STATE WATER RESOURCES CONTROL BOARD

WATER QUALITY ORDER NO. 2000-03

NPDES PERMIT NO. CA0022764 ID NO. 1B830990SON

WASTE DISCHARGE REQUIREMENTS

FOR

THE CITY OF SANTA ROSA, LAGUNA SUBREGIONAL WASTEWATER COLLECTION, TREATMENT, CONVEYANCE, REUSE, AND DISPOSAL FACILITIES

LONG RANGE PERMIT

SONOMÁ COUNTY

The State Water Resources Control Board (hereinafter the Board) finds that:

- 1. The City of Santa Rosa (hereinafter "City" or "Permittee") submitted a Report of Waste Discharge for revision of its Permit to discharge advanced treated wastewater under the National Pollutant Discharge Elimination System (NPDES) from the Laguna Subregional Wastewater Collection, Treatment, Conveyance, Reuse, and Disposal Facilities (Laguna Subregional Facilities) on March 30, 1999. The Report of Waste Discharge was considered complete on January 6, 2000. This Permit authorizes an average dry weather flow increase from 19.2 million gallons per day (mgd) to 21.3 mgd, with a portion of the advanced treated water being discharged to the Geysers steamfield. The permit also grants an exception to the Water Quality Control Plan for the North Coast Region's prohibition against discharges greater than one percent of the receiving water's flow, allowing instead a maximum advanced treated water discharge rate of 5 percent of Russian River flow during the discharge season. The term of this proposed Permit is five years. This permit shall not be in effect until the Regional Water Board's Executive Officer issues a written authorization to discharge pursuant to Provision G.4. of this Order.
- The facility is a major facility as defined by the U.S. Environmental Protection Agency (US EPA). (40 CFR §122.2.) The facility is rated as a Category 1-A, defined in California Code of Regulations as any major NPDES discharger whose discharges of waste could cause the long-term loss of a designated beneficial use of a receiving water. (Title 23, CCR, §2200 (a)(2).)

3. The Laguna Subregional Facilities serve the communities of Cotati, Rohnert Park, Santa Rosa, Sebastopol, and the unincorporated South Park County Sanitation District, and is operated by the City of Santa Rosa. The Laguna Subregional Facilities include the following components: untreated wastewater collection system, Laguna Treatment Plant, pipelines for conveying treated wastewater, and authorized locations for reusing or disposing of treated wastewater. Collection systems within the City of Santa Rosa are maintained and operated by the City. Those collection systems outside of the City are operated by the respective individual municipal entities.

- 4. The Laguna Subregional Facilities receive wastewater from industrial dischargers. A pretreatment program to control industrial wastes is required by this Permit. A pretreatment program, developed in conformance with 40 CFR Part 403 was approved on August 25, 1992.
- 5. The Laguna Treatment Plant is designed to provide advanced treatment for an average daily dry weather flow of 21.3 mgd and serves an estimated population of 202,500 persons. Treatment consists of grit removal in pre-aeration tanks, sludge and scum removal in primary sedimentation tanks, biological treatment (including nitrogen reduction) with coagulation, flocculation, sedimentation, and clarification followed by filtration, and ultraviolet light disinfection. A flow schematic of the Laguna Treatment Plant is shown on Attachment 1 to this Permit.
- 6. Biosolids generated during the treatment process are thickened, anaerobically digested and dewatered using belt filter presses. The dewatered biosolids are then land applied as a fertilizer or soil amendment, landfilled, or composted and applied to land as a soil amendment. Requirements for sludge disposal are contained in this permit.
- 7. Reuse and disposal of all advanced treated water from the Laguna Treatment Plant is accomplished through a system that combines water reclamation with discharge to surface waters during the allowable discharge period (October 1 through May 14).
- 8. Since March 6, 1985, the City, at the direction of the Regional Water Board (Cease and Desist Order No. 85-35), has been in the process of developing and implementing a long-range plan for the treatment and disposal of advanced treated water generated within the service area of the Laguna Treatment Plant. Order No. 85-35 included a time schedule for implementation of the long range plan for wastewater treatment and disposal. This time schedule has been modified by the Regional Water Board several times, the most recent occurring on May 23, 1996 (Order 96-31). The time schedule contained in Order No. 96-31 includes dates for completion of the long-range plan. State Water Resources Control Board Cease and Desist Order (CDO) 2000-04 modifies the time schedule and calls for implementation of the long-range plan by December 31, 2002.
- 9. In response to the Regional Water Board CDO No. 85-35, the City evaluated alternative projects. On June 19, 1997, the Santa Rosa Subregional Long-Term Wastewater Project Final EIR was certified. An addendum to the Final EIR was certified on January 22, 1998. In winter of 1998, the City formally selected the Modified Geysers Recharge Project (now called the Geysers Recharge Project). The City began engineering design, which identified possible pipeline alignment changes and other project modifications. The City then prepared a second Final EIR addendum and four supplemental EIRs so that the City would have the option of implementing possible changes that had been identified in project design. The

second addendum was certified on July 15, 1999. Three of the four supplemental EIRs were certified on July 1, 1999, and the fourth was certified on January 25, 2000.

10. With implementation of the Geysers Recharge Project, the reuse/disposal component of the Laguna Subregional Facilities will consist of the following:

- a. Storage System
- b. Geysers Recharge Project
- c. Irrigation System
- d. Surface Water Discharge System

a. Storage System

After treatment, the advanced treated water is stored in the storage ponds prior to discharge to the Geysers steamfields, irrigation, or the surface water discharge system. The existing maximum capacity of the storage pond system is approximately 1,740 million gallons. The maximum safe storage relative to good engineering practice to preserve the structural integrity of the storage ponds is approximately 1,490 million gallons. These storage ponds are not a part of the treatment system and therefore, effluent limitations contained in this permit are applicable at the point of discharge to be controlled to protect beneficial uses of the receiving waters. The ponds are operated to allow entry of floodwaters from the receiving waters to reduce downstream flooding. These flood flows can degrade the quality of the water stored in the storage ponds to the Laguna de Santa Rosa and Santa Rosa Creek which are tributary to Mark West Creek and the Russian River (see Finding 10.*d.* below).

b. Geysers Recharge Project

The Geysers Recharge Project consists of a 41-mile pipeline to convey advanced treated water to Geysers steamfield operators' distribution network for steamfield injection. The City has entered into a contractual agreement with the steamfield operators, which obligates the City to provide 4015 million gallons each year to the steamfield operators. This translates to an average daily delivery of 11 mgd, with a range of between 9 and 12.1 mgd. The operators are obligated to distribute the reclaimed water to injection wells and to inject it.

Separate waste discharge requirements (WDRs) are in effect for current injection operations at the steamfields, and appropriate modifications to those WDRs to accommodate the City's wastewater will be considered following the receipt of reports of waste discharge from the steamfield operators. The pipeline has a sustained design capacity of 12.1 mgd, and an ultimate short-term capacity of up to 16 mgd. Any other discharges associated with future uses of additional pipeline capacity, over that required for the Geysers Recharge Project, would be subject to additional permitting requirements. These WDRs do not authorize discharges associated with the construction of the pipeline for the Geysers Recharge Project. Those discharges will be permitted separately through the issuance of a conditional waiver of WDRs.

- 5) 005 LaFranconi Pond: Advanced treated water discharged from LaFranconi Pond to an unnamed ditch, tributary to the Laguna de Santa Rosa, Latitude 38°24'20", Longitude 122°46'42".
- 6) 006A Meadow Lane Pond D: Advanced treated water discharged from Meadow Lane Pond D to the Laguna de Santa Rosa, Latitude 38°22'17", Longitude 122°46'31". Discharge point 006A is at the incline pump discharge located at the Southeast corner of D Pond. Source water for the incline pump is water that has been stored in Meadow Lane B, C, or D Ponds.
- 7) 006B Meadow Lane Pond D: Advanced treated water discharged from Meadow Lane Pond D to the Laguna de Santa Rosa, Latitude 38°22'17", Longitude 122°46'31". Discharge point 006B is at the gate valve on the 36" pipeline at the Northwest corner of D Pond. Source water for the gate valve is water that has been stored in Meadow Lane B, C, or D Ponds.
- 8) 007 Poncia Pond: Advanced treated water discharged from Poncia Pond to the Laguna de Santa Rosa, Latitude 38°21'09", Longitude 122°44'18".
- 9) 008 West College Pond 1C: Advanced treated water discharged from West College Pond 1C to Santa Rosa Creek, Latitude 38°26'30", Longitude 122°45'49".
- 10) 009 Ambrosini Pond: Advanced treated water discharged from Ambrosini Pond to Santa Rosa Creek, Latitude 38°26'43", Longitude 122°47'19".
- 11) 012A Delta Pond: Advanced treated water discharged from Delta Pond to Santa Rosa Creek, Latitude 38°26'54", Longitude 122°49'27". Discharge point 012A is at the blending valve on the 24" pipeline located mid-way along the North side of the pond. The source water for the blending valve can come from the West College mainline, the Laguna mainline or be water that has been stored in Delta Pond.
- 12) 012B Delta Pond: Advanced treated water discharged from Delta Pond to Santa Rosa Creek, Latitude 38°26'54", Longitude 122°49'27". Discharge point 012B is at the 48" gate valve at the Northwest corner of Delta Pond. Source water for the gate valve is water that has been stored in Delta Pond.

- 13) 014 Meadow Lane A Pond: Advanced treated water discharged from Meadow Lane A Pond to the Laguna de Santa Rosa, Latitude 38°22'17", Longitude 122°46'31".
- 14) 015 Laguna Treatment Plant: Advanced treated water from the Laguna Treatment Plant discharged directly to the Laguna de Santa Rosa, Latitude 38°22'17", Longitude 122°46'31"
- 15) 016 Laguna Joint Wetlands: Advanced treated water discharged via an artificial wetland tributary to the Laguna de Santa Rosa, Latitude 38°22'17", Longitude 122°46'31".

Basin Plan

- 11. The beneficial uses of the Russian River and its tributaries include:
 - a. municipal and domestic supply
 - b. agricultural supply
 - c. industrial supply
 - d. groundwater recharge
 - e. water contact recreation
 - f. non-contact water recreation
 - g. cold freshwater habitat
 - h. wildlife habitat
 - i. fish migration
 - j. fish spawning
 - k. habitat for rare, threatened or endangered species

The beneficial uses of areal groundwater include:

- a. domestic water supply
- b. agricultural water supply
- c. industrial process water supply
- e. industrial service water supply
- 12. The *Water Quality Control Plan for the North Coast Region* (Basin Plan) includes beneficial uses, water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions, and statewide plans and policies.
- 13. The Basin Plan includes an Interim Action Plan (1986-1990) for the Santa Rosa Area. This Interim Action Plan was developed to regulate the discharge of the Laguna Subregional Facilities wastewater while a long-range plan was being developed. The plan limits the discharge from the Laguna Subregional Facilities to the period October 1 through May 14

> and limits the rate of discharge based on Russian River flow rates as measured at Hacienda Bridge (USGS Gauge No. 1-46700.00). The Regional Water Board has, by the adoption of Resolution No. 89-111 and Cease and Desist Order No. 96-31, extended these interim action plan standards through September 30, 1999. Once the Geysers Recharge Project is implemented, there will no longer be any need for the Interim Action Plan. The Regional Water Board intends to amend the Basin Plan to delete the Interim Action Plan, to take effect coincident with the effective date of this permit. Cease and Desist Order 2000-04 extends the Interim Action Plan standards through December 31, 2002, or the effective date of this permit, whichever is earlier.

14. The Basin Plan prohibits point source discharges to the Russian River and its tributaries during the period of May 15 through September 30 and during all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow (one percent discharge rate restriction). The Basin Plan allows the Board to consider exceptions for cause to the one- percent discharge rate restriction. Exceptions must be in accordance with the following exception criteria:

- A. "The wastewater treatment plant shall be reliable. Reliability shall be demonstrated through analysis of the features of the facility including, but not limited to, system redundancy, proper operation and maintenance, and backup storage capacity to prevent the threat of pollution or nuisance.
- B. The discharge of waste shall be limited to rates and constituent levels which protect the beneficial uses of the receiving waters. Protection shall be demonstrated through analysis of all the beneficial uses of the receiving waters. For receiving waters which support domestic water supply (MUN) and water contact recreation (REC1), analysis shall include expected normal and extreme weather conditions within the discharge period, including estimates of instantaneous and long-term minimum, average, and maximum discharge flows and percent dilution in receiving waters. The analysis shall evaluate and address cumulative effects of all discharges, including point and nonpoint source contributions, both in existence and reasonably foreseeable. For receiving waters which support MUN, the Regional Water Board shall consider the California Department of Health Services evaluation of compliance with the Surface Water Filtration and Disinfection regulations contained in Section 64650 through 64666, Chapter 17, Title 22 of the California Code of Regulations. Demonstration of protection of beneficial uses shall include consultation with the California Department of Fish and Game regarding compliance with the California Endangered Species Act.

C. The exception shall be limited to that increment of wastewater which remains after reasonable alternatives for reclamation have been addressed.

- D. The exception shall comply with State Board resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California", and the federal regulations covering antidegradation (40 CFR §131.12).
- E. There shall be no discharge of waste during the period May 15 through September 30."
- 15. The City has submitted information which substantiates that the discharges presently meet each of the five aforementioned conditions, and are expected to continue to meet these conditions following startup of the Geysers Recharge Project. Based on the above findings and subject to implementation of the Geysers Recharge Project as proposed and compliance with the terms of this permit, the Board finds that the Laguna Subregional Facilities qualifies for the exception from the one percent discharge rate restriction contained in the Basin Plan. Furthermore, the Board finds that the City's proposal for conveying water to the Geysers steamfield for energy production, maintaining the irrigation capacity as specified in Finding 10.C. above, and pursuing economically feasible future irrigation opportunities, as specified in Discharge Prohibition 9., constitutes "reasonable" reclamation alternatives.
- 16. The City's Certified EIR and Report of Waste Discharge describe a monthly storage management planning curve and a distribution of discharge rates that can be expected to occur based on 1) historical weather data and 2) adherence to defined storage-operating rules. The Storage Operations Rules required by Provision G.1 will describe criteria for determining 1) when discharges will commence, 2) discharge rates, and 3) when discharges will cease in order to avoid violations of the terms of this permit.
- 17. The Annual Reclamation Report required by Provision G.2 will provide yearly information regarding irrigation acreage, volume of advanced treated water used for irrigation, and anticipated irrigation needs for the subsequent irrigation season needed to comply with the terms of this permit. The Storage Operations Rules and the Annual Reclamation Report will provide a method for assuring continued compliance with Basin Plan exception criteria.
- 18. The Surface Water Discharge Operations Plan required by Provision G.3 will provide plant personnel written procedures for determining locations and amounts of advanced treated water to be discharged, in order to prevent violations of receiving water limitations.
- 19. The greatest potential for violations of Basin Plan water quality standards occur during extreme weather conditions in the early fall and spring periods. Reducing discharges during these "shoulder" discharge periods will reduce the potential for violations in the early fall, and help to control algae growth in April. The 5 percent maximum discharge rate in Prohibition A.8 allows the City more flexibility in reducing discharges during the shoulder seasons, and increasing discharges during winter periods of higher river flow.

- 20. The Basin Plan does not fully comply with Clean Water Act Section 303(c)(2)(B) in that it does not provide numerical standards for the US EPA-designated priority pollutants for which US EPA has published criteria.
- 21. 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 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 subject 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. At a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour bioassay."

This Basin Plan toxicity objective is addressed in Effluent Limitation B.3 and Receiving Water Limitation C.9.

In addition, effluent limits based upon acute bioassay 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.

- 22. The Board's consideration of water quality-based effluent limitations includes whole effluent toxicity pursuant to 40 CFR 122.44(d). The City's discharge has very low potential to cause nonattainment of toxicity standards as a result of the Regional Water Board's summer discharge prohibition and winter discharge dilution requirements.
- 23. The US EPA promulgated in 40 CFR 131.36 "Toxics criteria for states not complying with Clean Water Act Section 303(c)(2)(B)", which is applicable to the Russian River and its tributaries and includes those criteria designated at 131.36(d)(10).

Monitoring and Reporting

24. This Permit includes a monitoring and reporting program that is designed to provide data that can be used to evaluate the impact discharges from the Surface Water Discharge System may have on the beneficial uses of the receiving waters. Because of the complex nature of the disposal system and receiving waters, evaluation of the discharge impacts using traditional sampling and data analysis techniques is difficult. The monitoring and reporting program included with this Permit is intended to establish an appropriate and meaningful discharge

and receiving water monitoring program that applies to multiple discharge points under many probable discharge scenarios.

- 25. The City of Santa Rosa submitted, with the self monitoring reports and report of waste discharge for the Laguna Subregional Facilities, laboratory results for effluent samples analyzed for the Priority Toxic Pollutants included in 40 CFR 131.36. The Board has considered the applicable factors stipulated at 40 CFR 122.44(d)(1)(ii) and the analytical results on the effluent samples and finds that there is no reasonable potential for excursion above ambient criteria promulgated in Part 131 with the exception of those constituents listed in Receiving Water Limitation 14 of this Permit.
- 26. Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, and 307 of the Clean Water Act and amendments thereto are applicable to the City of Santa Rosa.

Total Maximum Daily Load

27. The Laguna de Santa Rosa (Laguna) was listed as an impaired water body pursuant to Section 303(d) of the Clean Water Act. In April of 1995 a Laguna Total Maximum Daily Load was established and approved by EPA, to address ammonia and nitrogen loadings. The City of Santa Rosa has constructed anoxic reactors in response to the TMDL, resulting in significantly reduced nitrogen loadings. Staff is re-evaluating the City's efforts and the waste reduction goals contained in the WRS. The results of this re-evaluation may be used in the development of appropriate effluent limitations for a revised NPDES Permit for the Laguna Subregional Facilities and this Permit may be reopened to make any appropriate revisions.

Waste Discharge Requirements

28. The City is presently governed by State Water Resources Control Board Water Quality Order 2000-02. The City historically was governed by Waste Discharge Requirements Order No. 83-99, which was rescinded and reissued as Order No. 86-190 by the Regional Water Board on December 4, 1986, which was rescinded and reissued as Order No. 90-79 which was adopted by the Regional Water Board on August 16, 1990. Order No. 90-79 was rescinded and reissued as Order No. 95-18 was rescinded and reissued as Order No. 95-18 on June 22, 1995. Order No. 95-18 was rescinded and reissued as Order No. 98-84 on August 26, 1998. Order No. 98-84 was rescinded and reissued as Water Quality Order No. 2000-02 on March 1, 2000 by the State Water Resources Control Board due to a lack of a quorum by the Regional Water Board.

Storm Water

29. The Laguna Treatment Plant has storm water discharges associated with industrial activities, category "ix" as defined in 40 CFR Section 122.26(b)(14). The City of Santa Rosa described storm water discharges, appropriate pollution prevention practices and best management practices in a completed Notice of Intent dated October 21, 1992 and submitted it to the State

Water Board pursuant to the Statewide General Permit Program.

30. The City of Santa Rosa has prepared a Storm Water Pollution Prevention Plan (SWPPP) for the Laguna Treatment Plant and has implemented the provisions of the SWPPP. The SWPPP includes source identification, practices to reduce or eliminate pollutant discharge to storm water, an assessment of potential pollutant sources, a materials inventory, a preventative maintenance program, spill prevention and response procedures, general storm water management practices, employee training, recordkeeping, and elimination of non-storm water discharges to the storm water system. It also includes a storm water monitoring plan to verify the effectiveness of the SWPPP. These storm water discharges are best regulated in conjunction with the terms of this Permit, therefore, coverage under the State Water Board General Permit Program is not necessary.

31. Due to the large number of storm water discharges and the complex nature of storm water discharges, it is not feasible at this time to establish numerical storm water discharge effluent limits for those facilities which are not covered in 40 CFR Subchapter N. Instead, implementation of the provisions of this permit constitutes compliance with best available technology economically achievable/ best conventional pollutant control technology (BAT/BCT) requirements and requirements to achieve water quality standards. Best Management Practices (BMPs) to control and abate the discharge of pollutants in storm water are authorized where numeric effluent limits are infeasible and the BMPs are reasonably necessary to achieve compliance with effluent limitations or water quality standards.

Other

- 32. The action to renew an NPDES Permit is exempt from certain provisions of the California Environmental Quality Act ((CEQA) Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code. In addition, an Environmental Impact Report was certified on June 19, 1997. Addenda and Supplements to the Environmental Impact Report were certified on January 22, 1998, July 1 and July 15, 1999 and on January 25, 2000. The Board has considered the EIR and its addenda/supplements.
- 33. The Environmental Impact Report identified algal growth as the only potential significant water quality impact. The impact of the discharge on algal growth is related both to the concentration of advanced treated water and to the time of year that discharge occurs. Although the impact of the Geysers Recharge Project is expected to be lesser than existing conditions or other alternative projects studied by the City, there is the potential for significant water quality impacts, particularly during extreme weather conditions in the month of April. The primary potential water quality impact resulting from algal growth is depressed dissolved oxygen levels. The following mitigation measures have been added to substantially lessen or avoid the potential significant algal growth impacts: Discharge Prohibition A.2 prohibits the creation of pollution or nuisances. Receiving Water Limitation C.1 requires that the discharge not depress dissolved oxygen concentrations below levels that are protective of aquatic organisms. Receiving Water Limitation C.8. requires that the discharge not contain concentrations of biostimulants that promote objectionable aquatic growth. Prohibition A.11 and Provision G.1 require the City to operate according to

approved Storage Operations Rules that include contingency steps that will be initiated to prevent violations of the terms of this permit, including reducing the rate of discharge to surface waters during extremely dry shoulder seasons to the extent feasible.

The Environmental Impact Report identified other potential significant impacts and associated mitigation measures that are not within the responsibility and jurisdiction of the Board, as follows:

Summary of Significant Impacts and Mitigation Measures that Substantially Lessen Environmental Impacts

IMPACT	MITIGATION
Geology, Soils and Seismicity- The	Slope Stabilization design.
pipeline component may be located	
within an area of unstable slope	Slope monitoring and response system.
conditions.	
	•
Transportation – Transportation	No feasible mitigation has been
from construction or operations of	identified to mitigate this impact to an
the pipeline component may cause	insignificant level. Construction trips
congestion along access roads.	on specified segments will be reduced.
Lana alamma dua ta annatini sti	
Lane closures due to construction	Roads will remain open with controlled
of the pipeline component may	one-lane traffic access, construction
delay traffic, delay transit services, restrict access,	trips on specified segments will be Reduced.
increase hazards, and reroute	Reduced.
traffic, including emergency	
vehicles.	No family mitigation has been
venicies.	No feasible mitigation has been identified to mitigate this impact to an
Traffic from construction or	insignificant level.
operations of the pump station	insignificant level.
component may cause congestion	No feasible mitigation has been
along access roads.	identified to mitigate this impact to an
	insignificant level. Roads in this
Traffic from construction of the	vicinity. are private, thus no public
Geysers steamfield component may	impacts are anticipated.
cause congestion on access roads.	impacts are unterpated.
······································	
Air Quality – The headworks	No feasible mitigation has to date been
expansion component may cause	identified to mitigate this impact to an

odors.	insignificant level. The City will continue to operate the headworks and biosolids areas in a manner so as to minimize odors.		
Noise – Construction of pipeline component may expose the public to high noise levels.	Construction noise control measures Construction trips on specified segments will be reduced.		
Construction of the pipeline component may cause high noise levels from the construction traffic.	Implement construction noise control measures.		
Construction of the pump station component may cause high noise levels from construction traffic.	Implement pump station noise controls.		
Operation of the pump station component may expose the public to high noise levels.	Incorporate noise control measures into the final design of the pump station.		
Construction of the Geysers steamfield component may cause high noise levels from construction traffic.	No feasible mitigation has been identified to mitigate this impact to an insignificant level. Roads in this vicinity are private, thus no public impacts are expected.		
Visual Resources – The pipeline component may cause adverse effects on foreground or	Adjust pipeline alignments. Limit construction disturbance.		
middleground views from a high volume travelway, recreation use area, or other public use area.	Screen Concrete diversion channels, pump stations, and other facilities.		

The environmental effects described above that contain no feasible mitigation measures that would mitigate impact to an insignificant level are outweighed by the need to provide reliable wastewater treatment and disposal.

- 34. The permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16. The impact on existing water quality will be insignificant.
- 35. The Regional Water Board has notified the City of Santa Rosa and interested agencies and persons of the Board's intent to prescribe waste discharge requirements for the discharge and

has provided them with an opportunity to submit their written comments and recommendations. The Board is exercising its authority under Water Code section 13377 to issue waste discharge requirements for the City of Santa Rosa, Laguna Subregional Facilities because the North Coast Regional Water Quality Control Board lacks a quorum of qualified Regional Water Board Members. The Regional Water Board shall be responsible for ensuring compliance with these waste discharge requirements, and is authorized to modify or revoke these waste discharge requirements and the accompanying monitoring and reporting program.

- 36. The City of Santa Rosa has submitted a petition to the Board to make a change to its point of discharge, place of use, and purpose of use of treated wastewater consistent with its long range plan as required by Water Code Section 1211. These waste discharge requirements may be modified or revoked pursuant to Provision 10.a.5 if the Board fails to approve the change.
- 37. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
- 38. This Order will serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and will take effect upon written authorization pursuant to Provision G.4.

THEREFORE, IT IS HEREBY ORDERED that, upon written authorization pursuant to Provision G.4, State Water Resources Control Board Water Quality Order 2000-02 (the "interim" NPDES permit) shall be automatically rescinded, and the City of Santa Rosa, 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 terms:

A. DISCHARGE PROHIBITIONS

- 1. The discharge of any waste not specifically regulated by this Permit is prohibited.
- 2. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC) is prohibited. [Health and Safety Code, Section 5411]
- 3. There shall be no discharge of advanced treated water or any wastewaters to land which is not owned or under agreement to use by the permittee.
- 4. There shall be no discharge of advanced treated water from any point in the Laguna Subregional Facilities other than those identified in Finding 10.
- 5. The discharge of sludge or digester supernatant is prohibited, except as authorized under E. SOLIDS <u>DISPOSAL</u>.
- 6. The discharge of untreated or partially treated waste from the Laguna Subregional Facilities is prohibited.

- 7. The discharge of waste from the Laguna Subregional Facilities to the Russian River or its tributaries during the period May 15 through September 30 each year is prohibited.
- 8. During the period of October 1 through May 14, discharges of advanced treated wastewater shall not exceed five percent of the flow of the Russian River as measured at Hacienda Bridge (USGS gauge No 11-4670.00). Compliance with the discharge rate limitations is determined as follows: 1.) the discharge of advanced treated wastewater shall be adjusted daily to avoid exceeding, to the extent practicable, 5% of the previous day's total daily flow of the Russian River as measured by USGS Gauge No. 11-4670.00 at Hacienda Bridge, and 2.) in no case shall the total volume of advanced treated wastewater discharged in a calendar month exceed 5% of the total volume of Russian River flow recorded at the Hacienda Bridge Gauge No. 11-4670.00 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 upon the date when the discharge season, the monthly flow volume comparisons shall be based upon the discharge season, the date when the end of the calendar month. At the end of the calendar month to the date when the discharge is ceased for the season.
- 9. The permittee shall maintain, at a minimum, a total reclamation capacity of 4,015 million gallons for Geysers recharge, and maintain the capability to irrigate 2,350 million gallons per year at 18 mgd average dry weather flow, to be adjusted incrementally up to 2,590 million gallons per year at 21.3 mgd average dry weather flow. The permittee shall utilize all reasonable alternatives for reclamation. "Reasonable alternatives" for reclamation include, but are not limited to: full use of existing irrigation capacity; seeking additional irrigation capacity to the extent that storage capacity increases; and sending additional discharges to the Geysers steamfields during extreme weather conditions.
- 10. The mean daily dry weather flow of waste into the Laguna Subregional Facilities shall not exceed 21.3 mgd over a period of 30 consecutive days when flows to the Laguna Subregional Facilities are unaffected by rain.
- 11. The permittee shall operate advanced treated water storage and disposal according to the Storage Operations Rules and Surface Water Discharge Operations Plan as approved by the Executive Officer (see Provisions G.1 and G.3).

B. EFFLUENT LIMITATIONS

1. The advanced treated wastewater shall be adequately oxidized, coagulated, clarified, filtered and disinfected (or as otherwise required by Title 22, Division 4, Chapter 3, California Code of Regulations) at all times. Representative samples of the effluent discharged from the Laguna Treatment Plant must not contain constituents in excess of the following limits:

Constituent	Unit	Monthly Average (Mean) ¹	Weekly Average Mean ²	Daily <u>Maximum</u>	
BOD (20°C, 5-day)	mg/l lb/day ³	10 1776	15 2277	20 3552	
Suspended Solids Total Coliform	mg/l lb/day ³	10 1776	15 2277	20 3552	
Organisms	MPN/100 ml	 .	2.24	23	
Hydrogen Ion	pH	Not less than 6 nor greater than 9 ⁵			
Turbidity	NTU	2		5 ⁶	

2. The arithmetic mean of the BOD (20°C, 5-day) and Nonfilterable Residue values by weight for final effluent samples in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

3. The survival of test fish in 96-hour flow through or static acute toxicity bioassay in undiluted effluent discharged to the Russian River or its tributaries shall equal or exceed 90 percent survival 70 percent of the time, and 70 percent survival 100 percent of the time measured each monthly reporting period. Compliance with this limitation will be determined based on an analysis of samples collected from discharge points 001 through 015 as described in Monitoring and Reporting Program for Order 2000-03.

4. Storm water discharges from the Laguna Treatment Plant shall be managed by implementation of the SWPPP (and BMPs) described in Finding 30 and 31 of this Permit and as updated by the permittee to reflect changed conditions at this facility.

The mean of all effluent samples collected in a calendar month.

The mean of all effluent samples collected in a calendar week, Sunday to Saturday.

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

$$\frac{8.34}{N}\sum_{i}^{N}Q_{i}C_{i}$$

2

6

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

7-day Median. The Median of all effluent samples collected in a 7-day period.

Not less than 6.5 nor greater than 8.5 whenever there is a direct discharge from the Laguna Treatment Plant to the Laguna de Santa Rosa

Five NTU maximum not to be exceeded more than 5 percent of the time during any 24-hr. period.

16

<u>C. RECEIVING WATER LIMITATIONS</u> (These limitations apply to all discharge points defined in Finding 10(d).)

- 1. The 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 depression of the pH of the receiving water 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 of waste shall not cause aesthetically undesirable discoloration of the receiving waters.
- 7. The discharge shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.
- 8. The discharge shall not contain concentrations of biostimulants which promote objectionable aquatic or algal 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, degrade, or that produce detrimental physiological responses in humans or animals or cause acute or chronic toxicity in plants or aquatic life.
- 10. The following temperature limitations apply to the discharge to the receiving waters:

- a. When the receiving water is below 58°F, the discharge shall cause an increase of no more than 4°F in the receiving water, and shall not increase the temperature of the receiving water beyond 59 °F. No instantaneous increase in receiving water temperature shall exceed 4°F at any time.
- b. When the receiving water is between 59°F and 67°F, the discharge shall cause an increase of no more than 1°F in the receiving water. No instantaneous increase in receiving water temperature shall exceed 1°F at any time.
- c. When the receiving water is above 68°F, the discharge shall not cause an increase in temperature of the receiving water.
- 11. The discharge must not cause bioaccumulation of pesticide, fungicide, wood treatment chemical, or other toxic pollutant concentrations in bottom sediments or aquatic life to levels which are harmful to human health.
- 12. The discharge must 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. This discharge must 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 Federal Clean Water Act (CWA) and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Water Board will revise and modify this Permit in accordance with such more stringent standards.
- 14. The copper concentration in the discharge to the receiving water shall not exceed the following limit: Copper = $e^{0.9422H \cdot 1.464}$ where H = ln (hardness) of the receiving water upstream of the discharge in mg/l as CaCO₃. This Permit may be modified to remove this effluent limitation if new effluent data demonstrates that there is no reasonable potential to exceed water quality standards. 40 CFR 122.62(a)(2)

D. WATER RECLAMATION REQUIREMENTS

- 1. Reclaimed water shall be managed in conformance with regulations contained in Title 22, Division 4, Chapter 3, California Code of Regulations.
- 2. The use of reclaimed water that results in unreasonable waste of water is prohibited.
- 3. The use of reclaimed water that creates a condition of pollution or nuisance is prohibited.

18

- 4. The permittee shall be responsible to ensure that all users of reclaimed water comply with the terms and conditions of this Permit.
- 5. Reclaimed water shall be applied in such a manner so as not to exceed vegetative demand or field capacity.
- 6. The Geyser's steamfield discharge system shall be maintained and operated in a manner to ensure the delivery of reclaimed wastewater in rates not less than those specified in the Report of Waste Discharge.

E. SOLIDS DISPOSAL

- 1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Title 27, Division 2 of the California Code of Regulations.
- 2. Submittal of Information

The following information must be submitted, to the Executive Officer annually by February 28 of each year:

- a. Annual sludge production in dry tons and percent solids.
- b. A schematic diagram showing sludge handling facilities (e.g. digesters, thickeners, drying beds, etc.) and a solids flow diagram.
- c. A narrative description of sludge dewatering and other treatment processes, including process parameters. For example, if sludge is digested, report average temperature and retention time of the digesters.
 - 1) For landfill disposal, include:
 - a) the Regional Water Board's Waste Discharge Requirement numbers that regulate the landfill(s) used,
 - b) the present classifications of the landfill(s) used, and
 - c) the names and locations of the facilities receiving sludge.
 - 2) For land application, include:
 - a) a pre-application report that includes: a sampling and analysis plan for the sludge to be land applied, the location of the site(s), field layout, crop type, harvest schedule, soil lime requirements, proposed solids loading rate based on agronomic and metals criteria, proposed time schedule for application, a copy of the landowner user agreement, and subsequent uses

of the land. The pre-application report should be submitted at least 6 months prior to the proposed land application;

- b) a post application report that includes: a description of what was done, an analysis of actual cumulative loadings to the site, a description of any unusual events that occurred during application (i.e. spills, accidents, etc.), and recommendations for or against repeated use of the site. The post application should be submitted by February 28 of each year.
- 3) For <u>Composting</u>, include: the temperature achieved during the composting process and the duration it was achieved.
- 3. The permittee is encouraged to comply with the State guidance manual issued by the Department of Health Services titled "Manual of Good Practice for Landspreading of Sewage Sludge".
- 4. Any proposed change in sludge use or a disposal practice from a previously approved practice shall be reported to the Executive Officer at least 90 days in advance of the change.

5. Use and disposal of sewage sludge shall comply with existing federal and state laws and regulations, including permitting requirements and technical standards contained in 40 CFR 503.

F. PRETREATMENT OF INDUSTRIAL WASTE

- 1. The permittee shall be responsible for the performance of all pretreatment requirements contained in 40 CFR Part 403 and shall be subject to enforcement actions, penalties, fines and other remedies by the U. S. EPA or other appropriate parties as provided in the Clean Water Act, as amended (33 USC 1351 et seq.) (hereinafter "Act"). The permittee shall implement and enforce its approved Publicly Owned Treatment Works (POTW) Pretreatment Program. The permittee's approved POTW Pretreatment Program is hereby made an enforceable condition of this Permit. U.S. EPA may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Act.
- 2. The permittee must enforce the requirements promulgated under Sections 307(b), 307(c), 307(d) and 402(d) of the Act. The permittee shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.
- 3. The permittee must perform the pretreatment functions as required in 40 CFR part 403 including, but not limited to:
 - a. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

- b. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
- c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and
- d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

Annual Reporting Requirements

- 4. The permittee must submit annually a report to U.S. EPA Region 9 and the Regional Water Board describing the permittee's pretreatment activities over the previous twelve months. In the event that the permittee is not in compliance with any conditions or requirements of this Permit, then the permittee shall also include the reasons for noncompliance and state how and when the discharge shall comply with such conditions and requirements. This annual report is due on February 28th of each year and shall contain, but not be limited, to the following information:
 - a. POTW Influent, Effluent, and Sludge Sampling Results
 - Sampling results shall include a summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants U.S. EPA has identified under Section 307(a) of the Act which are known or suspected to be discharged by industrial users. The permittee is not required to sample for asbestos until U.S. EPA promulgates an applicable analytical technique under 40 CFR Part 136.
 - 2) Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples at equidistant intervals taken at equal time intervals over the 24-hour period. This sampling method is applicable to sludge that is dewatered on site and immediately hauled off site for disposal. Wastewater and sludge sampling and analysis shall be performed in accordance with the frequency stated in the waste discharge monitoring requirements.
 - 3) The permittee shall also provide any influent, effluent, or sludge monitoring data for nonpriority pollutants which the permittee believes may be causing or contributing to interference, pass-through, or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto or as approved by the Regional Water Board or Executive Officer.
 - b. Upset, Interference, or Pass-through

Include a discussion of upset, interference, or pass-through incidents, if any, at the

POTW which the permittee knows or suspects were caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken, and if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable local or federal discharge limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass-through, interference, or noncompliance with sludge disposal requirements.

c. Baseline Monitoring Reports

List the cumulative number of industrial users that the permittee has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.

d. List of Industrial Users

An updated list of the discharger's industrial users, including their names and addresses, or a list of deletions and additions keyed to a previously submitted list must be included. The discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to Federal Categorical Standards by specifying which category(s) of standards are applicable. The list shall indicate which categorical industrial, or specific pollutants from each industry, are subject to local limitations that are more stringent than the Federal Categorical Standards. The discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The discharger shall characterize the compliance status of each industrial user by employing all applicable descriptions:

- 1) In compliance with Baseline Monitoring Report requirements (where applicable);
- 2) Consistently achieving compliance;
- 3) Inconsistently achieving compliance;
- 4) Significantly violated applicable pretreatment required as defined by 40 CFR 403.8(f)(2)(vii);
- 5) On a compliance schedule to achieve compliance (include the date final compliance is required);
- 6) Not achieving compliance and not on a compliance schedule;
- 7) The discharger does not know the industrial user's compliance status.
- Industrial User Inspections and Sampling by POTW

e.

A summary of the inspection and sampling activities conducted by the discharger

during the past year to gather information and data regarding industrial users shall be included. The summary shall consist of:

- 1) The names and addresses of the industrial users subject to surveillance by the discharger and an explanation of whether they were inspected, sampled, or both, and the frequency of these activities at each user; and
- 2) The conclusion or results from the inspection or sampling of each industrial user.
- f. Compliance and Enforcement Activities

A summary of the compliance and enforcement activities during the past year shall include the names and addresses of the industrial users affected by the following actions:

- Warning letters or notices of violation regarding the industrial user's apparent noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the Federal Categorical Standards or local discharge limitations;
- 2) Administrative Orders regarding the industrial user's noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
- Civil actions regarding the industrial user's noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
- Criminal actions regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
- 5) Assessment of monetary penalties. For each industrial user, identify the amount of penalties;
- 6) Restriction of flow to the POTW; or
- 7) Disconnection from discharge to the POTW.
- g. Changes in the Approved Pretreatment Program

Include a description of any significant changes in operating the pretreatment program

> which differ from the information in the discharger's approved POTW Pretreatment Program including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staff levels.

h. A summary of the Annual Pretreatment Budget

Attach a summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

i. Public Participation Activities

Attach a copy of the public notice as required in 40 CFR 403.8(f)(2)(vii). If no notice was published, explain why.

j. Additional Information

Include a description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

5. Quarterly Reporting Requirements

The permittee shall submit quarterly compliance status reports to U.S. EPA Region 9 and the State. The reports shall cover the periods January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. Each report shall be submitted by the end of the month following the quarter, except that the report for October 1 - December 31 may be included in the annual report. This quarterly reporting requirement shall commence for the first full quarter following issuance of this permit. The reports shall identify:

- a. All SIUs which violated any standards or reporting requirements during that quarter:
- b. What the violations were (distinguish between categorical and local limits);
- c. What enforcement actions were taken; and
- d. The status of active enforcement actions from previous periods, including closeouts (facilities under previous enforcement actions which attained compliance during the quarter).

Signed copies of the reports shall be submitted to the Regional Water Board, the Regional Administrator, and the Pretreatment Program Manager at the following addresses:

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

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

Pretreatment Program Manager Regulatory Section Division of Water Quality State Water Resources Control Board P.O. Box 944213 Sacramento, CA 94244-2130

G. PROVISIONS

1.

At least 90 days prior to the date that the City informs the Executive Officer in writing that start-up operations of the Geysers Recharge Project are anticipated to commence (pursuant to Provision G.4), the permittee shall submit updated written Storage Operations Rules for approval by the Executive Officer. The Storage Operations Rules shall quantify the criteria for determining 1) when discharge to receiving waters will commence, 2) discharge rate, and 3) when discharge will cease consistent with the terms of this permit and the Geysers Recharge Project that is evaluated in the permittee's certified EIR. The Storage Operations Rules shall include contingency steps that will be initiated to prevent violations of the terms of this permit, including reducing the rate of discharge to surface waters during extremely dry shoulder seasons to the extent feasible. The Storage Operations Rules shall be updated as appropriate or as required by the Executive Officer in order to meet the terms of this permit.

2. An Annual Reclamation Report shall be submitted to the Regional Water Board for the Executive Officer's approval on or before May 1 of each year. The report shall contain, at a minimum, the following elements:

a. A plan covering reclamation activities predicted for the forthcoming irrigation season. The plan shall include an accounting of acreage available for irrigation, crop type for each area, and an estimate of the volume of advanced treated water to be applied for the irrigation season.

b. A report covering reclamation activities from the prior year. The report shall include the total volume delivered to the Geysers, the total acreage irrigated, crop type for each area, and total volume of advanced treated water applied. It shall include a discussion of efforts to maintain the Geysers recharge and irrigation capacities specified in Discharge Prohibition A.9, and to expand irrigation opportunities for the forthcoming year to the extent that average dry weather flow or storage capacity increases. The report shall include a discussion comparing actual versus predicted reclamation volumes from the previous year. Any significant decrease in Geysers recharge volume or irrigation volumes or acreage shall be discussed in detail.

- 3. Within 90 days of permit adoption, a Surface Water Discharge Operations Plan shall be developed and submitted to the Regional Water Board for the Executive Officer's approval. This plan shall be prepared for use by plant personnel and shall detail procedures for determining advanced treated water discharge locations and discharge volumes in compliance with the terms of this permit. Procedures for adjusting discharges in order to prevent receiving water violations shall be detailed. The plan shall use background water quality data as a basis for determining discharge volumes and locations, and shall be updated as appropriate or as required by the Executive Officer in order to meet the terms of this permit.
- 4. The City shall inform the Executive Officer in writing at least 90 days prior to anticipated discharge to the Geysers steamfields distribution network. State Water Resources Control Board Water Quality Order 2000-03 will become effective upon the Executive Officer's written authorization to discharge to the Geysers steamfields distribution network.
- 5. Duty to Comply
 - a. The permittee must comply with all of the conditions of this Permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [40 CFR 122.41(a)]
 - b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

6. Duty to Reapply

- a. This permit expires on March 15, 2005 or March 23, 2005. If the permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the permittee must apply for and obtain a new permit. The application, including a report of waste discharge in accordance with Title 23, California Code of Regulations must be received by the Regional Water Board no later than September 15, 2004 or September 23, 2004. [40 CFR 122.41(b)]
- b. The Regional Administrator of the U.S. EPA may grant permission to submit an application at a later date prior to the permit expiration date; and the Regional Administrator of the U.S. EPA may grant permission to submit the information

required by paragraphs(g)(7), (9), and (10) of 40 CFR 122.21 after the permit expiration date. [40 CFR 122.21(d)(2)]

7. Need to Halt or Reduce Activity Not a Defense

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

8. Duty to Mitigate

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

9. Proper Operation and Maintenance

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

10. Permit Actions

- a. This Permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - 1) Violation of any terms or conditions of this Permit; or
 - 2) Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or
 - 3) A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or
 - 4) 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.

- 5) Failure of the permittee to obtain State Water Resources Control Board approval of the proposed change in the point of discharge, place of use, and purpose of use of permittee's treated wastewater. [CWC 1211]
- b. The Regional Water Board may also review and revise this Permit at any time upon application of any person, or on the Regional Water Board's own motion. [CWC 13263(e)]
- c. 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 Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Permit, this Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified.
 [40 CFR 122.44(b)]
- d. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. [40 CFR 122.41(f)]

11. Property Rights

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

- 12. Duty to Provide Information
 - a. The permittee shall furnish the Regional Water Board, State Water Board, or U.S. EPA, within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit or to determine compliance with this Permit. The permittee shall also furnish to the Regional Water Board, upon request, copies of records required to be kept by this Permit. [40 CFR 122.41(h)]
 - b. The permittee shall conduct analysis on any sample provided by U.S. EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to U.S. EPA's DMQA manager.

13. Inspection and Entry

The permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or other authorized representatives upon the presentation of credentials to:

16. Reporting Requirements

- a. Planned changes: The permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when:
 - 1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - 2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor the notification requirements under Provision 12 (g).
- b. Anticipated noncompliance: The permittee will give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. Transfers: This Permit is not transferable.
- d. Definitions: The following definitions shall apply unless specified in this permit:
 - 1) "Daily discharge" means the discharge of a pollutant measured during a calendar day of any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" shall be the concentrations of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the sampling day.
 - 2) "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
 - 3) "Daily Maximum" discharge limitations means that highest allowable "daily discharge" during the calendar month.
- e. Monitoring reports: Monitoring results shall be reported at the intervals specified in the self-monitoring program. By February 28 of each year, the permittee shall submit an annual report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In

f.

g.

addition, the permittee shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Permit. If the permittee monitors any pollutant more frequently than required by this Permit, using test procedures approved under 40 CFR Part 136 or as specified in this Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

Compliance schedules: Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 days following each schedule date.

Noncompliance reporting: The permittee shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.

The following events shall be reported orally as soon as the permittee becomes aware of the circumstances, and the written report shall be provided within five days of that time.

- 1) Any unanticipated bypass that violates any prohibition or exceeds any effluent limitation in the Permit.
- 2) Any upset that exceeds any effluent limitation in the Permit.
- 3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Water Board in this Permit.
- 4) Any noncompliance that may endanger health or the environment.

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

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

17. Bypass

The provisions of 40 CFR 122.41(m) apply.

18. Upset

The provisions of 40 CFR 122.41(n)apply.

19. Enforcement

The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act 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 Clean Water Act.

20. Existing Manufacturing, Commercial, Mining, and Silvicultural permittees

All existing manufacturing, commercial, mining, and silvicultural permittees must notify the Regional Water Board as soon as they know or have reason to believe that any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Permit, if that discharge will exceed one hundred micrograms per liter (100 ug/l). [40 CFR 122.42(a)(2)]

21. Availability

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

22. Change in Discharge

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

- a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
- b. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- c. Significant change in the disposal area, e.g., moving the discharge to another drainage

area, to a different water body, or to a disposal area, significantly removed from the original area, potentially causing different water quality or nuisance problems.

d. Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

23. 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.

24. Monitoring

- a. The Regional Water Board or State Water Board may require the permittee to establish and maintain records, make reports, install, use, and maintain monitoring equipment or methods (including where appropriate biological monitoring methods), sample effluent as prescribed, and provide other information as may be reasonably required. [CWC Section 13267 and 13383].
- b. The permittee must comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program for Order 2000-03 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Permit and incorporated herein. The permittee shall file with the Regional Water Board technical reports on self monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Regional Water Board.
- c. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the permittee, analyses performed by a noncertified laboratory will be accepted provided a quality assurance/quality control program is instituted by the laboratory, and a manual containing the steps followed in this program is kept in the laboratory and made available for inspection by staff of the Regional Water Board. The quality assurance/quality control program must conform to U.S. EPA or State Department of Health Services guidelines.

25. National Pretreatment Standards: Prohibited Discharges

a. General prohibitions. Pollutants introduced into POTWs by a non-domestic source shall not pass-through [40 CFR 403.3(n)] the POTW or interfere [40 CFR 403.3(i)] with the operation or performance of the works. These general prohibitions and the specific prohibitions in paragraph (b) of this provision apply to all non-domestic sources introducing pollutants into a POTW 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 POTW:
 - 1) Pollutants which create a fire or explosion hazard in the POTW;
 - 2) Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
 - 3) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference:
 - 4) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW; and
 - 5) Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40°C (104°F) unless the Regional Water Board upon request of the POTW approves alternate temperature limits.
 - 6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - 7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
 - 8) Any trucked or hauled pollutant, except at discharge points designated by the POTW.
- c. When specific limits must be developed by a POTW.
 - 1) POTWs developing POTW 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.
 - 2) All POTWs 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 POTW Treatment Plant's facilities or operations, are necessary to ensure renewed and continued compliance with the POTW's NPDES Permit or sludge use or disposal practices.

- 3) 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 POTW in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of Section 307(d) of the Clean Water Act. [40 CFR 403.5(a) through (d)]

26. Operator Certification

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

27. Adequate Capacity

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

||| ||| ||| ||| ||| |||

///

36

28. Toxicity Reduction Evaluations

The permittee shall conduct a toxicity reduction evaluation (TRE) if the discharge exceeds an acute or chronic toxicity effluent limitation in six consecutive tests. Once the source of toxicity is identified, the permittee shall take all reasonable steps necessary to reduce toxicity to the required level.

CERTIFICATION

The undersigned, Administrative Assistant to the SWRCB, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 15, 2000.

AYE: James M. Stubchaer Arthur G. Baggett, Jr. Mary Jane Forster John W. Brown

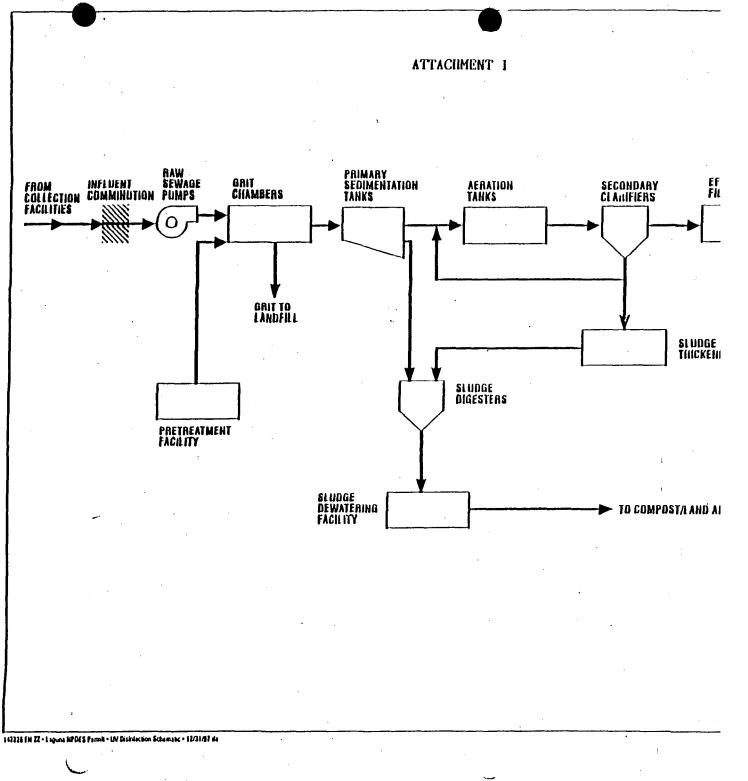
NO: None

ABSENT: None

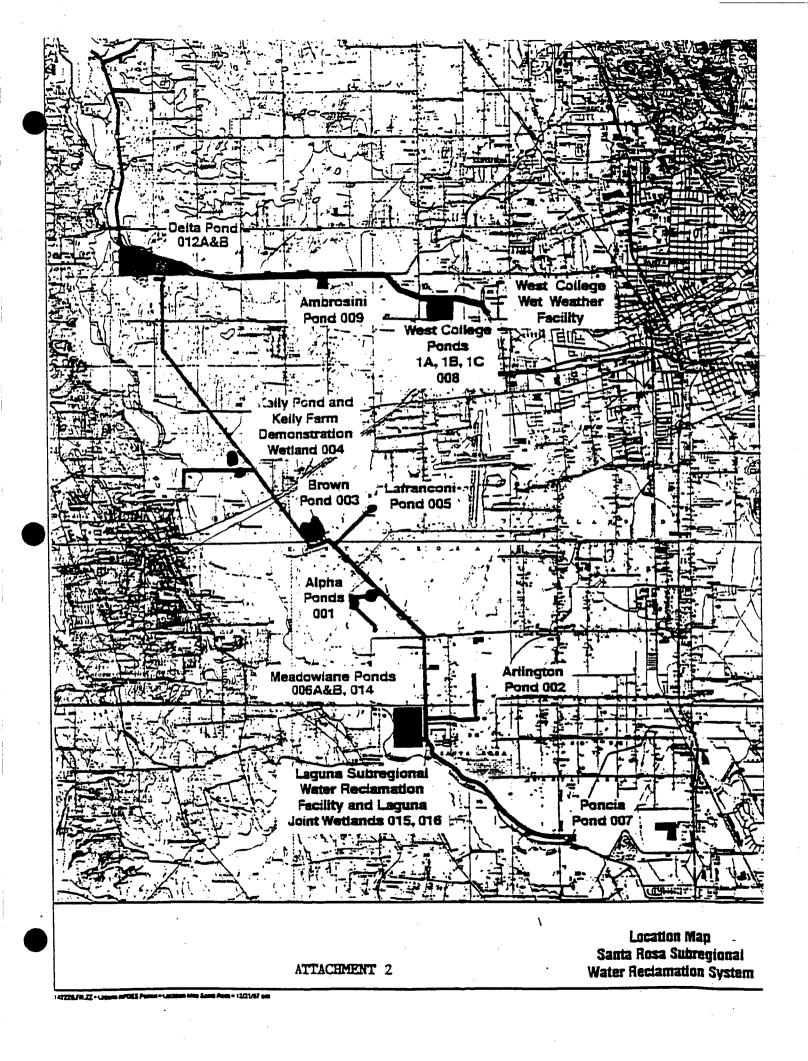
ABSTAIN: None

ireen Marché

Administrative Assistant to the Board



and the second second



APPENDIX 1

126 Priority Pollutants

- A. Chlorinated Benzenes Chlorobenzene 1,2-dichlorobenzene 1,3-dichlorobenzene 1,4-dichlorobenzene 1,2,4-trichlorobenzene Hexachlorobenzene
- B. Chlorinated Ethanes Chloroethane 1,1-dichloroethane 1,2-dichloroethane 1,1,1-trichloroethane 1,1,2-trichloroethane 1,1,2,2-tetrachloroethane Hexachloroethane
- C. Chlorinated Phenols 2-chlorophenol 2,4-dichlorophenol 2,4,6-trichlorophenol Parametachlorocresol (4-chloro-3-methyl phenol)

ì

- D. Other Chlorinated Organics Chloroform (trichloromethane) Carbon tetrachloride (tetrachloromethane) Bis(2-chloroethoxy)methane Bis(2-chloroethyl)ether 2-chloroethyl vinyl ether (mixed) 2-chloronaphthalene 3,3-dichlorobenzidine 1, 1-dichloroethylene 1,2-trans-dichloroethylene 1,2-dichloropropane 1,2-dichloropropylene (1,3-dichloropropene) Tetrachloroethylene Trichloroethylene Vinyl chloride (chloroethylene) Hexachlorobutadiene Hexachlorocyclopentadiene 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)
- E. Haloethers

4-chlorophenyl phenyl ether 2-bromophenyl phenyl ether Bis(2-chloroisopropyl) ether

F. Halomethanes

```
Methylene chloride (dichloromethane)
Methyl chloride (chloromethane)
```

Methyl Bromide (bromomethane) Bromoform (tribromomethane) Dichlorobromomethane Chlorodibromomethane G. Nitrosamines N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosodi-n-propylamine H. Phenols (other than chlorinated) 2-nitrophenol 4-nitrophenol 2,4-dinitrophenol 4,6-dinitro-o-cresol (4,6-dinitro-2-methylphenol) Pentachlorophenol Phenol 2,4-dimethylphenol I. Phthalate Esters Bis(2-ethylhexyl)phthalate Butyl benzyl phthalate Di-N-butyl phthalate Di-n-octyl phthalate Diethyl phthalate Dimethyl phthalate J. Polnuclear Aromatic Hydrocarbons (PAHs) Acenaphthene 1,2-benzanthracene (benzo(a) anthracene) Benzo(a)pyrene (3,4-benzo-pyrene) 3,4-benzofluoranthene (benzo(b) fluoranthene) 11,12-benzofluoranthene (benzo(k) fluoranthene) Chrysene Acenaphthalene , Anthracene - -1,12-benzoperylene (bonze(ghi) perylene) Fluorene Fluoranthene Phenanthrene 1,2,5,6-bibenzanthracene (dibenzo(ah) anthracene) Indeno (1,2,3-cd) pyrene (2,3-o-phenylene pyrene) Pyrene K. Pesticides and Metabolites Aldrin Dieldrin Chlordane (technical mixture and metobolites) Alpha-endosulfan Beta-endosulfan Endosulfan sulfate Endrin Endrin aldehyde Heptachlor Heptachlor epoxide (BHC-hexachlorocyclohexane)

- 2

- Alpha-BHC Beta-BHC Gamma-BHC (Lindane) Delta-BHC Toxaphene
- L. DDT and Metabolites 4,4-DDT 4,4-DDE (p,p-DDX) 4,4-DDD (p,p-TDE)
- M. Polychlorinated Biphenyls (PCBs) PCB-1242 (Arochlor 1242) PCB-1254 (Arochlor 1254) PCB-1221 (Arochlor 1221) PCB-1232 (Arochlor 1232) PCB-1248 (Arochlor 1248) PCB-1260 (Arochlor 1260) PCB-1016 (Arochlor 1016)

N. Other Organics Acrolein Acrylonitrile Benzene Benzidine 2,4-dinitrotoluene 1,2-dinitrotoluene 1,2-diphenylhydrazine Ethylbenzene Isophorone Naphthalene Nitrobenzene Toluene

0. Inorganics

Antimony Arsenic Asbestos Beryllium Cadmium Chromium Copper Cyanide, total Lead Mercury Nickel Selenium Silver Thallium Zinc

California Regional Water Quality Control Board North Coast Region

CONTINGENCY PLANNING AND NOTIFICATION REQUIREMENTS

FOR

ACCIDENTAL SPILLS AND DISCHARGES

ORDER NO. 74-151

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

- 1. Section 13225 of the Porter-Cologne Water Quality Act requires the Regional Board to perform general duties to assure positive water quality control.
- 2. The Regional Board has been advised of situations in which preparations for, and response to accidental discharges and spills have been inadequate.
- 3. Persons discharging waste c. ccl.veying, supplying, storing, or managing wastes or hazardous materials have the primary responsibility for contingency planning, incident reporting and continuous and diligent action to abate the effects of such unintentional or accidental discharge.

THEREFORE, IT IS HEREBY ORDERED THAT:

- I. All persons who discharge wastes or convey, supply, store, or otherwise manage wastes or other hazardous material shall:
 - A. Prepare and submit to this Regional Board, according to a time schedule prescribed by the Executive Officer, a contingency plan defining the following:
 - 1. Potential locations and/or circumstances under which accidental discharge incidents might be expected to occur.
 - 2. Possible water quality effects of accidental discharges,
 - 3. The conceptual plan for cleanup and abatement of accidental discharge incidents, including:
 - a. The individual who will be in charge of cleanup and abatement activities on behalf of the discharger.
 - b. The equipment and manpower available to the discharger to implement the cleanup and abatement plans,
 - B. Immediately report to the Regional Board any accidental discharge incidents. Such notification shall be made by telephone as soon as the responsible person or his agent has knowledge of the incident.
 - C. Immediately begin diligent and continuous action to cleanup and abate the effects of any unintentional or accidental discharge. \Such action shall include temporary measures to abate the discharge prior to completing permanent repairs to damaged facilities.

Order No. 74-151

- D. Confirm the telephone notification in writing within two weeks of the telephone notification. The written notification shall include: reasons for the discharge, duration and volume of the discharge, steps taken to correct the problem and steps being taken to prevent the problem from recurring.
- II. Upon original receipt of phone report (I.B.), the Executive Officer shall immediately notify all affected agencies and known users of waters affected by the unintentional or accidental discharge.
- III. Provide updated information to the Regional Board in the event of change of staff, size of the facility, or change of operating procedures which will affect the previously established contingency plan.
- IV. The Executive Officer or his employees shall maintain liaison with the discharger and other affected agencies and persons to provide assistance in cleanup and abatement activities.
- V. The Executive Officer shall transmit copies of this Order to all persons whose discharges of waste handling activities are governed by Waste Discharge Requirements or an NDPES permit. Such transmittal shall include a current listing of telephone numbers of the Executive Officer and his key employees to facilitate compliance with Item I.B of this Order.

Ordered (by

Benjamin D. Kor Executive Officer

July 24, 1974 (Retyped February 15, 1990)

Your primary notification should be to the Regional Board office in Santa Rosa at (707) 576-2220. During off hours, you will be able to leave a recorded message at that number and, if you have a spill or discharge emergency, you will also be referred to the State Office of Emergency Services (OES) at (800) 852-7550. OES maintains a roster of key employees and will relay your notification to Regional Board staff.

-2-

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NORTH COAST REGION 5550 Skylane Boulevard, Suite A Santa Rosa, CA 95403

FACT SHEET

Application for Waste Discharge Requirements to Discharge to State Waters and Amendment of Cease and Desist Order

· · · · ·

City of Santa Rosa, Laguna Subregional Wastewater Treatment, Reuse, and Disposal Facilities

1.

Public Notice No. CA0022764

The City of Santa Rosa submitted a Report of Waste Discharge for revision of its Permit to discharge advanced treated water under the National Pollutant Discharge Elimination System (NPDES) from the Laguna Subregional Wastewater Treatment, Reuse, and Disposal Facilities (Laguna Subregional Facilities) on March 30, 1999. The Report of Waste Discharge was considered complete on January 6, 2000. This permit revision authorizes an increase from the previously permitted average dry weather flow of 19.2 million gallons per day (mgd) to 21.3 mgd with a portion of the advanced treated water being discharged to the Geysers steamfield. The permit also grants an exception to the Water Quality Control Plan for the North Coast Region's prohibition against discharges greater than one percent of the receiving water's flow, allowing instead a maximum advanced treated water discharge rate of 5 percent of Russian River flow during the discharge season. The term of the proposed permit is five years. The permit shall not be in effect until such time of startup of the Geysers Recharge Project, and until the Regional Water Board's Executive Officer issues a written authorization to discharge.

- 2. The Laguna Subregional Facilities serve an estimated population of 202,500 persons in the communities of Cotati, Rohnert Park, Santa Rosa, Sebastopol, and the unincorporated South Park County Sanitation District and are operated by the City of Santa Rosa.
- 3. The facility receives wastewater from industrial dischargers. A pretreatment program to control industrial wastes has been developed and approved and is required by the proposed Permit.
- 4. The existing treatment facilities are designed to provide advanced treatment for an average daily dry weather flow of 21.3 million gallons per day (21.3 mgd). Treatment consists of grit removal in pre-aeration tanks, sludge and scum removal in primary sedimentation tanks, biological treatment with coagulation, flocculation, sedimentation, and clarification followed by filtration, and ultraviolet light disinfection.

8.

9.

- 5. Biosolids generated during the treatment process are thickened, anaerobically digested and dewatered using belt filter presses. The dewatered biosolids are then composted, applied to land as a soil amendment, and/or landfilled. The proposed permit contains provisions to regulate the reuse and disposal of dewatered biosolids.
- 6. Reuse and disposal of all advanced treated water is accomplished through a system that combines water reclamation with discharge to surface waters only allowed during the non-irrigation season (October 1 through May 14). The existing maximum capacity of the storage system is approximately 1,740 million gallons. The maximum safe storage relative to good engineering practice to preserve the structural integrity of the storage ponds is approximately 1,490 million gallons. The existing reclamation system includes approximately 6,236 acres of urban and agricultural land that is irrigated with recycled water. During the allowable discharge period, advanced treated water is discharged to the Laguna de Santa Rosa and Santa Rosa Creek which are tributary to Mark West Creek and the Russian River (a map showing the location of the discharge pcints is attached to this Fact Sheet). The rate of discharge is governed by Russian River flow conditions monitored at a USGS gauge at Hacienda Bridge near Guerneville and is limited to one percent of the flow of the river.
- 7. The North Coast Basin Plan allows the Regional Water Board to consider exceptions for cause to the one percent discharge rate restriction. Exception criteria include: system reliability; protection of beneficial uses; reasonable reclamation alternatives; antidegradation; and discharge prohibitions. The City has submitted information which substantiates that the discharges presently meet each of the five aforementioned conditions, and are expected to continue to meet these conditions following startup of the Geysers Recharge Project. Based on these findings, and subject to implementation of the Geysers Recharge Project as proposed, the Regional Board finds that the Laguna Subregional Facilities qualifies for the exception from the one percent discharge rate restriction contained in the Basin Plan, allowing for a discharge rate of up to 5 percent of the Russian River flow.

Since March 6, 1985, the City has been operating under a Cease and Desist Order (Cease and Desist Order No. 85-35) which included a time schedule for development and implementation a long-range plan for wastewater treatment and disposal. The Regional Water Board has modified the Cease and Desist Order time schedule several times. The most recent time schedule (Order 96-31) calls for implementation of the long-range plan by September 30, 1999. An amendment to this Cease and Desist Order calls for implementation of the long-range plan by December 31, 2002.

The City has selected the Geysers Recharge Project as the long-range solution for advanced treated water reclamation. The Geysers Recharge Project consists of a 41-mile pipeline to convey advanced treated water to Geyser's steamfield operators' distribution network for steamfield injection. The City has entered into a contractual agreement with the steamfield operators, which obligates the City to deliver an average of 11 million gallons per day to the steamfield distribution network. The operators are obligated to distribute the reclaimed water to injection wells and to inject it.

10. The tentative permit requires the submittal of three documents outlining strategies intended to minimize advanced treated water discharges to receiving waters. Storage Operating Rules will quantify criteria for determining 1) when discharge to receiving waters will commence, 2) discharge rate, and 3) when discharge will cease. The <u>Annual Reclamation Report</u> will describe reclamation activities predicted for each irrigation season and report on the results of the prior irrigation season. The report will include efforts to expand irrigation opportunities and will compare actual versus predicted irrigation volumes from the previous irrigation season. The <u>Surface Water Discharge</u> Operations Plan will be prepared for use by plant personnel and will detail procedures for determining advanced treated water discharge locations and discharge volumes. Procedures for adjusting discharges in order to prevent receiving water violations will be detailed.

The proposed Permit contains numerical effluent limitations for conventional pollutants $(BOD_5, suspended solids, total coliform pH, and turbidity)$ and limits flow to the Laguna Treatment Plant to 21.3 million gallons per day. The proposed Permit also contains narrative receiving water limitations to prevent adverse impacts upon the beneficial uses of the receiving waters.

12. The proposed permit does not contain numerical standards for the US EPA-designated priority pollutants for which US EPA has published criteria. The City of Santa Rosa submitted, with the report of waste discharge for the permit reissuance, laboratory results for treated effluent samples and pond discharge samples analyzed for the Priority Pollutants included in 40 CFR 131.36. The applicable factors stipulated at 40 CFR 122.44(d)(1)(ii) and the analytical results on the effluent samples were considered, along with the seasonal prohibition against discharge and the discharge rate limitation contained in the proposed permit and we find that there is no reasonable potential for excursion above ambient criteria promulgated in Part 131 with the exception of those constituents listed in Effluent Limitation 1 and Receiving Water Limitation 14 of this Permit. The proposed Permit includes a monitoring program for priority pollutants both in the final effluent and the discharge to the receiving stream to obtain data that can be used to develop additional numerical standards when appropriate.

13.

11.

The proposed permit contains a narrative objective (standard) for toxicity which states as follows: "The discharge must not cause the receiving waters to contain toxic substances in concentrations that are toxic to, degrade, or that produce detrimental physiological responses in humans or animals or cause acute or chronic toxicity in plants or aquatic life." Compliance with this standard will be measured using acute and chronic toxicity bioassays which are required in a monitoring program contained in the proposed Permit.

City of Santa Rosa Fact Sheet

14. The monitoring and reporting program contained in the proposed Permit includes the requirement for using continuous monitoring devices to measure dissolved oxygen, temperature, pH, turbidity and conductivity in selected discharge and receiving water monitoring locations.

15. The Laguna Subregional Wastewater Treatment, Reuse, and Disposal Facilities have been operating under an NPDES Permit which was last adopted by the Regional Water Board on August 26, 1998.

- 16. A public hearing to consider the Tentative Permit and amended Cease and Desist Order will be held by the Regional Water Board on March 23, 2000 in the Regional Water Board Meeting Room, 5550 Skylane Blvd., Suite A, Santa Rosa, CA. Persons wishing to comment on the proposed Permit or testify before the Regional Water Board are invited to do so. In the event that the Regional Water Board fails to have sufficient qualified Regional Board Members to act on the Tentative Permit and Cease and Desist Order, the State Water Board intends to consider these two items during a public hearing and meeting which is scheduled to be conducted at 9:00 am., on Wednesday, March 15, 2000, in the Paul R. Bonderson Building, First Floor Hearing Room, 901 P Street, Sacramento, California.
- 17. To obtain a copy of the proposed Permit or to obtain additional information concerning the proposed Permit or public hearing, contact Paul Keiran at (707) 576-2753.

(sr88fact.doc)

City of Santa Rosa Fact Sheet

- 14. The monitoring and reporting program contained in the proposed Permit includes the requirement for using continuous monitoring devices to measure dissolved oxygen, temperature, pH, turbidity and conductivity in selected discharge and receiving water monitoring locations.
- 15. The Laguna Subregional Wastewater Treatment, Reuse, and Disposal Facilities have been operating under an NPDES Permit which was last adopted by the Regional Water Board on August 26, 1998.
- 16. A public hearing to consider the Tentative Permit and amended Cease and Desist Order will be held by the Regional Water Board on March 23, 2000 in the Regional Water Board Meeting Room, 5550 Skylane Blvd., Suite A, Santa Rosa, CA. Persons wishing to comment on the proposed Permit or testify before the Regional Water Board are invited to do so. In the event that the Regional Water Board fails to have sufficient qualified Regional Board Members to act on the Tentative Permit and Cease and Desist Order, the State Water Board intends to consider these two items during a public hearing and meeting which is scheduled to be conducted at 9:00 am., on Wednesday, March 15, 2000, in the Paul R. Bonderson Building, First Floor Hearing Room, 901 P Street, Sacramento, California.
- 17. To obtain a copy of the proposed Permit or to obtain additional information concerning the proposed Permit or public hearing, contact Paul Keiran at (707) 576-2753.

(sr88fact.doc)

.

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM FOR WATER QUALITY ORDER NO. 2000 - 03 NPDES PERMIT NO. CA0022764

THE CITY OF SANTA ROSA, LAGUNA SUBREGIONAL WASTEWATER COLLECTION, TREATMENT, CONVEYANCE, REUSE, AND DISPOSAL FACILITIES

SONOMA COUNTY

MONITORING

Composite samples may be taken by a proportional sampling device approved by the North Coast Regional Water Quality Control Board (Regional Water Board) Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour. Influent sampling locations will be at locations approved by the Executive Officer.

Monitoring Influent - Laguna Wastewater Treatment Plant

Constituent	Units	Type of Sample	Sampling Frequency
BOD (20°C, 5-day) Nonfilterable Residue Flow (Mean and Peak) Priority Pollutants ¹	mg/L mg/L mgd	24-hour Composite 24-hour Composite Continuous	Twice Weekly Daily Daily Quarterly

Monitoring Discharge from the Laguna Wastewater Treatment Plant

Samples are to be taken after disinfection. These monitoring requirements apply to discharge point 015.

Constituent	Units	Type of Sample	Sampling Frequency
BOD (20°C, 5-day) Nonfilterable Residue Hydrogen Ion Total Coliform	mg/L mg/L pH	24-hour Composite 24-hour Composite Grab	Twice Weekly Daily Daily
Organisms Mean Daily Flow Turbidity	MPN/100 ml mgd NTU	Grab Continuous Continuous	Daily Daily Daily

The constituents, units, type of sample, sampling frequency and analytical methods are described in Provision F.4 of this Permit. In addition, dewatered sludge shall be sampled for the same constituents during the same time period as the influent and effluent sampling. These time periods for influent, effluent and sludge sampling are more fully described in Provision F.5, Quarterly Reporting Requirements of this Permit. A listing of these constituents is included in Appendix 1 of this Permit. In addition, U.S. EPA Method 8260A may be used for the analysis of purgeable organic compounds.

Monitoring Discharge to Receiving Waters

These monitoring requirements apply to discharge points 001 through 015, not including discharge points 006A, 006B, 012A and 012B, when there is a discharge to a receiving water. Each point of discharge shall be monitored for all of the constituents listed below during any discharge event.

Constituent	<u>Units</u>	Type of Sample	Sampling Frequency
BOD (20°C, 5-day)	mg/L	Grab	Weekly
Nonfilterable Residue	mg/L	Grab	Weekly
Dissolved Oxygen	mg/L	Grab	Weekly
Hydrogen Ion	pH	Grab	Weekly
Turbidity	NTU	Grab	Weekly
Conductivity	umhos/cm		
	(@ 77°F)	Grab	Weekly
Temperature	°F	Continuous	Daily
Ammonia Nitrogen	mg/L	Grab	Weekly [.]
Unionized Ammonia	mg/L	Calculation	Weekly
Nitrate Nitrogen	mg/L	Grab	Weekly
Organic Nitrogen	mg/L ·	Grab	Weekly
Total Phosphorus	mg/L	Grab	Weekly
Acute Toxicity Bioassay ²			
96 Hour,	%Survival	Grab	Monthly
Flow ³	mgd	Continuous	Daily
Copper	ug/l	Grab	Monthly
Hardness (as CaCO ₃)	mg/l	Grab	Monthly

These monitoring requirements apply to discharge points 006A, 006B, 012A and 012B when there is a discharge to a receiving water. Each point of discharge shall be monitored for all of the constituents listed below during any discharge event.

Constituent	Units	Type of Sample	Sampling Frequency
$\overline{\text{BOD}(20^{\circ}\text{C}, 5-\text{day})}$	mg/L	Grab	Weekly
Nonfilterable Residue	mg/L	Grab	Weekly
Dissolved Oxygen	mg/L	Continuous	Two Weeks per Month
Hydrogen Ion	pH	Continuous	Two Weeks per Month
Turbidity	NTU	Continuous	Two Weeks per Month
Conductivity umhos/cm (@	77°F)	Continuous	Two Weeks per Month
Temperature	°F	Continuous	Two Weeks per Month

² The rainbow trout, *Oncorhynchus mykiss*, shall be used as the test fish and test temperature shall be maintained at 12°C plus or minus 2°C.

³ The permittee is to report the discharge dilution rate based on the Russian River flow volume and the summation for all discharge points. Russian River flow shall be monitored according the measurement at Hacienda Bridge (USGS Gauge No. 11-46700.00).

Constituent	Units	Type of Sample	Sampling Frequency
Ammonia Nitrogen	mg/L	Grab	Weekly
Unionized Ammonia	mg/L	Calculation	Weekly
Nitrate Nitrogen	mg/L	Grab	Weekly
Organic Nitrogen	mg/L	Grab	Weekly
Total Phosphorus	mg/L	Grab	Weekly
Copper	ug/l	Grab	Monthly
Hardness (as $CaCO_3$)	mg/l	Grab	Monthly
Priority Pollutants ⁴		Grab	Quarterly
Acute Toxicity Bioassay ²	2		
96 Hour,	%Survival	Grab	Monthly
Chronic Toxicity			
Bioassay⁵		Grab	Quarterly
Flow ³	mgd	Continuous	Daily

Monitoring Receiving Waters

Samples shall be taken upstream and downstream of the point of discharge, at locations approved by the Executive Officer. These monitoring requirements apply to discharge points 001 through 015, not including discharge points 006A, 006B, 012A and 012B, when there is a discharge to a receiving water.

Constituent	<u>Units</u>	Type of Sample	Sampling Frequency
Ammonia Nitrogen Nitrate Nitrogen Organic Nitrogen Total Phosphorus Copper	mg/L mg/L mg/L ug/l	Grab Grab Grab Grab Grab	Weekly Weekly Weekly Monthly
Hardness (as CaCO ₃)	mg/l	Grab	Monthly

Samples shall be taken upstream and downstream of the point of discharge, at locations approved by the Executive Officer. These monitoring requirements apply to discharge points 006A, 006B, 012A and 012B, when there is a discharge to a receiving water.

.

These constituents are shown in Appendix 1 of this Permit. The time periods for this monitoring are defined in provision F. 5. of this permit. In addition, the sampling locations for these priority pollutants will be discharge points 006A & B and 012A & B or as modified by the Executive Officer. U. S. EPA Method 8260A may be used for the analysis of purgeable organic compounds.

This monitoring shall apply only to discharge points 006A & B and 012A & B or as modified by the Executive Officer. The test organisms, test duration and test endpoint shall be as specified by the Executive Officer.

Disseland Owners W	•
Hydrogen IonpHContinuousTwo WeeTurbidityNTUContinuousTwo WeeTemperature°FContinuousTwo Wee	tly tly tly hly

Monitoring the Waste Treatment/Storage/Disposal Mass Water Balance

The permittee shall determine daily the total volume of wastewater treated, the volume of treated wastewater discharged to receiving waters and the discharge receiving water dilution ratio, the volume of treated wastewater irrigated on City property, the volume of treated wastewater irrigated by contract users, and the volume of wastewater in each storage pond and remaining storage capacity for each storage pond with a projection in days of total storage capacity remaining based on current operation evaluation. Increases in the wastewater flows and resultant storage capacity required due to infiltration/inflow and also direct rainfall shall also be determined. Storage volume decreases due to evaporation/percolation shall be determined every ten days.

Monitoring Irrigation Capacity

The City shall by 15 April each year submit written documentation to the Executive Officer showing the Laguna Treatment Plant's irrigation capacity. If the Executive Officer deems that irrigation capacity is less than 4,062 million gallons per year, the Executive Officer shall reduce the permitted mean daily dry weather flow of waste into the Laguna Treatment Plant commensurate with the reduced irrigation capacity. The Executive Officer shall inform the City in writing of any such reduction of the permitted mean daily dry weather flow.

Monitoring Storm Water

Visual observations shall be conducted and samples shall be collected and analyzed in compliance with the Storm Water Monitoring Plan developed by the permittee as described in Finding 30 and 31 of this Permit. The results of all observations and analyses shall be reported to the Regional Water Board annually as specified in the Storm Water Monitoring Plan described in Finding 30 and 31 of this Permit.

REPORTING

Monthly monitoring reports shall be submitted to the Regional Water Board for each month by the 15th day of the following month. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements. During periods of no discharge, the reports shall certify no discharge. Copies of each monitoring report shall be mailed to:

Regional Administrator U.S. Environmental Protection Agency Attn: WTR-7, NPDES/DMR 75 Hawthorne Street San Francisco, CA 94105.

Annual Report

By February 28 of each year, the permittee shall submit an annual report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the permittee shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Permit. If the permittee monitors any pollutant more frequently than required by this Permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

5

Annually, prior to commencement of the normal irrigation season, the permittee shall submit to the Regional Water Board a report that includes a map that clearly shows where reclaimed water will be used, the name of the user(s), and the acreage involved. In addition, when new users are added to the system, the permittee shall notify the Regional Water Board of the new users.

CERTIFICATION

The undersigned, Administrative Assistant to the SWRCB, does hereby certify that the foregoing is a full, true, and correct copy of a Monitoring and Reporting Program for an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 15, 2000.

AYE: James M. Stubchaer Arthur G. Baggett, Jr. Mary Jane Forster John W. Brown

NO: None

ABSENT: None

ABSTAIN: None

Maurean Marché Administrative Assistant to the Board