

California Regional Water Quality Control Board  
North Coast Region

ORDER NO. R1-2005-0084  
(Revised January 17, 2008)  
MODIFYING ORDER NO. R1-2004-0111  
THAT MODIFIED ORDER NO. R1-2004-0064  
NPDES PERMIT NO. CA0025135  
I.D. NO. 1B82046OSON

WASTE DISCHARGE REQUIREMENTS

FOR

THE CITY OF HEALDSBURG  
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL FACILITY

Sonoma County

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

1. The City of Healdsburg (Permittee) submitted a Report of Waste Discharge dated May 3, 2004, to discharge municipal wastewater from the Permittee's Wastewater Treatment Facility (WWTF) under the National Pollutant Discharge Elimination System (NPDES). This NPDES Permit (Permit) regulates the collection, treatment, storage, and disposal system. The term of this Permit is five years.
2. The Permittee owns the wastewater collection and treatment system while Syar Industries, Inc. (Syar) owns the land where the Basalt Pond is located. The WWTF discharges to the Basalt Pond. The Permittee and Syar have an agreement allowing effluent from the WWTF to be discharged to the Basalt Pond. Syar also currently discharges wash water containing soil fines to the Basalt Pond in its continuing reclamation process. As the owner and operator of the WWTF, the Permittee is responsible for ensuring that it operates the WWTF in compliance with the Permit.
3. The WWTF is located in the SE ¼ of Section 33, R9W, T9N, MDB&M and adjacent to the Russian River as shown in Attachment "A" incorporated herein and made a part of this Order.
4. The Permittee's wastewater collection system includes approximately 42 miles of sewer mains, 800 manholes, 10 sewer lift stations and approximately 1.5 miles of pressurized force main. The oldest portions of the system are approximately 100 years old, and mains range in size from 4-inch to 33-inch. Collection system pipe materials include AC pipe, vitrified clay, cast iron, and PVC.

There are nine sewer lift stations located throughout the City that convey sewage from isolated low-lying areas into the gravity main system. The entire sewer collection system is ultimately collected and conveyed through a 33-inch gravity main to the Magnolia Lift Station, which is the City's largest lift station.

The Magnolia sewer lift station, constructed in 1970 as part of the wastewater treatment plant construction contract, essentially functions as the treatment plant headworks. This lift station handles all of the City's sewage, and includes three dry pit 50-hp vertical turbine pumps with a variable frequency drive level control system. These pumps draw the sewage from the wet well and pass it through two parallel 3,700 foot long, 14-inch diameter force mains to the treatment plant. In most circumstances, one pump operates in a lead position and pumps the entire sewage flow to the treatment plant. The other two pumps are configured in a standby mode for system redundancy. During periods of high flow, multiple pumps will run automatically to handle the increased flow rate. A comminutor/grinder at the lift station reduces large solids in size to less than ¼ inch before being pumped to the treatment plant. Under all but wet weather condition, the capacity of only one of the two 14-inch force mains is necessary.

5. Construction of the WWTF was completed in 1970. Prior to that, the Permittee treated all wastewater at the old treatment plant located within the existing City corporation yard at 550 Westside Road. Until the 1970 expansion, all treated wastewater was discharged to Dry Creek. Additional improvements to the WWTF were constructed in 1983, including a new chlorine disinfection building and chlorine contact basin and the present outfall pipeline to the Basalt Pond. The current waste treatment facilities include wastewater screening and grit removal, biological secondary treatment using four aerated ponds followed by two oxidation/sedimentation ponds and disinfection. The treated wastewater is disinfected using chlorine gas, however, the effluent is not currently dechlorinated before discharge. The Permittee intends to install a dechlorination process prior to the adoption of this Permit in order to comply with water quality objectives and to meet effluent limitations for chlorine residual.
6. The WWTF is designed to treat an average dry weather flow (ADWF) of 1.4 million gallons per day (mgd) and a maximum peak flow of 6.5 mgd.
7. The WWTF discharges to the Basalt Pond, one of several existing gravel pits that were excavated adjacent to the Russian River in alluvial deposits of sand and gravel. These deposits are part of an important groundwater aquifer that supplies domestic and agricultural well water. The Basalt Pond has a surface area of 52 acres, and a maximum depth of 55 feet. The Basalt Pond was

excavated between the late 1960s and mid-1980s by the Basalt Rock Company, as part of their gravel mining operation. The Basalt Pond is currently owned by Syar Industries, Inc. The Basalt Pond was excavated in the historic floodplain of the Russian River. A levee, composed primarily of soil and alluvial material, was constructed to separate the Basalt Pond from surface flows in the Russian River. The levee is not an engineered barrier, designed for impermeability that would prevent discharges of effluent from reaching the Russian River.

8. The Permittee is currently conducting environmental review for two alternative treatment technologies to upgrade the existing treatment facilities to provide advanced wastewater treatment; conventional extended aeration with biological nitrogen removal (BNR) and tertiary filtration; and a membrane bioreactor with BNR. The project will also consider the feasibility and the potential environmental impact of alternative discharge locations, as well as agricultural and urban re-use alternatives.
9. Prior to 2000, solids were periodically excavated from each of the two aeration ponds. Up until the mid-1990's, solids were spread on-site under a sludge management and sampling plan submitted to the Regional Water Board. Up until approximately 2000, the Permittee leased a portion of the property for pumpkin farming, which under the sludge management plan was intended to uptake nitrogen from the dewatered sludge. After the most recent sludge removal in approximately 1999, the dewatered solids were hauled to a landfill under contract. The most recent solids removal contracts were issued in 1998, 2000 and 2002. Since that time, this practice has been discontinued, since the treatment plant is designed to provide sludge digestion within the facultative ponds. Solids Disposal and Handling Provisions are included in Section G of this Permit.
10. The Permittee is currently governed by Waste Discharge Requirements Order No. 92-80, adopted by the Regional Water Board on June 15, 1992. The Regional Water Board has adopted the following enforcement orders since 1992:

*Cease and Desist Order No. 95-65*

On August 24, 1995, the Regional Water Board adopted Cease and Desist Order No. 95-65 (CDO) in response to breaches of the Basalt Pond levee on January 8, 1995 and March 11, 1995, which caused discharges of wastewater to the Russian River. The CDO required the Permittee to submit a report detailing long- and short-term solutions, including a time schedule for key actions to prevent future unpermitted discharges of wastewater. On November 1, 1995, the Permittee submitted a report required by the CDO. For the short-term, the Permittee proposed to strengthen the Basalt pond levee. Long-term,

the Permittee pledged to investigate, choose, and implement an alternative disposal method. On July 8, 1996, the Permittee requested to change the compliance schedule to allow them to “extend the scope of their alternatives...to include different and more advanced treatment processes.” On January 8, 1997 the Permittee’s consultant requested modification of the schedule contained in the CDO to allow for construction and monitoring of a percolation pond pilot plant and to pursue the construction of an engineered percolation pond and an advanced wastewater treatment plant.

*Cease and Desist Order No. 97-27*

On January 1, 1997 the Russian River flooded, cutting another breach in Basalt Pond levee. The Regional Water Board adopted Cease and Desist Order No. 97-27 (CDO) in response, superseding Cease and Desist Order No. 95-65. The CDO required the Permittee to complete construction of the long-term project by October 1, 2001. Completion of the requirements of this CDO are still pending. A new Cease and Desist Order No. R1-2004-0065 (CDO) is being adopted in conjunction with this permit. It supercedes Cease and Desist Order No. 97-27. The new CDO contains time schedules for the Permittee to comply with Discharge Prohibition A.7 to cease discharge to the Russian River from May 15<sup>th</sup> to September 30<sup>th</sup> and Effluent Limitation B.6 to cease discharge of effluent that contains acute toxicity.

11. This facility is a major discharger as defined in Part 40 of the Code of Federal Regulations (CFR) 122.21(j). Pursuant to Title 23, California Code of Regulations (CCR), Section 2200, the Permittee is assessed an annual fee based on an average dry weather flow of 1.4 mgd.
12. The continuing discharge of wastewater to the Basalt Pond requires an NPDES permit. In a citizen lawsuit, *Northern California River Watch vs. The City of Healdsburg*, the United States District Court for the Northern District of California concluded that the Basalt Pond is waters of the United States subject to jurisdiction under the Clean Water Act and, alternatively, that the pollutants traveling to the river via hydrologically connected groundwater required the City of Healdsburg to obtain an NPDES permit. The City appealed to the Ninth Circuit Court of Appeals, but a decision will not issue for several months. Unless the Court of Appeals completely affirms the District Court, the outcome of the appeal, while it may not be legally binding on the Regional Water Board, will contain important observations about the nature of the City’s discharge and the appropriateness of this Permit. Based on the appellate court ruling (and any other subsequent court opinions in the case), the Regional Water Board may modify this Permit.
13. For several reasons, the Basalt Pond is waters of the United States. Waters of the United States include navigable waters, their tributaries, and adjacent

wetlands. (40 CFR Section 122.2.) The City of Healdsburg does not disagree that wetlands have grown up along the banks of the Basalt Pond. For these wetlands to be considered "adjacent," they must be hydrologically (or at least biologically) connected to the neighboring navigable water. (See, e.g., *United States v. Riverside Bayview Homes* (1985) 474 U.S. 121; *Leslie Salt Co. v. United States* (9th Cir. 1990) 896 F.2d 354; *United States v. Banks* (11th Cir. 1997) 115 F.3d 916, 921.)

14. A report titled "Potential Water Quality Impacts of Treated Wastewater Discharge at Healdsburg" was prepared for the Permittee by Philip Williams & Associates, Ltd. on April 17, 1996. Page 18 of the report had the following conclusions related to this Permit:
  - a. The discharge of wastewater, combined with some groundwater inflow at the northwestern corner of the Basalt Pond maintains a hydraulic gradient from the pond to the river most of the time, in both wet and dry seasons.
  - b. Concentrations of nitrate, chloride and fluoride in the groundwater near the pond are elevated due to pond discharge.
  - c. The Basalt Pond discharges to the Russian River at a rate of about four cubic feet per second (cfs), in both summer and winter. This discharge carries a load of nitrate-nitrogen that is significant compared to the load of the Russian River in the low-flow season, but not in the winter when river discharge is high.
  
15. The Permittee's Draft Environmental Impact Report, Wastewater Outfall Relocation Project states on page 4-2, "The groundwater basin is hydraulically connected to the Russian River. In the Russian River Valley, groundwater moves from the margins toward the Russian River during most of the year. Groundwater in the project area generally flows to the southeast with a gentle gradient." And on page 4-6,

"Nitrate-nitrogen data indicated that there were relatively high concentrations in the wastewater treatment pond (Basalt Pond) and in wells immediately downgradient of the Pond. The wastewater discharge could be a potential source of nitrate-nitrogen, a contaminant that could contribute to the development of algal blooms in the river."
  
16. High flows of the Russian River have historically caused catastrophic breaches of the Basalt Pond levee. Syar intends to construct a weir between the Basalt Pond and the Russian River to protect the levee from these high flows. The weir will essentially consist of a notch in the levee, designed to relieve pressure on the levee face by allowing the uncontrolled entry of high

- flows from the river into the pond. The crest of the weir is designed to be approximately eight feet above the ordinary high water mark of the Russian River and within the 10-year floodplain. Regional Water Board staff predict that with the current rainfall trends in the area, the constructed weir will allow for much more frequent--possibly annual--interchange of water than currently occurs through levee breach.
17. The above facts demonstrate the Basalt Pond, and the wetlands along it, are hydrologically connected to the Russian River and therefore waters of the United States. First, the Basalt Pond is a surface tributary by virtue of periodic inundation by the Russian River; a connection that will grow more frequent when Syar installs a weir to lowers the Basalt Pond levee. (*Headwaters v. Talent Irrigation District* (9th Cir. 2001) 243 F.3d 526, 533 (irrigation canals exchanging water with natural streams and a lake were waters of the United States).) The presence of wetlands in the pond only enhances its character as waters of the United States. Waters of the United States include not only navigable waters but also wetlands whose functions create a “significant nexus” such that they are “inseparably bound up” with the navigable waters. (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers* (2001) 531 U.S. 159, 167.) Even attenuated hydrologic connections between these important wetlands and navigable waters trigger Clean Water Act jurisdiction. (E.g., *United States v. Rapanos* (6th Cir. 2003) 339 F.3d 447 (wetlands 10-12 miles from navigable waters); *United States v. Deaton* (4th Cir. 2003) 332 F.3d 698, 702 (wetland connection followed “winding 32-mile path” to navigable waters). The Basalt Pond is roughly 50-100 feet from the navigable Russian River. Water flows underground from the Basalt Pond to the Russian River at a rate of approximately four cubic feet per second. Pollutants, including at least nitrate nitrogen, travel to the river along with the underflow. This hydrologic connection makes the wetlands in the Russian River “adjacent” to a navigable water and therefore waters of the United States subject to Clean Water Act jurisdiction.
  18. Aside from the presence of wetlands adjacent to the Russian River, the Basalt Pond is also waters of the United States because it is adjacent to open water. “The same characteristics that justif[y] protection of adjacent wetlands . . . apply as well to adjacent ponds.” (*San Francisco Baykeeper v. Cargill Salt Division* (N.D. Cal., Apr. 29, 2003) 2003 U.S. Dist. LEXIS 8246, pp. 16, 23.) The hydrologic connection between the pond and the river is sufficient nexus to classify the pond as waters of the United States.
  19. Even if the Basalt Pond were not waters of the United States, the discharge of wastewater would still require an NPDES permit because the water flowing out of the pond is hydrologically connected to the Russian River. Congress

- intended that all aquatic features that affect interstate commerce, including groundwater hydrologically connected to navigable waters, to be subject to the Clean Water Act. (E.g., *U.S. Steel Corp. v. Train* (7th Cir. 1977) 556 F.2d 822, 852; *Idaho Rural Council v. Bosma* (D. Idaho 2001) 143 F.Supp.2d 1169, 1180; *Washington Wilderness Coalition v. Hecla Mining Co.* (E.D. Wa. 1994) 870 F.Supp. 983, 990; *McClellan Ecological Seepage Situation v. Weinberger* (E.D. Cal. 1988) 707 F.Supp. 1182, 1193-1196; see also *Leslie Salt Co., supra*, 896 F.2d at p. 357 (holding that Clean Water Act jurisdiction coextensive with limits of interstate commerce).) To be subject to the NPDES permit requirement, pollutants must be “traced from their source to surface waters [of the United States] . . . .” (*Bosma, supra*, 134 F.Supp.2d at p. 1180.) As noted above in Findings 14-17, pollutants can be traced flowing from the Basalt Pond to the Russian River. Thus, the discharge of wastewater to the pond requires an NPDES permit.
20. Healdsburg claims that the Basalt Pond should be exempt from the Clean Water Act because it is part of an ongoing mining operation. The U.S. Army Corps of Engineers states that it “generally” does not consider ponds such as the Basalt Pond as waters of the United States “unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.” (51 Fed. Reg. 41206, 41217 (1986).) Whether these waterbodies are subject to the Clean Water Act is a “case-by-case” determination. (*Ibid.*) In this case, the Basalt Pond is not being actively excavated, it is well into the process of being reclaimed. Sediment, discharged into the pond from Syar’s gravel washing operation, has coated the bottom of the pond and slowly is filling it up. The pond is bordered by wetlands and is hydrologically connected to the Russian River via surface inundation and groundwater flows. Healdsburg has identified no reason why classification of the Basalt Pond as waters of the United States will interfere with the discharge of wash water into the pond, which is the only remaining use of the pond connected to Syar’s gravel excavation operation. Accordingly, because the Basalt Pond otherwise exhibits characteristics of waters of the United States, the application of the exemption in this case would not be appropriate.
21. In addition, Healdsburg makes the novel argument that the Basalt Pond is not waters of the United States because it is part of the waste treatment system associated with the WWTF. U.S. EPA regulations provide: “Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA . . . are not waters of the United States.” (40 CFR Section 122.2.) The Basalt Pond does not fit within this exception. Healdsburg’s existing waste discharge requirements identify the components of the WWTF: “biological secondary treatment utilizing four aerated ponds followed by two oxidation/sedimentation ponds and disinfection prior to

- discharge to an open pit gravel quarry owned by Syar, Inc.” (Finding 3, Waste Discharge Requirements Order No. 92-80.) The Basalt Pond is not owned by the City of Healdsburg and was never designed to receive or treat domestic wastewater. Rather, the Basalt Pond is a byproduct of Syar’s gravel extraction. Additionally, the point for measuring compliance with the existing waste discharge requirements is prior to the discharge to the Basalt Pond, not after, which would be the case if the City received credit for treatment received in the pond. For all of these reasons, the Basalt Pond is not exempt from the Clean Water Act as a part of a “waste treatment system.”
22. The WWTF was previously regulated with Waste Discharge Requirements as a discharge to land. The adoption of an NPDES Permit for the WWTF requires the Permittee to comply with additional water quality limitations including compliance with prohibitions included in the Water Quality Control Plan for the North Coast Region (Basin Plan). The NPDES Permit includes receiving water limitations, California Toxics Rule limitations and additional monitoring of the WWTF’s effluent and receiving water.
23. The Basin Plan requires municipal wastewater discharged to the Russian River or its tributaries be treated to Advanced Wastewater Treatment (AWT) levels. The Permittee has proposed a schedule to complete the upgrade that includes the following tasks:
- |  |                      |
|--|----------------------|
| a. Issue draft EIR for public comment                            | August 31, 2004      |
| b. Certify final EIR   | 5 additional months  |
| c. Adopt project   | 1 additional month   |
| d. Complete project plans and specifications, advertise for bids | 8 additional months  |
| e. Award contract for construction                               | 3 additional months  |
| f. Complete construction of AWT upgrade                          | 20 additional months |

This schedule indicates that the AWT upgrade will be completed by September 2007.

24. The Basin Plan requires that discharges to the Russian River and its tributaries be limited to one percent of the receiving stream’s flow. Discharges to fresh water impoundments that are not tributary to the Russian River are prohibited. If the Permittee prepares a study demonstrating that a higher percentage would protect beneficial uses and the Regional Water Board accepts this study, the Permittee could be allowed to discharge a higher percentage to the receiving water. This Permit requires the Permittee to develop a plan to measure percentage of flow of the receiving water and come into compliance with the Basin Plan prior to the Permit renewal.

25. The Basin Plan includes beneficial uses, water quality objectives, implementation plans for point source and non-point source discharges, prohibitions and statewide plans and policies. The Basin Plan also includes a prohibition against point source discharges to the Russian River and its tributaries during the period May 15 through September 30. Currently the Permittee discharges to the Basalt Pond year-round. Provisions in the accompanying Cease and Desist Order No. R1-2004-0065 establishes a time schedule for compliance with this prohibition.

26. 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 encouraged.

Recent toxicity test results have demonstrated that the WWTF discharges effluent with acute toxicity. A Cease and Desist Order No. R1-2004-0065 contains a compliance schedule for the Permittee to comply with the narrative toxicity effluent limitation.

27. As more specifically discussed in the Fact Sheet, the existing and potential beneficial uses of the Basalt Pond and the Russian River include:

- a. municipal and domestic supply
- b. agricultural supply
- c. industrial service supply
- d. industrial process supply

- e. groundwater recharge
  - f. navigation
  - g. hydropower generation
  - h. water contact recreation
  - i. non-contact water recreation
  - j. commercial and sport fishing
  - k. warm freshwater habitat
  - l. cold freshwater habitat
  - m. wildlife habitat
  - n. migration of aquatic organisms
  - o. spawning, reproduction, and/or early development
  - p. estuarine habitat
  - q. aquaculture
  - r. groundwater recharge
28. Beneficial uses of areal groundwaters include:
- a. domestic water supply
  - b. agricultural water supply
  - c. industrial service supply
  - d. industrial process supply
29. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, and 307 of the Clean Water Act (CWA) and amendments thereto are applicable to the Permittee.
30. Mass-based effluent limitations are included in this Permit for BOD and suspended solids, as provided by 40 CFR 122.45(f). Pursuant to 40 CFR 122.45(b), effluent limitations for POTWs are derived using the design flow of the WWTF. Mass-based effluent limitations were calculated based on average dry weather design flow and the design wet weather flow of the WWTF.
31. 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 the 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 CWA. The 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 in

their basin plans; (2) monitoring requirements for 2,3,7,8-TCDD equivalents; and (3) chronic toxicity control provisions.

On March 4, 2004, in accordance with the SIP, the Executive Officer issued a 13260 Order to require the Permittee to obtain background and effluent data to determine whether priority pollutants for which criteria have been established under provisions of the SIP 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. The 13260 Order required sampling for NTR, CTR and additional priority pollutants to determine if the discharge has reasonable potential to cause or contribute to water quality impacts. Results from one of the two sampling events required by the SIP was submitted prior to adoption of this Permit. The Permit also contains a schedule for submittal of the outstanding sampling results. The Permittee submitted the data to satisfy the 13260 Order on May 3, 2004.

32. In accordance with the methodology presented in Section 1.3 of the SIP (the Reasonable Potential Analysis or RPA), the most stringent applicable water quality objectives and criteria contained in the Basin Plan, the NTR, and the CTR have been compared to available effluent and background data to determine the need for effluent limitations for toxic pollutants. For toxic pollutants that show a "reasonable potential," water quality based effluent limitations (WQBELs) have been established in accordance with Section 1.4 of the SIP.
33. In general, the toxic effects of metals increase with decreasing concentrations of hardness in the receiving water; and therefore, some CTR criteria are hardness dependent. A background hardness level of 140 mg/L, based on analysis of samples collected on October 24, 2003, and November 5, 2003, from the Basalt Pond, has been used to determine reasonable potential. In establishing effluent limitations for toxic pollutants within this Permit, the Regional Water Board has also not accounted for dilution of the discharge by the receiving water. Section 1.4.2 of the SIP permits an allowance for dilution only after characterization of the receiving water flow by the Permittee is completed to determine a dilution ratio and/or whether or not a dilution credit is appropriate; and, in these circumstances there are insufficient data to make such a determination.
34. Based on analysis of effluent samples collected on March 31, 2004, the Regional Water Board, using methods presented in the SIP, finds that the discharge demonstrates reasonable potential to cause or contribute to receiving water excursions above applicable water quality standards for copper. The Fact Sheet contains additional information on the determination of reasonable potential.

35. *Copper.* On March 31, 2004, copper was detected in an effluent sample at 15 µg/l, above the CTR fresh water criterion, adjusted for a hardness of 140, of 12.4 µg/l for the protection of aquatic life. Because the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes Effluent Limitations for copper listed in Attachment B, applicable to discharges from Discharge Serial No. 001.<sup>1</sup> 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. Attachment B provides calculated final effluent limitations for copper, for a range of hardness concentrations.
36. The Permittee has requested a compliance schedule for the copper final effluent limitations. Section 2.1 and 2.2 of the SIP authorize the establishment of a compliance schedule and interim limitations upon receipt of information showing that immediate compliance with final limitations is infeasible. An infeasibility study submitted by the Permittee on August 16, 2004 concludes that it is infeasible to immediately comply with the final effluent limitations for copper. The SIP requires that the compliance schedule be as short as practicable and that the discharger comply with interim requirements, such as possible source control efforts, pollutant minimization actions, and facility improvements. Based on the facts presented in this finding, the Regional Water Board has determined that immediate compliance with effluent limitations for CTR pollutants is infeasible and therefore that a compliance schedule and interim requirements, including an interim effluent limitation, are warranted.
37. The interim limitation for copper is based on current treatment plant performance using the maximum observed concentration. General Provision I.30 specifies interim requirements and a compliance schedule to achieve the final effluent limitations for copper. Tasks to be performed by the Permittee include implementation of source identification program.
38. The Permittee has not completed the Priority Pollutant and Dioxin Effluent Study. The Permittee proposes to submit the remaining dry-weather sample for the Priority Pollutant Study by November 30, 2004. This sample will include a supplemental analysis result for asbestos; 2, 3, 7, 8-TCDD; 1, 3-Dichloropropylene; and Chromium (VI). The Permittee proposes to submit

---

<sup>1</sup> The Regional Water Board is investigating the feasibility of developing a mixing zone policy. It is anticipated that this policy will not be ready for consideration by the Regional Water Board until at least 2006. If this policy is adopted, final effluent limitations may be recalculated using an appropriate dilution factor and the Permit accordingly revised.

one dry- and one wet-weather sample for three years to complete the Dioxin Effluent Sample by July 31, 2006.

39. The Permittee is not required to have an approved pretreatment program that meets the criteria established in 40 CFR Part 403.8 and Part 403.9 because the average daily dry weather flow is less than 5 mgd and there are no significant industrial users discharging to the WWTF. However, this Permit establishes general source control requirements (Section H) that require the Permittee to perform some source control functions to ensure that pollutants do not interfere with, pass through, or be incompatible with treatment operations, interfere with the use or disposal of sludge, or pose a health hazard to personnel. The establishment of this source control program along with compliance measures contained in the Cease and Desist Order should help address concerns regarding observed toxicity in the discharge.
40. The WWTF has historically produced excessive algae growth due primarily to the design of the ponds. The ponds are shallow with a large surface area, allowing for excessive algae growth. The algae growth has often made the effluent turbid, raising the BOD and TSS levels in the discharge. The Permittee initially proposed the addition of an effluent filtering device to remove algae and improve treatment in a letter received by the Regional Water Board on August 9, 2002. Regional Water Board staff (staff) approved the concept and advised the Permittee to install filters in a letter dated September 12, 2002. Staff requested that the Permittee install the filters again in a letter dated December 29, 2003. The Permittee did not install and begin operating the filters until July 2005.
41. Staff received a report on February 23, 2005, from the Permittee exploring options to improve treatment of BOD and TSS to comply with the interim effluent limitations contained in Order No. R1-2004-0111. Staff met with the Permittee and discussed that the report did not explore cost-effective operational modifications to the operation of the WWTF. The Permittee submitted a supplemental report on May 2, 2005, addressing more feasible methods of improving compliance with the interim effluent limitations. This report identified the use of aquashade dye to provide chemical shading as offering potential treatment improvement. The Permittee informed staff that the use of aquashade dye commenced in June 2005. The Permittee included requests for a compliance schedule to comply with the Permit's interim BOD and TSS effluent limitations with these reports.

The Permittee's initial requests were to have the BOD and TSS effluent limitations from their previous (non-NPDES) permit reinstated until the AWT upgrade was completed in January 2008. Regional Water Board staff determined that adequate justification had not been submitted with these

requests to warrant a compliance schedule of such long duration as they did not include evidence that the WWTF could not comply with the interim effluent limitations after implementation of all feasible treatment improvements. Additional justification for the compliance schedule was submitted on September 15, 2005, specifically a request for a fifteen-month compliance schedule to allow the Permittee to acquire more data.

The Permittee has not yet submitted justification that would warrant a compliance schedule for BOD and TSS effluent limitations extending to January 2008; however, staff has adequate information to provide a compliance schedule of a more limited, 15-month duration.

42. The Regional Water Board does not have the authority to include interim limits and compliance schedules for TSS and BOD effluent limitations within an NPDES permit. Interim effluent limitations and a compliance schedule can be provided in a separate cease and desist order. Staff has informed the Regional Water Board that staff intends to propose a modification to Cease and Desist Order No. R1-2004-0065 to address the BOD and TSS compliance schedules at the next feasible Board Meeting.
43. On October 4, 2007, the Permittee requested a modification to General Provision I.28, Compliance Schedule for Advanced Wastewater Treatment (AWT), because the new AWT WWTF would not be in operation as required in General Provision I.28 by January 1, 2008. The Permittee requested modifications to Effluent Limitations B.1 and B.2 as well to allow more time for the WWTF to attain complete functionality. This NPDES Permit modification grants an extension until May 1, 2008 for the Permittee to meet the requirements of Effluent Limitation B.1, B.2 and General Provision 1.28.
44. The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. The impact on existing water quality will be insignificant.
45. The action to adopt 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. This action is also categorically exempt from CEQA because the WWTF is an existing facility as specified in Title 14, California Code of Regulations, Section 15301.
46. The Regional Water Board has notified the Permittee and interested agencies and persons of its intent to prescribe Permit requirements for the discharge and has provided them with an opportunity to submit their written comments

and recommendations.

47. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
48. This Order will serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto. The Order will take effect on November 30, 2004.
49. The Fact Sheet is incorporated as findings in support of this Order as if set forth here verbatim.

THEREFORE, IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. R1-2004-0111 is rescinded except for enforcement purposes and replaced by this Order, as of the date this Permit becomes effective, 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 disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.
2. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the CWC is prohibited.
3. The discharge of sludge is prohibited, except as authorized under **Section G. SOLIDS DISPOSAL AND HANDLING REQUIREMENTS.**
4. The discharge of untreated or partially treated waste from anywhere within the collection, treatment, or disposal facility is prohibited.
5. The discharge of waste to land that is not owned by or under agreement to use by the Permittee is prohibited.
6. The discharge of waste at any point not described in Discharge Prohibition A.5 or authorized by any State Water Board or other Regional Water Board permit is prohibited.
7. The discharge of wastewater effluent from the WWTF to the Russian River or its tributaries is prohibited during the period May 15 through September 30 each year.

8. The average dry weather flow of waste in excess of 1.4 mgd measured over a period of 30 consecutive days is prohibited.
9. During the period of October 1 through May 14, discharges of wastewater shall not exceed one percent of the flow of the Basalt Pond.

**B. EFFLUENT LIMITATIONS FOR DISCHARGES TO THE BASALT POND**

Representative samples of treated effluent shall be collected at a point at the end of the treatment train and shall be analyzed for the purpose of determining compliance with this Permit, unless otherwise specified.

1. Final limits in effect May 1, 2008. Wastewater shall be screened and degrittied, adequately oxidized, clarified, and filtered, disinfected and dechlorinated prior to discharge to the Basalt Pond. Advanced treated wastewater shall not contain constituents in excess of the following limitations:

Constituent	Unit	Monthly Average	Weekly Average
BOD (20°, 5-day)	mg/l	10	15
	lb/day <sup>2</sup>	117	175
Suspended Solids	mg/l	10	15
	lb/day	117	175

2. Final limits in effect May 1, 2008. The disinfected effluent discharged from the WWTF to the Basalt Pond shall not contain concentrations of total coliform bacteria exceeding the following limitations:
  - a. The median concentration shall not exceed a Most Probable Number (MPN) of 2.2 per 100 milliliters, using the bacteriological results of the last seven days for which analyses have been completed.
  - b. The number of coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period.
  - c. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.
3. The pH shall be not less than 6.5 nor greater than 8.5 when discharging to the Basalt Pond.

<sup>2</sup> Mass based effluent limitations are based on the WWTF dry weather design flow of 1.4 mgd. During wet-weather periods when the flow rate into the WWTF exceeds the dry weather design flow, the mass emission limitations shall be calculated using the concentration-based effluent limitations and the actual daily average flow rates (not to exceed the maximum sustained peak design flow of 6.5 mgd.)

4. Effluent discharged to the Basalt Pond shall not contain detectable levels of total chlorine using an analytical method or chlorine analyzer with a minimum detection level of 0.1 mg/l.
5. Effluent shall not contain any measurable settleable solids.
6. There shall be no acute toxicity in the effluent. The Permittee will be considered in compliance with this limitation when the survival of aquatic organisms in a 96-hour bioassay of undiluted waste complies with the following:
  - a. Minimum for any one bioassay: 70 percent survival.
  - b. Median for any three or more consecutive bioassays: at least 90 percent survival.

Compliance with this effluent limitation shall be determined in accordance with General Provision I.23.

7. The arithmetic mean of the BOD (20°C, 5-day) and suspended solids values for effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (85 percent removal). 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.
8. Representative samples of effluent prior to discharge to the Basalt Pond shall not contain constituents in excess of the following limitations:

Constituent	Unit	Interim Limitations <sup>3</sup>		Final Limitations	
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum
Copper	µg/l	30.0	30.0	See Attachment B	

The final effluent limitations for copper found in Attachment B will be in effect on October 6, 2009.

9. Interim limits in effect until April 30, 2008:

Interim limitations to be in effect until April 30, 2008, in compliance with

<sup>3</sup> This interim limitation shall be effective until October 6, 2009.

General Provision I.28. Secondary treated wastewater shall not contain constituents in excess of the following limitations:

Constituent	Unit	Monthly Average	Weekly Average
BOD (20°, 5-day)	mg/l	30	45
	lb/day <sup>4</sup>	350	525
Suspended Solids	mg/l	30	45
	lb/day	350	525

The disinfected effluent shall not contain concentrations of total coliform bacteria exceeding the following limitations:

- a. The monthly median concentration shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters, using bacteriological results from the calendar month for which analyses have been completed.
- b. The daily maximum result shall not exceed 230 MPN per 100 milliliters.

### C. RECEIVING WATER LIMITATIONS

2. The waste discharge shall not cause the dissolved oxygen concentration of the receiving waters to be depressed below 7.0 mg/l. 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.
3. 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. 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.
4. The discharge shall not cause the turbidity of the receiving waters to be increased more than 20 percent above naturally occurring background levels.

---

<sup>4</sup> Mass based effluent limitations are based on the WWTF dry weather design flow of 1.4 mgd. During wet-weather periods when the flow rate into the WWTF exceeds the dry weather design flow, the mass emission limitations shall be calculated using the concentration-based effluent limitations and the actual daily average flow rates (not to exceed the maximum sustained peak design flow of 6.5 mgd.)

5. 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.
6. 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.
7. The discharge shall not cause coloration of the receiving waters that causes nuisance or adversely affects beneficial uses.
8. The discharge shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.
9. The discharge shall not cause or contribute to the receiving waters 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.
10. 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 shall be determined according to General Provision I.23 and General Provision I.24.
11. The discharge shall not alter the natural temperature of the receiving waters.
12. 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.
13. 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 Permit in accordance with such more stringent standards.

16. The discharge shall not cause concentrations of chemical constituents to occur in excess of limits specified in Table 3-2 of the Basin Plan.

#### **D. GROUNDWATER LIMITATIONS**

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

#### **E. GROUNDWATER MONITORING AND REPORTING**

No later than January 6, 2005, the Permittee shall submit a Groundwater Monitoring and Reporting Plan. This Plan shall include a proposal to install, if needed, groundwater monitoring wells upgradient and downgradient from the disposal area to characterize and monitor the groundwater quality and ground water flow gradients. Additionally, monitoring frequency and constituents of concern will be proposed in the Plan.

#### **F. REQUIREMENTS FOR AERATED OR OXIDATION POND SYSTEMS**

1. For Aerated or Oxidation Pond Systems, the following additional requirements apply:
  - a. The dissolved oxygen concentration in the foot closest the surface of the treatment/holding ponds shall not be less than 1.0 mg/l at any time.
  - b. A minimum freeboard, consistent with pond design but not less than two feet, shall be maintained at all times in any pond containing wastewater, except with prior authorization by the Executive Officer.
  - c. The ponds shall be operated and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
  - d. The ponds shall have sufficient capacity to accommodate wastewater flow, groundwater infiltration and inflow in the collection system, and seasonal precipitation during the rainy season.

- e. All new ponds shall be sited, designed, constructed, and operated to ensure that wastes will be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water.
- f. All ponds shall have a foundation or base capable of providing support for the structures, and capable of withstanding hydraulic pressure gradients to prevent failure due to settlement, compression, or uplift and all effects of ground motions resulting from at least the maximum probable earthquake, as certified by a registered civil engineer or certified engineering geologist.

## **G. SOLIDS DISPOSAL AND HANDLING REQUIREMENTS**

1. 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, and 503, the State Water Board promulgated provisions of Title 27, Division 2, of the CCR, and with the Water Quality Control Plan for Ocean Waters of California (California Ocean Plan). If the Permittee desires to dispose of solids or sludge by a different method, a request for permit modification shall be submitted to the U.S. EPA and the Regional Water Board 180 days prior to the alternative disposal.
2. All the requirements in 40 CFR 503 are enforceable by U.S. EPA whether or not they are stated in an NPDES permit or other permit issued to the Permittee. The Regional Water Board should be copied on relevant correspondence and reports forwarded to the U.S. EPA regarding sludge management practices.
3. Sludge that is disposed of in a municipal solid waste landfill or used as landfill daily cover shall meet the applicable requirements of 40 CFR Part 258. In the annual self-monitoring report, the Permittee shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.
4. Sludge that is applied to land as soil amendment shall meet pollutant ceiling concentrations and pollutant concentrations, pathogen reduction and vector attraction reduction requirements, and annual and cumulative discharge limitations of 40 CFR Part 503.
5. 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 Part 503. Sludge stored beyond two years may be considered disposal and regulated as a waste pile or surface impoundment under Title 27 Division 2 of the CCR.

6. The Permittee is responsible for ensuring compliance with these regulations whether the Permittee uses or disposes of the sludge itself or contracts with another party for further treatment, use, or disposal. The Permittee is responsible for informing subsequent preparers, applicators, and disposers of the requirements that they must meet under 40 CFR Parts 257, 258, and 503.
7. The Permittee shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Permit that has a likelihood of adversely affecting human health or the environment.
8. Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination.
9. The solids and sludge treatment and storage site 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 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.
10. 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.
11. The Permittee 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.

#### **H. SOURCE CONTROL PROVISIONS**

1. Beginning January 3, 2005, the Permittee shall perform source control functions, to include the following:
  - a. Implement any 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.
  - b. If waste haulers are allowed to discharge to the WWTF, establish a waste hauler permit system, to be reviewed by the Regional Water Board Executive Officer, to regulate waste haulers discharging to the collection system or WWTF.

- c. Conduct a waste survey to identify all dischargers that might discharge pollutants that could pass through or interfere with the operation or performance of the WWTF.
  - d. Perform public outreach to educate industrial, commercial, and residential users about the importance of preventing discharges of industrial and toxic wastes to the wastewater treatment plant.
  - e. Perform ongoing inspections and monitoring, as necessary, to ensure compliance with source control regulations.
2. The Permittee shall submit an annual report to the Regional Water Board describing the Permittee's source control activities over the previous twelve months. This annual report is due on March 1<sup>st</sup> of each year beginning on March 1, 2005, and shall contain:
- a. A copy of the source control standards.
  - b. A description of the waste hauler permit system.
  - c. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of any industrial users under surveillance by the Permittee, 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 industrial user.
  - d. A summary of public participation activities to involve and inform the public.

## **I. GENERAL PROVISIONS**

### **1. Duty to Comply**

The Permittee shall comply with all conditions of this Permit. Any instance of noncompliance with this Permit 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 re-issuance, 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 October 6, 2009. If the Permittee wish 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 ROWD in accordance with Title 23, CCR, shall be received by the Regional Water Board no later than July 27, 2008. [40 CFR 122.41(b)] The ROWD shall contain all monitoring data and other technical information needed to support the establishment of final priority pollutant effluent limitations pursuant to the SIP. The ROWD shall also include specific information identified in General Provision I.12(a) and (e) of this Permit.

The Regional Administrator of the U.S. EPA or the Executive Officer 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 or the Executive Officer 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)(1)]

3. 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. [40 CFR 122.41 (a)(2)].

4. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal 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

a. 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 quality controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Permittee only when necessary to achieve compliance with the conditions of this Permit. [40 CFR 122.41(e)]

- b. The Permittee shall comply with this provision by submitting to the Regional Water Board an updated Operation and Maintenance (O&M) Manual for the WWTF. The report shall be included with the application for renewal of this NPDES permit. The Permittee shall update the O&M Manual, as necessary, to conform with changes in operation and maintenance of the WWTF. 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 Permittee will be able to comply with the requirements of this Permit.
  - 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.

## 6. Permit Actions

- a. This Permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
  - i. Violation of any terms or conditions of this Permit; or
  - ii. Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or
  - iii. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or
  - iv. 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.
- b. 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 which 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)]
- c. 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 that 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, the Department of Health Services 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 required to be kept under the conditions of this Permit;
- b. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance to this Permit, 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, but 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;
  - vi. The results of such analyses; and
  - vii. The reported Minimum Level<sup>5</sup> (ML) and the laboratory's current method detection limit (MDL).
- 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. Unless otherwise specified, all metals shall be reported as total recoverable metals. Toxicity bioassays shall be performed in accordance with the provisions of this Permit.

## 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)]

---

<sup>5</sup> The Minimum Level (ML) is the concentrations at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specific sample weights, volumes and processing steps have been followed.

- 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) and (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 this Permit, nor the notification requirements under paragraphs (f) and (g) of this provision.
- b. Anticipated noncompliance: The Permittee shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.
- c. Transfers: This Permit is not transferable.
- d. Monitoring reports: Monitoring results shall be reported at the intervals specified in the self-monitoring program. The Permittee shall submit an annual report to the Regional Water Board such that it is received no later than March 1, following the annual reporting period. 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 this 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 self-monitoring report.
- e. 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 they are received by the Regional Water Board via fax, e-mail, or postal service no later than 14 days following each schedule date.
- f. 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, including, where applicable, a schedule of compliance.
- g. In addition, the following events shall be reported by telephone as soon as possible to the Regional Water Board Executive Officer, but no later than 24 hours from the time the Permittee become aware of the circumstances,

and the written report shall be submitted such that an original signed written report is received by the Regional Water Board no later than 14 days after the event:

- i. Any unanticipated bypass that violates any prohibition, exceeds any effluent limitation or otherwise violates conditions contained in this Permit;
- ii. Any upset that exceeds any effluent limitation in this Permit;
- iii. Any noncompliance that may endanger health or the environment except as provided elsewhere in this Permit.

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

- h. The following events shall be reported to Regional Water Board staff and to the Department of Health Services by telephone within 24 hours. A written report describing the incident and the actions undertaken by the Permittee to mitigate the discharge shall be included in the monthly self-monitoring report, unless otherwise requested by the Executive Officer.
  - i. Failure of chlorination equipment.
  - ii. Effluent total coliform bacteria in exceedance of 240 MPN/100 ml.
  - iii. Filter effluent turbidity greater than 10 NTU discharged to the chlorine contact chamber.
  - iv. Chlorine disinfection CT less than 450 mg-min/l.

The Permittee shall mitigate for these events by diverting all inadequately treated and disinfected wastewater to an upstream treatment process until the Permittee documents that the problem has been resolved. The Permittee shall also notify all affected recycled water users as soon as possible in the event that inadequately treated recycled water is delivered to any recycled water use site(s).

- v. Other information: Where the Permittee becomes aware that they 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 that would not occur but for the 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 or in accordance with an operating plan approved by the Executive Officer to assure efficient operation. These bypasses are not subject to the requirements of parts c and d of this provision.

#### 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 in General Provisions I.12 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:
  - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - (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 backup 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; and

(c) The Permittee submitted notices as required under part c of this provision.

- 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 in part (d)(i) of this provision.

#### 14. Upset

- a. Definition. Upset [as defined at 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 part c of this provision 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.
- 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 by General Provisions I.12 of this Permit; and
  - iv. The Permittee complied with any remedial measures required under Part d of this provision.
- d. Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

15. Wastewater Collection System

- a. The Permittee shall develop and implement a management, operation and maintenance program for its wastewater collection system within the term of this Permit. The program shall include:
  - i. Adoption of the necessary legal authorities to implement the program.
  - ii. Establishment of collection system performance goals and measures to control infiltration and inflow.
  - iii. A schedule to conduct routine, on-going preventive operation and maintenance activities.
  - iv. Procedures to identify structural deficiencies and to propose and implement rehabilitation actions.
  - v. The design and implementation of an ongoing program to assess the capacity of the collection system and treatment facility.
  - vi. The maintenance of accurate collection system maps and maintenance records.
  - vii. Collection system employee training program.
  - viii. Establishment and implementation of asset management and long-term planning geared to providing adequate system capacity for base and peak flows in the collection system.

16. Sanitary Sewer Overflows

- a. The Permittee shall submit to the Regional Water Board within 90 days of the effective date of this Permit an updated Spill Response and Notification Plan that has been developed for the WWTF. At least every five years, the Permittee shall review the Plan, and update the Plan as necessary. The updated Plan shall be included in the application for new waste discharge requirements.
- b. All feasible steps shall be taken to stop sanitary sewer overflows (SSOs) as soon as possible by unblocking the line, diverting overflows to a nearby sewer line, and/or otherwise mitigating impacts of SSOs. All reasonable steps shall be taken to collect spilled sewage and protect the public from contact with wastes or

waste-contaminated soil.

- c. SSOs shall be reported to the Regional Water Board staff in accordance with the following:
  - i. 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 with the monthly monitoring report.
  - ii. SSOs *that result in a sewage spill between 5 gallons and 1,000 gallons* that does not reach a waterway shall be reported by telephone within 24 hours. A written description of the event shall be submitted with the monthly monitoring report.
  - iii. SSOs *that result in a sewage spill less than 5 gallons* that do not enter a waterway do not require Regional Water Board notification.
  - iv. Information to be provided verbally 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:
    - (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
- d. The Permittee shall submit an annual report to the Regional Water Board describing the Permittee's activities within the collection system over the previous calendar year. This annual report is due by March 1<sup>st</sup> of each year and shall contain:
  - i. A description of any change in the local legal authorities enacted to implement the program.

- ii. 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 (if other than the Permittee).
- iii. A summary of compliance and enforcement activities during the past year. The summary shall include fines, other penalties, or corrective actions.
- iv. Documentation of steps taken to stop and mitigate impacts of sanitary sewer overflows.
- e. The Permittee shall perform a self-audit at least once during the life of the Permit to assess the degree to which the performance measurements are being met. The results of the self-audit shall be included in the application for permit renewal, unless otherwise requested by the Executive Officer.
- f. The Permittee shall provide notice to the public of the availability of the annual report and the results of the self-audit in a manner reasonably designed to inform the public. The notice shall include a contact person and telephone number for the Permittee and information on how to obtain a copy of the report. The Permittee shall provide documentation that the annual report and the results of the self-audit have been made available to the public.

#### 17. Availability

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

#### 18. Change in Discharge

- a. In the event of a material change in the character, location, or volume of a discharge, (including any point or non-point 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:
  - i. 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.

- ii. Any new introduction of pollutants into the WWTF from an indirect discharger that would be subject to Section 301 or 306 of the CWA if it were directly discharging those pollutants;
- iii. 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 that would significantly alter the characteristics of the waste.
- iv. 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.
- vi. 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]

#### 19. 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.

#### 20. 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, where appropriate, 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. R1-2004-0111 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 that analyses for certain constituents by a certified laboratory is infeasible, analyses by a noncertified laboratory may be approved by the Executive Officer. Conditions that must be met for Executive Officer approval include: a quality assurance/quality control program conforming to U.S. EPA or State Department of Health Services guidelines is instituted by the laboratory, and a manual containing the steps followed in this program is kept in the laboratory and made available for review by staff of the Regional Water Board.

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

#### 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 DHS where water reclamation is involved.

#### 22. Adequate Capacity

Whenever a 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. 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 monthly flow. 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

Compliance with the Basin Plan narrative toxicity objective shall be achieved in accordance with the following:

#### a. Test Species and Methods

- i. During the first discharge season after adoption of this Permit, the Permittee shall conduct 96-hour static renewal or 96-hour static non-renewal tests with an invertebrate, the water flea, *Ceriodaphnia dubia*, and a vertebrate, the rainbow trout, *Oncorhynchus mykiss*, for at least two suites of tests. At least one test during the screening period shall be conducted when the effluent is unaffected by storm-related inflow into the WWTF. After this screening period, monitoring shall be conducted using the most sensitive species determined for the given flow regime. At least once every five years, the Permittee shall re-screen once with the two species listed above and continue to monitor monthly with the most sensitive species.
- ii. 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* (U.S. EPA Report No. EPA 600/4-90-027F, 4<sup>th</sup> edition or subsequent editions), or other methods approved by the Executive Officer.

#### b. Definition of Acute Toxicity

- i. Acute toxicity is defined as the effluent concentration that would cause death in 50 percent of the test organisms (LC50). Where the LC50 is calculated, results shall be reported in TUa, where  $TUa = 100/LC50$  (in percent effluent).
- ii. Acute toxicity is significantly reduced survival at 100 percent effluent compared to a control, using a t-test. Where 100 percent effluent is used, results shall be reported as percent survival.

### 24. Chronic Toxicity Control Provision

In addition to results from acute toxicity tests, compliance with the Basin Plan narrative toxicity objective shall be demonstrated according to the following:

a. Test Species and Methods

- i. The Permittee shall 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) for the first two suites of tests. At least one test during the screening period shall be conducted when the effluent is unaffected by storm-related inflow into the WWTF. After this screening period, monitoring shall be conducted using the most sensitive species. At least once every five years, the Permittee shall re-screen once with the three species listed above and continue to monitor with the most sensitive species.
- ii. The presence of chronic toxicity shall be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms* (U.S. EPA Report No. EPA-600-4-91-002, 3rd or subsequent editions).

b. Definition of Chronic Toxicity

- i. Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms.
- ii. Results shall be reported in TU<sub>c</sub>, where  $TU_c = 100/NOEC$  or  $100/IC_p$  or  $EC_p$  (in percent effluent).

c. Quality Assurance

- i. A series of at least five dilutions and a control will be tested. The series shall consist of the following dilution series: 12.5, 25, 50, 75, and 100 percent effluent.
- ii. 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).
- iii. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the manual, then the Permittee must re-sample and re-test within 14 days or as soon as possible.

- iv. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

## 25. Toxicity Reduction Evaluation (TRE)

- a. The Permittee shall prepare and submit to the Regional Water Board Executive Officer an initial investigation TRE workplan in accordance with Cease and Desist Order No. R1-2004-0065. 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 Permittee intends to follow if toxicity is detected, and should include, at least the following items:
  - i. 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.
  - ii. A description of the WWTF's methods of maximizing in-house treatment efficiency and good housekeeping practices.
  - iii. 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).
- b. The TRE shall be conducted in accordance with the following:
  - i. The TRE shall be conducted in accordance with the Permittee's workplan.
  - ii. The TRE shall be in accordance with current technical guidance and reference material including, at a minimum, the U. S. EPA manual EPA/833B-99/002. The TRE shall be conducted as a tiered evaluation process, as summarized below:
    - (a) Tier 1 consists of basic data collection (routine and accelerated monitoring).
    - (b) Tier 2 consists of the evaluation of treatment plant optimization including operational practices, and in-plant process chemicals.
    - (c) Tier 3 consists of a toxicity identification evaluation (TIE).
    - (d) Tier 4 consists of the evaluation of options for additional treatment processes.
    - (e) Tier 5 consists of the evaluation of options for modifications of in-

plant treatment processes.

- (f) Tier 6 consists of the implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.
- iv. The TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity.
- v. The Permittee may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. As guidance, the Permittee shall use the EPA acute and chronic toxicity manuals, EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).
- vi. 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 parameters.
- vii. 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.
- viii. 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 Permittee' actions and efforts to identify and control or reduce sources of consistent toxicity.

## 26. Reporting

Test results for chronic tests shall be reported according to the Monitoring and Reporting Program and shall be attached to the self-monitoring report.

## 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 the priority pollutant is present in the effluent above an effluent limitation, 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. Compliance Schedule for Advanced Wastewater Treatment (AWT)

During the term of this Permit, the Permittee shall comply with the following time schedule to achieve compliance with the Basin Plan and final effluent limitations in Effluent Limitations B.1 and B.2 by May 1, 2008:

<b><u>Task</u></b>	<b><u>Compliance Date</u></b>
Adopt project.	March 15, 2005
Award construction contract.	May 16, 2006
WWTF required to discharge AWT-treated effluent.	May 1, 2008

The Permittee shall notify the Regional Water Board, in writing, no later than 14 days following the compliance date, of their compliance or noncompliance with the requirement.

29. Compliance Schedule to Complete the Priority Pollutant Study and Dioxin Effluent Study.

During the term of this Permit, the Permittee shall comply with the following time schedule to achieve compliance with the SIP and Finding 31 by July 31, 2006:

<b><u>Task</u></b>	<b><u>Compliance Date</u></b>
Submit a supplemental receiving water sample analysis for asbestos; 2, 3, 7, 8-TCDD; 1, 3-Dichloropropylene; and Chromium (VI) for the Priority Pollutant Study.	October 1, 2004 (Complete)
Submit one additional dry weather effluent sample analysis for the Priority Pollutant Study.	November 30, 2004
Submit one additional wet-weather receiving water sample analysis for the Priority Pollutant Study.	January 31, 2005

<b><u>Task</u></b>	<b><u>Compliance Date</u></b>
Submit one dry and one wet-weather sample analysis for each year (2005 and 2006) to complete the Dioxin Effluent Study.	July 31, 2006

The Permittee shall notify the Regional Water Board, in writing, no later than 14 days following each compliance date, of their compliance or noncompliance with the requirement.

### 30. Compliance Schedule for Final Copper Effluent Limitations

During the term of this Permit, the Permittee shall comply with the following time schedule to achieve compliance with the final copper Effluent Limitation B.8 by October 6, 2009:

<b><u>Task</u></b>	<b><u>Compliance Date</u></b>
Prepare and implement a source identification program that will help identify and control possible sources of copper in the service area. The program will include annual goals to control sources of copper.	October 6, 2006
Submit <sup>6</sup> written progress reports <sup>7</sup> including updates on identifying sources of copper, improvements made in source control, compliance with the implemented source identification annual goals and analysis of monitoring results.	October 6, 2007 October 6, 2008
WWTF required to comply with Effluent Limitation B.8.	October 6, 2009

The Permittee shall notify the Regional Water Board, in writing, no later than 14 days following each interim date, of their compliance or noncompliance with the interim requirement.

<sup>6</sup> The word "submit" in this Order means that the document must be actually received by the Regional Water Board on the compliance date.

<sup>7</sup> The progress reports shall describe what steps have been implemented towards achieving compliance with waste discharge requirements, including construction progress, evaluate the effectiveness of the implemented measures and assess whether additional measures are necessary to meet the time schedule.

31. Compliance Schedule for Waste Discharge Rate Limitation, Discharge Prohibition A.9

There are two methods to comply with the waste discharge rate limitation in the Basin Plan. The first is to monitor the waste discharge flow and the background flow of the Basalt Pond and demonstrate compliance with the waste discharge rate limitation. The second is to apply for an exception to the limitation as described in the Basin Plan.

If the Permittee chooses to demonstrate compliance with the waste discharge rate limitation, the Permittee shall comply with the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
Submit written progress reports on compliance efforts to the Executive Officer. Regional Water Board staff may periodically present an informational update to the Regional Water Board based on the progress reports.	October 6, 2005 October 6, 2006 October 6, 2007 October 6, 2008
Submit a plan including a method to determine the rate and volume of flow leaving the Basalt Pond and a method to monitor compliance with the waste discharge rate limitation.	October 6, 2008
Comply with Discharge Prohibition A.9.	October 6, 2009

If the Permittee chooses to apply for an exception to the waste discharge rate limitation, the Permittee shall comply with the following:

Pursuant to the Basin Plan, the Regional Water Board will consider exceptions for cause to the waste discharge rate limitation, Discharge Prohibition A.9. Exceptions will be evaluated in NPDES permits on a case by case basis and in accordance with the following eligibility criteria specified in the Basin Plan:

- a. The wastewater treatment facility shall be reliable as demonstrated through analysis of the features of the facility including, but not limited to, system redundancy, proper operation and maintenance, and backup storage capacity to prevent the threat of pollution or nuisance.
- b. The discharge of waste shall be limited to rates and constituent levels which protect the beneficial uses of the receiving waters. The process for demonstrating adequate protection of beneficial uses is described in the Basin Plan.

- c. The exception shall be limited to that increment of wastewater which remains after reasonable alternatives for reclamation have been addressed.
- d. The exception shall comply with State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California," and the federal regulations covering antidegradation.
- e. There shall be no discharge of waste during the period May 15 through September 30.

<b><u>Task</u></b>	<b><u>Compliance Date</u></b>
Submit written progress reports on compliance efforts to the Executive Officer. Regional Water Board staff may periodically present an informational update to the Regional Water Board based on the progress reports.	October 6, 2005 October 6, 2006 October 6, 2007 October 6, 2008
Submit a complete application for the exception to the waste discharge rate limitation.	October 6, 2008
Receive an exception from the Regional Water Board.	October 6, 2009

### 32. Reopener

The Regional Water Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the Permittee governed by this Permit are 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 Permit 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 TMDL program.

The interim copper effluent limitations for the WWTF were based on a limited amount of data because of the expedited adoption schedule for this Permit. It

may be appropriate to gather additional sampling data pursuant to a sampling methodology reviewed by Regional Water Board staff. If such data indicate the need for changes to the interim effluent limitations for copper, the Regional Water Board may modify this Permit.

Finally, this Permit contains designated beneficial uses of the Basalt Pond assigned via the Sources of Drinking Water Policy and the tributary rule. If a use attainability analysis shows it is appropriate to remove any of these uses via a basin plan amendment, this Permit may be modified accordingly.

### Certification

I, Robert R. Klamt, Interim 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, on January 17, 2008.

---

Robert R. Klamt  
Interim Executive Officer