California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2003-0026
NPDES PERMIT NO. CA0024058
I.D. NO. 1B82045OSON

WASTE DISCHARGE REQUIREMENTS

FOR

RUSSIAN RIVER COUNTY SANITATION DISTRICT
AND
SONOMA COUNTY WATER AGENCY
WASTEWATER TREATMENT AND DISPOSAL FACILITY

Sonoma County

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

1. The Sonoma County Water Agency (SCWA), on behalf of the Russian River County Sanitation District (CSD) submitted a Report of Waste Discharge dated January 3, 2002, and applied for renewal of the permit (Order 92-51) to discharge municipal wastewater from the Russian River CSD Wastewater Treatment Facility (WWTF) under the National Pollutant Discharge Elimination System (NPDES). Supplemental information was submitted on March 25, 2002, April 4, 2002, and October 8, 2002. These Waste Discharge Requirements (WDRs) regulate the collection, treatment, storage, and disposal system. The term of this Permit is five years.

2. The Russian River CSD owns the wastewater collection, treatment, and disposal facilities that serve the unincorporated areas of Rio Nido, Vacation Beach, Guerneville, and Guernewood Park. The treatment facilities are located in the NW ¼ of Section 5, R10W, T7N, MDB&M as shown in Attachment "A" incorporated herein and made a part of this Order. SCWA operates all District facilities under contract to the District. SCWA and Russian River CSD are collectively referred to as the "Permittees" in this Permit, but, even though they both have the Sonoma County Board of Supervisors as their board of directors, SCWA and Russian River CSD are separate legal entities, with different roles defined by contract. As a contract operator, SCWA is responsible for ensuring that it operates the WWTF in compliance with the Permit. Russian River CSD owns the WWTF and, while it is jointly responsible with SCWA for proper operation of the WWTF, it is solely responsible for Permit compliance unrelated to proper operation of the WWTF.[1] In short, both entities are responsible for ensuring that their acts or omissions comply with the Permit.

3. The Russian River CSD wastewater collection system was constructed in 1983 and is comprised of approximately 35 miles of gravity sewer and eleven lift stations. The maximum pumping capacities of the lift station pumps range from 20 gallons per minute (gpm) to 2,220 gpm, depending on the mode of pump operation, with a combined pumping capacity at the two final lift stations of 5.53

[1] A violation is "unrelated to proper operation of the WWTF" if the sole cause is physically inadequate facilities which have not become inadequate because of acts or omissions by SCWA.

million gallons per day (mgd). The system has a history of flooding during large storm events because: (1) approximately 50 percent of the collection system is located within the 100-year flood plain of the Russian River, (2) the operation of the pumps has been modified from the original design, allowing influent flows in excess of the design capacity to be delivered to the WWTF and contribute to hydraulic overloading of the treatment facilities, (3) inflow enters the system though unsecured cleanout openings, and (4) the treatment plant has limited flow equalization capacity . Collection system flooding has resulted in the Permittees diverting a portion of the influent wastewater flow around the wastewater treatment facilities and discharging partially treated wastewater to the Russian River in 1993, 1995, 1996, 1997, 1998, 1999, 2000, and 2002. The Permittees have modified collection system operation so that the pump rate of the main lift station will not exceed 3.5 mgd. Additionally, the Permittees will close off identified sewer laterals serving commercial facilities and low-lying residences during flood periods to reduce storm water inflow into the collection system.

4. Construction of the Russian River CSD WWTF was completed in 1980 under a Clean Water Act (CWA) Municipal Wastewater Treatment Construction Grant. The current waste facilities include wastewater screening and grit removal, biological secondary treatment using extended air activated sludge aeration basins and secondary clarifiers; advanced wastewater treatment (AWT) that includes chemical addition facilities, and sand dual-media filters; and disinfection. The treated wastewater is disinfected using chlorine gas and dechlorinated with sulfur dioxide prior to discharge to a 3.5 million-gallon storage pond. Final wastewater disposal and reclamation is accomplished by discharge to surface water and by discharge to land through spray irrigation.

   The Russian River CSD WWTF is designed to treat an average dry weather flow (ADWF) of 0.71 mgd and a maximum sustained peak flow of 1.2 mgd. The average dry weather influent flow from 1996 to 2001 was 0.31 mgd, based on the average of the reported lowest consecutive 30-day mean daily flows over the time period.

   During high flow events, when influent flow exceeds the treatment plant's hydraulic capacity, the Permittees have diverted the influent flow, comprised of wastewater co-mingled with floodwater, to a one million gallon emergency storage pond through an overflow pipeline constructed in 1997. Chlorine has been added to the overflow pipeline prior to the discharge of diverted flow to the emergency storage pond. As excessive inflows to the WWTF have subsided and treatment capacity has become available, the diverted wastewater is pumped back to the headworks to receive full treatment. During prolonged high flows, if treatment capacity does not become available before the capacity of the emergency storage pond is reached, the Permittees have discharged to the Russian River a blend of the wastewater diverted to the emergency pond and the tertiary treated effluent produced by the treatment processes described above. Such flow bypasses that have occurred previously were violations of the prior permit for the WWTF (Order 92-51). This Permit does not allow future bypasses.

The Permittees are currently in the design phase of a project to upgrade the existing treatment facilities to provide an increase in treatment capacity to 1.8 mgd for periods of high influent flows. The project consists of the construction of a third aeration basin and third secondary clarifier, and the replacement of the existing dual-media filters with three new filters. The project, known as the Third Unit Processes Project, was first proposed as an element of the 1976 Wastewater Collection, Treatment, and Disposal Project and is described in the Sonoma County Water Agency's*: Russian River County Sanitation District Third Unit Processes Project Environmental Assessment*. Other improvements have been identified, and are described in the Fact Sheet, which are expected to help protect against flow bypasses during non-extraordinary high flow events.

5. The wastewater disposal/reclamation component of the Permittees' treatment facilities consists of the land disposal system and the surface water discharge system as shown on Attachment "B" incorporated herein and made a part of this Order. These components are described as follows:

   a. Effluent Storage System

      After treatment, the advanced treated effluent is stored in an effluent storage pond prior to discharge to the land disposal system or the surface water discharge system. The existing maximum capacity of the effluent storage pond system is 3.5 million gallons. The effective operating capacity of the pond for storage of off-peak flow depends on precedent conditions; but in an average year, the available capacity of the storage pond system is approximately 2.0 million gallons. Additional storage may also be available within the treatment processes during low flow periods associated with an ADWF of 0.31 mgd.

   b. Water Recycling System

      During the dry weather season (May 15 to September 30), and other periods as allowed under this Permit, effluent is discharged from the effluent storage ponds to the water recycling system. The existing water recycling system consists of spray irrigation systems and accompanying appurtenances at the Burch property (previously known as the Silver Property) and at Northwood Golf Club (formerly known as Northwood Golf Course).

      The Burch Property (Discharge Serial No. 003) is located adjacent to the WWTF and occupies approximately 394 acres. The Permittees have secured an easement of approximately 77 acres of the property, 17 acres of which are currently used for wastewater disposal through spray irrigation. Treated wastewater is disposed of in two distinct areas: the "Upper" and "Lower" irrigation areas. According to the Permittees' self-monitoring records from 1996 to 2001, the average annual irrigation flow to the "Upper" and "Lower" irrigation areas was approximately 0.225 mgd and 0.062 mgd, respectively. The water reclamation capacity of the Burch (then Silver) Property was

estimated in a 1976 Environmental Impact Report for the Russian River CSD at approximately 0.100 mgd based on evapotranspiration rates. In 1998, the Permittees conducted a groundwater investigation to evaluate the impact of spray irrigation on the Burch property during the 1998 irrigation season. In the final report, dated August 9, 1998, the SCWA concluded that treated effluent was applied during the reclamation season at rates that exceeded the evapotranspiration rate of the lower irrigation area, but that the results of the study indicated that no significant impact to water quality and beneficial uses of areal groundwater resulted from discharges to the recycled water system.

The Northwood Golf Club (Discharge Serial No. 002) is located south of the WWTF. The irrigated area consists of approximately 43 acres of turf. The wastewater application rate at the Northwood Golf Club, originally estimated at 8,000 gallons per day per acre, was based on the estimated evapotranspiration and percolation rates at the golf course. Experience has shown that irrigation system requirements of the golf course have been less than anticipated, with the daily discharge averaging approximately 0.079 mgd (1,837 gallons per day per acre) from May 1996 through November 2001.

The Northwood Golf Club is currently seeking waste discharge requirements for the discharge of treated wastewater from the Russian River CSD WWTF to its irrigation system. Until waste discharge requirements are adopted for the Northwood Golf Club, the transfer of treated wastewater to the Northwood Golf Club irrigation system will be accomplished under an existing agreement between the Russian River CSD and the Northwood Golf Club and in compliance with the Order No. R1-2003-0026. Upon adoption of waste discharge requirements for the discharge of treated wastewater to the Northwood Golf Club, compliance with water recycling regulations at the Northwood Golf Club will be the sole responsibility of the Northwood Golf Club.

The combined irrigation system capacity at the Northwood Golf Club and the Burch Property is estimated by the Permittees at 0.51 mgd. The amount of treated wastewater used for irrigation in any year is dependent on weather conditions and dry weather wastewater flow. The irrigation system is to be operated in order to ensure that all reasonable alternatives for land disposal have been addressed prior to discharge to receiving waters.

c. Surface Water Disposal

Advanced treated effluent that is not reclaimed to the recycled water system is discharged from the effluent storage pond system to the Russian River (Discharge Serial No. 001, Latitude (38º 24´ 4´´), Longitude (122º 25´ 31´´)) during the allowed discharge period from October 1 to May 14. The rate of discharge is governed by flow conditions in the Russian River as measured at the United States Geological Survey gauge at the Hacienda Bridge and is limited to one percent of the natural flow in the river. The upstream receiving

water sampling location for purposes of compliance with this Permit is currently located at Vacation Beach, 1,000 feet upstream of the treatment plant's point of discharge to the Russian River. The downstream receiving water monitoring location is currently located at the Northwood Golf Club approximately 300 feet downstream of the point of discharge. New receiving water monitoring locations and a new flow gauging location may be established in the future, if it is determined that measurements at the new locations are more representative of conditions at the point of discharge. In the event that a new gauge station is established, the Monitoring and Reporting Program will be modified to identify the new flow monitoring gauge.

6. Biosolids generated during the treatment process are collected, dewatered in a belt press and stored in sludge bins prior to disposal at an appropriately permitted site. Biosolids and other collected screenings, sludges, and solids removed from liquid wastes are currently disposed of in a municipal solid waste landfill. Solids Disposal and Handling Provisions are included in Section I of this Permit.

7. The Permittees are currently governed by Waste Discharge Requirements Order No. 92-51, adopted by the Regional Water Board on May 28, 1992. The Regional Water Board has adopted the following enforcement orders since 1992:

Administrative Civil Liability Order No. 98-83
The Regional Water Board adopted this Order on August 26, 1998 for the February 1998 bypass of the advanced wastewater treatment facilities, the resulting discharge of 30 million gallons of partially treated wastewater to the Russian River and the associated violations of effluent limitations.

Administrative Civil Liability Order No. 99-52
The Regional Water Board adopted this Order on July 22, 1999 in response to two sanitary sewer overflows (SSOs). In February 1999, a SSO resulted in the discharge of approximately 2,400 gallons of untreated wastewater from the Watson Lift Station to a tributary of the Russian River. The cause of the discharge was attributed to a faulty pump seal combined with a storm water surcharge on the collection system. In April 1999, a second SSO resulted in the discharge of approximately 99,000 gallons of untreated wastewater from the Drake Lift Station to the Russian River. This discharge occurred as a result of human error and mechanical failure.

Administrative Civil Liability Order No. 99-69
The Regional Water Board adopted this Order on September 23, 1999 in response to the intentional bypass of 1.41 million gallons of untreated wastewater around the advanced wastewater treatment facilities, the discharge of 1.125 million gallons of partially treated wastewater to the Russian River, and the resulting exceedance of effluent limitations in February 1999. The bypass and discharge occurred as a result of inundation of the collection system by infiltration and inflow.

Cease and Desist Order No. 97-9
The Regional Water Board adopted this Order on January 23, 1997 for the discharge of 201,000 gallons of advanced treated wastewater, through irrigation runoff, to the Russian River on May 21, 1996. This discharge violated both the Basin Plan and Order 92-51 prohibition of discharges to the Russian River during the period May 15 through September 30 of each year. Cease and Desist Order No. 97-9 required the Russian River CSD and the SCWA to prepare and submit a report describing short-term and long-term solutions that would prevent discharging waste contrary to Order No. 92-51. The final revised report was submitted to the Regional Water Board on March 25, 1997.

Cease and Desist Order No. 98-57
The Regional Water Board adopted this Order on May 28, 1998 in response to the bypass of the advanced wastewater treatment facilities and the resulting discharge of 30 million gallons of partially treated wastewater to the Russian River in February 1998. The Order directed the Permittees to develop short-term and long-term solutions to prevent waste discharges contrary to waste discharge requirements.

Cease and Desist Order No. 97-76
The Regional Water Board adopted this order on August 27, 1997 to mandate implementation of the long-term solution detailed in the Permittees' report submitted under requirements of Cease and Desist Order 97-9. The Order issued a time schedule to complete a final project to address the treatment facility's lack of adequate storage capacity that was partially responsible for discharges of waste contrary to Order No. 92-51.

Other violations that have occurred since 2000 will be the subject of upcoming enforcement actions.

8. This facility is a minor 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 Permittees are assessed an annual fee based on an average dry weather flow of 0.71 mgd.

9. The Permittees have developed and implemented a Spill Response and Notification Plan as required by Administrative Civil Liability Order No. 99-52. The Plan specifies public and responsible agency notification procedures, public education and outreach efforts, mutual aid agreements, and staff training efforts undertaken by the Permittees to protect public health, wastewater treatment facility and collection system personnel, and the environment.

10. The Water Quality Control Plan for the North Coast Region (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 discharge to the Russian River and its tributaries during the period May 15 through September 30 and all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow.

11. 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.

12. The beneficial uses of 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

13. Beneficial uses of areal groundwaters include:

    a. domestic water supply
    b. agricultural water supply
    c. industrial service supply
    d. industrial process supply

14. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, and 307 of the CWA and amendments thereto are applicable to the Permittees.

15. This Order contains technology-based effluent limitations for Biological Oxygen Demand (BOD), suspended solids, pH and percent removal of BOD and suspended solids as required by 40 CFR 133.102. The concentration-based effluent limitations for BOD and suspended solids in this Order are more stringent than those contained in CFR 133.102 and are based on the effluent quality expected from a treatment system using chemical flocculation, coagulation, sedimentation, filtration, and disinfection as well as the treatment requirements recommended by the Department of Health Services to produce a "pathogen free" effluent. Demonstration of adequate disinfection to produce a "pathogen free" effluent is accomplished through compliance with technology-based effluent limitations including total coliform bacteria, and through compliance with filtration and disinfection requirements contained in Section H of this Order.

    The Permittees' previous Permit contained daily maximum effluent limitations for BOD and suspended solids. This Order has been modified to remove those effluent limitations. This Permit modification is governed by 40 CFR 122.44(*l*)(1), which provides that less stringent effluent limitations are permitted where the circumstances justifying permit modification under 40 CFR 122.62 are present. Among the several enumerated grounds is that, as provided in Section 122.62(a)(15), a modification is needed to "correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions." Pursuant to 40 CFR 122.45(m), effluent limitations for publicly owned treatment works (POTWs) are to be expressed as weekly and monthly averages. A daily maximum limitation was previously included for this discharge, but is no longer technically justified.

16. Mass-based effluent limitations are included in this Permit for BOD and suspended solids, as provided by 40 CFR 122.45(f). The mass-based effluent limitations for BOD and suspended solids included in this Order have been modified to be numerically higher than those included in the Permittees' previous Permit, Waste Discharge Requirements Order No. 92-51. This permit change is governed by 40 CFR 122.44(*l*)(1), which provides that relaxations in effluent limitations are permitted where the circumstances justifying permit modification under 40 CFR 122.62 are present. Among the several enumerated grounds is that, as provided in Section 122.62(a)(15), a modification is needed to "correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions." Pursuant to 40 CFR 122.45(b), effluent limitations for POTWs are derived using the design flow of the WWTF. Mass-based effluent limitations in Order No. 92-51 were calculated based on average dry weather design flow of the WWTF, but did not take into account peak wet weather flows. This Order more appropriately calculates mass-based effluent limitations applicable during periods of wet weather flow based on wet weather design flows.

17. 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 (Regional Water Boards) in their water quality control plans (basin plans); (2) monitoring requirements for 2,3,7,8-TCDD equivalents; and (3) chronic toxicity control provisions.

On April 27, 2001, in accordance with the SIP, the Executive Officer issued a 13267(b) Order to require the Permittees 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 13267(b) 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. The requirements contained in the 13267(b) Order list specific constituents, detection levels, acceptable time frames and report requirements. The Permittees submitted the data to satisfy the 13267(b) Order on April 29, 2003.

As prescribed in Section 1.3 of the SIP, effluent and ambient monitoring data was analyzed to determine whether the discharge has the reasonable potential to cause or contribute to an excursion above any State water quality standard. This reasonable potential analysis (RPA) was conducted for priority pollutants using the results of effluent and ambient monitoring data from 1998 to 2003. Based on the results of the RPA, dichlorobromomethane was determined to have reasonable potential to exceed State water quality standards. In accordance with Section 1.4 of SIP, a numeric Water Quality Based Effluent Limit (WQBEL) is required for this constituent.

18. Final WQBELs for dichlorobromomethane were calculated based on a human health criterion of 0.560 µg/l for dichlorobromomethane and no dilution credit. A final average monthly effluent limitation (AMEL) of 0.56 µg/l and a maximum daily effluent limitation (MDEL) of 1.12 µg/l are included in Section B of the Permit.

19. SCWA, on behalf of Russian River CSD, has requested a compliance schedule for the dichlorobromomethane final effluent limitations. An infeasibility study submitted by the SCWA on October 13, 2003 on behalf of the Russian River CSD, concludes that it is infeasible to immediately comply with the final effluent limitations for dichlorobromomethane. Section 2.1 and 2.2 of the SIP authorize the establishment of a compliance schedule and interim limitations upon receipt of additional information documenting possible source control efforts, pollutant minimization actions, and facility improvements. In addition, 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, and final effluent limitations are calculated using an appropriate dilution factor, the proposed WQBELs may be revised. Based on the facts presented in this finding, the Regional Water Board has determined that a compliance schedule and interim requirements, including an interim effluent limitation, are warranted.

20. The interim limitation for dichlorobromomethane is based on current treatment plant performance using the maximum observed concentration in a set of six effluent samples collected from 1996 to 2003. General Provision K.30 specifies interim requirements and a compliance schedule to achieve the final effluent limitations for dichromobromomethane. Tasks to be performed by the Permittees include implementation of source identification program and completion of a study of alternative disinfection processes that may reduce the formation of this pollutant.

21. Data for priority pollutants collected in the earlier portion of the sampling period (1994-1996) indicate some isolated exceedances of priority pollutant standards for copper, lead, benzo (a) pyrene, chlorodibromomethane, and heptachlor epoxide. The results of the latest tests conducted in November 2002 and February 2003, however, indicate that these priority pollutants are non-detect (ND) or Detected, but Not Quantified (DNQ) in the treated effluent. Accordingly, because of these disparities in results, presently available data are insufficient to determine whether there is reasonable potential for these toxic constituents. The Permittees will be required to conduct additional sampling for certain priority pollutants where previous sampling indicated concentrations of these priority pollutants above water quality criteria. It is appropriate under Section 1.3 of the SIP to delay the reasonable potential analysis for these pollutants until sufficient additional data are collected.

22. Order No. 92-51 contained effluent limitations for two priority pollutants, zinc and chloroform, and required monthly effluent monitoring for these two constituents during the discharge season. Effluent monitoring for these constituents began in October 1992. A preliminary reasonable potential analysis was conducted for zinc using monitoring data from 1996 to 2003. An evaluation of the monitoring data for zinc shows that there is no reasonable potential for the discharge to cause or contribute to exceedances of the water quality criterion for zinc. Accordingly, pursuant to 40 CFR 122.44(d)(1)(i), the Clean Water Act does not require the establishment of numeric effluent limitations for this constituent. An effluent limitation for zinc has therefore not been included in this Order. A reasonable potential analysis was not conducted for chloroform because a water quality criterion has not yet been developed for this pollutant. Consequently, the effluent limitation for chloroform from Order No. 92-51 has been retained in this Order.

23. The Russian River CSD is not required to have coverage under the NPDES General Permit No. CAS000001 for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities because the design flow of the WWTF is less than 1.0 mgd. The Permittees have determined that this facility does not have storm water discharges to surface waters. Storm water Best Management Practices are in place to divert storm water run-on from the treatment facility grounds. Storm water falling within the confines of the facility is directed to storm water drop inlets that drain to the irrigation fields.

24. The WWTF 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 Order establishes general source control requirements (Section J) that require the Permittees 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.

25. The Department of Health Services (DHS) has established statewide reclamation criteria in Chapter 3, Division 4, Title 22 CCR, Sections 60301 through 60355 (hereinafter Title 22) for the use of recycled water for irrigation, impoundments, cooling water, and other purposes. The DHS has also established Guidelines for Use of Reclaimed Water. This Order implements the Title 22 recycled water criteria.

26. In 1996, the State Water Board and DHS set forth principles, procedures, and agreements to which the agencies committed themselves, relative to the use of recycled water in California, in a document titled Memorandum of Agreement Between the Department of Health Services and the State Water Resources Control Board on the Use of Reclaimed Water (MOA). This Order is consistent with the MOA.

27. The Permittees are required to develop an engineering report for the use of recycled water as required by Title 22 CCR 60323. This report must be approved by DHS and the Regional Water Board. The engineering report shall describe how the Permittees will operate the treatment facilities and reclamation system to comply with all applicable rules and regulations, including this Order. The engineering report will discuss the possibility of incidental runoff from reclaimed water use areas and describe measures the Permittees will take to minimize this possibility. If the engineering report is not approved, individual water reclamation requirements will be required for the Burch Property disposal site.

28. Effluent limitations included in this Order will assure compliance with requirements contained in Title 22 and the DHS/State Water Board MOA.

29. This Order authorizes the Permittees to reuse treated municipal wastewater that complies with effluent limitations contained in Section C of this Order for uses that have been addressed in an approved Title 22 Engineering Report.

30. The use of recycled water is exempt from the requirements of Title 23, CCR, Section 2510, et seq., (hereinafter Chapter 15) and Title 27, CCR, pursuant to Section 2511(b) based on the following:

    a. The Permittees will retain responsibility for the transfer of recycled water to the Northwood Golf Club to the extent provided for in the use agreement between the District and the Northwood Golf Club until the Regional Water Board has issued a Water Reclamation Permit for the discharge,

    b. The reclamation complies with the Basin Plan, and

    c. The recycled water does not need to be managed according to 22 CCR, Division 4.5, Chapter 11, as a hazardous waste.

32. The Regional Water Board consulted with DHS, the Sonoma County Health Department, and the local Mosquito Abatement District and considered any recommendations regarding public health aspects for this use of recycled water.

33. The Russian River is listed as an impaired water body for sediment pursuant to Section 303(d) of the CWA. A total maximum daily load (TMDL) has not been established to address sediment loading in the Russian River. Aspects of the sediment impairing the Russian River include settleable solids, suspended solids, and turbidity. The impact of settleable solids results when they collect on the bottom of a waterbody over time, making them a persistent or accumulative constituent. The impact of suspended solids and turbidity, by contrast, results from their concentration in the water column. An analysis of the Permittees' discharge determined that the discharge does not contain sediment (i.e., settleable solids, suspended solids, and turbidity) at levels that will cause, have the reasonable potential to cause, or contribute to increases in sediment levels in the Russian River. This finding is based in part on the advanced level of treatment provided, which removes all settleable solids and reduces total suspended solids and turbidity to negligible levels. The summer discharge prohibition, the one-percent flow limitation for winter discharge, and the results of previous solids and turbidity monitoring also support this finding.

34. The permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California.* The impact on existing water quality will be insignificant.

35. The action to renew an NPDES Permit is exempt from Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.) in accordance with Section 13389 of the California Water Code. (*City of Burbank v. State Water Resources Control Board* (2003) 111 Cal.App.4th 245, 265-267.)

36. The Regional Water Board has notified the Permittees and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations.

37. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

38. This Order will serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto. The Order will take effect 50 days after adoption by the Regional Water Board (or on December 25, 2003) because the draft Order received significant public comments.

39. 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. 92-51 is rescinded and the Permittees, 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 Permittees and of any waste disclosed by the Permittees but not reasonably anticipated to occur 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 **I. 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 Permittees is prohibited.

6. The discharge of waste at any point not described in Finding 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 mean daily dry weather flow of waste in excess of 0.51 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 Russian River. For purposes of this Order, compliance with the discharge rate limitation is determined as follows: (1) the discharge of advanced treated wastewater shall be adjusted at least once daily to avoid exceeding, to the extent practicable, one percent of the most recent daily flow measurement of the Russian River[1], and (2) in no case shall the total volume of advanced treated wastewater discharged in a calendar month exceed one percent of the total volume of the Russian River in the same calendar month. Daily flow comparisons shall be based on the 24-hour period from 12:01 a.m. to 12:00 a.m. At the beginning of the discharge season, the monthly flow volume comparisons shall be based on the date when the discharge commenced to the end of the calendar month. At the end of the discharge season, the monthly flow volume shall be based on the first day of the calendar month to the date when the discharge ceased for the season.

[1] The flow for the purpose of compliance with Prohibition A.9 is currently measured at or reported by the USGS Gauge No. 11-4670.00 at the Hacienda Bridge. A new flow gauging location may be established in the future, if it is determined that measurements at the new locations are more representative of conditions at the point of discharge. In the event that a new gauge station is established, the Monitoring and Reporting Program will be modified to identify the new flow monitoring gauge.

B. EFFLUENT LIMITATIONS FOR DISCHARGES TO THE RUSSIAN RIVER

Only advanced treated wastewater, as defined by the WWTF's treatment design and the numerical limitations below, shall be discharged from the WWTF to the Russian River. The advanced treated wastewater shall be screened and degritted, adequately oxidized, clarified, and filtered, disinfected and dechlorinated. Representative samples of advanced treated effluent shall be collected at a point between the end of the treatment train and the storage pond and shall be analyzed for the purpose of determining compliance with this Order, unless otherwise specified.

1. Advanced treated wastewater shall not contain constituents in excess of the following limitations:

Constituent	**Unit**	**Monthly Average**	**Weekly Average**
BOD (20º, 5-day)	mg/l	10	15
	lb./day[1]	60	90
Suspended Solids	mg/l	10	15
	lb./day	60	90

2. The disinfected effluent discharged from the WWTF to the Russian River 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 Russian River.

[1] Mass based effluent limitations are based on the WWTF dry weather design flow of 0.71 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 1.2 mgd.) Upon written concurrence by the Regional Water Board Executive Officer that the Third Unit Processes Project is complete and fully operational to treat a maximum sustained peak flow of 1.8 mgd, the mass emission limitations shall be calculated during wet weather periods using the actual daily average flow up to the new maximum design flow of 1.8 mgd.

4. Advanced treated wastewater discharged to the Russian River 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 Permittees 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 K.24.

7. The arithmetic mean of the BOD (20ºC, 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 advanced treated wastewater collected at a point between the storage pond and the point of discharge to the Russian River shall not contain constituents in excess of the following limitations:

Constituent	Unit	Interim Limitations[1]		Final Limitations[2]	
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum
Chloroform	µg/l	---	---	100	---
Dichlorobromomethane	µg/l	---	32	0.56	1.12

C. EFFLUENT LIMITATIONS FOR DISCHARGES TO THE WATER RECYCLING SYSTEM

1. Treated wastewater discharged to the water recycling system shall be adequately disinfected, oxidized, coagulated, clarified, and filtered, as required by Title 22, Division 4, Chapter 3, CCR. Representative samples of the discharge to the water recycling system (Discharge Serial No. 002/003) shall not contain constituents in excess of the following limits:

[1] This interim limitation shall be effective until November 5, 2008.
[2] The final limitation for Dichlorobromomethane shall replace the interim limitation on November 6, 2008.

Constituent	Unit	Monthly Average	Weekly Average
BOD (20º, 5-day)	mg/l	30	45
Suspended Solids	mg/l	30	45

2. The disinfected effluent discharged from the WWTF to the water recycling system 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 total coliform bacteria shall 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 per 100 milliliters.

3. Effluent shall not contain any measurable settleable solids.

D. RECEIVING WATER LIMITATIONS

1. The waste discharge shall not cause the dissolved oxygen concentration of the receiving waters to be depressed below 7.0 mg/l. In the event that the receiving waters are determined to have dissolved oxygen concentration of less than 7.0 mg/l, the discharge shall not depress the dissolved oxygen concentration below the existing level.

2. The discharge shall not cause the pH of the receiving waters to be depressed below 6.5 nor raised above 8.5. Within this range, the discharge shall not cause the pH of the receiving waters to be changed at any time more than 0.5 units from that which occurs naturally. 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.

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

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

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

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

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

8. The discharge shall not 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.

9. 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 K.24 and General Provision K.25.

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

11. The discharge shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses. There shall be no bioaccumulation of pesticide concentrations found in bottom sediments or aquatic life as a result of the discharge.

    The discharge shall not cause the receiving waters to contain concentrations of pesticides in excess of the limiting concentrations set forth in Table 3-2 of the Basin Plan.

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

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

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

E. WATER RECYCLING REQUIREMENTS

1. The Permittees shall manage recycled water in accordance with Title 22, CCR, Division 4, Chapter 3 (Section 60301 et seq.). Any rules, ordinances, or regulations established by the Permittees governing the design, construction, and operation and maintenance of the recycled water systems shall be reviewed and approved by the Executive Officer and DHS.

2. The use of recycled water shall not create a condition of pollution or nuisance as defined in CWC Section 13050(m).

3. Recycled water shall not be applied to irrigation areas during periods when uncontrolled runoff may occur.

4. Recycled water shall be applied in such a manner so as not to exceed vegetative demand or field capacity.

5. Recycled water and airborne spray shall not be allowed to escape from the authorized recycled water use area(s). [Title 22, Section 60310(e)]

6. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities. [Title 22, Section 60310(e)(2)

7. The California Health and Safety Code, Section 116815, requires that "all pipes installed above or below the ground, on or after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape." Section 116815 also contains exemptions that apply to municipal facilities that have established a labeling or marking system for recycled water used on their premises and for water delivered for agricultural use. The Permittees shall prepare a report documenting either compliance with this requirement and/or containing a workplan to identify and replace any pipe in the recycled water distribution system installed after June 1, 1993 that is not in compliance with the this code. The workplan, if necessary, shall be submitted within 90 days of the adoption of this Order. A report documenting full compliance with this requirement shall be submitted within 180 days of adoption of this Order.

8. All reservoirs and ponds shall be adequately protected from erosion, washout, or flooding from a rainfall event having a predicted frequency of once in 100 years.

9. No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless the conditions in Section 60310(a) can be met." [Section 60310(a)].

10. No impoundment of disinfected tertiary recycled water shall occur within 100 feet of any domestic water supply well." [Section 60310(b)]

11. The use of recycled water shall not cause degradation of any water supply.

12. Areas irrigated with recycled water shall be managed to prevent ponding and conditions conducive to the proliferation of mosquitoes and other disease vectors, and to avoid creation of a public nuisance or health hazard. Irrigation water shall infiltrate completely within a 24-hour period.

13. All areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: 'RECYCLED WATER – DO NOT DRINK'. [Title 22, Section 60310(g)] Each sign shall display an international symbol similar to that shown in figure 60310-A. These warning signs shall be posted at least every 500 feet with a minimum of a sign at each corner and access road.

14. A minimum freeboard of two feet shall be maintained under normal operating conditions in any reservoir or pond containing recycled water. When extraordinary operating conditions necessitate a freeboard of less than two feet, the Permittees will document the variance in the monthly self-monitoring report. The report will include an explanation of the circumstances under which the variance is required, the estimated minimum freeboard during the extraordinary period, and any permit violations occurring as a result of the variance.

15. The use of recycled water for dust suppression shall only occur during periods of dry weather and be limited to periods of short duration.

F. GROUNDWATER LIMITATIONS

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

2. The collection, storage, and use of wastewater shall not cause groundwater to contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

G. WATER RECYCLING PROVISIONS

1. The Permittees shall prepare an engineering report for the use of reclaimed water as required by Section 60323 of Title 22. The report shall be submitted for Regional Water Board and DHS approval within 180 days of the adoption of this Order.

2. The Permittees shall establish and enforce rules and/or standards governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the criteria established in Title 22 and this Order.

3. Any discharge of untreated or partially treated wastewater to the use area, and the cessation of the same, shall be reported immediately by telephone to the Regional Water Board Executive Officer, DHS, and the local health officer.

4. The Permittees will retain responsibility for the transfer of recycled water to the Northwood Golf Club to the extent provided for in the use agreement between the District and the Northwood Golf Club until the Regional Water Board has issued a Water Reclamation Permit for the discharge.

H. OTHER REQUIREMENTS

1. FILTRATION PROCESS REQUIREMENTS

   a. The effluent from the filtration system shall at all times be filtered such that the filtered effluent meets the following specifications prior to discharge to the disinfection unit:

      i. An average of 2 Nephelometric Turbidity Units (NTU) during any 24-hour period;

      ii. 5 NTU more than 5 percent of the time during any 24-hour period; and

      iii. 10 NTU at any time.

   b. No later than one year after the effective date of this Order, the Permittees shall complete filtration process modifications to ensure compliance with Filtration Requirement 1.a(iii). After completion of the necessary modifications, filtered effluent in excess of turbidity specifications shall be diverted to an upstream treatment process unit as soon as the Permittees are aware of the exceedance. The Permittees shall provide notification of non-compliance with filtration process requirements as required in General Provision K.12(g).

2. DISINFECTION PROCESS REQUIREMENTS

   Treated effluent shall be disinfected in a manner that ensures effective pathogen reduction as described in the following specifications.

   a. No later than 60 days from the effective date of this Order, the Permittees shall comply with the following:

i. When discharging to the recycled water system, the chlorine disinfection process shall provide a CT value[1] of not less than 450 milligram-minutes per liter at all times.

ii. When discharging to the Russian River and when the filter effluent flow is greater than or equal to 1.2 mgd, the chlorine disinfection process shall provide a minimum continuous chlorine residual concentration of 5 milligrams per liter at all times. The Permittees shall initiate daily coliform monitoring when average influent flow to the WWTF from the previous day is greater than or equal to 1.2 mgd.

b. No later than one year from the effective date of this Order, the Permittees shall additionally comply with the following:

i. When discharging to the Russian River and when the filter effluent flow is less than 1.2 mgd, the chlorine disinfection process shall at all time provide a CT value of not less than 450 milligram-minutes per liter. Effluent not meeting the CT criteria shall be diverted to an upstream treatment process unit as soon as the Permittees are aware of the exceedance.

c. For purposes of calculating and demonstrating compliance with the CT requirement, within 270 days after the effective date of this Order, the Permittees shall complete tracer studies under four different flow rates (the maximum, the minimum, and two points in between) to determine the respective modal contact time at the chlorine contact basin. The studies shall follow the protocol outlined in *Tracer Studies in Water Treatment Facilities: A Protocol and Case Studies* published by the American Water Works Association Research Foundation. A curve of flow rate vs. modal contact time, based on study results, shall be used for estimating the modal contact time at a given flow rate, which is essential for the CT calculation. A final report on the tracer studies shall be submitted to the Department of Health Services and the Regional Water Board within 60 days after the completion of the study.

d. In the interim period before the completion of tracer studies, the theoretical retention time based on the volume of the chlorine contact basin and the design flow rate shall be used as the modal contact time in the calculation of CT.

c. The Permittees shall provide notification of non-compliance with disinfection process requirements as required in General Provision K.12(g).

[1] The CT value is the product of total chlorine residual and modal contact time measured at the same period. The modal contact time is the amount of time that elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance of the chlorination chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

I. 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 Permittees desire 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 Permittees. 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 Permittees 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 Permittees are responsible for ensuring compliance with these regulations whether the Permittees use or dispose of the sludge itself or contracts with another party for further treatment, use, or disposal. The Permittees are responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must meet under 40 CFR Parts 257, 258, and 503.

7. The Permittees shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Order 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 Permittees 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.

J. SOURCE CONTROL PROVISIONS

1. Beginning January 1, 2004, the Permittees 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 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 Permittees shall submit an annual report to the Regional Water Board describing the Permittees' source control activities over the previous twelve months. This annual report is due on March 1st 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 Permittees, 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.

K. GENERAL PROVISIONS

1. Duty to Comply

The Permittees shall comply with all conditions of this Order. Any instance of noncompliance with this Order 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 Permittees 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 Order has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

2. Duty to Reapply

This Order expires on November 5, 2008. If the Permittees wish to continue an activity regulated by this Order after the expiration date of this Order, the Permittees 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 August 27, 2007. [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 Provisions K.16(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 Order 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 Order 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 Permittees shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. [40 CFR 122.41(d)]

5. Proper Operation and Maintenance

a. The Permittees 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 Permittees to achieve compliance with this Order. 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 Permittees only when necessary to achieve compliance with the conditions of this Order. [40 CFR 122.41(e)]

b. The Permittees shall comply with this provision by submitting to the Regional Water Board an updated Operation and Maintenance (O&M) Manual for the Russian River CSD WWTF. The report shall be included with the application for renewal of this NPDES permit. The Permittees 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 Permittees will be able to comply with the requirements of this Order.

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

6. Permit Actions

a. This Order 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 Order; or

ii. Obtaining this Order 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 Order, this Order shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the Permittees so notified. [40 CFR 122.44(b)]

c. The filing of a request by the Permittees 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 Order 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 Permittees 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 Order or to determine compliance with this Order. The Permittees shall also furnish to the Regional Water Board, upon request, copies of records required to be kept by this Order. [40 CFR 122.41(h)]

The Permittees 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 Permittees 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 Permittees' premises where a regulated facility or activity is located or conducted, or where records are required to be kept under the conditions of this Order;

b. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance to this Order, 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 Permittees shall calibrate and perform maintenance procedures in accordance with manufacturer's specifications on all monitoring instruments and equipment to ensure accurate measurements. The Permittees shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three 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 Permittees 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

   The reported Minimum Level[1] (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 Order 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.

[1] 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.

11. Signatory Requirements

a. All Permit applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed by either a principal executive officer or ranking elected official. [40 CFR 122.22(a)]

b. Reports required by this Order, 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 Permittees 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 Order, nor the notification requirements under paragraphs (f) and (g) of this provision.

b. Anticipated noncompliance: The Permittees 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 Permittees 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 Permittees 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 Order. If the Permittees monitor any pollutant more frequently than required by this Order, using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and 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 Order 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 Permittees 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.

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 Permittees 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 Order;

ii. Any upset that exceeds any effluent limitation in this Order;

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.

g. 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 Permittees 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 Permittees shall mitigate for these events by diverting all inadequately treated and disinfected wastewater to an upstream treatment process until the Permittees document that the problem has been resolved. The Permittees 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).

h. Other information: Where the Permittees become 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 Permittees shall promptly submit such facts or information. [40 CFR 122.41(1)]

13. Bypass

The bypass defense as set forth in 40 CFR 122.41(m) is hereby incorporated into this Permit as follows:

a. The Permittees may assert the bypass defense for violations of the Permit except to the extent the violations relate to the rate or volume of inflow into the WWTF.

b. Burden of proof. In any enforcement proceeding the Permittee(s) seeking to establish the bypass defense has the burden of proof on all elements including the one set forth above.

c. Reopener. This provision may be modified in accordance with the requirements set forth at 40 CFR 122.44(l)(1) and 122.62. Specifically, the Regional Water Board will consider granting full use of the bypass defense upon completion of additional facilities intended to fully treat reasonably foreseeable high flow events.

14. Upset

The upset defense as set forth in 40 CFR 122.41(m) is hereby incorporated into this Permit as follows:

a. The upset defense as set forth in 40 CFR 122.41(n) is hereby incorporated into this Permit as follows:

b. The Permittees may assert the upset defense for violations of the Permit except to the extent the violations relate to the rate or volume of inflow into the WWTF.

c. Burden of proof. In any enforcement proceeding the Permittee(s) seeking to establish the upset defense has the burden of proof on all elements including the one set forth above.

d. Inadequate facilities. The WWTF does not presently consist of facilities adequate to accommodate reasonably foreseeable inflows. As stated by the Court of Appeal, "It is indisputable that . . . the [WWTF]'s treatment and storage capacity are not fully 'adequate' to deal with conditions on the Russian River." (*Russian River County Sanitation District v. Regional Water Quality Control Board for The North Coast Region* (1st Dist. Oct. 30, 2002), slip op. at p. 8.) Consequently, the WWTF is conclusively presumed to consist of "improperly designed treatment facilities" and/or "inadequate treatment facilities" for the purpose of determining whether an "upset" has occurred.

e. Reopener. This provision may be modified in accordance with the requirements set forth at 40 CFR 122.44(l)(1) and 122.62. Specifically, the Regional Water Board will consider granting full use of the upset defense upon completion of additional facilities intended to fully treat reasonably foreseeable high flow events.

15. Wastewater Collection System

a. The Permittees 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 Permittees shall submit to the Regional Water Board within 90 days of the effective date of this Order an updated Spill Response and Notification Plan that has been developed for the Russian River CSD WWTF. At least every five years, the Permittees 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 Permittees shall submit an annual report to the Regional Water Board describing the Permittees' activities within the collection system over the previous calendar year. This annual report is due by March 1st 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 Permittees).

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 Permittees 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 Permittees 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 Permittees and information on how to obtain a copy of the report. The Permittees 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 Order 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 Permittees 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 301or 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.

v. 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 Permittees 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 Permittees shall comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2003-0026 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Order and incorporated herein. The Permittees 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. National Pretreatment Standards: Prohibited Discharges

a. General prohibitions. Pollutants introduced into WWTFs by a non-domestic source shall not pass through [40 CFR403.3(n)] the WWTF or interfere [40 CFR 403.3(i)] with the operation or performance of the WWTF. These general prohibitions and the specific prohibitions in paragraph (b) of this provision apply to all non-domestic sources introducing pollutants into a

WWTF whether or not the source is subject to other National Pretreatment Standards or any national, state, or local pretreatment requirements.

b. Specific prohibitions. In addition, the following pollutants shall not be introduced into a WWTF:

i. Pollutants that create a fire or explosion hazard in the WWTF;

ii. Pollutants that will cause corrosive structural damage to the WWTF, but in no case discharges with pH lower than 5.0, unless the WWTF is specifically designed to accommodate such discharges;

iii. Solid or viscous pollutants in amounts that will cause obstruction to the flow in the WWTF resulting in interference;

iv. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the WWTF;

v. Heat in amounts which will inhibit biological activity in the WWTF resulting in interference, but in no case heat in such quantities that the temperature at the WWTF exceeds 40ºC (104ºF) unless the Regional Water Board, upon request of the WWTF, approves alternate temperature limits;

vi. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;

vii. Pollutants that result in the presence of toxic gases, vapors, or fumes within the WWTF in a quantity that may cause acute worker health and safety problems; or

viii. Any trucked or hauled pollutant, except at discharge points designated by the WWTF.

c. When specific limits are required to be developed by a WWTF.

i. WWTFs developing Pretreatment Programs pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a) and (b) of this provision.

ii. All WWTFs shall, in cases where pollutants contributed by user(s) result in interference or pass-through and such violation is likely to recur, develop and enforce specific effluent limits for industrial user(s) and all other users, as appropriate, which, together with appropriate changes in

the WWTF's facilities or operations, are necessary to ensure renewed and continued compliance with the WWTF's NPDES Permit or sludge use or disposal practices.

iii. Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

d. Local limits. Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a WWTF in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of Section 307(d) of the CWA. [40 CFR 403.5(a) through (d)]

22. 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.

23. Adequate Capacity

Whenever a WWTF will reach capacity within four years, the Permittees 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 Permittees shall demonstrate that adequate steps are being taken to address the capacity problem. The Permittees 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]

24. 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 Permittees 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, *Orncorhychus 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 Permittees 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, 4th 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.

c. If the result of any single acute toxicity test does not comply with the acute toxicity effluent limitation, the Permittees shall take two more samples, one within 14 days, and one within 21 days of receiving the sample results. If two of the three samples do not comply with the acute toxicity limitation, the Permittees shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with General Provision K.26. If the two additional samples are in compliance with the acute toxicity requirement, then a TRE will not be required. If the discharge has ceased before the additional samples could be collected, the Permittees shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the acute toxicity effluent limitation.

25. Chronic Toxicity Control Provision

a. In addition to results from acute toxicity tests, compliance with the Basin Plan narrative toxicity objective shall be demonstrated according to the following tiered requirements based on results from representative samples of the treated effluent:

i. Routine monitoring;
ii. Accelerate monitoring after exceeding a three sample median value of 1.0 TUc or a single sample maximum of 2.0 TUc;
iii. Return to routine monitoring if accelerated monitoring does not exceed either "trigger" in a(ii);
iv. Initiate approved TRE workplan if monitoring confirms consistent toxicity above either "trigger" in a(ii);
v. Return to routine monitoring after appropriate elements of TRE workplan are implemented and toxicity drops below "trigger" levels in a(ii), or as directed by the Executive Officer.

b. Test Species and Methods

i. The Permittees 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, *Selanastrum 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 Permittees 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).

c. 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 TUc, where TUc = 100/NOEC or 100/ICp or ECp (in percent effluent).

d. 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 Permittees 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.

26. Toxicity Reduction Evaluation (TRE)

a. The Permittees shall prepare and submit to the Regional Water Board Executive Officer an initial investigation TRE workplan within 180 days of the effective date of this Order. This plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The workplan shall describe the steps the Permittees intend 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 facility'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 initiated within 30 days of the date of completion of the accelerated monitoring test observed to exceed either the acute or chronic toxicity parameter.

ii. The TRE shall be conducted in accordance with the Permittees' workplan.

iii. 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 Permittees may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. As guidance, the Permittees 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 Permittees 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 Permittees' actions and efforts to identify and control or reduce sources of consistent toxicity.

27. Accelerated Testing for Toxicity

    a. If the initial investigation indicates the source of toxicity (for instance, a temporary plant upset), then only one additional test is necessary. If chronic toxicity is detected in this test, then this Section shall apply.

    b. If chronic toxicity is detected, then the Permittees shall conduct two more tests, one test conducted approximately every two weeks, over a four-week period. Testing shall commence within two weeks of receipt of the sample results of the exceedance of the toxicity monitoring trigger.

    c. The Permittees may return to routine monitoring after appropriate elements of TRE workplan are implemented and toxicity drops below "trigger" levels in General Provision K.25(a)(ii), or as directed by the Executive Officer.

28. Reporting

    a. Test results for chronic tests shall be reported according to the chronic toxicity manual Chapter 10 (Report Preparation) and the Monitoring and Reporting Program and shall be attached to the self-monitoring report.

    b. The Permittees shall notify the Regional Water Board in writing 15 days after the receipt of test results exceeding an effluent limitation or trigger. The notification will describe actions the Permittees have taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the Permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

29. Pollutant Minimization Program

    The Permittees 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.

30. Interim Requirements and Compliance Schedule for Dichromobromomethane

    During the term of this Permit, the Permittees shall comply with the following time schedule to achieve compliance with the final effluent limitations in Finding 18 by November 5, 2008:

Task	Compliance Date
Prepare and implement a monitoring plan to evaluate the formation of dichlorobromomethane within the treatment train. The plan shall include a time schedule for implementation of the plan and preparation of a final technical report.	November 1, 2004
Prepare and implement a source identification program that will help identify and control possible sources of dichlorobromomethane in the service area.	November 1, 2005
Complete a study on alternative disinfection processes that may reduce the formation of dichlorobromomethane and other THMs.	November 1, 2006 [1]
Submit a plan for steps to be implemented that will achieve compliance with the final effluent limit for dichlorobromomethane	November 1, 2007 [1]
Implement a plan to achieve compliance with the final effluent limit for dichlorobromomethane.	November 5, 2008 [1]

The Permittees 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.

31. Reopener

The Regional Water Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the Permittees 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.

[1] The Regional Water Board is working with a coalition of Russian River dischargers, including the Permittees, to investigate 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, and the Permittees can meet the final limits calculated with an appropriate dilution factor, it may be unnecessary for the Permittees to implement the last three compliance schedule tasks.

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.

Certification

I, Catherine E. Kuhlman, 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 November 5, 2003.

Catherine E. Kuhlman
Executive Officer

(rrcsdpermit2)