California Regional Water Quality Control Board
North Coast Region

Order No. R1-2002-0013
NPDES Permit No. CA0023345
I.D. No.1B82037OSON

WASTE DISCHARGE REQUIREMENTS
AND
MASTER RECLAMATION PERMIT

FOR

THE TOWN OF WINDSOR
WASTEWATER TREATMENT, RECLAMATION, AND DISPOSAL FACILITY

Sonoma County

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

1. The Town of Windsor (hereinafter permittee) submitted a Report of Waste Discharge dated November 30, 2000, and applied for revision of its Permit to discharge advanced treated municipal wastewater under the National Pollutant Discharge Elimination System (NPDES) from the Town of Windsor Wastewater Treatment Facility (WWTF). The permittee also requested a master reclamation permit pursuant to Section 13523.1 of the California Water Code (CWC). Supplemental information to complete filing of the application was submitted on January 29, 2001. These Waste Discharge Requirements (WDRs) regulate the discharge of municipal wastewater from the permittee's wastewater collection, treatment, reclamation, and disposal facility. The term of this Permit is five years.

2. The permittee owns and operates the wastewater collection, treatment, reclamation, and disposal facilities that serve the Town of Windsor. The treatment facilities are located in Section 13, R9W, T8N, MDB&M as shown in Attachment "A" incorporated herein and made a part of this Order.

   The current waste treatment facilities include biological secondary treatment utilizing extended air activated sludge aeration basins and secondary clarifiers; advanced wastewater treatment (AWT) that includes chemical addition facilities, flocculation tanks, AWT clarifiers, and sand filters; disinfection; and storage prior to reclamation and/or disposal. The treatment plant has been undergoing a series of three expansion projects since 1999 to increase the overall WWTF design capacity from 1.5 mgd to 2.25 mgd average dry weather flow (ADWF) and from 4.8 to 7.2 mgd peak weekly wet weather flow.

The treated wastewater is currently disinfected using chlorine gas prior to leaving the treatment plant. Dechlorination facilities are available for use prior to discharging effluent to surface waters. Ultraviolet (UV) disinfection facilities will replace the chlorination/dechlorination facilities upon completion system testing.

3. The reclamation/disposal component of the permittee's facilities consists of the storage system, the recycled water system, the Geysers recharge pipeline, and the surface water discharge system as shown on Attachment "B" incorporated herein and made a part of this Order. These components are described in the permittee's October 2000 EIR/Master Plan (see Finding 33) and as follows:

   a. Effluent Storage System

      After treatment, the advanced treated effluent[1] is stored in effluent storage ponds prior to discharge to the recycled water system, the Geysers recharge pipeline, or the surface water discharge system. The existing maximum capacity of the effluent storage pond system is 138 million gallons. An additional 36 million gallons of high storage volume is also available. The Town's water balance model indicates that the existing total storage pond capacity of 174 million gallons is adequate for high flows associated with an ADWF of 1.6 mgd. These storage ponds are not part of the treatment system and therefore, effluent limitations contained in this permit are applicable at the point of completion of treatment and disinfection. The storage ponds allow the amount of discharge to be controlled to protect beneficial uses of the receiving waters.

      The water quality of effluent stored in the permittee's storage ponds undergoes changes as it is exposed to the elements. In addition, Other Requirements G (5) of this Permit requires the permittee to submit a plan to assess the effect of the permittee's discharge from the storage pond on the receiving water.

   b. Recycled Water System

      During the dry weather season (May 15 to September 30), and other periods as allowed under this permit, effluent is discharged from the effluent storage ponds to the recycled water system (Discharge Serial No. 002). In addition, effluent will be discharged through the former chlorine contact chamber, converted to a clear well, for reclamation at Windsor High School for landscape irrigation and toilet flushing (Discharge Serial No. 003).

[1] The terms "advanced treated effluent" and "disinfected tertiary effluent" are used interchangeably in this permit. Both terms refer to the advanced wastewater treatment (AWT) process described in Finding 2 of this Permit. The term advanced wastewater treatment is used in the Water Quality Control Plan for the North Coast Region. The term "disinfected tertiary effluent" is used in the Department of Health Services' Recycled Water Criteria contained in Chapter 3, Division 4, Title 22 of the California Code of Regulations, Sections 60301 through 60355.

The existing irrigation system includes approximately 540 acres (421 equivalent acres[2]) of urban and agricultural land that is irrigated with recycled water. The irrigation system capacity is expected to be expanded to 640 acres (520 equivalent acres) by the end of the year 2002. The existing irrigation system is designed for an ADWF of 1.5 mgd. By the end of the year 2002, the expanded irrigation system capacity is projected to accommodate an ADWF of 1.7 mgd.

Irrigation occurs during the period of May 15 to September 30, and periodically during the period of October 1 to May 14 when it can be done in compliance with Water Recycling Requirements contained in Section D of this Permit. The amount of recycled water used for irrigation in any year is dependent on weather conditions and the amount of land available for irrigation. The irrigation system is to be operated in order to ensure that all reasonable alternatives for reclamation have been addressed prior to discharge to receiving waters.

Advanced treated effluent is reclaimed for irrigation of the Windsor Golf Course, local farm lands, vineyards, a Town park, Windsor High School, and Town-owned parcels of land. The permittee also plans to expand the recycled water system to supply recycled water for irrigation of additional farm lands, Town-owned parks, and residential landscaping, and for toilet flushing at Windsor High School. The permittee has established recycled water user agreements with all recycled water users and must have an approved engineering report before providing recycled water to any dual-plumbed water system (e.g. residential landscape, Windsor High School toilet flushing) or any other new recycled water use not covered by an approved Title 22 Engineering Report.

c. Geysers Pipeline

The City of Santa Rosa is constructing a 41-mile pipeline from Santa Rosa to the Geysers steamfield as part of its long-term wastewater disposal plan and construction is anticipated to be completed by late 2002. The wastewater disposal/reclamation alternative selected from the permittee's October 2000 EIR/Master Plan includes reuse of up to 0.75 mgd of the permittee's advanced treated wastewater to the Geysers pipeline and potential utilization of the Geysers pipeline to convey recycled water to storage and/or irrigation sites. The permittee is currently negotiating the specific details of this discharge option with the City of Santa Rosa.

d. Surface Water Discharge System

Advanced treated effluent that is not reclaimed to the recycled water system or Geysers pipeline is discharged from the effluent storage pond system to Mark West Creek (Discharge Serial No. 001, Latitude 38° 29' 39", Longitude 122°

[2] An equivalent acre is an acre of land that requires 30 inches of irrigation per year.

51’ 05”) during the allowed discharge period from October 1 to May 14. Mark West Creek is tributary to the Russian River. The rate of discharge is governed by flow conditions in Mark West Creek monitored at the Trenton-Healdsburg Bridge and is limited to one percent of the natural flow in the creek.

4. Currently, the overall rated capacity of the wastewater treatment, storage, reclamation, and disposal system is 1.6 mgd. The rated capacity is limited by the permittee’s storage and irrigation capacity. All other components have capacities of at least 2.25 mgd ADWF. Storage capacities and irrigation areas necessary to support various ADWF rates have been determined using a water balance model which was described and used in the permittee’s October 2000 EIR/Master Plan. Minimum required storage capacity and irrigation area, as determined by the permittee’s water balance model, are summarized in Attachment “C” to this Permit.

   The rated capacity will be increased during the life of this permit to a maximum of 2.25 mgd in accordance with Requirement G (6) of this Permit as the permittee demonstrates to the satisfaction of the Regional Water Board Executive Officer that additional storage capacity and new reclamation water parcels have been added to the system.

5. This Permit requires the permittee to maximize recycled water use in order to minimize discharges to Mark West Creek to the extent reasonable and possible.

6. The permittee has entered into an agreement with the Airport-Larkfield-Wikiup Sanitation Zone (ALWSZ) at the Sonoma County Airport, to allow the transfer of treated wastewater between the systems serving ALWSZ and the permittee. Treated effluent from the Windsor facility can be transferred to the ALWSZ storage ponds. The system is designed so that effluent can be returned from the ALWSZ ponds to the Windsor system. Effluent transfers under this agreement are accomplished only at times and under conditions that are mutually agreed upon by both parties and with notification to the Regional Water Board Executive Officer. Secondary treated effluent returned from the ALWSZ ponds to Windsor shall be treated to disinfected tertiary effluent standards before it is commingled with disinfected tertiary effluent in the Windsor storage and irrigation system. ALWSZ will be upgrading to include AWT facilities in the near future.

7. Biosolids generated during the treatment process are collected and stored in sludge lagoons. As necessary, the lagoons are dewatered and the sludge is disposed at an appropriately permitted site. Solids Disposal Provisions are included in Section H. of this Permit.

8. The facility receives wastewater from industrial, commercial, and residential sources that have the potential to discharge pollutants that may adversely impact the treatment process. Pretreatment Provisions are included in Section I of this Permit.

9. The WWTF is a major permittee as defined by the U.S. Environmental Protection Agency (U.S. EPA).

10. The Water Quality Control Plan for the North Coast Region (Basin Plan) includes beneficial uses, water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions and statewide plans and policies. The Basin Plan also includes a prohibition against discharge to the Russian River and its tributaries during the period May 15 through September 30 and all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow.

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

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

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

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

12. The beneficial uses of Russian River include:

    a. municipal and domestic supply
    b. agricultural supply
    c. industrial service supply
    d. industrial process supply
    e. groundwater recharge
    f. navigation
    g. hydropower generation
    h. water contact recreation
    i. noncontact water recreation
    j. commercial and sport fishing
    k. warm freshwater habitat
    l. cold freshwater habitat
    m. preservation of areas of special biological significance

n. wildlife habitat
o. preservation of rare, threatened, or endangered species
p. migration of aquatic organisms
q. spawning, reproduction, and/or early development
r. estuarine habitat
s. aquaculture

13. Beneficial uses of areal groundwaters include:

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

14. This Permit contains technology-based effluent limitations for 5-day Biological Oxygen Demand (BOD), Suspended Solids (SS), pH and percent removal of BOD and SS as required by 40 Code of Federal Regulations (CFR) 133.102 and 133.105(f)(1). Concentration-based and mass-based effluent limitations are included for biological oxygen demand (BOD) and suspended solids (SS). The mass-based effluent limitations included in this Permit have been modified to be less stringent than those included in the permittee's previous permit, Waste Discharge Requirements Order No. 96-27. This permit change is governed by 40 CFR 122.44(*l*)(1), which provides that relaxations in effluent limitations are permitted where the circumstances justifying permit modification under 40 CFR 122.62 are present. Among the several enumerated grounds is that, as provided in Section 122.62(a)(15), a modification is needed to "correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions." Pursuant to 40 CFR 122.45(b), effluent limitations for publicly owned treatment works (POTWs) are derived for the design flow of the WWTF. Mass-based effluent limitations in Order No. 96-27 were calculated based on average dry weather design flow of the WWTF, but did not take into account peak wet weather flows. This Permit correctly calculates mass-based effluent limitations applicable during periods of wet weather flow based on wet weather design flows.

15. This Permit also contains technology-based effluent limitations for total coliform bacteria and turbidity as required by the Basin Plan and the California Department of Health Services (DHS) recycled water criteria in Chapter 3, Division 4, Title 22, California Code of Regulations (CCR), Sections 60301 through 60355.

16. The State Water Resources Control Board (State Water Board) adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (also known as the State Implementation Plan or SIP) on March 2, 2000. All provisions of the SIP became effective as of May 22, 2000. The SIP applies to discharges of toxic pollutants into the inland surface waters, enclosed bays, and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the California

Water Code) and the federal Clean Water Act (CWA). The SIP establishes: (1) implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxics Rule (NTR) and through the California Toxics Rule (CTR), and for priority pollutant objectives established by Regional Water Quality Control Boards (Regional Water Boards) in their water quality control plans (basin plans); (2) monitoring requirements for 2,3,7,8-TCDD equivalents; and (3) chronic toxicity control provisions.

Insufficient background and effluent data exist to determine whether any of the priority pollutants for which criteria have been established under provisions of the SIP are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard. In accordance with the SIP, the Regional Water Board has issued a 13267 (b) Order to require the permittee to obtain the data. After the data is gathered, the reasonable potential analysis (RPA) will be performed and the permit reopened to include additional numerical limitations, if necessary.

17. 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 permittee.

18. The discharge does not contain nonpriority pollutants (other than those for which effluent limits are prescribed) at levels that will cause, have reasonable potential to cause, or contribute to an excursion above any water quality standards. This finding is based in part on the summer discharge prohibition, the one percent flow limitation for winter discharge, and the results of previous monitoring.

19. The permittee has storm water discharges associated with industrial activities, category "ix" as defined in 40 CFR Section 122.26(b)(14). The permittee described storm water discharges, appropriate Pollution Prevention Practices and Best Management Practices in a completed Notice of Intent dated June 1, 1992, and submitted it to the State Water Board pursuant to the Statewide General Permit Program.

20. The permittee has prepared Storm Water Pollution Prevention Plans (SWPP Plans) for the WWTF and main irrigation pump station and has implemented the provisions of the SWPP Plan. The SWPP Plan includes source identification, practices to reduce or eliminate pollutant discharge to storm water, an assessment of potential pollutant sources, a materials inventory, a preventive maintenance program, spill prevention and response procedures, general storm water management practices, employee training, record keeping, 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 SWPP Plan.

21. The DHS has established statewide reclamation criteria in Chapter 3, Division 4, Title 22, California Code of Regulations (CCR), Sections 60301 through 60355 (hereinafter Title 22) for the use of recycled water for irrigation, impoundments, cooling water, and other purposes. The DHS has also established Guidelines for

Use of Reclaimed Water. This Permit implements the Title 22 recycled water criteria.

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

23. This Permit implements Section 13523.1 of the CWC which authorizes issuance of a Master Reclamation Permit to suppliers or distributors, or both, of recycled water in lieu of issuing individual water reclamation requirements to each recycled water user.

24. This Permit authorizes the permittee to reuse advanced treated municipal wastewater for uses that have been addressed in an approved Title 22 Engineering Report, in accordance with Title 22 and the rules and regulations of the permittee's water reuse ordinance, described in Water Reclamation Provision F (1) of this Permit.

25. The permittee submitted an Engineering Report dated November 2001 for the use of recycled water as required by Sections 60313(d), 60314, and 60323 of Title 22 and Section 13522.5 of the CWC. The Engineering Report describes how the permittee will operate the treatment facilities and recycled water system to comply with all applicable rules and regulations, including this Permit.

    The permittee's Engineering Report indicates that incidental runoff from residential recycled water use areas is possible, and describes measures the permittee will take to minimize this possibility. Incidental runoff is defined as runoff that is unintentional (e.g., accidental breakage of a sprinkler head) and not associated with negligence on the part of the permittee. These incidents are typically low volume, accidental, not due to a pattern of neglect or lack of oversight, and promptly addressed. The Regional Water Board recognizes that such minor violations are unavoidable and present a low risk to water quality. Incidental runoff incidents shall be summarized in the permittee's quarterly recycled water monitoring report. Enforcement action shall be considered for inadequate response by the permittee to incidental runoff incidents, repeated runoff incidents that were within the permittee's control, violations of water quality objectives, incidents that create a condition of pollution or nuisance, and discharges that reach surface water in violation of Discharge Prohibition A (5) and/or A (7) and Water Recycling Provision D (7) of this Permit.

26. Effluent Limitations included in this Permit will assure compliance with requirements contained in Title 22 and the DHS/State Water Board MOA.

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

    a. The Board is issuing a Master Reclamation Permit, and

    b. The reclamation complies with the Basin Plan, and

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

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

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

30. The permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. This Order provides for a potential increase in the volume and mass of pollutants discharged. The permittee's October 2000 EIR identified the possibility of a greater number of days of discharge at the one percent discharge rate to Mark West Creek which could result in increases in the annual load of pollutants discharged. The EIR also indicates that the predicted monthly allowable discharge volumes would only increase during wet years in the months of January, February, and March. The EIR concludes that although the loadings may increase, the increase will not cause a violation of water quality objectives. This potential increase in the discharge allows wastewater utility service necessary to accommodate housing and economic expansion in the area, and is considered to be consistent with maximum benefit to the people of the state. Compliance with this Permit will result in the use of best practicable treatment or control of the discharge.

31. The permittee is presently governed by Waste Discharge Requirements Order No. 96-27, adopted by the Regional Water Board on May 23, 1996. Upon taking effect, this permit will supplant and replace the prior permit, Order No. 96-27.

32. The action to renew an NPDES Permit is exempt from Chapter 3 of the California Environmental Quality Act (CEQA) (Pub. Resources Code Section 21000 et seq.) in accordance with Section 13389 of the California Water Code.

33. The permittee approved a Mitigated Negative Declaration/Initial Study on July 1, 1998 by motion of the Windsor Town Council for expansion of the WWTF from 1.5 mgd to 2.25 mgd. The permittee also adopted Resolution No. 995-01 on February 7, 2001 certifying the Town of Windsor Water Reclamation Master Plan for Treatment, Storage, and Disposal Environmental Impact Report; and Resolution No. 1006-01 on March 20, 2001 adopting the Town of Windsor Water Reclamation Master Plan for Treatment, Storage, and Disposal. As a responsible agency under CEQA, the Regional Water Board is required to consider the mitigated negative declaration and EIR and make findings on the significant impacts of the activities within its jurisdiction to approve (Public Resources Code, Section 21002.1(d); California Code of Regulations, Title 14, Section 15096(g) and (h).) The Regional Water Board makes the following findings for those potentially significant impacts:

    All project facilities would be located within areas that could be subject to seismic hazards. Damage to proposed storage and distribution facilities could result in secondary impacts associated with the release of reclaimed water. These impacts would be mitigated through compliance with Department of Safety of Dams (DSOD) regulations which require that retention structures be designed to withstand conservative earthquake magnitudes associated with the earthquake faults within the project vicinity. Design efforts would include site-specific geotechnical investigations for liquefaction or other ground failures and a licensed geotechnical engineer should prepare recommendations applicable to foundation design, earthwork, and site preparation prior to or during the project design phase. Construction shall be in accordance with applicable City and County ordinances and policies regarding mitigation of seismic and geologic hazards. Mitigation measures have been required by the Regional Water Board to substantially lessen or avoid the potentially significant flooding impacts: Water Recycling Requirement D (15) requires that all reservoirs and ponds be protected from erosion, washout and flooding from a rainfall event having a predicted frequency of once in 100 years.

    Reclaimed water retained within proposed storage ponds could have the potential to infiltrate into the groundwater. This impact would be mitigated as follows. All proposed ponds shall be designed with a native soil layer compacted to a maximum permeability of 1×10^{-6} centimeters/second to avoid infiltration and shall include percolation tests to demonstrate compliance. In the event that this criterion cannot be met due to site conditions, site-specific percolation tests and groundwater modeling shall be conducted to demonstrate that groundwater degradation would not occur. The following mitigation measures have been

added by the Regional Water Board to substantially lessen or avoid the potential significant groundwater impacts: Discharge Prohibition A (2) prohibits the creation of a pollution, contamination, or nuisance. Groundwater Limitations E (1) and E (2) prohibit the treatment or disposal of wastewater from statistically degrading or altering the groundwater quality.

Construction of proposed facilities (ponds and distribution pipelines) could result in increased erosion and siltation, with subsequent impacts to water quality and/or storm drain capacity. In addition, release of fuels or other hazardous materials associated with construction equipment could reduce water quality. These impacts would be mitigated through development and implementation of a SWPP Plan identifying Best Management Practices (BMPs) for erosion control and reduction of water quality impacts. Pipeline crossings of creeks would be avoided through use of bridge structures, or construction would be limited to the dry season. Necessary permits would be obtained, including CWA 401 (Water Quality Certification) and 404 (Dredge and Fill) permits and California Department of Fish and Game 1601/03 stream alteration agreements.

Expansion of acreage to be irrigated with recycled water could contribute to loading of specific constituents to groundwater supplies in the vicinity of irrigation sites, and over-application of recycled water could result in impacts to surface waters through ponding or direct runoff to local creeks. The permittee's existing *Reclaimed Water User Agreement* and ongoing field monitoring includes provisions that require recycled water to be applied according to the evapotranspiration requirements of the crop being irrigated, and prohibit runoff to adjacent creeks. Continued implementation of these measures would ensure compliance with requirements and provisions of this Permit. The following mitigation measures have been added by the Regional Water Board to substantially lessen or avoid the potentially significant recycled water impacts: Discharge Prohibition A (2) prohibits the creation of a pollution, contamination, or nuisance. Compliance with Water Recycling Requirements Section D and Water Recycling Provisions Section F is required.

Construction of proposed storage ponds and expansion of the permittee's recycled water irrigation system could result in permanent or temporary impacts to jurisdictional waters of the U.S., such as creeks or vernal pools, and associated special status plant and animal species. These impacts shall be mitigated through avoidance of jurisdictional features, to the extent feasible. Where avoidance is infeasible, the permittee shall perform a jurisdictional wetland delineation to determine the exact boundary of wetlands. Necessary permits would be obtained, including Water Quality Certification and Dredge and Fill permits and California Department of Fish and Game 1601/03 stream alteration agreements and proposed facilities would be designed to minimize impacts. Site-specific botanical surveys of proposed irrigation parcels would be conducted by a qualified biologist to identify sensitive resources and appropriate setbacks would be identified in the *Reclaimed User Agreement* for those parcels.

Operation of the WWTF facilities and pump stations at proposed storage pond sites could result in noise increases in the vicinity of project facilities. Noise can constitute a nuisance under CWC Section 13050. These impacts would be mitigated as follows. All proposed pumping facilities would be either fully enclosed or located below grade such that a noise level of 60 dBA is maintained at the property line, in compliance with the Town of Windsor's *General Plan* noise requirements. The following mitigation measures have been added by the Regional Water Board to substantially lessen or avoid the potentially significant flooding impacts: Discharge Prohibition A. (2) prohibits the permittee from creating a nuisance.

Operation of treatment and storage facilities could generate odors. Odors can constitute a nuisance under CWC Section 13050. This impact would be mitigated by operating treatment and storage facilities to minimize the need for drawdown which would result in exposing bottom sediments to the atmosphere. The following mitigation measures have been added by the Regional Water Board to substantially lessen or avoid the potentially significant flooding impacts: Discharge Prohibition A (2) prohibits the permittee from creating a nuisance. Adherence to Solids Disposal requirements contained in Section H Solids Disposal of this Permit would also mitigate for odors.

Based on the foregoing, the Regional Water Board finds that the significant environmental effects of the activities for the proposed WWTF, as approved by this Permit, are reduced to less-than-significant levels.

34. The Regional Water Board has notified the permittee and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.

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

36. 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 adoption by the Regional Water Board.

THEREFORE, IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. 96-27 are rescinded and the permittee, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of any waste not specifically regulated by this Permit is prohibited.

2. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the CWC is prohibited.

3. The discharge of sludge or digester supernatant is prohibited, except as authorized under H. Solids Disposal.

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

5. There shall be no discharge of waste from any point in the WWTF other than those identified in Findings 3, 6, and 19 of this Permit.

6. The discharge of untreated or partially treated waste from anywhere within the collection, treatment, or disposal facility is prohibited.

7. The discharge of wastewater effluent from the WWTF to the Russian River or its tributaries is prohibited during the period May 15 through September 30 each year.

8. During the period of October 1 through May 14, discharges of advanced treated wastewater from the WWTF to Mark West Creek (Discharge Serial No. 001) shall not exceed one percent of the natural flow of Mark West Creek. For purposes of this Permit, the natural flow in Mark West Creek shall be that flow measured at Trenton-Healdsburg Bridge minus the discharge flow of wastewater from the City of Santa Rosa Laguna Subregional Wastewater Treatment, Conveyance, Reuse, and Disposal Facility (Santa Rosa Facility) as reported daily to the permittee's operation staff by City of Santa Rosa Facility operations staff. Daily flow comparisons shall be based on the 24-hour period from 12:01 a.m. to 12:00 a.m.

B. EFFLUENT LIMITATIONS

1. Only advanced treated wastewater, as defined by the numerical limitations in Effluent Limitations 1 through 4, shall be discharged from the WWTF to Mark West Creek or used for reclamation. The advanced treated wastewater shall be adequately oxidized, coagulated, clarified, filtered, and disinfected as required by Title 22, Division 4, Chapter 3, California Code of Regulations. Effluent limitations shall be applicable at the point of completion of treatment and disinfection, unless otherwise specified. Advanced treated wastewater shall not contain constituents in excess of the limitations:

Constituent	Unit	Monthly Average[3]	Weekly Average[4]	Daily Maximum[5]
BOD (20º, 5-day)	mg/l	10	15	20
	lb/day [6, 7]	188	281	375
Suspended Solids	mg/l	10	15	20
	lb/day [6, 7]	188	281	375

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

   a. The seven-day median concentration shall not exceed a Most Probable Number (MPN) of 2.2 per 100 milliliters.

   b. Concentrations shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period.

   c. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

3. Disinfection of tertiary treated wastewater shall be accomplished using a disinfection process that, when combined with the filtration process, has been

[3] The arithmetic mean of all daily determinations made during a calendar month. Where less than daily sampling is required, the average shall be determined by the summation of all the measured daily discharges divided by the number of days during the calendar month when the measurements were made. If only one sample is collected during that period of time, the value of the single sample shall constitute the monthly average.

[4] The arithmetic mean of all daily determinations made during a calendar week, Sunday to Saturday. Where less than daily sampling is required, the average shall be determined by the summation of all the measured daily discharges divided by the number of days during the calendar week when the measurements were made. If only one sample is collected during that period of time, the value of the single sample shall constitute the weekly average.

[5] The maximum daily determination of all samples collected in a calendar day.

[6] Mass based effluent limitations are based on the WWTF dry weather design flow of 2.25 mgd. During wet-weather periods when the flow rate into the WWTF exceeds the dry weather design flow, the mass emission rate shall be calculated using the concentration-based effluent limitations and the actual flow rates (not to exceed the peak weekly wet weather design flow of 7.2 mgd.)

[7] The daily discharge (lbs/day) is obtained from the following calculation of any calendar day, week, or month:

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

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

demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration. The demonstration shall be performed on-site at the permittee's WWTF at both maximum and minimum plant flows. At a minimum, the permittee shall demonstrate a 99.99 percent removal and/or inactivation through the UV disinfection system only.

4. The turbidity of the filtered wastewater shall not exceed the following limitations:

   a. An average of 2 NTU within a 24-hour period;

   b. 5 NTU more than 5 percent of the time within a 24-hour period; and

   c. 10 NTU at any time

5. The pH shall not be less than 6.5 nor greater than 8.5 when discharging to Mark West Creek[8]. The pH shall not be less than 6.0 nor greater than 9.0 when not discharging to Mark West Creek.

6. A minimum chlorine residual of 1.5 mg/l shall be maintained at the end of the effluent chlorination disinfection process. This requirement will no longer apply once the UV disinfection system is placed permanently on-line.

7. Advanced treated wastewater discharged to Mark West Creek or its tributaries shall have no detectable levels of chlorine at a detection limit of 0.1 mg/l.

8. The arithmetic mean of the BOD (20ºC, 5-day) and Suspended Solids values, by weight, for effluent samples collected 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). Percent removal shall be determined from the 30-day average value of influent wastewater concentration in comparison to the 30-day average value of effluent concentration for the same constituent over the same time period. [40 CFR 133.101(j)]

9. The rated capacity of the permittee's WWTF is currently 1.6 mgd. Accordingly, the average daily dry weather flow of waste into the permittee's WWTF shall not exceed 1.6 mgd, as determined from the lowest consecutive 30 day mean daily flow. The rated capacity will be increased to a maximum of 2.25 mgd ADWF as described in Other Requirements G (6).

10. The peak weekly wet weather treatment of waste shall not exceed 7.2 mgd.

[8] The pH for discharges to Mark West Creek shall be measured at the discharge control valve at the intersection of Trenton-Healdsburg Road and Mark West Station Road.

11. There shall be no acute toxicity in the effluent as demonstrated by survival of test fish in 96-hour flow through or static acute toxicity bioassay in undiluted effluent discharged to Mark West Creek. Effluents are considered acutely toxic when there is: 1) less than 90 percent survival 70 percent of the time based on any monthly median, or 2) less than 70 percent survival 100 percent of the time.

C. RECEIVING WATER LIMITATIONS

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

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

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

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

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

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

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

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

9. The discharge shall not cause the receiving waters to contain toxic substances in concentrations that are toxic to, 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^{o} F, the discharge shall cause an increase of no more than 4^{o} F in the receiving water, and shall not increase the temperature of the receiving water beyond 59^{o} F. No instantaneous increase in receiving water temperature shall exceed 4^{o} F at any time.

    b. When the receiving water is between 59^{o} F and 67^{o} F, the discharge shall cause an increase of no more than 1^{o} F in the receiving water. No instantaneous increase in receiving water temperature shall exceed 1^{o} F at any time.

    c. When the receiving water is above 68^{o} F, the discharge shall not cause an increase in temperature of the receiving water.

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

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

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

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

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

15. The discharge shall not cause concentrations of toxic pollutants in the water column, sediments, or biota that adversely affect beneficial uses.

16. The discharge shall not cause acute nor chronic toxicity in the receiving waters as defined in Effluent Limitation B (11) and General Provisions J (24) and J (25) of this Permit.

D. WATER RECYCLING REQUIREMENTS

1. The permittee shall manage recycled water, and shall establish and enforce rules, ordinances, or regulations for recycled water users, governing the design, construction, and operation and maintenance of recycled water systems, in accordance with Title 22, CCR, Division 4, Chapter 3 (Section 60301 et seq.). These rules, ordinances or regulations shall be reviewed and approved by the Regional Water Board Executive Officer and DHS.

2. The use of recycled water shall not result in unreasonable waste of water.

3. The use of recycled water shall not create a condition of pollution or nuisance.

4. The permittee shall be responsible to insure that all users of recycled water comply with the terms and conditions of this Permit and with the rules, ordinances or regulations adopted by the permittee.

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

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

7. Recycled water shall not be allowed to escape from the recycled water use areas by airborne spray or by surface flow. [Title 22, Section 60310(e)]

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

9. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff. [Title 22, Section 60310(e)(3)]

10. Recycled water shall not bypass or overflow from anywhere in the recycled water distribution system to the point of use. [Title 22, Section 60331]

11. All recycled water equipment, pumps, piping, valves, and outlets shall be appropriately marked to differentiate them from potable facilities.

12. The California Health and Safety Code, Section 116815, requires that "all pipes installed above or below the ground, on or after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape." Section 116815 also contains exemptions that apply to municipal facilities

that have established a labeling or marking system for recycled water used on their premises and for water delivered for agricultural use.

The permittee shall prepare a report documenting either compliance with this requirement and/or containing a workplan to identify and replace any non-purple pipe in the recycled water distribution system installed after June 1, 1993 that is not in compliance with the this code. The report shall be submitted within one year of the adoption of this Permit. A report documenting full compliance with this requirement shall be submitted by June 1, 2004.

13. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibbs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access. [Title 22, 60310(I)]

14. Cross-connection shall not occur between any recycled water system and any separate system conveying potable water. [Title 22, Section 60310(h)] Supplementing recycled water with potable water shall not be allowed except through air-gap separation [Title 22, Section 30315].

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

16. Recycled water shall not be irrigated within 50 feet of any domestic water supply well or domestic water supply surface intake unless the technical requirements specified in Title 22, Section 60310(a) have been met and approved by DHS.

17. Recycled water shall not be impounded within 100 feet of a domestic water supply well. [Title 22, Section 60310(b)]

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

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

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

21. DHS guidance[9] for separation of potable water mains and recycled water pipelines shall be implemented as follows:

    a. There shall be at least a four-foot horizontal separation between all pipelines transporting recycled water and those transporting domestic supply.

    b. There shall be at least a one-foot vertical separation at crossings between all pipelines transporting recycled water and those transporting domestic supply, with the domestic supply above the recycled water pipeline, unless approved by the DHS.

    c. All portions of the recycled water pipeline that cross under a potable water main shall be enclosed in a continuous sleeve.

    d. Where site conditions make it impossible to comply with the above conditions, any variation shall comply with alternative construction criteria for separation between sanitary sewers and potable water mains as described in the DHS document title "Criteria for Separation of Water Mains and Sanitary Sewers", treating the recycled water line as if a sanitary sewer, or be approved in advance and in writing by DHS.

22. A minimum freeboard, consistent with pond design but not less than two feet, shall be maintained at all times in any reservoir or pond containing recycled water, except with prior written authorization by the Regional Water Board Executive Officer.

E. GROUNDWATER LIMITATIONS

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

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

F. WATER RECYCLING PROVISIONS

1. The permittee shall develop, establish and enforce administrative procedures, rules, ordinances and/or regulations governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the criteria established in Title 22 and this Permit. The permittee shall develop user agreements requiring user compliance with Title 22 and this permit. Water

[9] This provision is a modification of DHS's guidance in the document titled "Criteria for the Separation of Water Main and Sanitary Sewers" per DHS recommendations to allow a four foot separation rather than a 10 foot separation for reclaimed water pipelines.

reclamation rules, ordinances and/or regulations shall be approved by the Regional Water Board Executive Officer and DHS.

Upon approval of the permittee's procedures, ordinances, and agreements, the permittee may authorize specific additional water reclamation projects, on a case-by-case basis, in accordance with the approved program and agreements.

2. The permittee shall maintain a current Engineering Report(s) pursuant to Sections 60313(d), 60314, and 60323 of Title 22 and submit additional engineering report(s) for Regional Water Board and DHS approval, prior to the permittee initiating a recycled water use (e.g., recreational surface impoundments, water cooling, new dual-plumbed system, etc.) not addressed in approved Title 22 Engineering Report(s).

3. The permittee shall be responsible for ensuring that recycled water meets the quality standards of this Permit and for the operation and maintenance of transport facilities and associated appurtenances. The permittee shall hold the recycled water users responsible for the application and use of recycled water on their designated areas and associated operations and maintenance in accordance with all applicable Title 22 requirements and this Permit.

4. The permittee shall conduct periodic inspections of the recycled water use areas, facilities, and operations to monitor and assure compliance with the conditions of this Permit. The permittee shall take whatever actions are necessary, including termination of delivery of recycled water, to correct any user violations. The permittee shall, upon prior notification to the user, conduct regular inspections to assure cross-connections are not made with potable water systems and DHS approved backflow prevention devices are installed and operable. The permittee shall produce, maintain and comply with the Engineering Report, in accordance with Title 22, Sections 60323 and 60314, which shall be approved by the Regional Water Board Executive Officer and the DHS.

5. Prior to the initial operation of any dual-plumbed recycled water system, and annually thereafter, the permittee shall ensure that the dual-plumbed system within each facility and use area is inspected for possible cross-connections with the potable water system. The recycled water system shall also be tested for possible cross-connections at least once every four years. The testing shall be conducted in accordance with the method described in the Title 22 Engineering Report. The inspections and the testing shall be performed by a cross-connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection or testing for the prior year shall be submitted to DHS and the Regional Water Board within 30 days following completion of the inspection or testing. [Title 22, Section 60316]

6. The permittee shall notify DHS and the Regional Water Board of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of the discovery of the incident.

7. Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with Section 7605 of Title 17, CCR.

8. The permittee shall notify the Regional Water Board Executive Officer and DHS in anticipation of delivering recycled water at a new location, prior to commencement of reclamation activities at the new location. The notice shall include the following: site location, acreage involved, County Assessor Parcel number(s), name of property owner and/or user, estimated volume of recycled water to be used, and a description of the recycled water management facilities and operations plan.

9. If, in the opinion of the Regional Water Board Executive Officer, recycled water use at proposed new locations cannot be adequately regulated under the Master Reclamation Permit, a Report of Waste Discharge may be requested and individual Water Reclamation Requirements may be required.

10. In the event the permittee does not comply or will be unable to comply for any reason, with any prohibitions, limitation, or provision of this Permit, the permittee shall notify the Regional Water Board by telephone within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent occurrence including, where applicable, a schedule of implementation. In the event the permittee does not comply or will be unable to comply for any reason, with any prohibition, limitation, or provision of this Permit, the permittee shall notify all recycled water users as soon as possible. In the event the recycled water users violate or cause violation of any prohibition, limitation, or provision of this Permit, the permittee, upon learning of such violation, shall notify the Regional Water Board by telephone within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives the confirmation.

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

G. OTHER REQUIREMENTS

1. The permittee shall maximize recycled water use in order to minimize discharges to Mark West Creek to the extent reasonable and possible.

2. The filtration rate in the sand filters shall not exceed 5 gallons per minute per square foot of surface area.

3. The permittee shall operate the UV disinfection system in accordance with the operating protocol (e.g., minimum UV dose, minimum number of rows of UV lamps, etc.) approved by DHS after completion of the permittee's UV system field testing to demonstrate compliance with Effluent Limitations B (2) and B (3) of this Permit. The permittee's testing protocol are described in three separate reports titled "Town of Windsor Water Reclamation Plant, Ondeo Degremont 40 VLS Ultraviolet Light Disinfection System, Virus Deactivation Testing Protocol," "Town of Windsor Reclamation Plant, UV Disinfection System: Disinfection Acceptance (Coliform) Testing Protocol**"** and "Town of Windsor Reclamation Plant, UV Disinfection System, Flow Equalization Testing Protocol."

4. The permittee shall conduct flow equalization studies through the UV disinfection system to determine the actual flow split between the two reactor trains, in accordance with the permittee's testing protocol titled "Town of Windsor Water Reclamation Plant UV Disinfection System Flow Equalization Testing Protocol," (draft dated October 31, 2001 and any subsequent revisions approved by the Regional Water Board Executive Officer and DHS).

5. Within 6 months of adoption of this Permit, the permittee shall submit to the Regional Water Board Executive Officer for approval, a report specifying a plan to improve the permittee's receiving water monitoring program. Downstream receiving water monitoring is currently conducted at a location that may be too far downstream to adequately assess the effect of the permittee's discharge on receiving waters. The plan shall describe specific actions that the permittee proposes to take to improve the receiving water monitoring program including, but not limited to, studies and/or monitoring, and/or relocation of receiving water monitoring stations to sites close enough to the effluent discharge location to provide adequate data. The plan shall be designed to monitor and evaluate the impacts of the permittee's discharge on the receiving waters in order to determine if water quality objectives are being violated or if beneficial uses are impacted. The plan shall also evaluate any adverse impacts to the receiving waters or their beneficial uses due to changes in the character of the wastewater effluent due to pond storage.

6. The rated capacity of the permittee's wastewater treatment, storage, reclamation, and disposal system may be increased from 1.6 mgd to 2.25 mgd upon approval of the Regional Water Board Executive Officer. The permittee shall submit written requests to the Executive Officer to seek approval for capacity increases as specified in Finding 4 and Effluent Limitation B (9) of this permit. Each written request shall justify the increase and shall include the following information regarding increases to irrigation area and storage capacity: site location, County Assessor's Parcel number, name of property owner, the design

volume of the new or increased storage facility, design plans, operations plan, and appropriate CEQA documentation. The request shall also reflect consultation with appropriate agencies regarding the design of the storage or irrigation facilities. Capacity increases will be effective after written approval by the Executive Officer.

H. SOLIDS DISPOSAL

1. All collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a municipal solid waste landfill, reused by land application, disposed of in a sludge-only landfill, or incinerated in accordance with 40 CFR Parts 257, 258, 501, and 503, the State Water Board promulgated provisions of Title 23, Division 3, Chapter 15, of the California Code of Regulations, and with the Water Quality Control Plan for Ocean Waters of California (California Ocean Plan). If the permittee desires to dispose of solids or sludge by a different method, a request for permit modification shall be submitted to the USEPA and the North Coast Regional Water Board 180 days prior to the alternative disposal.

2. The permittee may, at the discretion of the Regional Water Board, obtain coverage under General Order No. 2000-10-DWQ General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities for a proposed biosolids application project to satisfy the requirements of Section 13274 of the CWC. For the purpose of this provision, biosolids is defined as sewage sludge that has been treated and tested and shown to be capable of being beneficially, and legally used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation as specified under 40 CFR Part 503.

3. Sludge that is disposed of in a municipal solid waste landfill or used as landfill daily cover shall meet the applicable requirements of 40 CFR Part 258. In the annual self-monitoring report, the permittee shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

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

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

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

7. Notification of non-compliance: The permittee shall notify the Regional Water Board under whose jurisdiction the sludge is being used or disposed of regarding any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the permittee shall notify the Regional Water Board of the non-compliance in writing within 5 working days of becoming aware of the non-compliance.

8. Inspection and Entry: The Regional Water Board, or an authorized representative, upon the presentation of credentials, shall be allowed by the permittee, directly or through contractual arrangements with the permittee's sludge contractors, a) to enter upon all premises where sludge produced by the permittee is treated, stored, used, or disposed, b) to have access to and copy any records that shall be kept under the conditions of this permit or of 40 CFR Part 503, and c) to inspect any facilities, equipment, or operations used by the permittee or its contractors in the production, treatment, storage, use, or disposal of the sludge.

9. The permittee shall submit an annual solids handling report to the Regional Water Board postmarked by February 19 of each year for the period covering the previous calendar year, with the following:

   a. The amount of screenings, sludges, and other solids removed from liquid wastes generated that year, reported in dry metric tons, and the amount accumulated from previous years;

   b. For all sludge used as soil amendment, the results of all pollutant and pathogen monitoring (Results shall be reported on a 100 percent dry weight basis for comparison with 40 CFR Part 503 limits. Any sample results reported on a wet weight basis shall report the percent solids of that sample.) and the descriptions of methods used to achieve pathogen reduction and vector attraction reduction, including supporting time and temperature data, and certifications required in 40 CFR Parts 503.17 and 503.27;

   c. For all sludge used or disposed at the permittee's facilities, the site and management practice information and certification required in 40 CFR Parts 503.17 and 503.27; and

   d. For all sludge temporarily stored, the information required in 40 CFR Part 503.20 to demonstrate temporary storage.

   e. Names and addresses of entities receiving sludge for further treatment, use or disposal, and volumes of sludge sent to each;

f. Reports shall be submitted to:

California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403
Phone - (707) 576-2220
Fax - (707) 523-0135

United States Environmental Protection Agency
Region 9 Biosolids Coordinator
75 Hawthorne Street
San Francisco, CA 94105-3901

10. The permittee shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Order that has a likelihood of adversely affecting human health or the environment.

11. Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination.

12. The solids and sludge treatment and storage site shall have facilities adequate to divert surface water runoff from adjacent areas, to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

13. Sewage sludge and solids shall not be placed on treatment and storage sites in a manner such that they can be conveyed into and deposited in waters of the state.

I. PRETREATMENT PROVISIONS

1. Beginning six months after the adoption of this Permit, the permittee shall perform pretreatment functions, to include the following:

a. Implement the necessary legal authorities to monitor and enforce pretreatment standards.

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

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

d. Develop a public outreach program to educate users about the importance of preventing discharges of industrial and toxic wastes to the wastewater treatment plant.

e. Perform ongoing industrial inspections and monitoring, as necessary, to ensure compliance with pretreatment regulations.

2. The permittee shall submit an annual report to the Regional Water Board describing the permittee's pretreatment activities over the previous twelve months. This annual report is due on March 1st of each year beginning on March 1, 2003, and shall contain:

a. A copy of the pretreatment standards.

b. A description of the waste hauler permit system.

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

i. The names and addresses of the industrial users subject to surveillance by the permittee, and an explanation of whether they were inspected, sampled, or both, and the frequency of these activities at each user; and

ii. The conclusions or results from the inspection or sampling of each industrial user.

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

J. GENERAL PROVISIONS

1. Duty to Comply

The permittee shall comply with all of the conditions of this Permit. Any Permit noncompliance constitutes a violation of the 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)]

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)]

2. Duty to Reapply

This Permit expires on January 24, 2007. If the permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the permittee shall apply for and obtain a new Permit. The application, including a Report of Waste Discharge in accordance with Title 23, California Code of Regulations shall be received by the Regional Water Board no later than July 24, 2006. [40 CFR 122.41(b)]

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

3. Need to Halt or Reduce Activity Not a Defense

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

4. Duty to Mitigate

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

5. Proper Operation and Maintenance

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

6. Permit Actions

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

a. Violation of any terms or conditions of this Permit; or

b. Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or

d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by Permit modification or termination.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the 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)]

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

7. Property Rights

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

8. Duty to Provide Information

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

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

9. Inspection and Entry

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

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Permit;

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

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

d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any locations. [40 CFR 122.41(i)]

10. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. The permittee shall calibrate and perform maintenance procedures in accordance with manufacturer's specifications on all monitoring instruments and equipment to ensure accurate measurements. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board, State Water Board, or U.S. EPA at any time. All monitoring instruments and devices used by the permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least annually to ensure their continued accuracy.

c. Records of monitoring information shall include:

i. The date, exact place, and time of sampling or measurements;
ii. The individual(s) who performed the sampling or measurements;
iii. The date(s) analyses were performed;
iv. The individual(s) who performed the analyses;
v. The analytical techniques or methods used; and
vi. The results of such analyses.
vii. The method detection limit (MDL); and
viii. The practical quantitation level (PQL) or the limit of quantitation (LOQ).

d. Unless otherwise noted, all sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All analyses shall be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Permit or approved by the Regional Water Board Executive Officer. Unless otherwise specified, all metals shall be reported as total metals. Test fish for bioassays and test temperatures shall be specified by the Regional Water Board Executive Officer. Bioassays shall be performed in accordance with guidelines approved by the Regional Water Board and the Department of Fish and Game.

11. Signatory Requirements

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

b. Reports required by this Permit, other information requested by the Regional Water Board, State Water Board, or U.S. EPA, and Permit applications submitted for Group II storm water discharges under 40 CFR 122.26(b)(3) may be signed by a duly authorized representative provided:

i. the authorization is made in writing by a person described in paragraph (a) of this provision;

ii. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and

iii. the written authorization is submitted to the Regional Water Board prior to or together with any reports, information, or applications signed by the authorized representative. [40 CFR 122.22(b)(c)]

c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant

penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR 122.22(d)]

12. Reporting Requirements

a. Planned changes: The permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when:

i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the Permit, nor the notification requirements under paragraph (g) of this provision**.**

b. Anticipated noncompliance: The permittee will give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with Permit requirements.

c. Transfers: This Permit is not transferable.

d. Definitions: The following definitions shall apply unless specified in this Permit;

i. "Daily discharge" means the discharge of a pollutant measured during a calendar day of any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" shall be the concentrations of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the sampling day.

ii. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

iii. "Daily Maximum" discharge limitations means that highest allowable "daily discharge" during the calendar month.

iv. “Average Dry Weather Flow” means the lowest mean daily flow averaged over 30 consecutive days.

v. "Peak Weekly Flow" means the average flow of the seven highest consecutive daily flows during the wet weather season.

e. Monitoring reports: Monitoring results shall be reported at the intervals specified in the self-monitoring program. By March 1st 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 Discharger Monitoring Report (DMR).

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

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

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:

i. Any unanticipated bypass that violates any prohibition or exceeds any effluent limitation in the Permit.

ii. Any upset that exceeds any effluent limitation in the Permit.

iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Water Board in this Permit.

iv. Any noncompliance that may endanger health or the environment.

The Executive Officer may waive the above required written report.

h. Other information: Where the permittee becomes aware that it failed to submit any relevant facts in a Permit application, or submitted incorrect information in a Permit application or in any report to the Regional Water

Board, the permittee shall promptly submit such facts or information. [40 CFR 122.41(1)]

13. Bypass

a. Definitions:

i. Bypass [as defined in 40 CFR 122.41(m)] is the intentional diversion of waste streams from any portion of a treatment facility.

ii. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of parts (c) and (d) of this provision.

c. Notice

i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Provision J (12)(g) of this Permit.

d. Prohibition of bypass

i. Bypass is prohibited, and the Regional Water Board may take enforcement action against a permittee for bypass, unless:

1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3) The permittee submitted notices as required under General Provision J (13)(c) of this permit.

ii. The Executive Officer may approve an anticipated bypass, after considering its adverse effects, if the Executive Officer determines that it will meet the three conditions listed above in General Provision J (13)(d)(i) above.

14. Upset

a. Definition. Upset [as defined in 40 CFR 122.41(n)] is an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of (c), below, are not met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the permittee can identify the cause(s) of the upset;
ii. The permitted facility was at the time being properly operated;
iii. The permittee submitted notice of the upset as required in General Provision J (12)(g) of this permit; and
iv. The permittee complied with any remedial measures required under paragraph (d) of this provision.

d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

15. 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, including, under certain circumstances specified by statute, mandatory minimum penalties. [CWC Section 13385]

16. Availability

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

17. Change in Discharge

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

a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.

b. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

c. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area, significantly removed from the original area, potentially causing different water quality or nuisance problems.

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

18. Additional Condition Applicable to Wastewater Treatment Facilities

All WWTFs shall provide adequate notice to the Executive Officer of the following, [CFR 122.42 (b)]:

a. Any new introduction of pollutants into the WWTF from an indirect discharger which would be subject to Section 301 or 306 of the CWA if it were directly discharging those pollutants; and

b. Any substantial change in the volume or character of pollutants being introduced into that WWTF by a source introducing pollutants into the WWTF at the time of issuance of the Permit.

c. For purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the WWTF, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the WWTF.

19. Severability

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

20. Monitoring

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

The permittee shall comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2002-0013 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Permit and incorporated herein. The permittee shall file with the Regional Water Board technical reports on self-monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Regional Water Board.

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

All Discharge Monitoring Reports shall be sent to:

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

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

21. National Pretreatment Standards: Prohibited Discharges

a. General prohibitions. Pollutants introduced into WWTFs by a non-domestic source shall not pass-through [40 CFR403.3(n)] the WWTF or interfere [40 CFR 403.3(i)] with the operation or performance of the works. These general prohibitions and the specific prohibitions in paragraph (b) of this provision apply to all non-domestic sources introducing pollutants into a WWTF whether or not the source is subject to other National Pretreatment Standards or any national, state, or local Pretreatment Requirements.

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

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

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

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

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

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

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

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

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

c. When specific limits shall be developed by a WWTF.

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

ii. All WWTFs shall, in cases where pollutants contributed by User(s) result in interference or pass-through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the WWTF facilities or operations, are necessary to ensure renewed and continued compliance with the WWTF's NPDES Permit or sludge use or disposal practices.

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

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

22. 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.

23. Adequate Capacity

Whenever a publicly owned wastewater treatment plant will reach capacity within four years, the permittee shall notify the Regional Water Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies, and the press. Factors to be evaluated in assessing reserve capacity shall include, at a minimum, (1) comparison of the wet weather design flow with the highest daily flow, and (2) comparison of the average dry weather design flow with the lowest monthly flow. *[Note: see 12.d. Reporting Requirements]* The permittee shall demonstrate that adequate steps are being taken to address the capacity problem. The permittee shall submit a technical report to the Regional Water Board showing how flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Water Board, or within 120 days after receipt of Regional Water Board notification, that the 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 Regional Water Board Executive Officer, and longer extensions may be granted by the Regional Water Board itself. [CCR Title 23, Section 2232]

24. Acute Toxicity Control Provision

Compliance with the Basin Plan narrative toxicity objective and Effluent Limitation B (11) shall be achieved in accordance with the following:

a. Testing procedures specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA 600/4-90-027F, 4th edition or subsequent editions), or other methods approved by the Executive Officer, shall be used.

b. If the result of any single acute toxicity test does not comply with the acute toxicity effluent limitation, the permittee shall take two more samples, one within 14 days, and one within 21 days of receiving the sample results. If two of the three samples do not comply with the acute toxicity limitation, the permittee shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with General Provision J (26). The permittee may propose an evaluation equivalent to a TRE and implement it if approved by the Regional Water Board Executive Officer. If the two additional samples are in compliance with the acute toxicity requirement, then it will be presumed that the effluent is not acutely toxic. If the discharge has ceased before the additional samples could be collected, the discharger shall contact the Executive Officer within 21 days of receiving the sample results with a plan to demonstrate compliance with the acute toxicity effluent limitation.

25. Chronic Toxicity Control Provisions

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

a. Testing procedures specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (U.S. EPA Report No. EPA/600/R-95/136), or other methods approved by the Executive Officer, shall be used.

b. Chronic toxicity evaluation parameters:

i. A three-sample median value of 1 TUc; and

ii. A single-sample maximum value of 2 TUc.

iii. Definition of Terms

1) Three-sample median: A test sample showing chronic toxicity greater than 1 TUc represents an exceedance of this parameter if one of the past two tests also show chronic toxicity greater than 1 Tuc.

2) TUc (chronic toxicity unit) equals 100/NOEL (e.g., If NOEL = 100, then toxicity = 1 TUc). NOEL is the maximum percent test water that causes no observable effects on a test organism.

3) No observed effect level (NOEL) for compliance determination is equal to IC25 or EC25. If the IC25 or EC25 cannot be statistically determined, the NOEL shall be equal to the NOEC derived using hypothesis testing.

4) Effective concentration (EC) is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

5) Inhibition Concentration (IC) is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal, nonquantal biological measurement, such as growth. For example, an IC25 is the estimated concentration of toxicant that would cause a 25 percent reduction in average young per female or growth. IC values may be calculated using a linear interpolation method such as EPA's Bootstrap Procedure.

6) No observed effect concentration (NOEC) is the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. It is determined using hypothesis testing.

c. If the result of any single chronic toxicity test does not comply with the chronic toxicity effluent limitation, the permittee shall take two more samples, one within 14 days, and one within 21 days of receiving the sample results. If two of the three samples do not comply with the chronic toxicity limitation, the permittee shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with General Provision J (26). The permittee may propose an evaluation equivalent to a TRE and implement it if approved by the Regional Water Board Executive Officer. If the two additional samples are in compliance with the chronic toxicity requirement, then it will be presumed that the effluent does not contain chronic toxicity. If the discharge has ceased before the additional samples could be collected, the discharger shall contact the Executive Officer within 21 days of receiving the sample results with a plan to demonstrate compliance with the chronic toxicity effluent limitation.

d. Chronic Toxicity Screening Phase Requirements

i. The permittee shall perform screening phase monitoring at the start of its chronic toxicity monitoring program.

ii. Design of the screening phase shall, at a minimum, consist of the following elements:

1) At least three test species with approved test protocols shall be used to measure compliance with the toxicity objective;

2) If possible, the test species shall include a vertebrate, an invertebrate, and an aquatic plant;

3) Use of test species specified in Table 1 below, and use of the protocols referenced in those tables, or as approved by the Executive Officer;

4) Appropriate controls; and

5) Concurrent reference toxicant tests.

iii. After conducting the screening phase, the permittee may petition the Executive Officer to reduce the required testing to the most sensitive specie(s).

TABLE 1

Short-term Methods for Estimating Chronic Toxicity – Fresh Water[10]

Species	Scientific Name	Effect	Test Duration	Reference
fathead minnow	*Pimephales promelas*	larval survival; growth	7 days	1
water flea	*Ceriodaphnia dubia*	survival; number of young	6 to 8 days	1
alga	*Selenastrum capricornutum*	growth rate	4 days	1

Toxicity Test Reference:

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

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

26. Toxicity Identification, Source and Reduction Evaluations for Acute and Chronic Toxicity

Whenever there is a consistent exceedance of the acute toxicity effluent limitation in Effluent Limitation B (11) and as specified in General Provision J (24)(b), or the chronic toxicity evaluation parameters as specified in General Provision J (25)(b), the permittee shall implement a Toxicity Reduction Evaluation (TRE) in accordance with the following:

a. The TRE shall be specific to the discharge and permitted facility.

b. The permittee shall submit a TRE work plan to the Regional Water Board for approval within 60 days of the consistent exceedance of the acute toxicity effluent limit or chronic toxicity evaluation parameters.

c. The TRE shall be performed in accordance with the Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants (EPA/833B-99/002), which prescribes a multi-step process, outlined below:

i. Step 1: Information and Data Acquisition. This includes review of DMRs, pretreatment information, and other information related to the operation of the WWTF.

iii. Step 2: Facility Performance Evaluation. Investigation of in-plant sources of toxicity, especially for conventional pollutants.

iv. Step 3: Toxicity Identification Evaluation (TIE). The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity. All reasonable efforts using currently available TIE methodologies shall be employed.

v. Step 4: Toxicity Source Evaluation (TSE). The objective of the TSE is to determine from what section of the collection system the substances identified in the TIE are emanating.

vi. Step 5: Toxicity Control Evaluation. Using the results from Steps 1 through 4, alternatives for effluent toxicity reduction are evaluated, and the most feasible is selected for implementation.

vi. Step 6: Toxicity Control Implementation. The toxicity control method or technology is implemented and follow-up monitoring is conducted to ensure that the control method achieves the TRE objective and meets permit limits.

d. If monitoring finds there is no longer consistent toxicity, TRE monitoring may be ended at any stage, with the approval of the Executive Officer.

e. Many recommended TRE elements parallel required or recommended efforts of source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of compliance with requirements or recommended efforts of such programs may be acceptable to comply with TRE requirements.

f. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the permittee's actions and efforts to identify and control or reduce sources of consistent toxicity. However, failure to conduct required toxicity tests or a TRE within a designated period shall result in the establishment of effluent limitations for chronic toxicity in a permit or appropriate enforcement action.

27. Pollutant Minimization Program

The permittee shall, as required by the Executive Officer, conduct a Pollutant Minimization Program (PMP) in accordance with the SIP when there is evidence that a priority pollutant is present in the effluent above an effluent limitation (e.g., results of certified laboratory test of samples of the effluent show concentrations above the effluent limitation); or when a sample result is reported as detected and not quantified and the effluent limitation is less than the reported minimum level; or when a sample result is reported as not detected and the effluent limitation is less than the method detection limit. The permittee may attempt to locate an alternate source for certified laboratory analysis, and reconduct the test if feasible. If no such source is available, the permittee shall notify the Regional Water Board Executive Officer and develop a plan and time schedule to conduct a PMP.

The goal of the PMP shall be to reduce all potential sources of priority pollutant(s) through pollutant minimization control strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. The Regional Water Board Executive Officer may consider cost-effectiveness when establishing the requirements of a PMP.

28. Reopener

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

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

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

Certification

I, Susan A. Warner, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on January 24, 2002.

_____

Susan A. Warner
Executive Officer