

California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2001-41
NPDES PERMIT NO. CA0022730
I.D. NO. 1B831350HUM

WASTE DISCHARGE REQUIREMENTS

FOR

CITY OF FORTUNA
WASTEWATER TREATMENT FACILITY

Humboldt County

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

1. The City of Fortuna (hereinafter permittee) submitted a Report of Waste Discharge dated March 23, 1999 and applied for renewal of its Permit to discharge municipal wastewater from its Wastewater Treatment Facility (WWTF) under the National Pollutant Discharge Elimination System (NPDES). Supplemental information to complete filing of the application was submitted on May 26, 2000. Waste Discharge Requirements (WDRs) Order No. 94-24 were adopted on June 23, 1994 and currently are in effect for this discharge. These WDRs regulate the discharge of municipal wastewater from the WWTF.
2. Wastewater flows at the permittee's WWTF range between 1.0 million gallons per day (mgd) during dry weather and 5 mgd during winter storms. The average dry weather design flow of the WWTF is 1.5 mgd. Wastewater is treated to secondary treatment standards using an activated sludge process. Secondary clarifier effluent is chlorinated and dechlorinated prior to discharge to the Eel River at the confluence with Strongs Creek at 40° 35' 34" Latitude, 124° 09' 30" Longitude. This wastewater discharge location is designated as SN 001. Wastewater is discharged to a percolation pond on an exposed gravel bar during summer months.

During winter storm events, wastewater flows exceeding 3.0 mgd are diverted to three large storm water holding/oxidation ponds. When wastewater flows recede below 3.0 mgd, wastewater in the holding/oxidation ponds is pumped through the activated sludge treatment units for treatment and discharge to the Eel River through SN 001. Some prolonged winter storm events cause wastewater flows to exceed 3.0 mgd for extended periods, filling the holding/oxidation ponds to capacity. Wastewater that exceeds capacity of the holding/oxidation ponds is treated to meet effluent standards for waste stabilization ponds and is chlorinated and dechlorinated prior to discharge to Strongs Creek near its confluence with the Eel River. This discharge location is designated as SN 002 and is approximately twenty feet downstream from SN 001.

The location of the WWTF is shown on Attachment "A", incorporated herein and made part of this Order.

3. The permittee has an aggressive program to reduce inflow and infiltration (I/I) into the wastewater collection system and has spent \$1.4 million on I/I reduction during the past eight years. The permittee is continuing to use all reasonable methods to control I/I. Therefore, it is appropriate to permit two separate sets of secondary effluent limitations. The first set, for SN 001, is based on the use of a conventional activated sludge treatment system. The second set, for SN 002, is based on the use of oxidation pond secondary treatment in California and is permitted only during prolonged storm events when the storm water holding/oxidation ponds exceed capacity.
4. This facility is a major discharger as defined by the U.S. Environmental Protection Agency (U.S. EPA).
5. The Water Quality Control Plan for the North Coast Region (Basin Plan) includes water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions, and statewide plans and policies. The Basin Plan also includes a prohibition against discharge to the Eel River during the period May 15 through September 30. During the period October through March the receiving water's flow must be at least 100 times greater than the waste flow.
6. 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). As 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 encouraged.
7. The State Water Resources Control Board (State Water Board) adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (also known as the State Implementation Plan or SIP) on March 2, 2000. All provisions of the SIP became effective as of May 22, 2000. The SIP applies to discharges of toxic pollutants into inland surface waters, enclosed bays, and estuaries of California subject to regulation under the state's Porter-Cologne Water Quality Control Act (Division 7 of the California Water

Code) and the federal Clean Water Act (CWA). This SIP establishes: (1) implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxics Rule (NTR) and through the California Toxics Rule (CTR), and for priority pollutant objectives established by Regional Water Quality Control Boards (Regional Water Boards) in their water quality control plans (basin plans); (2) monitoring requirements for 2,3,7,8-TCDD equivalents; and (3) chronic toxicity control provisions. Insufficient background and effluent data exist to determine whether any of the priority pollutants are, or may be, discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard. In accordance with the SIP, the permittee is required to obtain the data. After the data is gathered, the reasonable potential analysis (RPA) will be performed and the permit reopened to include additional numerical limitations, if necessary.

8. This facility does not have storm water discharges associated with industrial activity because all storm water is directed through the treatment works.
9. The beneficial uses of the Eel River include:
 - a. municipal and domestic supply
 - b. agricultural supply
 - c. industrial service supply
 - d. groundwater recharge
 - e. navigation
 - f. hydropower generation
 - g. water contact recreation
 - h. noncontact water recreation
 - i. commercial and sport fishing
 - j. warm freshwater habitat
 - k. cold freshwater habitat
 - l. wildlife habitat
 - m. preservation of rare and endangered species
 - n. migration of aquatic organisms
 - o. spawning, reproduction, and/or early development
 - p. estuarine habitat
 - q. aquaculture
10. Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the CWA and amendments thereto are applicable to the permittee.
11. The discharge does not contain nonpriority pollutants (other than those for which effluent limits are prescribed) at levels that will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standards. This finding is based in part on the summer discharge prohibition and the 100:1 dilution requirements for winter discharge.
12. The suspended solids effluent limitation for discharges from SN 002 is authorized pursuant to 40 CFR 133.103(c) and the U.S. EPA's determination for waste stabilization ponds at 43 Federal Register 53161.

13. This permit contains less stringent effluent limitations for biochemical oxygen demand (BOD) and suspended solids loading than those contained in the prior permit. Mass loading rates have been increased because the WWTF has increased its design flow, which is a material and substantial alteration that justifies the application of the less stringent loading limitations, pursuant to Section 402(o)(2)(A). Relaxation of the limitations is permissible pursuant to the antibacksliding provisions, Section 402(o)(1), of the CWA because a specific exemption applies to this discharge. Relaxation of the effluent limitation will not result in a violation of any applicable effluent limitation guideline or water quality standard.
14. The permittee approved a final Environmental Impact Report (EIR) on November 20, 1995 (Resolution No. 95-25) for expansion of the WWTF from 1.20 mgd to 1.50 mgd. The EIR did not identify any potentially significant effects. The Regional Water Board has considered the EIR and determined that the discharge will not have any significant effects on the environment.

The action to renew an NPDES Permit is exempt from Chapter 3 of the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, et seq., in accordance with Section 13389 of the California Water Code, and is also exempt from CEQA pursuant to Title 14, California Code of Regulations (CCR), Section 15301.
15. The Eel River is listed as an impaired waterbody pursuant to Section 303(d) of the federal Clean Water Act with regard to temperature and sediment. This discharge does not affect temperature of the Eel River because of the 100:1 dilution requirement for discharge into the river, nor does it impact the sediment load of the river because the discharge does not contain sediment.
16. The permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters within California. The impact on existing water quality will be insignificant.
17. The Regional Water Board has notified the permittee and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations.
18. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
19. This Order will serve as a NPDES Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and will take effect upon adoption by the Regional Water Board.

THEREFORE, IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. 94-24 is rescinded and the permittee, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of any waste not specifically regulated by this Permit is prohibited.
2. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC), is prohibited. [Health and Safety Code, Section 54111]
3. The discharge of sludge or digester supernatant is prohibited, except as authorized under **D. SOLIDS DISPOSAL**.
4. The discharge of untreated waste from anywhere within the collection, treatment, or disposal facility is prohibited.
5. The discharge of waste from the WWTF to the Eel River or its tributaries is prohibited during the period May 15 through September 30 each year.
6. During the period of October 1 through May 14, the total daily discharge of wastewater into the Eel River shall not exceed one percent of the total daily flow of the Eel River. For purposes of this Permit, the flow in Eel River shall be that combined flow measured at Scotia and Grizzly Creek gauging stations.
7. Discharge from SN 002 is prohibited, except when prolonged periods of rainfall have filled the holding/oxidation ponds and wastewater flow continues to exceed the hydraulic capacity (3.0 mgd) of the activated sludge treatment facility.

B. EFFLUENT LIMITATIONS

1. Representative samples of the discharge from SN 001 to the Eel River and to the summertime percolation pond shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Monthly Average^a</u>	<u>Weekly Average^b</u>	<u>Daily Maximum^c</u>
BOD (20°C, 5-day)	mg/l	30	45	60
	lb/day ^d	375	563	751
		Monthly	Weekly	Daily

^a The arithmetic mean of all samples collected in a calendar month.

^b The arithmetic mean of all samples collected in a calendar week, Sunday to Saturday.

^c The maximum result of all samples collected in a calendar day.

^d The daily discharge (lbs/day) is obtained from the following calculation of any calendar day:

$$\frac{8.34}{N} \sum_i^N Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. 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 day. 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.

<u>Constituent</u>	<u>Unit</u>	<u>Average^e</u>	<u>Average^f</u>	<u>Maximum^g</u>
Suspended Solids	mg/l lb/day ^d	30 375	45 563	60 751
Settleable Solids	ml/l	0.1	---	0.2
Coliform Organisms (Total)	MPN/100 ml	23 ^h	---	230
Hydrogen Ion (When discharging to the Eel River)	pH	Not less than 6.5 nor greater than 8.5		
Hydrogen Ion (When discharging to percolation pond)	pH	Not less than 6.0 nor greater than 9.0		

2. Representative samples of the discharge from SN 002 shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Monthly Average^a</u>	<u>Daily Maximum^c</u>
BOD (20°C, 5-day)	mg/l lb/day ^d	30 375	--- ---
Suspended Solids	mg/l lb/day ^d	95 1188	--- ---
Settleable Solids	ml/l	0.1	0.2
Coliform Organisms (Total)	MPN/100 ml	23 ^e	230
Hydrogen Ion	pH	Not less than 6.5 nor greater than 8.5	

3. During periods when effluent is discharged from SN 001 and SN 002 on the same day, compliance with Effluent Limitations B.1. and B.2. will be determined by the use of a weighted average for BOD (20°C, 5-day) and Suspended Solids.
4. A minimum total chlorine residual of 1.5 mg/l shall be maintained at the end of the disinfection process.
5. When discharging to the Eel River or its tributaries, there shall be no detectable levels of chlorine discharged from discharge SN 001 or SN 002, using a minimum detection limit of 0.1 mg/l.
6. The arithmetic mean of the BOD (20°C, 5-day) and Suspended Solids values, by weight, for effluent samples collected in a period of 30 consecutive days from SN

^e The arithmetic mean of all samples collected in a calendar month.

^f The arithmetic mean of all samples collected in a calendar week, Sunday to Saturday.

^g The maximum result of all samples collected in a calendar day.

^h 30-day median. The median of all effluent samples collected in a 30-day period.

001 shall not exceed 15 percent of the arithmetic mean of the values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

7. The mean daily dry weather flow of waste shall not exceed 1.5 mgd averaged over a calendar month.
8. There shall be no acute toxicity in the effluent. Effluents are considered acutely toxic when there is: 1) less than 90 percent survival 70 percent of the time based on any monthly median, or 2) less than 70 percent survival 100 percent of the time.

C. RECEIVING WATER LIMITATIONS

1. The waste 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.
2. 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 that which occurs naturally.
3. The discharge shall not cause the turbidity of the receiving waters to be increased more than 20 percent above naturally occurring background levels.
4. The discharge shall not cause the receiving waters to contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
5. 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.
6. The discharge of waste shall not cause esthetically undesirable discoloration of the receiving waters.
7. The discharge shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.
8. The discharge shall not contain concentrations of biostimulants that promote objectionable aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
9. The discharge shall not cause the receiving waters to contain toxic substances in concentrations that are toxic to, degrade, or produce detrimental physiological

responses in humans or animals or cause acute or chronic toxicity in plants or aquatic life. The discharge shall not cause concentrations of toxic pollutants in the water column, sediments, or biota that adversely affect beneficial uses.

10. The discharge shall not cause a measurable temperature change in the receiving waters.
11. The discharge shall not cause bioaccumulation of pesticide, fungicide, wood treatment chemical, or other toxic pollutant concentrations in bottom sediments or aquatic life to levels that are harmful to human health.
12. 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.
13. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or State Water Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Water Board will revise and modify this Permit in accordance with such more stringent standards.
14. The discharge shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters that are existing or potential sources of drinking water.
15. The discharge shall not cause chronic toxicity in the receiving water. Compliance with this limitation shall be determined in accordance with General Provision F.24.

D. SOLIDS DISPOSAL

1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the State Water Board promulgated provisions of Title 27, Division 2, of the CCR.
2. The permittee is encouraged to comply with the State guidance manual issued by the Department of Health Services titled "Manual of Good Practice for Landspreading of Sewage Sludge".
3. Any proposed change in sludge use or a disposal practice from a previously approved practice shall be reported to the Executive Officer at least 90 days in advance of the change.
4. Use and disposal of sewage sludge shall comply with existing federal and state laws and regulations, including permitting requirements and technical standards contained in 40 CFR 503.

5. By July 1, 2001, and annually thereafter by July 1, the permittee shall submit a sludge disposal plan describing the annual volume of sludge generated by the WWTF plant and specifying the disposal practices.

E. SPECIAL PROVISIONS

1. Effluent Monitoring for Priority Pollutants

The permittee shall analyze the effluent (SN 001) for the concentration of each priority pollutant listed in Attachment 'B' [Priority Toxic Pollutants] in accordance with the Monitoring and Reporting Program No. R1-2001-41. Results shall be reported as shown in Attachment 'C' [Report Format for Priority Toxic Pollutants].

2. Receiving Water Monitoring for Ambient Background Concentrations of Priority Pollutants

The permittee shall analyze the receiving water for the ambient background concentration of each priority pollutant listed in Attachment 'B' [Priority Toxic Pollutants] in accordance with the Monitoring and Reporting Program No. R1-2001-41. Results shall be reported as shown in Attachment 'C' [Report Format for Priority Toxic Pollutants]. The permittee may choose to coordinate with other NPDES permittees that discharge to the same water body to collect the same information required of them.

3. Effluent Monitoring for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) Congeners

The permittee shall monitor its effluent (SN 001) for the presence of the seventeen 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) congeners listed in Attachment 'D' [Report Format for Effluent Dioxin Study] and in accordance with the Monitoring and Reporting Program No. R1-2001-41, once during dry weather and once during wet weather for a period of three consecutive years (six samples total). Results shall be reported as shown in Attachment 'D' [Report Format for Effluent Dioxin Study].

4. If relevant data already exists for special provisions 1,2,&3 above that meets the sampling and analytical criteria of this Order, it may be substituted for the collection of new samples with written approval of Regional Water Board staff.
5. A sampling plan for Special Provisions 1, 2, and 3 above shall be submitted to the Regional Water Board staff for approval prior to sampling. The plan shall include description of sample location, means of collection, and a time schedule. **The plan shall be submitted to the Regional Water Board no later than six months from the date of this Order.**
6. **Within 14 days of each scheduled sampling event**, the permittee shall notify the Regional Water Board in writing as to whether the sampling event has occurred. Any deviation from the sampling plan shall be explained in the final report.

7. The final report for Effluent Monitoring for Priority Pollutants and Receiving Water Monitoring for Ambient Background Concentrations of Priority Pollutants shall be submitted to the Regional Water Board no later than **April 1, 2003**.
8. The final report for the Effluent Monitoring for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) Congeners shall be submitted to the Regional Water Board no later than **three years from the date of this Order**.

F. GENERAL PROVISIONS

1. Duty to Comply

The permittee shall comply with all of the conditions of this Permit. Any Permit noncompliance constitutes a violation of the CWA and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or denial of a Permit renewal application. [40 CFR 122.41(a)]

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

2. Duty to Reapply

This Permit expires on April 26, 2006. If the permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the permittee shall apply for and obtain a new Permit. The application, including a report of waste discharge in accordance with Title 23 CCR, shall be received by the Regional Water Board no later than October 26, 2005. [40 CFR 122.41(b)]

The Regional Administrator of the U.S. EPA may grant permission to submit an application at a later date prior to the Permit expiration date; and the Regional Administrator of the U.S. EPA may grant permission to submit the information required by paragraphs (g)(7), (9), and (10) of 40 CFR 122.21 after the Permit expiration date. [40 CFR 122.21(d)(2)]

3. Need to Halt or Reduce Activity Not a Defense

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

4. Duty to Mitigate

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

5. Proper Operation and Maintenance

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

6. Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this Permit; or
- b. Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or
- d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by Permit modification or termination.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Permit, this Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified.
[40 CFR 122.44(b)]

The filing of a request by the permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any Permit condition. [40 CFR 122.41(f)]

7. Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
[40 CFR 122.41(g)]

8. Duty to Provide Information

The permittee shall furnish the Regional Water Board, State Water Board or U.S. EPA, within a reasonable time, any information which the Regional Water Board,

State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit or to determine compliance with this Permit. The permittee shall also furnish to the Regional Water Board, upon request, copies of records required to be kept by this Permit. [40 CFR 122.41(h)]

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

9. Inspection and Entry

The permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or other authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

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

10. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall calibrate and perform maintenance procedures in accordance with manufacturer's specifications on all monitoring instruments and equipment to ensure accurate measurements. The permittee 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 Permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board, State Water Board, or U.S. EPA at any time. All monitoring instruments and devices used by the permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least annually, to ensure their continued accuracy.

- c. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses;
 - vii. The method detection limit (MDL); and
 - viii. The practical quantitation level (PQL) or the limit of quantitation (LOQ).
- d. Unless otherwise noted, all sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All analyses shall be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Executive Officer of the Regional Water Board (Executive Officer). Unless otherwise specified, all metals shall be reported as total metals. Test fish for bioassays and test temperatures shall be specified by the Executive Officer. Bioassays shall be performed in accordance with guidelines approved by the Regional Water Board and the California Department of Fish and Game.

11. Signatory Requirements

- a. All Permit applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed by either a principal executive officer or ranking elected official. [40 CFR 122.22(a)]
- b. Reports required by this Permit, other information requested by the Regional Water Board, State Water Board, or U.S. EPA, and Permit applications submitted for Group II storm water discharges under 40 CFR 122.26(b)(3) may be signed by a duly authorized representative provided:
 - i. The authorization is made in writing by a person described in paragraph (a) of this provision;
 - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - iii. The written authorization is submitted to the Regional Water Board prior to or together with any reports, information, or applications signed by the authorized representative. [40 CFR 122.22(b)(c)]
- c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

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

12. Reporting Requirements

- a. Planned changes. The permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the Permit nor the notification requirements under General Provision 12 (g).
- b. Anticipated noncompliance. The permittee shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity which may result in noncompliance with Permit requirements.
- c. Transfers. This Permit is not transferable.
- d. Definitions. The following definitions shall apply unless otherwise specified in this Permit:
 - i. "Daily discharge" means the discharge of a pollutant measured during a calendar day of any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" shall be the concentrations of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the sampling day.
 - ii. "Daily average" discharge limitation means 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.

- iii. "Daily Maximum" discharge limitations means that highest allowable "daily discharge" during the calendar month.
- e. Monitoring reports. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program. The permittee shall submit an annual report to the Regional Water Board. The report must be received by the Regional Water Board on or before February 28. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the permittee shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with the Permit. If the permittee monitors any pollutant more frequently than required by this Permit, using test procedures approved under 40 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 Discharger's Monitoring Report (DMR).
- f. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted such that it is received by the Regional Water Board via fax, e-mail, or postal service no later than 14 days following each scheduled date.
- g. Noncompliance reporting. The permittee shall report any noncompliance at the time monitoring reports are submitted. 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 recurrence of the noncompliance.

In addition, the following events shall be reported orally as soon as the permittee becomes aware of the circumstances, and the written report shall be received by the Regional Water Board via fax, e-mail, or postal service no later than 14 days of that time:

- i. Any unanticipated bypass that violates any prohibition or exceeds any effluent limitation in the Permit.
- ii. Any upset that exceeds any effluent limitation in the Permit.
- iii. Any noncompliance that may endanger health or the environment.

The Executive Officer may waive the above-required written report.

- h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a Permit application, or submitted incorrect information in a Permit application or in any report to the Regional Water Board, the permittee shall promptly submit such facts or information.
[40 CFR 122.41(1)]

13. Bypass

- a. Definitions:
 - i. Bypass [as defined in 40 CFR 122.41(m)] is the intentional diversion of waste streams from any portion of a treatment facility.
 - ii. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which 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.
- b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (m)(3) and (m)(4) of this section.
- c. Notice
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required Section F, Paragraph 12(g) of this permit.
- d. Prohibition of bypass
 - i. Bypass is prohibited, and the Regional Water Board may take enforcement action against a permittee for bypass, unless:
 - 1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) 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 backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - 3) The permittee submitted notices as required under Section F, Paragraph 13(c) of this permit.
 - ii. The Executive Officer may approve an anticipated bypass, after considering its adverse effects, if the Executive Officer determines that it will meet the three conditions listed above in Section F, Paragraph 13 (d)(i), above.

14. Upset

- a. Definition. Upset [as defined in 40 CFR 122.41(n)] is an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. 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 (c), below, are not 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.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated;
 - iii. The permittee submitted notice of the upset as required in Section F, Paragraph 12(g) of this permit; and
 - iv. The permittee complied with any remedial measures required under paragraph (d) of this section.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

15. Enforcement

The CWA provides that any person who violates a Permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed \$25,000 per day of violation. Any person who negligently violates Permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment of not more than one year, or both. Higher penalties may be imposed for knowing violations and for repeat offenders. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided under the CWA.

16. Availability

A copy of this Permit shall be maintained at the discharge facility and be available at all times to operating personnel.

17. Change in Discharge

In the event of a material change in the character, location, or volume of a discharge, (including any point or nonpoint discharge to land or groundwater) the permittee shall file with this Regional Water Board a new report of waste discharge at least 180 days before making any such change. [CWC Section 13376] A material change includes, but is not limited to, the following:

- a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste;
- b. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste;
- c. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area, significantly removed from the original area, potentially causing different water quality or nuisance problems; and
- d. Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

18. Severability

Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

19. Monitoring

The Regional Water Board or State Water Board may require the permittee to establish and maintain records; make reports; install, use, and maintain monitoring equipment or methods (including biological monitoring methods); sample effluent as prescribed; and provide other information as may be reasonably required. [CWC Section 13267 and 13383].

The permittee shall comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2001-41 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Permit and incorporated herein. The permittee shall file with the Regional Water Board technical reports on self-monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Regional Water Board.

Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the permittee, analyses performed by a noncertified laboratory will be accepted provided a quality assurance/quality control program is instituted by the laboratory, and a manual containing the steps followed in this program is kept in the laboratory and made available for inspection by staff of the Regional Water Board. The quality assurance/quality control program shall conform to U.S. EPA or State Department of Health Services guidelines.

All Discharge Monitoring Reports shall be sent to:

California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

U.S. EPA, Region 9
Attn: WTR-7, NPDES/DMR
75 Hawthorne Street
San Francisco, CA 94105

20. National Pretreatment Standards. Prohibited Discharges

- a. General prohibitions. Pollutants introduced into WWTFs by a nondomestic source shall not pass through [40 CFR403.3(n)] the WWTF or interfere [40 CFR 403.3(i)] with the operation or performance of the works. These general prohibitions and the specific prohibitions in paragraph (b) of this provision apply to all nondomestic sources introducing pollutants into a WWTF whether or not the source is subject to other National Pretreatment Standards or any national, state, or local pretreatment requirements.
- b. Specific prohibitions. In addition, the following pollutants shall not be introduced into a WWTF:
 - i. Pollutants that create a fire or explosion hazard in the WWTF;
 - ii. Pollutants that will cause corrosive structural damage to the WWTF, but in no case discharges with pH lower than 5.0, unless the WWTF is specifically designed to accommodate such discharges;
 - iii. Solid or viscous pollutants in amounts that will cause obstruction to the flow in the WWTF resulting in interference;
 - iv. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the WWTF;
 - v. Heat in amounts that will inhibit biological activity in the WWTF resulting in interference, but in no case heat in such quantities that the temperature at the WWTF exceeds 40°C (104°F) unless the Regional

Water Board, upon request of the permittee, approves alternate temperature limits;

- vi. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - vii. Pollutants that result in the presence of toxic gases, vapors, or fumes within the WWTF in a quantity that may cause acute worker health and safety problems; and
 - viii. Any trucked or hauled pollutant, except at discharge points designated by the permittee.
- c. When specific limits shall be developed by a permittee:
- i. Permittees developing WWTF Pretreatment Programs pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a) and (b) of this provision.
 - ii. All WWTFs shall, in cases where pollutants contributed by User(s) result in interference or pass-through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the WWTF's facilities or operations, are necessary to ensure renewed and continued compliance with the WWTF's NPDES Permit or sludge use or disposal practices.
 - iii. Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.
- d. Local limits: Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a permittee in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of Section 307(d) of the CWA. [40 CFR 403.5(a) through (d)]

21. Operator Certification

Supervisors and operators of municipal WWTFs 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 WWTF 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.

22. Adequate Capacity

Whenever a publicly owned WWTF will reach capacity within four years, the permittee shall notify the Regional Water Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies, and the press. The permittee shall demonstrate that adequate steps are being taken to address the capacity problem. The permittee shall submit a technical report to the Regional Water Board showing how flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Water Board, or within 120 days after receipt of Regional Water Board notification, that the WWTF 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]

23. Acute Toxicity Control Provision

The permittee shall monitor and evaluate effluent for acute toxicity in order to demonstrate compliance with the Basin Plan narrative toxicity objective. Compliance with this provision shall be achieved in accordance with the following:

- a. The permittee shall conduct routine acute toxicity monitoring in accordance with the Monitoring and Reporting Program No. R1-2001-41.
- b. Testing procedures shall be as specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA 600/4-90-027F, 4th edition or subsequent editions).
- c. The tests shall be conducted with concurrent reference toxicant tests (control samples). Both the reference toxicant and the effluent test shall meet all test acceptability criteria as specified in the acute manual.
- d. If the test acceptability criteria are not achieved, then the permittee shall resample and retest within 14 days.
- e. The test results shall be reported according to the acute toxicity manual chapter on Report Preparation, and shall be attached to the DMR.
- f. The permittee may petition the Regional Water Board to acknowledge an Acute-to-Chronic Ratio (ACR), once sufficient data has been collected. An ACR is calculated as the average of the ratios between at least 10 sets of acute and chronic toxicity test results for the same species. If approved by the Regional Water Board, the ACR and results from a chronic toxicity test may be used to determine compliance with the Acute Toxicity Effluent Limitation.

25. Chronic Toxicity Control

In accordance with the SIP, the permittee shall have the effluent analyzed for chronic toxicity in order to demonstrate compliance with the Basin Plan narrative toxicity objective. Compliance with this requirement shall be achieved in accordance with the following:

- a. The permittee shall conduct routine chronic toxicity monitoring in accordance with the Monitoring and Reporting Program No. R1-2001-41.
- b. If data from routine monitoring exceed either of the following evaluation parameters, then the permittee shall conduct accelerated chronic toxicity monitoring. Accelerated monitoring shall consist of monitoring at frequency intervals of one half the interval given for routine monitoring in the Monitoring and Reporting Program No. R1-2001-41. If data from accelerated monitoring tests are found to be in compliance with the evaluation parameters, then routine monitoring shall be resumed. If accelerated monitoring tests continue to exceed either evaluation parameter, then the permittee shall initiate a chronic TRE.
- c. Chronic toxicity evaluation parameters:
 - i. A three-sample median value of 1 TUc; and
 - ii. A single-sample maximum value of 2 TUc.
 - iii. Definition of Terms
 - 1) Three-sample median: A test sample showing chronic toxicity greater than 1 TUc represents an exceedance of this parameter if one of the past two tests also show chronic toxicity greater than 1 TUc.
 - 2) TUc (chronic toxicity unit) equals $100/\text{NOEL}$ (e.g., If $\text{NOEL} = 100$, then toxicity = 1 TUc). NOEL is the maximum percent test water that causes no observable effects on a test organism.
 - 3) No observed effect level (NOEL) for compliance determination is equal to IC_{25} or EC_{25} . If the IC_{25} or EC_{25} cannot be statistically determined, the NOEL shall be equal to the NOEC derived using hypothesis testing.
 - 4) Effective concentration (EC) is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Kärber. EC_{25} is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

- 5) Inhibition Concentration (IC) is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal, nonquantal biological measurement, such as growth. For example, an IC₂₅ is the estimated concentration of toxicant that would cause a 25 percent reduction in average young per female or growth. IC values may be calculated using a linear interpolation method such as U.S. EPA's Bootstrap Procedure.
- 6) No observed effect concentration (NOEC) is the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. It is determined using hypothesis testing.

d. Chronic Toxicity Screening Phase Requirements

- i. The permittee shall perform screening phase monitoring upon adoption of this Order, and subsequent to any significant change in the nature of the effluent discharged through changes in sources or treatment, except those changes resulting from reductions in pollutant concentrations attributable to pretreatment, source control, and waste minimization efforts.
- ii. Design of the screening phase shall, at a minimum, consist of the following elements:
 - 1) At least three test species with approved test protocols shall be used to measure compliance with the toxicity objective;
 - 2) If possible, the test species shall include a vertebrate, an invertebrate, and an aquatic plant;
 - 3) Use of test species specified in Tables 1 and 2 below, and use of the protocols referenced in those tables, or as approved by the Executive Officer;
 - 4) Appropriate controls; and
 - 5) Concurrent reference toxicant tests.

TABLE 1

Short-term Methods for Estimating Chronic Toxicity - Saltwaterⁱ

<u>Species</u>	<u>Scientific Name</u>	<u>Effect</u>	<u>Tier^j</u>	<u>Reference</u>
giant kelp	<i>Macrocystis pyrifera</i>	percent germination; germ tube length	1	1, 3
red abalone	<i>Haliotis rufescens</i>	abnormal shell development	1	1, 3
oyster	<i>Crassostrea gigas</i>	abnormal shell development; percent survival	1	1, 3
mussels	<i>Mytilus spp.</i>	abnormal shell development; percent survival	1	1, 3
urchin sand dollar	<i>Strongylocentrotus purpuratus</i> <i>Dendraster excentricus</i>	percent normal development	1	1, 3
urchin sand dollar	<i>Strongylocentrotus purpuratus</i> <i>Dendraster excentricus</i>	percent fertilization	1	1, 3
shrimp	<i>Holmesimysis costata</i>	percent survival; growth	1	1, 3
shrimp	<i>Mysidopsis bahia</i>	percent survival; growth; fecundity	2	2, 4
topsmelt	<i>Antherinops affinis</i>	larval growth rate; percent survival	1	1, 3
silversides	<i>Menidia beryllina</i>	larval growth rate; percent survival	2	2, 4

Toxicity Test References:

1. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to west coast marine and estuarine organisms. U.S. EPA Report No. EPA/600/R-95/136.
2. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. Short-term methods for estimating the chronic toxicity of effluents and receiving water to marine and estuarine organisms. U.S. EPA Report No. EPA-600-4-91-003.
3. SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project 96-1WQ.

ⁱ For waters in which the salinity is equal to or greater than 10 parts per thousand 95 percent or more of the time, the applicable criteria is the saltwater criteria in the CTR.

^j The first tier test methods are the preferred toxicity tests for compliance monitoring. The Executive Officer may approve the use of a second tier test method for waste discharges if first tier organisms are not available.

4. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1988. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

TABLE 2

Short-term Methods for Estimating Chronic Toxicity – Fresh Water^k

<u>Species</u>	<u>Scientific Name</u>	<u>Effect</u>	<u>Test Duration</u>	<u>Reference</u>
fathead minnow	<i>Pimephales promelas</i>	larval survival; growth	7 days	5
water flea	<i>Ceriodaphnia dubia</i>	survival; number of young	6 to 8 days	5
alga	<i>Selenastrum capricornutum</i>	growth rate	4 days	5

Toxicity Test Reference:

5. U.S. EPA. 1994. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. Third edition. U.S. EPA Environmental Monitoring Systems Laboratory, Cincinnati, Ohio. EPA/600/4-91-00

26. Toxicity Identification and Reduction Evaluations for Chronic Toxicity

If there is a repeated exceedance of either of the chronic toxicity monitoring triggers in the screening and variability phases, the permittees shall implement a TRE in accordance with a TRE work plan acceptable to the Executive Officer. The TRE shall be conducted in accordance with the following:

- a. The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test observed to exceed either evaluation parameter.
- b. The TRE shall be conducted in accordance with an approved work plan.
- c. The TRE shall be specific to the discharge and permitted facility and be in accordance with current technical guidance and reference materials, including U.S. EPA guidance materials. The TRE shall be conducted as a tiered evaluation process, such as summarized below:
 - i. Tier 1 consists of basic data collection (routine and accelerated monitoring).

^k For waters in which the salinity is equal to or less than 1 part per thousand 95 percent or more of the time, the applicable criteria is the freshwater criteria in the CTR. For waters in which the salinity is between 1 and 10 parts per thousand, the applicable criteria is the more stringent of the freshwater or saltwater criteria. In this case, the species chosen for compliance with the chronic toxicity control provision shall be based on the biology of the receiving water.

- ii. Tier 2 consists of evaluation of optimization of the treatment process including operation practices, and in-plant process chemicals.
 - iii. Tier 3 consists of a TIE.
 - iv. Tier 4 consists of evaluation of options for additional effluent treatment processes.
 - v. Tier 5 consists of evaluation of options for modifications of in-plant treatment processes.
 - vi. Tier 6 consists of implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.
- d. The TRE may be ended at any stage if monitoring reveals that there is no longer repeated toxicity.
 - e. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity. All reasonable efforts using currently available TIE methodologies shall be employed.
 - f. As toxic substances are identified or characterized, the permittee 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 evaluation parameters. Failure to take required toxicity tests or a TRE within a designated period shall result in the establishment of effluent limitations for chronic toxicity or appropriate enforcement action.

27. Pollutant Minimization Program

The permittee shall, as required by the Executive Officer, conduct a Pollutant Minimization Program in accordance with the SIP when there is evidence that a priority pollutant is present in the effluent above an effluent limitation or when a sample result is reported as detected and not quantified and the effluent limitation is less than the reported minimum level; or when a sample result is reported as not detected and the effluent limitation is less than the method detection limit.

28. Reopener

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

In the event that the Regional Water Board's interpretation of the narrative toxicity objective is modified or invalidated by a State Water Board order, a court decision, or State or Federal statute or regulation, the effluent limitations for toxic

pollutants contained in this Order may be revised to be consistent with the order, decision, statute or regulation.

In addition, the Regional Water Board may consider revising this Permit to make it consistent with the SIP and any State Water Board decisions arising from various petitions for rehearing, and litigation concerning the SIP 303(d) list, and total maximum daily load (TMDL) program.

The Regional Water Board shall notice a reconsideration of this permit within 60 days of the date of the final judgment by the San Francisco Superior Court in *Water Keepers Northern California, et al.*, Case No. 312513, for the purpose of modifying the permit to make it consistent with the judgment of the Court in this matter where any term, limitation, or provision is inconsistent with the judgment. The permit shall be modified within the time period established by the Court in this matter.

Certification

I, Lee A. Michlin, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, April 26, 2001.

Lee A. Michlin
Executive Officer