstream of the dechlorination facilities and before effluent contacts receiving water
003	M-003	Treated wastewater downstream of the disinfection facilities and before effluent enters percolation ponds
Receiving Water	R-001s	Strongs Creek surface water upstream beyond influence of the discharge
Receiving Water	R-002s	Strongs Creek surface water at the point of discharge or other location approved by the Executive Officer

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III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-INF

1. The Discharger shall monitor influent to the facility at M-INF as follows:

Table 2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow (Mean)	MGD	Continuous	Daily	Meter
BOD_5	mg/L	8 Hour Composite	Weekly	Standard Methods[1]
TSS	mg/L	8 Hour Composite	Weekly	Standard Methods

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-CCC

1. The Discharger shall monitor the discharge from the chorine contact chamber prior to dechlorination at Monitoring Location M-CCC as follows:

Table 3. Internal Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Chlorine Residual	mg/L	Grab	Daily	Standard Methods

B. Monitoring Location M-001

1. The Discharger shall monitor treated wastewater effluent at M-001 prior to discharge into surface water as follows:

Table 4. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Flow (Mean)	MGD	Continuous	Daily	Meter
BOD_5	mg/L	8 Hour Composite	Weekly	Standard Methods
TSS	mg/L	8 Hour Composite	Weekly	Standard Methods
pH	Standard Units	Grab	Weekly	Standard Methods

[1] In accordance with current edition of *Standard Methods for the Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 CFR Part 136.

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Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Settleable Solids	ml/L	Grab	Weekly	Standard Methods
Chlorine Residual	mg/L	Grab	Daily	Standard Methods
Coliform Bacteria	MPN/100 ml	Grab	Weekly	Standard Methods
Ammonia Nitrogen	mg/L	Grab	Monthly	Standard Methods
Unionized Ammonia	mg/L	Calculation	Monthly	Standard Methods
Nitrate Nitrogen	mg/L	Grab	Monthly	Standard Methods
Total Phosphorus	mg/L	Grab	Monthly	Standard Methods
Copper	µg/L	8 Hour Composite	6x/Year[2]	Standard Methods
Dichlorobromomethane	µg/L	Grab	6x/Year[2]	Standard Methods
Chlorodibromomethane	µg/L	Grab	6x/Year[2]	Standard Methods
Acute Toxicity	TUa	Grab	2x / Monthly	Requirements In Section V.A. Below
Chronic Toxicity	TUc	Grab	1x / Year	Requirements In Section V.B. Below
Priority Pollutants[3]	µg/L	Grab	1x / Order Term	Standard Methods

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing

The Discharger shall conduct acute toxicity testing to determine compliance with the Basin Plan narrative toxicity objective. The Discharger shall meet the following acute toxicity testing requirements:

1. **Test Frequency**. The Discharger shall conduct monthly acute toxicity testing.

2. **Sample Type**. For 96-hour static renewal or 96-hour static non-renewal testing, the samples shall be a 24-hour composite and shall be representative of the volume and quality of the pond discharge. Effluent samples shall be collected at Monitoring Location M-001.

3. **Test Species**. Test species for acute testing shall be with an invertebrate, the water flea, *Ceriodaphnia dubia*, and a vertebrate, the rainbow trout, *Oncorhynchus mykiss*, for at least the first two suites of tests conducted within 12 months after the effective date of the Order. After this screening period, monitoring shall be conducted monthly using the most sensitive species. At least once every five years, the

[2] An effort shall be made to space sampling frequency equally across the year. At a minimum 3 of the 6 required samples shall be collected during the winter discharge season. Sampling shall be increased to monthly after May 18, 2010.

[3] Those pollutants identified as Compound Nos. 1 – 126 by the California Toxics Rule at 40 CFR 131.38 (b)(1). Samples shall be collected during a dry weather period and on the same day as receiving water samples are collected for analysis of the priority pollutants. Analyses for the priority pollutants shall be conducted in accordance to methods established at 40 CFR 136, or if no method is specified for a pollutant at 40 CFR 136, in accordance to methods approved by the State Water Resources Control Board or the Regional Water Board.

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Discharger shall re-screen with the two species listed above and continue routine monitoring with the most sensitive species.

4. **Test Methods**. The presence of acute toxicity shall be estimated as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA Report No. EPA-821-R-02-012, 5th edition or subsequent editions), or other methods approved by the Executive Officer.

5. **Test Dilutions.** The acute toxicity test shall be conducted using 100 percent effluent collected at Monitoring Location M-001, when discharging to surface waters.

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

7. **Accelerated Monitoring.** If the result of any acute toxicity test fails to meet the single test minimum limitation (70 percent survival) and the testing meets all test acceptability criteria, the Discharger shall take two more samples, one within 14 days, and one within 21 days of receiving the initial sample result. If any of the additional samples do not comply with the three sample median minimum limitation (90 percent survival), the Discharger shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with Section VI.C.2.c of the Order. If the two additional samples are in compliance with the acute toxicity requirement and the testing meets all test acceptability criteria, then a TRE will not be required. If the discharge has ceased before the additional samples could be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the acute toxicity effluent limitation.

8. **Notification.** The Discharger shall notify the Regional Water Board in writing 14 days after the receipt of test results exceeding an effluent limitation or trigger. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by this Order, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

9. **Reporting**. Test results for acute toxicity tests shall be reported according to the acute toxicity manual Chapter 12 (Report Preparation) or in an equivalent format that clearly demonstrates that the Discharger is in compliance with effluent limitations and other permit requirements.

B. Chronic Toxicity Testing

The Discharger shall conduct chronic toxicity testing to demonstrate compliance with the monitoring requirements for chronic toxicity. The Discharger shall meet the following chronic toxicity testing requirements:

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1. **Test Frequency.** The Discharger shall conduct annual chronic toxicity testing.

2. **Sample Type.** For 96-hour static renewal or 96-hour static non-renewal testing, the samples shall be 24-hour composite and shall be representative of the volume and quality of the discharge. The effluent sample shall be collected at Monitoring Location M-001.

3. **Test Species.** Test species for chronic testing shall be a vertebrate, the fathead minnow, *Pimephales promelas* (larval survival and growth test**)**, an invertebrate, the water flea, *Ceriodaphnia dubia* (survival and reproduction test), and a plant, the green alga, *Selanastrum capricornutum* (growth test).

4. **Test Methods.** The presence of chronic toxicity shall be estimated as specified in USEPA's *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms* (USEPA Report No. EPA-821-R-02-013, 4th or subsequent editions).

5. **Test Dilutions.** The chronic toxicity test shall be conducted using a series of at least five dilutions and a control. The series shall consist of the following dilution series: 12.5, 25, 50, 75, and 100 percent effluent. Control and dilution water should be receiving water at an appropriate location upstream of the discharge point. Laboratory water may be substituted for receiving water, as described in the manual, upon approval by the Regional Water Board Executive Officer. Specifically, for the Selenastrum capricornutum test, synthetic laboratory water with a hardness similar to the receiving water shall be used as the control and dilution water. If the dilution water used is different from the culture water, a second control using culture water shall be used.

6. **Reference Toxicant.** If organisms are not cultured in-house, concurrent testing with a reference toxicant shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests also shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

7. **Test Failure.** If either the reference toxicant test or the chronic toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.

8. **Notification.** The Discharger shall notify the Regional Water Board in writing 14 days after the receipt of test results exceeding an effluent limitation or trigger.

9. **Accelerated Monitoring Requirements**. If the result of any chronic toxicity test exceeds an effluent limitation and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring. Accelerated monitoring shall consist of four additional effluent samples, one test conducted approximately every

DRAFT

week, over a four–week period. Testing shall commence within 14 days of receipt of the sample results of the exceedance of the chronic toxicity effluent limitation. If the discharge will cease before the additional samples can be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the chronic toxicity effluent limitation. The following protocol shall be used for accelerated monitoring and TRE implementation:

a. If the results of four consecutive accelerated monitoring tests do not exceed the effluent limitation, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, if there is adequate evidence of a pattern of effluent toxicity, the Regional Water Board 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 effluent limitation. 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 an effluent limitation or 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 effluent limitation during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Regional Water Board including, at minimum:

    1. Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including TRE WET monitoring schedule;
    2. Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
    3. A schedule for these actions.

C. Acute and Chronic Toxicity Reporting

1. Results shall be reported in TUc, where TUc = 100/NOEC or 100/IC25.

2. **Routine Reporting**. Test results for chronic tests shall be reported according to the acute and chronic manuals and the Monitoring and Reporting Program and shall be attached to the self-monitoring report. Test results shall include, at a minimum, for each test:

    a. sample date(s)
    b. test initiation date
    c. test species

d. end point values for each dilution (e.g., number of young, growth rate, percent survival)
e. NOEC value(s) in percent effluent
f. IC15, IC25, IC40, and IC50 values (or EC15, EC25…etc.) in percent effluent
g. TUc values (100/NOEC, 100/IC25, 100/ EC25)
h. Mean percent mortality (±s.d.) after 96 hours in 100 percent effluent (if applicable)
i. NOEC and LOEC values for reference toxicant test(s)
j. IC50 or EC50 value(s) for reference toxicant test(s)
k. Available water quality measurements for each test (e.g., pH, DO, temperature, conductivity, hardness, salinity, ammonia)

3. **Compliance Summary**: The results of the chronic toxicity testing shall be provided in the most recent self-monitoring report and shall include a summary table of toxicity data from at least three of the most recent samples. The final report shall clearly demonstrate that the Discharger is in compliance with effluent limitations and other permit requirements.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

A. Monitoring Location M-003

1. The Discharger shall monitor treated wastewater effluent at M-003 prior to discharge into the percolation ponds as follows:

Table 5. Land Discharge Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow (Mean)	MGD	Continuous	Daily	Meter
BOD_5	mg/L	8 Hour Composite	Weekly	Standard Methods
TSS	mg/L	8 Hour Composite	Weekly	Standard Methods
pH	Standard Units	Grab	Weekly	Standard Methods
Coliform Bacteria	MPN/100 ml	Grab	Weekly	Standard Methods

VII. RECLAMATION MONITORING REQUIREMENTS

This Section does not apply to the City of Fortuna Wastewater Treatment Plant.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

For the purpose of calculating percent dilution in the receiving water, flow in the Eel River shall be measured daily during the wintertime discharge season as the combined volume measured at the Grizzly Creek and Scotia gauging stations.

DRAFT

A. Monitoring Location 001

1. The Discharger shall monitor Strongs Creek at R-001 as follows:

Table 6a. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	Standard Units	Grab	Monthly	Standard Methods
Temperature	ºF or °C	Grab	Monthly	Standard Methods
Dissolved Oxygen	mg/L	Grab	Monthly	Standard Methods
Specific Conductance	micromhos	Grab	Monthly	Standard Methods
Total Dissolved Solids	mg/L	Grab	Monthly	Standard Methods
Turbidity	mg/L	Grab	Monthly	Standard Methods
Floatables/discoloration	---	Visual	Monthly	---
Priority Pollutants [b]	µg/L	Grab	1x / Order term	Standard Methods
Hardness ($CaCO_3$)	mg/L	Grab	Concurrent with Priority Pollutant Sampling	Standard Methods

B. Monitoring Location R-002s

1. The Discharger shall monitor Strongs Creek at R-002s as follows:

Table 6b. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	Standard Units	Grab	Monthly	Standard Methods
Temperature	ºF or °C	Grab	Monthly	Standard Methods
Dissolved Oxygen	mg/L	Grab	Monthly	Standard Methods
Specific Conductance	micromhos	Grab	Monthly	Standard Methods
Total Dissolved Solids	mg/L	Grab	Monthly	Standard Methods
Turbidity	mg/L	Grab	Monthly	Standard Methods
Floatables/discoloration	---	Visual	Monthly	---

DRAFT

IX. OTHER MONITORING REQUIREMENTS

This Section does not apply to the City of Fortuna Wastewater Treatment Plant.

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. **Compliance Time Schedules.** For compliance time schedules included in the Order, the Discharger shall submit to the Regional 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 Regional Water Board by letter when it returns to compliance with the compliance time schedule.

B. Self Monitoring Reports (SMRs)

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

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly and annual summary SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

DRAFT

Table 7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	August 1, 2007	All	First Day Of Second Calendar Month Following Month Of Sampling
Daily	August 1, 2007	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First Day Of Second Calendar Month Following Month Of Sampling
Weekly	August 5, 2007	Sunday through Saturday	First Day Of Second Calendar Month Following Month Of Sampling
Monthly & 6x/year	August 1, 2007	1st day of calendar month through last day of calendar month	First Day Of Second Calendar Month Following Month Of Sampling
Semiannually	January 1, 2008	January 1 through June 30 July 1 through December 31	30 days from the end of the monitoring period
Annually	January 1, 2008	January 1 Through December 31	February 1
1 / Order Term	October 1, 2010	October 1 Through May 15	July 1, 2011

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

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

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

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

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

DRAFT

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

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

5. The Discharger shall submit SMRs in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The reported data shall include calculation of all effluent limitations that require averaging, taking of a median or other computation. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment. During periods of land discharge, the reports shall certify "land discharge".

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:
   1. Facility name
   2. WDID number
   3. Applicable period of monitoring and reporting
   4. Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation)
   5. Corrective actions taken or planned; and
   6. The proposed time schedule for corrective actions.

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

   Regional Water Quality Control Board
   5550 Skylane Boulevard, Suite A
   Santa Rosa, CA 95403

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring

DRAFT

Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

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

D. Other Reports

1. The Discharger shall report the results of any special studies required by Special Provisions – VI.C.2. a and VI.C.2.b of this Order. The Discharger shall report the progress in satisfaction of compliance schedule dates specified in Special Provisions – VI.C.7 of this Order.

2. Annual Report. The Discharger shall submit an annual report to the Regional Water Board for each calendar year. The report shall be submitted by February 1st of the following year. The report shall, at a minimum, include the following:

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

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

   c. Sanitary Sewer System Reporting. The Discharger shall submit, as part of its annual report to the Regional Water Board, a description of the Discharger's activities within the sanitary sewer system over the previous twelve months. The report shall contain:

DRAFT

ii. A description of any change in the local legal authorities enacted to implement the Sewer System Management Plan (SSMP);

iii. A summary of the SSOs that occurred in the past year. The summary shall include the date, location of overflow point, affected receiving water (if any), estimated volume, and cause of the SSO, and the names and addresses of the responsible parties as well as the names and addresses of the property owner(s) affected by the sanitary sewer overflow;

iv. A summary of compliance and enforcement activities during the past year. The summary shall include fines, other penalties, or corrective actions taken as a result of the SSO. The summary shall also include a description of public participation activities to involve and inform the public;

v. Documentation that all feasible steps to stop and mitigate impacts of sanitary sewer overflows have been taken;

vi. Documentation that the annual report has been made available to the public.

d. Source Control Activity Reporting. The Discharger shall submit, as part of its annual report to the Regional Water Board, a description of the Discharger's source control activities, as required by Provision VI.C.5.b. of Order No. R1-2006-0049, during the past year. This annual report is due on February 1st of each year, beginning on February 1, 2008 and shall contain:

i. A copy of the source control standards.

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

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

iv. A summary of public participation activities to involve and inform the public.

DRAFT

ATTACHMENT F – FACT SHEET

Table of Contents

Attachment F – Fact Sheet 3
I. Permit Information 3
II. Facility Description 4
A. Description of Wastewater and Biosolids Treatment or Controls 4
B. Discharge Points and Receiving Waters 5
C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data 6
D. Compliance Summary 8
E. Planned Changes 8
III. Applicable Plans, Policies, and Regulations 8
A. Legal Authorities 8
B. California Environmental Quality Act (CEQA) 9
C. State and Federal Regulations, Policies, and Plans 9
D. Impaired Water Bodies on CWA 303(d) List 12
E. Other Plans, Polices and Regulations 12
IV. Rationale For Effluent Limitations and Discharge Specifications 12
A. Discharge Prohibitions 13
B. Technology-Based Effluent Limitations 15
1. Scope and Authority 15
2. Applicable Technology-Based Effluent Limitations 16
C. Water Quality-Based Effluent Limitations (WQBELs) 18
1. Scope and Authority 18
2. Applicable Beneficial Uses and Water Quality Criteria and Objectives 19
3. Determining the Need for WQBELs 20
4. WQBEL Calculations 22
5. Whole Effluent Toxicity (WET) 24
D. Final Effluent Limitations 25
E. Interim Effluent Limitations – Strongs Creek/Eel River 27
F. Land Discharge Specifications – Percolation Ponds 27
G. Reclamation Specifications 28
V. Rationale for Receiving Water Limitations 28
A. Surface Water 28
B. Groundwater 28
VI. Rationale for Monitoring and Reporting Requirements 29
A. Influent Monitoring 29
B. Effluent Monitoring 29
C. Whole Effluent Toxicity Testing Requirements 30
D. Receiving Water Monitoring 33
1. Surface Water. Monitoring and Reporting Program Order R1-2007-0007 includes monitoring of Strongs Creek in order to monitor effluent impacts on receiving water quality. Compliance with receiving water limitations will be

DRAFT

demonstrated by grab samples taken upstream and at the point of discharge in Strongs Creek when directly discharging to surface water. 33
2. Groundwater . Groundwater monitoring is not required in conjunction with Monitoring and Reporting Program Order R1-2007-0007. However, should the results of a special study conducted under Section VI.C.2.a. or Order R1-2007-0007 conclude that discharges to the percolation ponds do not result in Basin Plan violations, routine groundwater monitoring may be required. 33
E. Other Monitoring Requirements 33
VII. Rationale for Provisions 34
A. Standard Provisions 34
B. Special Provisions 34
1. Reopener Provisions 34
2. Special Studies and Additional Monitoring Requirements 34
3. Best Management Practices and Pollution Prevention 36
4. Construction, Operation, and Maintenance Specifications 36
5. Special Provisions for Municipal Facilities (POTWs Only) 37
6. Other Special Provisions 39
7. Compliance Schedules 39
VIII. Public Participation 40
A. Notification of Interested Parties 40
B. Written Comments 40
C. Public Hearing 40
D. Waste Discharge Requirements Petitions 41
E. Information and Copying 41
F. Register of Interested Persons 41
G. Additional Information 41

List of Tables

Table 1. Facility Information 3
Table 2a. Historic Effluent Limitations and Monitoring Data Discharge Point 001 7
Table 2b. Historic Effluent Limitations and Monitoring Data Discharge Point 002 7
Table 3. Basin Plan Beneficial Uses 10
Table 4. Summary of Water Quality-based Effluent Limitations 24
Table 5. Summary of Final Effluent Limitations – Strongs Creek/Eel River 26

DRAFT

ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	**1B831350HUM**
Discharger	**City of Fortuna**
Name of Facility	**City of Fortuna Municipal Wastewater Treatment Plant, Fortuna**
Facility Address	**180 Dinsmore Drive**
	Fortuna, CA 95540
	Humboldt County
Facility Contact, Title and Phone	**Bruce Gehrke, Environmental Services Director, (707) 725-7650**
Authorized Person to Sign and Submit Reports	**Bruce Gehrke, Environmental Services Director, (707) 725-7650**
Mailing Address	**P.O. Box 545, Fortuna, CA 95540**
Billing Address	**P.O. Box 545, Fortuna, CA 95540**
Type of Facility	POTW
Major or Minor Facility	**Major**
Threat to Water Quality	**3**
Complexity	**A**
Pretreatment Program	**No**
Reclamation Requirements	**N/A**
Facility Permitted Flow	**1.5 million gallons per day (MGD)**
Facility Design Flow	**1.5 million gallons per day (MGD)**
Watershed	**Eel River Hydrologic Unit; Ferndale Hydrologic Sub-Area**
Receiving Water	**Strongs Creek/Eel River**
Receiving Water Type	**Inland Surface Water**

A. The City of Fortuna (hereinafter Discharger) is the owner and operator of City of Fortuna Municipal Wastewater Treatment Plant (hereinafter Facility), a publicly owned treatment works.

DRAFT

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

B. The Facility discharges wastewater to Strongs Creek, tributary to the Eel River, a water of the United States, and is currently regulated by Order R1-2001-41 which was adopted on April 26, 2001 and expired on April 26, 2006. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on October 28, 2005. Supplemental information was requested on January 11, 2007 and received on February 2, 2007**.** A site visit was conducted on February 22, 2007, to observe operations and collect additional data to develop permit limitations and conditions.]

II. FACILITY DESCRIPTION

The Discharger owns and operates a municipal wastewater treatment plant and associated collection system and disposal facilities. The Facility serves approximately 7,000 residential, commercial, and institutional users in the City of Fortuna and 4,000 residential users in the Rohnerville-Campton Heights Area. The current wastewater treatment system consists of screening, grit removal, influent pumping, primary sedimentation, activated sludge processes, secondary sedimentation, chlorination, de-chlorination, as well as anaerobic biosolids digestion, dewatering and composting.

The entire treatment plant site slopes to the Southwest. Storm water that falls on the site drains to the equalization ponds. At low flow periods, storm drainage is returned to the wastewater treatment process for treatment before it is discharged.

A. Description of Wastewater and Biosolids Treatment or Controls

The Facility is currently designed to treat an average dry-weather flow (ADWF) of 1.5 mgd and reports an influent peak wet weather flow (PWWF) capacity of 7.0 MGD. Peak influent flows over 3-4 MGD are bypassed to three equalization ponds and returned for treatment during low flow periods.

The solids handling facilities are designed to accommodate the approved General Plan buildout with a capacity of 1.9 MGD. Biosolids generated during the treatment process are thickened, anaerobically digested and dewatered using a belt filter press. The dewatered biosolids are currently stored up to one year on-site and land applied in accordance with EPA 503 requirements once each year. A portion of the biosolids are composted to Class A requirements, the remainder are Class B as a result of anaerobic digestion.

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B. Discharge Points and Receiving Waters

The City of Fortuna is located within the Ferndale Hydrologic Subarea of the Lower Eel River Hydrologic Area within the Eel River Hydrologic Unit. The wastewater treatment plant is located along Strongs Creek near the confluence of the Eel River. Wintertime surface water discharges from Discharge Point 001 located at latitude 40º, 35', 34" N longitude 124 º, 09', 30" W enter into Strongs Creek, just upstream of the confluence with the Eel River. Historically, discharge to the percolation ponds adjacent to the facility at the confluence of Strongs Creek and the Eel River has been identified as Discharge Point 001 in conjunction with direct discharges to surface water, which enter Strongs Creek. Effluent limitations for surface water and land discharges differ in Order No. R1-2007-0007 and land discharges are not subject to the same regulations as discharges to inland surface waters and waters of the United States. Therefore, for clarity, as of the effective date of this permit, discharges to the percolation ponds shall be identified with Discharge Point No. 003.

Previous Order No. R1-2001-41 permitted discharge of disinfected and dechlorinated effluent from Discharge Point 002 into Strongs Creek from the "holding/oxidation ponds" under prolonged storm conditions. Oxidation Ponds also known as stabilization ponds or lagoons can be used for simple secondary treatment of sewage effluents. Within an oxidation pond heterotrophic bacteria degrade organic matter in the sewage which results in production of cellular material and minerals. The production of these supports the growth of algae in the oxidation pond. Growth of algal populations allows further decomposition of the organic matter by producing oxygen. The production of this oxygen replenishes the oxygen used by the heterotrophic bacteria. Typically, oxidation ponds need to be less than 10 feet deep in order to support the algal growth. In addition, the use of oxidation ponds is largely restricted to warmer climate regions because they are strongly influenced by seasonal temperature changes. Oxidation ponds also tend to fill, due to the settling of the bacterial and algal cells formed during the decomposition of the sewage. Overall, oxidation ponds tend to be inefficient and require large holding capacities and long retention times. The degradation is relatively slow and the effluents containing the oxidized products need to be periodically removed from the ponds. Regional Water Board staff's current technical evaluation of the holding ponds indicates that consistent secondary treatment is unlikely given the configuration and intermittent operation of this portion of the facility. Under current conditions, this portion of the facility appears to provide flow equalization, which assists operations during the storm season.

Records show that discharges from Discharge Point 002 occurred only once over a two week period since adoption of Order No. R1-2001-41 and resulted in a total of four violations, nearly 20 percent, of the total number of effluent violations documented since April 2001. Future dependence upon the equalization ponds should diminish upon

DRAFT

effective implementation of the current statewide collection system inspection and maintenance requirements identified under Provision VI.C.5.a of Order R1-2007-0007.

Although mentioned in the supplemental facility description received on February 2, 2007, the Discharger's application for permit renewal did not specify Discharge Point 002 as a requested outfall on EPA Form 3510-2A. The Regional Water Board may consider re-opening this permit if the Discharger submits a complete application for discharge from Discharge Point 002. A complete application must include the engineered design, and a technical description of treatment processes and operation of the equalization ponds that documents that secondary treatment standards can be met in effluent from that outfall.

The main tributaries to the main stem of the Eel River are the South Fork Eel, the Middle Fork Eel, the North Fork Eel, the Van Duzen River, Outlet, Yager, Larabee, Bull and Salmon Creeks. The upper watershed is mountainous and vegetated by redwood, douglas fir interspersed with some hardwoods and meadows. Toward the coast, the river spreads out on a coastal plain where the Salt River joins it in the Eel River estuary. The Eel River is designated as a Critical Coastal Area.

The Eel River is also listed in the Federal Clean Water Act (CWA) section 303(d) list as impaired for sediment and temperature. The Eel River Watershed Management Area (WMA) encompasses roughly 3,684 square miles in highly erodible soils in the steep coastal mountains of the Region, supporting a variety of water uses including municipal and agricultural supply systems, salmonid fisheries, and recreation. The Eel River WMA is a prime recreational area boasting numerous state and private campgrounds along its length with both water contact and non-contact uses such as boating and swimming. The Eel River is the third largest producer of salmon and steelhead in the State of California and supports a large recreational fishing industry. The erodible soils, steep terrain, and other contributing factors evoke a high level of concern for the anadromous fishery resource. Coho salmon, a native species of the Eel River watershed, were listed as endangered under the federal Endangered Species Act in 1997.

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 M-001) and representative monitoring data from the term of the previous Order are as follows:

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Table 2a. Historic Effluent Limitations and Monitoring Data Discharge Point 001

Parameter/ Units	Effluent Limitations			Monitoring Data (From April 2001 – To September 2006)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Result	Highest Average Weekly Result	Highest Daily Result	No. of Violations
BOD (20°C, 5-day) mg/l	30	45	60	12.32	26.6	26.6	Daily – 0 Weekly – 0 Monthly – 0
BOD Removal Efficiency %	85[1]	---	---	92[2]	---	---	0
Total Suspended Solids (TSS) mg/l	30	45	60	10.78	81.5	81.5	1
TSS Removal Efficiency %	85[1]	---	---	87	---	---	0
Settleable Solids ml/l	<0.1	---	<0.2	3.8	---	15	Daily – 2 Monthly – 2
Total Coliform Organisms MPN/100 ml	23[3]	---	230	34	---	1600	Daily – 6 Monthly – 2
Chlorine Residual mg/l	---	---	<0.1	---	---	1.0	3
Hydrogen [4]Ion pH	---	---	6.5-8.5	---	---	6.4-6.8	2
Hydrogen Ion[5] pH	---	---	6.0-9.0	---	---	6.2-6.7	0

2. Effluent limitations contained in the previous Order for discharges from Discharge Point 002 (Monitoring Location 002) and representative monitoring data from the term of the previous Order are as follows:

[1] Minimum required
[2] Minimum reported
[3] Median
[4] Limits apply when discharging to the Eel River
[5] Limits apply when discharging to the percolation ponds

DRAFT

Table 2a. Historic Effluent Limitations and Monitoring Data Discharge Point 002

Parameter/ Units	Effluent Limitations 002			Monitoring Data (From April 2001 – To September 2006)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Result	Highest Average Weekly Result	Highest Daily Result	No. of Violations
BOD (20°C, 5-day) mg/l	30	---	---	42	---	---	1
Total Suspended Solids (TSS) mg/l	30	---	---	21.8	---	---	0
Settleable Solids ml/l	<0.1	---	<0.2	<0.1	---	<0.1	0
Total Coliform Organisms MPN/100 ml	23[3]	---	230	450	---	900	Daily – 1 Monthly – 1
Hydrogen Ion pH	---	---	6.5-8.5	---	---	5.8-7.0	4

D. Compliance Summary

During the period of April 2001 through September 2006, the Discharger had only eighteen violations of effluent limitations at Discharge Point 001. Many of the violations from Discharge Point 001 are related to high flow events during winter storms. In January 2006, due to extreme rainfall and flood conditions, the Discharger released disinfected effluent from the storm equalization ponds directly to surface water through Discharge Point 002 for a total of fourteen days, resulting in seven effluent violations during surface water discharge.

E. Planned Changes

This Section does not apply to the City of Fortuna Wastewater Treatment Plant.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

DRAFT

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

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Quality Control Board (Regional Water Board) adopted a Water Quality Control Plan for the North Coast (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements of this Order implement the Basin Plan.

2. The Basin Plan at page 2-1.00 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan does not specifically identify beneficial uses for Strongs Creek, but does identify present and potential uses for the Eel River, to which Strongs Creek is tributary. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, beneficial uses applicable to Strongs Creek and the Eel River are as follows:

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Table 3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Strongs Creek/Eel River	Existing: MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply GWR – Groundwater Recharge FRSH – Freshwater Replenishment NAV – Navigation REC1 – Water Contact Recreation REC2 – Non-Contact Water Recreation COMM – Commercial and Sport Fishing COLD – Cold Freshwater Habitat WILD – Wildlife Habitat RARE – Preservation of Rare, Threatened, or Endangered Species MIGR – Migration of Aquatic Organisms SPWN – Spawning, Reproduction, and/or Early Development AQUA – Aquaculture Potential: PRO – Industrial Process Supply POW – Hydropower Generation WARM – Warm Freshwater Habitat
003	Groundwater	Existing: MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply FRSH – Freshwater replenishment to Surface Waters CUL – Native American Culture Potential: PRO – Industrial Process Supply AQUA – Aquaculture

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

DRAFT

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

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

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

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

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

The Lower Eel River Hydrologic Unit is listed as an impaired water body for sediment and temperature pursuant to section 303(d) of the CWA. A Total Maximum Daily Load has not been established to address temperature or sediment loadings. An analysis of the Fortuna's Wastewater Treatment Plant discharge determined that it does not contain temperature or sediment at levels which will cause, have the reasonable potential to cause, or contribute to increases in temperature or sediment levels in the Eel River. This finding is based in part on monitoring results collected during the last permit cycle. This finding is based on the Facility's monitoring data, the 100:1 dilution rate the discharge receives in the river and the summer seasonal discharge prohibition.

E. Other Plans, Polices and Regulations

1. The Basin Plan includes water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions, and statewide plans and policies.

2. The Basin Plan contains a narrative objective (standard) for toxicity that requires:

   All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassay of appropriate duration or other appropriate methods as specified by the Regional Water Board.

   The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary for other control water that is consistent with the requirements for "experimental water" as described in Standard Methods for the Examination of Water and Wastewater 18th Edition (1992). At a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour bioassay.

   In addition, effluent limits based upon acute bioassays of effluent will be prescribed. Where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be required.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other

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requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

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

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

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

The Regional Water Board has the authority to determine whether the discharge of a constituent is "reasonably contemplated." The Piney Run case makes clear that the Discharger is liable for discharges "not within the reasonable contemplation of the permitting authority . . . , whether spills or otherwise . . . ." (268 F.3d 255, 268) In other words, whether or not the Discharger reasonably contemplates the discharge of a constituent is not relevant. What matters is whether the Discharger disclosed the constituent to the Regional Water Board or whether the presence of the pollutant in the discharge can otherwise be reasonably contemplated by the Regional Water Board at the time of permit adoption.

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2. **Discharge Prohibition III.B. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC) is prohibited.**

   This prohibition is based on Water Code section 13050.

3. **Discharge Prohibition III.C. The discharge of sludge is prohibited, except as authorized under Section VI.C.6.d. Solids Disposal and Handling Requirements.**

   This prohibition is based on restrictions on the disposal of sewage sludge found in federal regulations (Part 503 (Biosolids), Part 527 and Part 258) and California Code of Regulations, title 27.

4. **Discharge Prohibition III.D. The discharge or reclamation of untreated or partially treated waste (receiving a lower level of treatment than described in Finding No. II.B.) from anywhere within the collection, treatment, or disposal facility is prohibited, except as provided for in Attachment D, Standard Provision G [Bypass Provision].**

   This prohibition is based on the Basin Plan to protect beneficial uses of the receiving water from unpermitted discharges, and the intent of Water Code sections 13260 through 13264 relating to the discharge of waste to waters of the State without filing for and being issued a permit. This prohibition applies to, but is not limited to, sanitary sewer overflows, spills, and other unauthorized discharges of wastewater within the collection, treatment, reclamation, and disposal facilities.

5. **Discharge Prohibition III. E. Discharge of waste to the Eel River or its tributaries is prohibited during the period May 15 through September 30 each year.**

   This prohibition is required by the Basin Plan. The Basin Plan prohibits discharges to the Eel River and its tributaries during the period May 15 through September 30 (Chapter 4, North Coastal Basin Discharge Prohibition No. 3). The original intent of this prohibition was to prevent the contribution of wastewater to the baseline flow of the Eel River during the period of the year when the Eel River and its tributaries experience the heaviest water-contact recreation use.

6. **Discharge Prohibition III.F. During the period of October 1 through May 14 of each year, discharges of wastewater shall not exceed one percent of the flow of the Eel River. To comply with this flow prohibition, (1) the Discharger shall adjust the discharge rate of treated wastewater at least once daily to avoid exceeding, to the extent practicable, one percent of the most recent daily flow measurement of the Eel River as measured at the Scotia gauging station (USGS Station 11477000) combined with the flow as measured at the**

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Grizzly Creek gauging station (USGS Station 11478500)7; and (2) the total volume of treated wastewater discharged in a calendar month shall not exceed, in any circumstances, one percent of the total volume of the Eel River, in the same calendar month.

This prohibition is required by the Basin Plan (Chapter 4 Implementation Plans, North Coastal Basin Discharge Prohibition No. 3). The Basin Plan prohibits discharges to the Eel River and its tributaries when the waste discharge flow is greater than one percent of the receiving water's flow. Basin Plan Prohibition No. 3 does not specify how compliance to the one-percent flow requirement will be determined. The previous permit, Order No. R1-2001-41 provided that the volume of wastewater not exceed flows measured in the Eel River. A special study required under Provision VI.C.2.b.this Order requires the Discharger to evaluate the actual discharge rate in Strongs Creek and show compliance with the Basin Plan prohibition <u>or</u> move the point of discharge to the Eel River.

7. **Discharge Prohibition III.G. The discharge of waste to land that is not owned by or under agreement to use by the Discharger is prohibited.**

   Land used for the application of wastewater must be owned by, or be under the control of, the Discharger by contract so that the Discharger maintains a means for ultimate disposal of treated wastewater.

8. **Discharge Prohibition III.H. The discharge of waste at any point not described in Finding II.B. or authorized by any State Water Board or other Regional Water Board permit is prohibited.**

   This prohibition is a general prohibition that allows the Discharger to discharge waste only in accordance with waste discharge requirements. It is based on CWA sections 301 and 402 and Water Code section 13263.

B. Technology-Based Effluent Limitations

1. Scope and Authority

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

[7] During periods of discharge, USGS Stations 11477000 and 11478500 shall be read at least once daily, and the discharge flow rate shall be set for no greater than one percent of the flow of the river at the time of the daily reading. At the beginning of the discharge season, the first monthly flow comparisons shall be determined from the date when the discharge commenced to the end of the calendar month. At the end of the discharge season, the final monthly flow volume shall be determined from the first day of the calendar month to the date when the discharge ended for the season

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

Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in section 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH, as follows:

a. BOD and Suspended Solids

   i. The 30-day average shall not exceed 30 mg/l.
   ii. The 7-day average shall not exceed 45 mg/l.
   iii. The 30-day average percent removal shall not be less than 85 percent.

b. pH

   i. The pH shall be maintained within the limits of 6.0 to 9.0. (The effluent limitation range for pH of 6.5 to 8.5 required to meet the water quality objective for hydrogen ion concentration (pH) is contained in the Basin Plan Table 3-1.)

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

2. Applicable Technology-Based Effluent Limitations

a. Discharge Point 001

i. The following table summarizes concentration-based effluent limitations derived from section133.102 that are retained from the previous Order.

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Table 4. Summary of Technology-Based Effluent Limitations from 40CFR 133.102.

Parameter	Units	Effluent Limitation		
		Average Monthly	Average Weekly	Daily Maximum
BOD (5-day @ 20° C)	mg/L	30	45	---
TSS	mg/L	30	45	---
Percent Removal [a]	%	85	---	---
pH	Standard Units	6.0 – 9.0		

[a] Order No. R1-2007-0007 specifies that percent removal for BOD and TSS shall be determined from the 30-day average value of influent wastewater concentration in comparison to the 30-day average value of effluent concentration for the same constituent over the same time period.

ii. Technology-based effluent limitations for coliform bacteria for secondary effluent discharges to the percolation ponds, which have been retained from the previous Order, reflect standards adopted by the Department of Health Services for secondary treated recycled water in title 22 of the California Code of Regulations.

Coliform Effluent Limitations

		Effluent Limitations [a]	
Parameter	**Units**	**Weekly Median**	**Maximum**
Total Coliform Bacteria	mpn /100 mL	23	230

[a] The number of total coliform bacteria shall not exceed 23 per 100 ml in more than one sample in any 30-day period. No sample shall exceed an MPN of 230 total coliform bacteria per 100 ml.

iii. **Settleable Solids**. High levels of settleable solids can have an adverse effect on aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of settleable solids. The Eel River and its tributaries are listed as impaired for sediment and settleable solids is one aspect of the sediment impairing the Eel River.

iv. Monthly average and maximum daily effluent limitations for settleable solids of 0.1 and 0.2 ml/L have been retained from the previous Order. These limitations are a typical standard of performance for secondary treatment facilities and are included as a limitation based on the best professional judgment of Regional Water Board staff.

v. **Chlorine Residual**. The requirement for a minimum chlorine residual of 1.5 mg/l at the end of the disinfection process is retained from the previous Order and is based on Regional Water Board staffs' best professional judgment for providing adequate disinfection.

DRAFT

vi. **Mass Limits.** Mass effluent limitations for BOD and TSS are required under section 122.45(f) for the purpose of assuring that dilution is not used as a method of achieving the concentration limitations in the permit. Mass limits for BOD and TSS have been adjusted to reflect the amended flow limitation of 0.9 MGD. Therefore, mass limitations in this revised permit are slightly more stringent than the previous Order. Mass-based effluent limitations are technology-based; thus, these limitations apply at the end of the treatment train.

vii. **Percent Removal**. The percent removal requirements are standard secondary treatment technology-based effluent limitations derived from federal requirements (§133.102; definition in §133.101) and are retained from the previous Order.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The rationale for these requirements is discussed in Section IV.C.3. of the Fact Sheet.

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

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

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2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. Beneficial Uses. Applicable beneficial uses excerpted from the Basin Plan are presented in the Findings of Order No. R1-2006-0022 and Section III.C.1.a. of this Fact Sheet.

b. Basin Plan Water Quality Objectives. In addition to the specific water quality objectives indicated above, the Basin Plan contains narrative objectives for color, tastes and odors, floating material, suspended material, settleable material, oil and grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, bacteria, temperature, toxicity, pesticides, chemical constituents, and radioactivity that apply to inland surface waters, enclosed bays, and estuaries, including the Eel River and its tributaries.

c. State Implementation Policy (SIP), CTR and NTR. Water quality criteria applicable to the discharge to Strongs Creek/the Eel River are included in the NTR and the CTR, which contain numeric criteria for most of the 126 priority pollutants, and indicates that such criteria will be developed for the remaining criteria at a future date.

Aquatic life freshwater and saltwater criteria are further identified as criterion maximum concentrations (CMC) and criterion continuous concentrations (CCC). The CTR defines the CMC as the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects and the CCC as the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. The CMC is used to calculate an acute or one-hour average numeric effluent limitation and the CCC is used to calculate a chronic or 4-day average numeric effluent limitation.

Human health criteria are further identified as “water and organisms” and “organisms only.” The criteria from the “water and organisms” column of CTR were used for the preliminary reasonable potential analysis because the Basin Plan identifies that the receiving water, the Eel River is a source of municipal and domestic drinking water supply. The human health criteria are used to calculate human health effluent limitations.

The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so. Results of the reasonable potential analysis, water quality criteria and effluent limitation are presented in the following sections.

DRAFT

3. Determining the Need for WQBELs

a. Non-Priority Pollutants

Order No. R1-2007-0007 contains a WQBEL for total chlorine residual prior to surface water discharge (Effluent Limitation IV.A.1.d). The Permit specifies that the discharge shall at no time show detectable chlorine residual. This effluent limitation is based on the Basin Plan narrative water quality objectives for toxicity and chemical constituents. This effluent limitation is included to ensure that a wastewater dechlorination step removes all detectable chlorine residual for the protection of aquatic beneficial uses of the receiving water. The Regional Water Board views any chlorinated discharge as having the potential to contribute to an exceedance of the Basin Plan's narrative toxicity objective – all waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or aquatic life. The USEPA recommends a 4-day average (chronic) chlorine concentration of 0.01 mg/L for protection of fresh water aquatic life and a 1-hour (acute) concentration of 0.02 mg/L. [Quality Criteria for Water 1986 (The Gold Book), EPA 440/5-86-001 (May 1, 1986)]. These concentrations are, in effect, non-detectable concentrations by the common amperometric analytical method used for the measurement of chlorine; and therefore, the Regional Water Board has established an ND (not detected) level of chlorine as an effluent limitation for this discharge.

Order No. R1-2006-0021 retains WQBELs for pH (6.5 – 8.5) from Order No. R1-2000-15. The WQBEL for pH is based on water quality-based objectives established by the Basin Plan.

b. Priority Pollutants

The SIP Section 1.3 requires the Regional Water Board to use all available, valid, relevant, and representative receiving water and effluent data and information to conduct a reasonable potential analysis. Sufficient effluent and ambient data are available to conduct a complete RPA for the Facility. The Discharger collected two sets of priority pollutant data on May 12, 2002 and March 12, 2003.

Some freshwater water quality criteria for metals are hardness dependent; i.e., as hardness decreases, the toxicity of certain metals increases and the applicable water quality criteria become correspondingly more stringent. For this reasonable potential analysis, Regional Water Board staff has used a receiving water hardness concentration of 89 mg/L $CaCO_3$, based on receiving water data submitted by the Discharger. The two samples collected May 12, 2002 and March 12, 2003 showed hardness concentrations between 99 and 89 mg/l in the

Eel River, upstream of the Facility's discharge point. The use of the lowest receiving water hardness concentration provides the most protective approach for determining which parameters to require effluent limitations for, for the protection of aquatic life in the receiving stream.

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

Trigger 1. If the MEC is greater than C, there is reasonable potential, and an effluent limitation is required.

Trigger 2. If B is greater than C, and the pollutant is detected in effluent (MEC > ND), there is reasonable potential, and an effluent limitation is required.

Trigger 3. After review of other available and relevant information, a permit writer may decide that a WQBEL is required. Such additional information may include, but is not limited to: the facility type, the discharge type, solids loading analyses, lack of dilution, history of compliance problems, potential toxic impact of the discharge, fish tissue residue data, water quality and beneficial uses of the receiving water, CWA 303 (d) listing for the pollutant, and the presence of endangered or threatened species or their critical habitat.

<u>Reasonable Potential Determination</u>
The reasonable potential analysis demonstrated reasonable potential for discharges from Discharge Monitoring Point 001 to cause or contribute to exceedances of applicable water quality criteria for copper, chlordibromomethane, and dichlorobromomethane. The RPA determined that there is either no reasonable potential or there was insufficient information to conclude affirmative reasonable potential for the remainder of the other 126 priority pollutants.

The following table summarizes the reasonable potential analysis for each priority pollutant that was reported in detectable concentrations in either the effluent or receiving water since March 2002. Attachment F-1 to this Order summarizes all of the Discharger's effluent and receiving water monitoring data for these same pollutants.

DRAFT

CTR No.	Pollutant	Lowest Applicable Water Quality Criteria(C)	Max Effluent Conc (MEC)	Maximum Detected Receiving Water Conc.(B)	RPA Result-Need Limit?	Reason	Recommendation
No. 6	copper	8.44 ug/l	44 ug/l	10.0 ug/l	Yes	MEC>C	EL and monitoring
No. 23	chlordibromo methane	0.401 ug/l	2.0 ug/l	0.18 ug/l	Yes	MEC>C	EL and monitoring
No. 27	dichlorobromo methane	0.56 ug/l	6.8 ug/l	0.46 ug/l	Yes	MEC>C	EL and monitoring

* EL= effluent limitation

4. WQBEL Calculations

Final WQBELs for copper, chlordibromomethane, and dichlorobromomethane have been determined using the methods described in Section 1.4 of the SIP.

Since the water quality objectives for copper are hardness-dependent and the hardness in the Eel River varies, final effluent limitations for copper are determined using formulas that are based on the hardness of the receiving water at the time the discharge is sampled. The calculations for copper below use a hardness concentration of 89 mg/l to determine the copper effluent limitation for that single hardness value.

Step 1: For each water quality criterion/objective, an effluent concentration allowance (ECA) is calculated from the following equation to account for dilution and background levels of each pollutant.

ECA = C + D (C - B), where

C = the applicable water quality criterion (adjusted for receiving water hardness and expressed as total recoverable metal, if necessary)
D = the dilution credit
B = the background concentration

Because no credit is being allowed for dilution, D = 0, and therefore, ECA = C.

Step 2: For each ECA based on aquatic life criterion/objective (copper and cyanide), the long-term average discharge condition (LTA) is determined by multiplying the ECA times a factor (multiplier), which adjusts the ECA to account for effluent variability. The multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. When the data set contains less than 10 sample results (which is the case

DRAFT

for the Discharger), or 80 percent or more of the data are reported as non-detect (ND), the CV is set equal to 0.6. Derivation of the multipliers is presented in Section 1.4 of the SIP.

From Table 1 of the SIP, the ECA multiplier for calculating the LTA at the 99th percentile occurrence probability for copper is 0.32 (acute multiplier) and 0.53 (chronic multiplier); and LTA is calculated as follows.

	ECA (µg/L)		ECA Multiplier		LTA (µg/L)	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Copper	12.5	8.4	0.32	0.53	4.01	4.43

Step 3: WQBELs, including an average monthly effluent limitation (AMEL) and a maximum daily effluent limitation (MDEL) are calculated by multiplying the most limiting LTA for each pollutant times a multiplier that accounts for averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations, and the effluent monitoring frequency. Here, the CV was set equal to 0.6 (CV = 0.6) and the sampling frequency was set equal to 4 (n = 4). A 99th percentile occurrence probability was used to determine the MDEL multiplier and a 95th percentile occurrence probability was used to determine the AMEL multiplier. From Table 2 of the SIP, the MDEL multiplier is 3.1, and the AMEL multiplier is 1.6. Final WQBELs for copper are determined as follows.

	LTA (µg/L)	MDEL Multiplier	AMEL Multiplier	MDEL (µg/L)	AMEL (µg/L)
Copper	4.01	3.11	1.55	13	6.2

Step 4: When the most stringent water quality criterion/objective is a human health criterion/objective (chlorodibromomethane and dichlorobromomethane), the AMEL is set equal to the ECA, and the MDEL is calculated by multiplying the ECA times the ratio of the MDEL multiplier to the AMEL multiplier.

With no dilution credit, in the equation ECA = C + D (C – B), D is equal to zero, and ECA equals C.

From Table 2 of the SIP, when CV = 0.6 and n = 4, the MDEL multiplier at the 99th percentile occurrence probability equals 3.1, and the AMEL multiplier at the 95th percentile occurrence probability equals 1.55. Final WQBELs for chlorodibromomethane and dichlorobromomethane are determined as follows.

	ECA (µg/L)	MDEL/AMEL Multiplier	AMEL (µg/L)	MDEL (µg/L)
chlorodibromomethane	0.401	2.01	0.4	0.8
dichlorobromomethane	0.56	2.01	0.6	1.1

DRAFT

Summary of Water Quality-based Effluent Limitations
Discharge Point 001
Table 5. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Chlorine Residual	mg/L	No Detectable Levels using a minimum detection limit of 0.1 mg/l	
pH	pH Units	6.5-8.5	
Copper[8]	µg/L	6.2	13
Chlorodibromomethane	µg/L	0.4	0.8
Dichlorobromomethane	µg/L	0.6	1.1

5. Whole Effluent Toxicity (WET)

Effluent limits for whole effluent toxicity (WET), acute or chronic, protect the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. There are two types of WET tests - acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses in aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order contains acute toxicity limitations in accordance with the Basin Plan, which requires that average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests be at least 90 percent, with no single test having less than 70 percent survival.

In addition to the Basin Plan requirements, Section 4 of the SIP states that chronic toxicity effluent limitations are required in Orders for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. In accordance with the SIP, therefore, the Discharger will be required to conduct chronic toxicity testing in order to determine reasonable potential and establish WQBELs as necessary.

[8] Final effluent limitations for copper are for total recoverable metal fraction and are determined using formulas that are based on the hardness of the receiving water at the time the discharge is sampled.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order. Although the Daily maximum limitations for BOD and TSS have been removed from this Order, the more stringent weekly and monthly requirements for those parameters have been retained.

2. Satisfaction of Antidegradation Policy

This Order may allow some degradation of the quality of waters of the state by virtue of the fact that it permits the discharge of waste containing suspended solids and elevated temperature above ambient conditions into a waterway impaired for sediment, and temperature. Nevertheless, this Order is consistent with Resolution 68-16 because (1) such degradation is consistent with the maximum benefit to the people of the state, (2) the discharge is the result of wastewater utility service that is necessary to accommodate housing and economic expansion, and (3) it results in a high level of treatment of sewage waste. This Order requires tertiary treatment or equivalent, which is a high level of treatment that is considered BPTC for most constituents in the wastewater and will result in attaining water quality standards applicable to the discharge.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, TSS, pH, percent removal, and coliform. Restrictions on BOD, TSS, pH, percent removal, and coliform are discussed in Section IV.B.2. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These requirements include some limitations that are more stringent than required by the CWA.

This Order contains pollutant restrictions that are more stringent than applicable federal requirements and standards. Specifically, this Order includes effluent limitations for chlorine residual, pH, copper, chlordibromomethane, and dichlorobromomethane that are more stringent than applicable federal standards, but that are nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in Section IV.C.3.

Summary of Final Effluent Limitations

DRAFT

Discharge Point 001 – Strongs Creek/Eel River

Table 6. Summary of Final Effluent Limitations – Strongs Creek/Eel River

Parameter	Units	Effluent Limitations – 001				
		Average Monthly[9]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45		---	---
	lbs/day[10,11]	375	563		---	---
Total Suspended Solids	mg/L	30	45		---	---
	lbs/day	375	563		---	---
Settleable Solids	ml/L	0.1	---	0.2		
Coliform Bacteria	MPN/100 ml	23 [12]	---	230		
pH	standard units	---	---	---	6.5	8.5
Copper	µg/L	13	---	6.2	---	---
Chlorodibromomethane	µg/L	0.4	---	0.8	---	---
Dichlorobromomethane	µg/L	0.6	---	1.1	---	---

a. Treated wastewater discharged to Strongs Creek/the Eel River shall not contain detectable levels of chlorine, using an analytical method or chlorine analyzer with a minimum detection level of 0.1 mg/L.

b. The average monthly percent removal of BOD5 and TSS shall not be less than 85 percent. Percent removal shall be determined from the 30-day average value of influent wastewater concentration in comparison to the 30-day average value of effluent concentration for the same constituent over the same time period. [CFR 133.101(j)]

c. The mean daily dry weather flow shall not exceed 1.5 MGD averaged over a period of a calendar month.

d. There shall be no acute toxicity in the effluent when discharging to Strongs Creek/the Eel River, as measured at Monitoring Location M-001. The Discharger

[9] See Attachment A for definitions

[10] The mass discharge (lbs/day) is obtained from the following calculation for any calendar week or month:

$$\frac{8.34}{N}\sum_{i}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar week or month. Q_i and C_i are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the N grab samples, which may be taken in any calendar week or month. If a composite sample is taken, C_i is the concentration measured in the composite sample; and Q_i is the average flow rate occurring during the period over which samples are composited

[11] Mass-based effluent limitations are based on the design flow of 1.5 MGD.

[12] Median

DRAFT

will be considered in compliance with this limitation when the survival of aquatic organisms in a 96-hour bioassay using undiluted effluent complies with the following:

i. Minimum for any one bioassay: 70 percent survival.

ii. Median for any three or more consecutive bioassays: at least 90 percent survival.

Compliance with this effluent limitation shall be determined in accordance with Section V.A. of the Monitoring and Reporting Program No. R1-2007-0007.

E. Interim Effluent Limitations – Strongs Creek/Eel River

Parameter	Units	Effluent Limitations – 001				
		Average Monthly[13]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper	µg/L	---	---	44	---	---
Chlorodibromomethane	µg/L	---	---	2	---	---
Dichlorobromomethane	µg/L	---	---	6.7	---	---

The interim effluent limitations for copper, chlorodibromomethane and dichlorobromomethane are set as maximum daily effluent limitations and are based on the highest effluent concentrations of each pollutant detected in the Discharger's monitoring data. Interim copper limitations set as maximum daily effluent limitations are based on a calculation of actual treatment plant performance derived from sampling and other data provided by the City of Fortuna.

F. Land Discharge Specifications – Percolation Ponds

Parameter	Units	Effluent Limitations – 003				
		Average Monthly[14]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	---	---	---
Total Suspended Solids	mg/L	30	45	---	---	---
Coliform Bacteria	MPN/100	23 [15]	---	230		

[13] See Attachment A for definitions

[14] See Attachment A for definitions

[15] Median

	ml					
pH	standard units	---	---	---	6.0	9.0

a. The average monthly percent removal of BOD (5-day 20°C) and total suspended solids shall not be less than 85 percent. Percent removal shall be determined from the 30-day average value of influent wastewater concentration in comparison to the 30-day average value of effluent concentration for the same constituent over the same time period. (§133.101(j)).

G. Reclamation Specifications

This Section does not apply to the City of Fortuna Wastewater Treatment Plant.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

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

B. Groundwater

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

2. Basin Plan water quality objectives include narrative objectives for chemical constituents, tastes and odors, bacteria and radioactivity. The chemical constituent objective states groundwater shall not contain chemical constituents in excess of the limits specified in Code of California Regulations, title 22, section 64435, Tables 2 and 3, and section 64444.5 (Table 5) and listed in Table 3-2 of the Basin Plan. Numerical objectives for certain constituents for individual groundwaters are contained in Table 3-1 of the Basin Plan. The tastes and odors objective prohibits taste- or odor-producing substances in concentrations that cause nuisance or

DRAFT

adversely affect beneficial uses. The bacteria objective prohibits coliform organisms at or above 1.1 MPN/100 ml.

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

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

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

A. Influent Monitoring

Influent wastewater monitoring for the WWTP is required in this Order. NPDES regulations at section 133 define secondary treatment to include 85 percent removal of BOD_5 and TSS during treatment. Monitoring of influent for these pollutant parameters, in addition to effluent, is required to monitor compliance with this standard of performance. Influent monitoring requirements are contained in Attachment E, Section III.A, of the MRP.

B. Effluent Monitoring

Pursuant to the requirements of section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. In addition, routine monitoring of the effluent and the receiving water for priority pollutants is required to periodically assess the reasonable potential of the discharge to cause or contribute to an exceedance of CTR criteria. The frequency of routine monitoring for priority pollutants is determined using best professional judgment, with consideration given to the nature of the individual pollutant, the past record of detections in the effluent, and likelihood of the presence of the pollutant in the discharge. Effluent monitoring requirements are contained in Attachment E, Section IV of the MRP.

Varying degrees of ammonia nitrogen, unionized ammonia, nitrate nitrogen, total phosphorus are known commonly to discharge from municipal wastewater plants. These substances and combinations thereof can cause nuisance aquatic growth and/or be toxic to human or aquatic health. The Basin Plan prohibits biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth cause nuisance or adversely affect beneficial uses. The Basin Plan further requires 1) all waters to be maintained free of toxic substances in concentrations that are toxic to or that produce detrimental physiological responses in human, plant, animal, or aquatic

DRAFT

life. In order to gather data to determine if reasonable potential exists to exceed water quality criteria and require development of future effluents , effluent monitoring requirements contained in Attachment E, Section IV of the MRP include monthly monitoring for ammonia nitrogen, unionized ammonia, nitrate nitrogen, total phosphorus during periods of discharge to Strongs Creek/the Eel River.

C. Whole Effluent Toxicity Testing Requirements

1. Acute Toxicity

a. **Rationale.** Monthly 96-hour bioassay testing is required to demonstrate compliance with the effluent limitation for acute toxicity (Effluent Limitation IV.A.1.e).

b. **Test Frequency** - The USEPA recommends monthly WET testing for facilities listed as "major facilities" and quarterly testing for "minor facilities." (*Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, USEPA, 1996) If WET limits are required, federal regulations (40 CFR 122.44(i)(2) require a minimum frequency of annual. For small municipalities, not designated as "major facilities," the USEPA recommends at least one suite of tests to be conducted during the lifetime of the permit and prior to reissuance in order to assess reasonable potential.

   Because Fortuna has not shown difficulties with acute toxicity results in the past and effluent often discharges to the percolation ponds throughout a majority of the year, this Order specifies routine monitoring twice annually for acute toxicity in order to ensure compliance with the Basin Plan narrative toxicity objective.

c. **Sample Location** – Representative effluent samples shall be collected at Monitoring Location M-001, when discharging to surface water.

d. **Sample Type** – This Order specifies a 96-hour static renewal or static non-renewal test as described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA Report No. EPA 600/4-90-027F, 4th edition or subsequent editions. Upon request, other methods may be approved by the Regional Water Board Executive Officer.

e. **Test Species** – This Order requires the Discharger to conduct acute toxicity tests with the water flea, *Ceriodaphnia dubia*, and the rainbow trout, *Oncorhychus mykiss*, for at least two suites of tests. For the first two suites of acute toxicity tests, the Discharger will determine the most sensitive aquatic species and continue to monitor with the most sensitive species. At least once every five years, the Discharger will re-screen to re-confirm the most sensitive species for the acute toxicity test.

DRAFT

f. **Test Method** – The presence of acute toxicity shall be estimated as specified in effluent limitation IV.A.1.d. and shall be consistent with *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA Report No. EPA 600/4-90-027F, 4th edition or subsequent editions), or other methods approved by the Executive Officer.

g. **Dilution Water** – Acute toxicity tests shall be conducted using undiluted effluent.

h. **Accelerated Monitoring** - The provision requires accelerated acute toxicity testing when a regular acute toxicity test result exceeds the single sample effluent limitation. 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. Under this provision, the Discharger is required to conduct at least two additional samples, one within 14 days, and one within 21 days of receiving the initial sample result. If any of the additional samples do not comply with the three sample median minimum limitation (90 percent survival) using that sample result and the two previous sample results, the Discharger shall initiate a TRE. If any test of a sample is ruled invalid, the Discharger will re-sample within 7 days following notification of test invalidation.

2. Chronic Toxicity

a. **Rationale.** Chronic whole effluent toxicity testing is required annually in order to demonstrate compliance with the Basin Plan's narrative toxicity objective.

b. **Test Frequency** - The USEPA has no fixed guidance on the establishment of monitoring frequency, but recommends monthly WET testing for facilities listed as "major facilities" and quarterly testing for "minor facilities" during the first year of WET testing in order to develop sufficient data to conduct a reasonable potential analysis. USEPA further recommends that a reduction in sampling frequency is appropriate if no individual toxicity test exceeds the WET limit or trigger. If WET limits are required, federal regulations (40 CFR 122.44(i)(2) requires a minimum frequency of annual. For small municipalities, not designated as "major facilities," the USEPA recommends at least one suite of tests to be conducted during the lifetime of the permit and prior to reissuance in order to assess reasonable potential. (*Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, USEPA, 1996)

This Order specifies annual routine monitoring for chronic toxicity. The Discharger has not detected chronic toxicity in six samples collected during the last five years, thus the minimum sampling frequency of once per year is appropriate.

DRAFT

c. **Sample Location** - Representative effluent samples shall be collected at Monitoring Location M-001, when discharging to surface water.

d. **Sample Type** – The Discharger shall collect grab samples of storage pond effluent discharged to Discharge Point 001 at Monitoring Location M-001 for critical life stage toxicity testing as indicated in this Order. For toxicity tests requiring renewals, grab samples collected on appropriate days are required as mandated by the methods.

e. **Test Species** – This Order requires the Discharger to conduct short-term tests with the 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). Initially, the Discharger is required to determine the most sensitive test species and monitor the discharge for chronic toxicity using that species for no more than five years, whereupon, the Discharger will repeat the screening procedure to confirm the most sensitive species. If reasonable potential to exceed the narrative water quality objective is found to exist, the Permit may be reopened to include a chronic toxicity limitation, as appropriate. The Basin Plan does not allow a mixing zone for this discharge; therefore, reasonable potential will be based on results of chronic toxicity tests from samples collected at the end of the pipe.

f. **Test Method** – The presence of chronic toxicity shall be estimated as specified in and shall be consistent with *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.

g. **Dilution water** - Control and dilution water should be receiving water at a location immediately upstream and outside the influent of the outfall for all test methods except the short-term chronic *Selenastrum capricornutum* test. For the Selenastrum capricornutum test method, synthetic laboratory water with a hardness similar to the receiving water shall be used as the control and dilution water. Laboratory water may be substituted for receiving water, as described in the manual, upon approval by the Regional Water Board Executive Officer.

h. **Accelerated Monitoring** - The provision requires accelerated WET testing when a regular WET test result exceeds the effluent limitation or 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

DRAFT

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

i. **Monitoring Trigger.** A numeric toxicity monitoring trigger of > 1.0 TUc (where TUc = 100/NOEC or 100/IC25) is applied in the provision, because this Order does not allow any dilution for the chronic condition. Therefore, a TRE is triggered when the effluent exhibits a pattern of toxicity at 100% effluent.

D. Receiving Water Monitoring

1. **Surface Water.** Monitoring and Reporting Program Order R1-2007-0007 includes monitoring of Strongs Creek in order to monitor effluent impacts on receiving water quality. Compliance with receiving water limitations will be demonstrated by grab samples taken upstream and at the point of discharge in Strongs Creek when directly discharging to surface water.

2. **Groundwater .** Groundwater monitoring is not required in conjunction with Monitoring and Reporting Program Order R1-2007-0007. However, should the results of a special study conducted under Section VI.C.2.a. or Order R1-2007-0007 conclude that discharges to the percolation ponds do not result in Basin Plan violations, routine groundwater monitoring may be required.

E. Other Monitoring Requirements

This Section does not apply to the City of Fortuna Wastewater Treatment Plant.

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VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

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

B. Special Provisions

1. Reopener Provisions

Provision VI.C.1 contains a reopener provision. The Regional Water Board may reopen the Order to modify Order conditions and requirements. Causes for modifications include demonstration that the Discharger is causing or significantly contributing to adverse impacts to water quality and/or beneficial uses of receiving waters; new interpretation of water quality objectives of the Basin Plan; or if effluent monitoring or other new information demonstrates reasonable potential for any pollutant or pollutant parameter with applicable water criteria established by the NTR, CTR, or Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. Hydrogeologic Study (Section VI.C.2.a.)

The Regional Water Board has issued permits allowing seasonal and year-round discharges to percolation and/or treatment ponds adjacent to or within stream channels. These discharges are typically regulated as discharges to land and are not held to the same standards as discharges directly to surface waters. These ponds are often sited in permeable gravels and are operated and

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maintained in order to facilitate wastewater percolation. Over the past few years, staff have identified evidence of pollutants reaching surface water from some of these percolation ponds. The Regional Water Board and USEPA now consider the conveyance or discharge of pollutants to surface water via subsurface pathways (e.g., groundwater or seepage through the soil column) as a discharge to waters of the U.S., subject to all Basin Plan requirements, NPDES permitting requirements pursuant to section 301 of the CWA, as well as to all waste discharge requirements established by the Regional Water Board pursuant to Water Code section 13263. In order to comply with applicable regulations, some facilities with ponds adjacent to surface waters may need to implement facility modifications. It is appropriate to provide a reasonable time schedule for the proper evaluation of potential discharges, possible alternatives, and implementation for any necessary modifications.

b. **Effluent to Receiving Water Discharge Ratio Study (Section VI.C.2.b.)**

Discharge Point No. 001 currently discharges to Strongs Creek, above its confluence with the Eel River. The Implementation Plan for the North Coast Basin contained in the Basin Plan on page 4-1, prohibits discharges to the Eel River and its tributaries during periods when the waste discharge flow is greater than one percent of the receiving stream's flow. At this time, little if any information has been documented showing the actual flows in Strongs Creek. In order to comply with applicable regulations, the Discharger must either document that flows at the current Discharge Point No. 001 are equal to or less than the one percent requirement or implement facility modifications. It is appropriate to provide a reasonable time schedule for the proper evaluation of existing discharges, possible alternatives, and implementation for any necessary modifications.

c. **Toxicity Reduction Evaluations (Special Provision VI.C.2.c)**

The SIP requires the use of short-term chronic toxicity tests to determine compliance with the narrative toxicity objectives for aquatic life in the Basin Plan. Attachment E of this Order requires chronic toxicity monitoring for demonstration of compliance with the narrative toxicity objective.

In addition to WET monitoring, Special Provisions VI.C.2.b. requires the Discharger to submit to the Regional 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 TRE is initiated by evidence of a pattern of toxicity demonstrated through the additional effluent monitoring provided as a result of an accelerated monitoring program.

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

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

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

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

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

5. *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.

6. *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.

7. *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.

8. *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.

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

3. Best Management Practices and Pollution Prevention

Pollution Minimization Plan. Provision VI.C.3 is included in this Order as required by Section 2.4.5 of the SIP. The Regional Water Board includes standard provisions in all NPDES permits requiring development of a Pollutant Minimization Program when there is evidence that a toxic pollutant is present in effluent at a concentration greater than an applicable effluent limitation.

4. Construction, Operation, and Maintenance Specifications

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40 CFR 122.41 (e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. An up-to-date operation and maintenance manual, as required by Section VI.C.4.a. of the permit, is an integral part of a well-operated and maintained facility.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Wastewater Collection System (Provision VI.C.5.a.)

Statewide General WDRs for Sanitary Sewer Systems.

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Further, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section VI.C.5. For instance, the 24-hour reporting requirements in this Order are not included in the General Order. The Discharger must comply with both the General Order and this Order. The Discharger and public agencies that are discharging wastewater into the facility were required to obtain enrollment for regulation under the General Order by December 1, 2006.

All NPDES permits for POTWs currently include federally required standard conditions to mitigate discharges (40 CFR 122.41(d)), to report non-compliance (40 CFR 122.41(1)(6) and (7)), and to properly operate and maintain facilities (40 CFR 122.41(e)). This provision is consistent with these federal requirements.

b. Sanitary Sewer Overflows (Provision VI.C.5.b.)

Order No. 2006-0003-DWQ includes a Reporting Program that requires the Discharger, beginning May 2, 2007, to report SSOs to an online SSO database administered through the California Integrated Water Quality System (CIWQS) and telefax reporting when the online SSO database is not available. The goal of these provisions is to ensure appropriate and timely

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response by the Discharger to sanitary sewer overflows to protect public health and water quality.

The Order also includes reporting provisions (Provision VI.C.5.c.) and Attachment D subsections I.C., I.D., V.E. and V.H. to ensure adequate and timely notifications are made to the Regional Water Board and appropriate local, state, and federal authorities.

The Order establishes oral reporting limits for SSOs. SSOs less than 100 gallons are not required to be reported orally, while SSOs greater than or equal to 100 gallons must be reported orally to the Regional Water Board. Inevitably, minor amounts of untreated or partially treated wastewater may escape during carefully executed routine operation and maintenance activities. This Order establishes a reasonable minimum volume threshold for oral notifications. It has been the experience of Regional Water Board staff that SSOs to land that are less than 100 gallons are not likely to have a material effect on the environment or public health. Larger volumes in excess of 100 gallons may indicate a lack of proper operation and maintenance and due care, and pose more of a threat to the environment or public health. All SSOs, regardless of volume, must be electronically reported pursuant to State Water Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

c. Source Control Provisions (Provision VI.C.5.c.)

Because the design flow of the Facility is less than 5.0 mgd, the Order does not require the Discharger to develop a pretreatment program that conforms to federal regulations. Due to the identification of the reasonable potential for the priority pollutants copper, chlorodibromomethane, and dichlorobromomethane in the discharge, the proposed Order includes requirements for the Discharger to implement a source identification and reduction program. The Discharger's source identification and reduction program will need to address only those pollutants that continue to be detected at levels that trigger reasonable potential.

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

d. Sludge Disposal and Handling (Provision VI.C.5.d. and e.)

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The disposal or reuse of wastewater treatment screenings, sludges, or other solids removed from the liquid waste stream is regulated by Parts 257, 258, 501, and 503, the State Water Board promulgated provisions of title 27 of the California Code of Regulations, and with the Water Quality Control Plan for Ocean Waters of California (California Ocean Plan). The Discharger has indicated that that all screenings, sludges, and solids removed from the liquid waste stream are currently disposed of at a municipal solid waste landfill in accordance with all applicable regulations.

e. Operator Certification (Provision VI.C.5.f.)

This provision requires the WWTP to be operated by supervisors and operators who are certified as required by title 23, California Code of Regulations, section 3680.

f. Adequate Capacity (Provision VI.C.5.g.)

The goal of this provision is to ensure appropriate and timely planning by the Discharger to ensure adequate capacity for the protection of public health and water quality.

6. Other Special Provisions

Storm Water

The entire treatment plant site slopes to the Southwest. Storm water that falls on the site drains to the existing ponds. At low flow periods, storm drainage is returned to the wastewater treatment process for treatment before it is discharged. Unless Facility conditions change, the current storm water management is adequate to protect water quality. Therefore the Discharger need not seek authorization to discharge under and meet the requirements of the State Water Board's Water Quality Order 97-03-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities* (or subsequent renewed permits).

7. Compliance Schedules

The Discharger is unable to immediately comply with final effluent limitations for copper, chlorodibromomethane, and dichlorobromomethane. Based on a review of results of effluent sampling conducted on May 13, 2002 and March 13, 2003 the discharge would have exceeded the final AMEL for all three constituents during each sample event[16], the final MDEL for copper, chlorodibromomethane, and

[16] Copper exceedance of criteria is based on hardness of receiving water measured at the time of sample collection.

dichlorobromomethane during each sample event, as well as the MDEL for chlorodibromomethane in fifty percent of the samples collected. Section 2.1 of the SIP allows for compliance schedules within the permit for existing discharges where it is demonstrated that it is infeasible for a Discharger to achieve immediate compliance with a CTR criterion.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for City of Fortuna Municipal Wastewater Treatment Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through posting on the Regional Water Board's Internet site at: http://www.waterboards.ca.gov/northcoast/agenda/pending.html and through publication in the Eureka Times-Standard on March 11, 2007.

B. Written Comments

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

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on April 10, 2007.

C. Public Hearing

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

Date:	June 14, 2007
Time:	9:00 a.m. or as announced in the Regional Water Board's agenda
Location:	Regional Water Board Office, Board Hearing Room 5550 Skylane Boulevard, Suite A

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Santa Rosa, CA 95403

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

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

D. Waste Discharge Requirements Petitions

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

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

E. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (707) 576-2220.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Lisa Bernard at (707) 576-2677 or lbernard@waterboards.ca.gov.

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