ORDER No. R1-2012-0033
WDID No. 1B72033OSON

WASTE DISCHARGE/RECLAMATION REQUIREMENTS FOR UNITED STATES COAST GUARD PETALUMA TRAINING CENTER WASTEWATER TREATMENT AND RECLAMATION FACILITY

SONOMA COUNTY

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	U.S. Coast Guard Petaluma Training Center
Name of Facility	U.S. Coast Guard Petaluma Training Center Wastewater Treatment Facility
Facility Address	599 Tomales Road
	Petaluma, CA 94952-5000

The discharge by the U.S. Coast Guard Training Center (TRACEN) in Petaluma from the discharge point identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Discharge Location
001	Secondary Treated Municipal Wastewater	---	---	Secondary Effluent Storage Ponds
002	Tertiary Treated Municipal Wastewater	---	---	Tertiary Effluent Holding Tank
003	Secondary Treated Municipal Wastewater	---	---	Pasture Irrigation
004	Tertiary Treated Municipal Wastewater	---	---	Urban Landscape Irrigation

IT IS HEREBY ORDERED, that Order No. 85-162 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Catherine Kuhlman, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on April 26, 2012.

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Catherine Kuhlman, Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 3. Facility Information

Discharger	U.S. Coast Guard Petaluma Training Center
Name of Facility	U.S. Coast Guard Petaluma Training Center Wastewater Treatment Facility
Facility Address	599 Tomales Road
	Petaluma, CA
	Sonoma County
Facility Contact, Title, and Phone	Mark Walton, Facility Engineer (707) 765-7297
Mailing Address	599 Tomales Road, Building 150, Petaluma, CA 94952-5000
Type of Facility	Municipal Wastewater Treatment Plant
Facility Design and Permitted Flows[1]	**Existing Facility:** Average Dry Weather Flow (ADWF) = 0.18 million gallons per day (mgd) **Upgraded Facility:** Average Dry Weather Flow (ADWF) = 0.197 million gallons per day (mgd) Peak Wet Weather Flow Treatment Capacity (PWWF) = 3.036 mgd

II. FINDINGS

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

A. Basis and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the Discharger's application for permit renewal, monitoring data submitted during the term of the Discharger's previous Order, and other available information. The Fact Sheet (Attachment D) contains facility information, legal authorities, and rationale for Order requirements. The Fact Sheet is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through C are also incorporated into this Order.

B. Background and Facility Description. The U.S. Coast Guard Petaluma Training Facility (hereinafter Discharger) is currently discharging pursuant to Waste Discharge Requirements Order No. 85-162. The Discharger submitted a Report of Waste Discharge (ROWD), on July 13, 2006 and May 20, 2011, and applied for renewal of waste discharge requirements to discharge up to 0.197 mgd ADWF of municipal treated wastewater from the U.S Coast Guard Training Facility Wastewater Treatment Facility (hereinafter Facility) to land

[1] See Prohibitions III.I and J for details regarding permitted flows.

owned by the Discharger. Additional background information, including a description of the existing and proposed Facility, is included in the Fact Sheet.

C. California Environmental Quality Act (CEQA). The Regional Water Board is the lead agency under the California Environmental Quality Act (CEQA), in connection with the proceeding to consider issuing waste discharge requirements for discharges to land. (Pub. Resources Code, §§ 21000-21177.) The U.S. Coast Guard prepared an Environmental Assessment-Initial Study/Mitigated Negative Declaration (EA-IS/MND) for this project in order to meet federal requirements pursuant to the National Environmental Protection Act (NEPA) and state requirements pursuant to CEQA. The EA-IS/MND evaluated the environmental impacts to groundwater and surface water quality associated with the construction and use of its proposed wastewater treatment, storage and reclamation facilities. The EA-IS/MND addresses cumulative and growth-inducing impacts, and identified mitigation measures to be implemented to ensure that project impacts are less than significant. Mitigation measures necessary to reduce or eliminate significant impacts on the environment are included as enforceable conditions in this Order. The Regional Water Board adopted Resolution No. R1-2012-0052, approving the EA-IS and adopting the MND prepared by the U.S. Coast Guard. The Regional Water Board will file a Notice of Determination within five days from the issuance of this Order.

D. Notification of Interested Parties. The Regional Water Board has notified the Discharger 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.

E. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

III. DISCHARGE PROHIBITIONS

A. The direct or indirect discharge from recycled water use areas to surface waters is prohibited except in minor amounts such as that associated with Best Management Practices (BMPs) for good irrigation practices.

B. The discharge of any waste not disclosed by the Discharger or not within the reasonable contemplation of the Regional Water Board is prohibited.

C. Creation of pollution, contamination, or nuisance as defined by section 13050 of the Water Code is prohibited.

D. The discharge or reclamation of untreated or partially treated waste (receiving a lower level of treatment than described in Finding II.B) from anywhere within the collection, treatment, or disposal system is prohibited.

E. Any sanitary sewer overflow (SSO) that results in a discharge of untreated or partially treated wastewater to (a) waters of the State, (b) groundwater, or (c) land that creates pollution, contamination, or nuisance as defined in Water Code section 13050 (m) is prohibited.

F. The discharge of waste to land that is not owned by or under agreement to use by the Discharger is prohibited, except for use for fire suppression as provided in title 22, sections 60307 (a) and (b) of the California Code of Regulations.

G. The discharge of waste at any point not described in Finding II.B or authorized by a permit issued by the State Water Board or another Regional Water Board is prohibited.

H. Discharges of waste that violate any narrative or numerical water quality objective that are not authorized by waste discharge requirements or other order or action by the Regional or State Water Board are prohibited.

I. Prior to completion and certification of the Discharger's facility upgrade project, the average daily dry weather flow (ADWF) of waste through the existing Facility in excess of 0.097 mgd, as determined from the lowest consecutive 30-day average daily flow, is prohibited. Compliance with this prohibition shall be measured continuously at Monitoring Location EFF-001 and calculated daily.

J. After completion and certification of the Discharger's Facility upgrade project, the ADWF of waste through the Discharger's Facility in excess of 0.122 mgd (as determined from the lowest 30-day average daily flow)is prohibited, until such time that the Discharger demonstrates that it has treatment and reclamation capacity to handle higher ADWF, not to exceed 0.197 mgd. The peak wet weather flow (PWWF) of waste shall not exceed 3.036 mgd. Compliance with these flow prohibitions shall be measured continuously at Monitoring Location EFF-001 and calculated daily.

K. The discharge of sludge is prohibited, except as authorized under section VIII.A (Solids Disposal and Handling Requirements) of this Order and/or the Discharger's enrollment under Statewide Biosolids Permit (identified in Provision X.B.2.b. of this Order).

L. The discharge into the Facility of hazardous wastes[2], including any flammable, explosive, or corrosive wastes, is prohibited.

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[2] "Hazardous waste" is defined under the California Code of Regulations, Article 1, title 22, section 66261.3 et seq.

M. The discharge of liquid or solid waste other than municipal wastewater and domestic septage in the Facility is prohibited.

IV. EFFLUENT LIMITATIONS

A. Final Effluent Limitations – Discharge Point 001, Effluent Storage Ponds

1. Upon completion and certification of the Discharger's Facility upgrade project, the Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program.

Table 4. Final Effluent Limitations – Discharge Point 001 (Effluent Storage Ponds)

Parameter	Units	Effluent Limitations				
		Average Monthly[3]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	30	--	60	--	--
Total Suspended Solids	mg/L	30	--	60	--	--
pH	std units	--	--	--	6.0	9.0

2. The disinfected effluent, sampled at Monitoring Location EFF-001, shall not contain concentrations of total coliform bacteria exceeding the following concentrations:

   a. The median concentrations shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters, using the bacteriological results of the last seven days for which analyses have been completed[4]; and

   b. The number of coliform bacteria shall not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30-day period.

B. Final Effluent Limitations – Discharge Point 002 (Discharge to Tertiary Holding Tank)

1. Total Coliform Bacteria. Disinfected effluent discharged at Discharge Point 002 shall not contain coliform bacteria in excess of the following concentrations:

[3] See Section IX of this Order regarding compliance with the Average Monthly Effluent Limitation.

[4] See Section IX of this Order regarding compliance with the 7-day median requirement.

a. The median concentration shall not exceed an MPN of 2.2 per 100 mL, using the bacteriological results of the last 7 days for which analysis have been completed[3]; and

b. The number of coliform bacteria shall not exceed an MPN of 23 per 100 mL in more than one sample in any 30-day period.

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

C. Final Reclamation Limitations – Discharge Points 003 and 004

1. Upon completion and certification of the Discharger's Facility upgrade project, the Discharger shall maintain compliance with the following effluent limitations at Discharge Points 003 and 004, with compliance measured at Monitoring Location REC-003 and/or REC-004, as described in the Monitoring and Reporting Program.

Table 5. Final Effluent Limitations – Discharge Points 003 and 004 (Agricultural and Urban Reclamation)

Parameter	Units	Effluent Limitations				
		Average Monthly[2]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Nitrate (as N)	mg/L	10	--	--	--	--

D. Interim Effluent Limitations – Discharge Point 001, Effluent Storage Ponds

Prior to completion and certification of the Discharger's Facility upgrade project, representative samples of treated wastewater collected at Monitoring Location M-001 shall not contain constituents in excess of the following limits:

Table 6. Interim Effluent Limitations – Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly[1]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	50	--	80	--	--
Total Suspended Solids	mg/L	50	--	80	--	--

Table 6. Interim Effluent Limitations – Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly[1]	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	std units	--	--	--	6.0	9.0
Settleable Solids	ml/L	---	--	1.0	--	--
Total Coliform Organisms	MPN/100 mL	23[5]	--	240	--	--

V. DISCHARGE SPECIFICATIONS

A. Objectionable Odor. Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas.

B. Pond Freeboard. Freeboard in wastewater treatment or storage ponds shall never be less than two feet as measured vertically from the water surface to the top of berm.

C. Disposal. Disposal of effluent shall be confined to the effluent disposal areas as defined in this Order.

D. Discharge. No waste constituent shall be released or discharged, or placed where it will be released or discharged in a concentration or in a mass that causes violation of the Basin Plan's water quality objectives for groundwater.

E. Operation and Maintenance. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related equipment and appurtenances) that are installed to achieve compliance with the conditions of this Order and to maximize treatment of wastewater and optimize the quality of the discharge.

F. Technical Reports. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of person registered to practice in California pursuant to California Business and Professions Code (section 6735, 7835, and 7835.1). To demonstrate compliance with sections 415 and 3065 of title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed

[5] Median

technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that demonstrates that all work can be clearly attributed to the professional responsible for the work.

G. Winter Months. The Facility shall have sufficient treatment, storage, and disposal capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary infiltration and inflow during the winter months.

VI. RECLAMATION SPECIFICATIONS

A. Filtration Process Requirements for Tertiary Treatment System

1. Turbidity. The effluent from the tertiary wastewater treatment process filters shall at all times be filtered such that the filtered effluent does not exceed any of the following specifications at Monitoring Location INT-001 prior to discharge to the disinfection unit:

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

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

   c. 10 NTU at any time.

2. Filtered effluent in excess of the turbidity specifications shall not enter the reclamation distribution system. Filtered effluent in excess of turbidity specifications shall be automatically diverted to an upstream treatment process or to emergency storage or result in a plant shut down as soon as the Discharger is aware of the exceedance. The Discharger shall provide notification of non-compliance with filtration process requirements as required in Provision X.A.12 of this Order.

3. Filtration Rate. The rate of filtration through the tertiary filters, as measured at Monitoring Location INT-001, shall not exceed 5 gallons per minute per square foot of surface area.

B. Disinfection Process Requirements

1. **Chlorine Disinfection System**. The chlorine disinfection system shall be operated in a manner that ensures effective pathogen reduction in compliance with coliform effluent limitations identified in Effluent Limitation IV.A.2 of this Order. In addition, the following discharge specifications shall be met at the end of the disinfection process (Discharge Point 001, Monitoring Location EFF-001):

a. In the event of a chlorination system failure, the Discharger shall cease transfers of inadequately disinfected effluent to storage. Any inadequately disinfected effluent shall be diverted to an upstream treatment process unit or to emergency storage as soon as the Discharger is aware of the problem. The Discharger shall provide notification of non-compliance with disinfection process requirements as required by section X.A.12 of this Order.

2. **Ultraviolet Light Disinfection System.** The ultraviolet light disinfection system shall be operated in a manner to achieve coliform effluent limitations identified in section IV.B.2 of this Order and the following discharge specifications:

   a. Disinfection of tertiary treated wastewater shall be accomplished using a disinfection process that, when combined with the filtration process, has been 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 Facility at both maximum and minimum plant flows. At a minimum, the Discharger shall demonstrate a 99.99 percent removal and/or inactivation through the UV disinfection system only. The UV system design, operation, and test protocol shall follow the *Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse* published by the National Water Research Institute (NWRI).

   b. The Discharger shall provide continuous, reliable monitoring of flow per channel, UV transmittance, UV intensity, UV dose, UV power, and turbidity.

   c. The Discharger shall operate the UV disinfection system to provide a minimum UV dose of 100 millijoules per square centimeter (mJ/cm^2) at all times, unless otherwise approved by CDPH.

   d. The UV transmittance (at least 254 nanometers) in the wastewater shall not fall below 55 percent of maximum at any time, unless approved by CDPH.

   e. The quartz sleeves and cleaning system components shall be visually inspected per the manufacturer's operation manual for physical wear (scoring, solarization, seal leaks, etc.) and to check the efficacy of the cleaning system.

f. The quartz sleeves shall be cleaned at fixed intervals to ensure the minimum required UV dose delivery is consistently achieved. Cleaning intervals shall be established based on the presence of coliform organisms.

g. Lamps and sleeves shall be replaced per the manufacturer's recommendation, or sooner, if there are indications the lamps are failing to provide adequate disinfection. Lamp age and lamp replacement records must be maintained for a time period consistent with the record retention requirements General Provision X.A.9 of this Order.

h. Upon review and approval of the UV disinfection system by CDPH, the Discharger shall comply with all of the conditions set out by CDPH for its approval of the UV disinfection system.

i. **Prior to use of the UV disinfection system**, the Discharger shall submit to the Regional Water Board Executive Officer a copy of a letter from CDPH stating that the UV disinfection system pre-operation acceptance conditions, including UV equipment validation reporting and field commissioning testing, specified by CDPH have been satisfied.

j. **Prior to use of the UV disinfection system**, the Discharger shall submit to CDPH and the Regional Water Board Executive Officer for approval, an operations and maintenance plan detailing how compliance with the National Water Research Institute's Guidelines and CDPH's UV disinfection system acceptance conditions will be assured at all times.

k. The UV disinfection system shall be operated in accordance with the approved operations and maintenance plan.

VII. RECLAMATION PROVISIONS AND REQUIREMENTS

The Water Reclamation requirements and provisions apply to both urban and agricultural recycled water use sites, unless specifically identified as applying to one or the other. The Water Reclamation Technical Report(s) identified in this section must be submitted prior to delivery of recycled water to the expanded reclamation system.

A. Reclamation Provisions

1. The Discharger's responsibilities are as follows:

   a. The Discharger shall be responsible for ensuring that recycled water meets the quality standards of this Order and all applicable state and local requirements regarding the production and use of reclaimed water,

including requirements of Water Code sections 13500 – 13577 (Water Reclamation) and California Department of Public Health (CDPH) regulations at title 22, section 60301 – 60357 of the California Code of Regulations (Water Recycling Criteria).

b. The Discharger shall be responsible for the operation and maintenance of transport facilities and associated appurtenances necessary to convey and distribute the recycled water from the point of production to the point of use.

c. The Discharger shall be responsible for the application and use of recycled water in the use areas and for associated operation and maintenance in accordance with all applicable title 22 requirements and this Order.

d. The Discharger is responsible for ensuring that the minimum land application acreage and impoundment capacity to comply with the terms and conditions of this Order are maintained.

2. The Discharger shall submit to CDPH and the Regional Water Board a Recycled Water Engineering Report prepared in accordance with title 22. The Discharger shall receive approval of its title 22 engineering report from CDPH prior to start-up of the expanded reclamation system and operate its reclamation system in accordance with all CDPH requirements. The Recycled Water Engineering Report shall be kept updated to reflect any changes to the reclamation system.

3. The Discharger shall designate a Recycled Water Use Supervisor to operate and maintain the recycled water use areas. The Recycled Water Use Supervisor shall be responsible for the recycled water system. Specific responsibilities of the Recycled Water Use Supervisor, at a minimum, shall include the following:

a. Proper installation, operation and maintenance of irrigation systems;

b. Control of on-site piping to prevent any cross-connections with potable water supplies;

c. Development and implementation of a set of procedures to verify on an ongoing basis that cross-connections have not occurred between potable water supplies and recycled water supplies;

d. Routine inspection and maintenance of backflow prevention devices installed to protect potable water supplies, consistent with section 7605 of title 17 of the CCR; and

e. General responsibilities to ensure compliance with this Order and continuous implementation of any BMPs identified as necessary to prevent potential hazards to public health and to protect the environment.

4. Within 180 days of the adoption date of this Order, the Discharger shall submit an Operations and Maintenance (O&M)/Irrigation Management Plan to the Regional Water Board. The Plan shall contain the following elements:

a. An Operations Plan. A detailed operations plan for the use area, including methods and procedures for implementation of regulations regarding recycled water use and maintenance of equipment and emergency backup systems to maintain compliance with the conditions of this Order and CDPH and USEPA requirements (e.g., identification of BMPs implemented to achieve and maintain compliance). BMPs that are protective of groundwater and surface water quality and human health shall be developed and implemented to achieve an efficient irrigation system. At a minimum, the Discharger shall implement the BMPs identified in Reclamation Requirement B.9 and implement other BMPs as appropriate.

b. An Irrigation Management Plan. The Irrigation Management Plan shall include calculations to demonstrate that irrigation will occur at agronomic rates. The Irrigation Management Plan shall account for the following:

i. Soil characteristics;

ii. Recycled water characteristics (nutrients, including nitrogen and phosphorus content; specific ion toxicity, including chloride, boron, sodium, bicarbonate, and other parameters);

iii. General requirements of the major plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements);

iv. Climatic conditions (e.g., precipitations, evapotranspiration rate, wind);

v. Other supplemental nutrient additions (e.g., chemical fertilizers) generally used within the use area; and

vi. Management of impoundments used to store or collect recycled water.

Where the conditions in this subsection vary substantially across use areas, the Irrigation Management Plan shall also include sub-basin irrigation management plans that ensure the use of recycled water occurs at agronomic rates while employing practices to ensure irrigation efficiency.

c. A copy of the Discharger's established rules and/or regulations as approved by CDPH or USEPA governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the criteria established in the title 22 requirements and this Order.

d. Recycled Water Use Supervisor responsibilities and training, including, but not limited to the following:

   i. Documentation of, or examples from, a training program to provide periodic education for Recycled Water Use Supervisors. At a minimum, such training programs shall include the following elements:

      (a). The safe and efficient operation and maintenance of recycled water use facilities:
      (b). Prevention of runoff from recycled water use areas;
      (c). Matching irrigation rates to the water requirements of the landscape, and not applying when the soil is saturated;
      (d). Means for ensuring that recycled water and other supplemental sources of nutrients (e.g., fertilizers) are used pursuant to the Irrigation Management Plan (e.g., at agronomic rates which includes accounting for fertilizers); and
      (e). Prevention of cross-connections with potable water systems.

e. After preliminary review for completeness and adequacy for water quality protection, the O&M/Irrigation Management Plan shall be subject to a 30-day public comment period. The Regional Water Board Executive Officer will place a public notice on the Regional Water Board's website. At the end of the 30-day public notice period, the Regional Water Board Executive Officer shall provide written notification to the Discharger within 30 days, either providing authorization of the recycled water use or identifying any substantial water quality concerns for which the Discharger must provide additional information.

5. The Discharger shall maintain and comply with the O&M/Irrigation Management Plan, and all portions thereof, submitted in compliance with section VI.A.4 above.

6. The Discharger shall also ensure compliance with any applicable Salt and Nutrient Management Plan(s) adopted by the Regional Water Board in the future.

7. The Discharger shall keep a copy of the O&M Plan and this Order, including its Monitoring and Reporting Program, and attachments in a location where they can be easily referenced by operating personnel. Key operating personnel, including the Recycled Water Use Supervisor, shall be familiar with its contents.

8. The Discharger shall conduct periodic inspections of the recycled water use areas, facilities, and operations to monitor and ensure compliance with the conditions of this Order.

9. The Discharger shall report all violations of recycled water regulations in the Discharger's recycled water monitoring reports, including incidental runoff events that the Discharger is aware of.

10. The Discharger shall minimize the potential for surface runoff of recycled water, but recognizes that even with diligent implementation of BMPs, incidental runoff events may occur on occasion. Incidental runoff is defined as unintended small amounts of runoff from recycled water use areas where agronomic rates and appropriate best management practices are being implemented. Examples of incidental runoff include, unintended, minimal over-spray from sprinklers that escapes the recycled water use area or accidental breakage of a sprinkler head on a properly maintained irrigation system. Water leaving a recycled water use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Incidental runoff events are typically infrequent, low volume, accidental, not due to a pattern of neglect or lack of oversight, and are promptly addressed.

    The Regional Water Board recognizes that such minor violations are unavoidable and present a low risk to water quality. All runoff incidents, including incidental runoff shall be summarized in the Discharger's recycled water monitoring reports. Enforcement action shall be considered for runoff that is not incidental, inadequate response by the Discharger, repeated runoff incidents that were within the Discharger's control, where incidental runoff causes violations of water quality objectives, incidents that create a condition of pollution or nuisance, and discharges that reach surface waters in violation of Discharge Prohibitions in section III of this order and/or Reclamation Requirements.

B. Reclamation Requirements

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

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

3. All recycled water provided pursuant to this Order shall be treated and managed in conformance with all applicable provisions of the Recycled Water Policy.

4. The discharge or use of recycled water shall not cause or contribute to an exceedance of any applicable water quality standard. The Discharger shall be responsible for ensuring that all recycled water meets all terms and conditions of this Order, including the quality standards in sections IV and VI of this Order.

5. The Discharger shall discontinue all delivery of recycled water during any period that there is reason to believe that the requirements for use as specified in this Order or the requirements of CDPH or USEPA are not being met. The delivery of recycled water shall not resume until all conditions have been corrected.

6. Application of recycled water to the agricultural and urban reuse areas shall be at reasonable agronomic rates and shall consider soil, climate, and nutrient demand of the crop. Application rates shall ensure that a nuisance is not created. Degradation of groundwater, considering soil, climate, and nutrient demand, shall be minimized, consistent with applicable provisions of the Recycled Water Policy.

7. The seasonal nutritive loading of the recycled water use areas, including the nutritive value of organic and chemical fertilizers and of the recycled water, shall not exceed the nutritive demand of the landscape.

8. Recycled water shall not be applied on water-saturated or frozen ground or during periods of precipitation such that runoff is induced.

9. Recycled water shall not be allowed to escape the recycled water use areas in the form of surface runoff. [CCR title 22, section 60310(e)] However, incidental runoff of recycled water, as described in Water Reclamation Provision VII.A.10, above, is not a violation of this Order. Where appropriate, practices and strategies to prevent the occurrence of runoff shall include, but not be limited to:

a. All new recycled water use sites shall include a 100-foot setback to all surface waters or provide written documentation of appropriate best management practices that will be implemented to prevent or minimize the potential for runoff discharging to surface water;

b. Urban recycled water use sites shall maintain appropriate setbacks to the street gutter and other inlets to the storm drain system based on site conditions or implement an alternative means to prevent the discharge of runoff to surface waters;

c. Implementation of an Operations and Maintenance Plan that provides for detection of leaks (for example from sprinkler heads), and correction within 72 hours of learning that runoff, or prior to release of 1,000 gallons, whichever comes first;

d. Proper design and aim of sprinkler heads;

e. Proper design and operation of the irrigation system;

f. Refraining from application during precipitation events;

g. Application of recycled water at an agronomic rate that does not exceed the water or nutrient demand of the crop or vegetation being irrigated;

h. Use of repeat start times and multiple water days to increase irrigation efficiency and reduce runoff potential;

i. Maintenance of recycled water infrastructure (pipelines, pumps, etc.) to prevent and minimize breakage and leaks; and

j. Adequate protection of all recycled water reservoirs and ponds against overflow, structural damage, or a reduction in efficiency resulting from a 25-year, 24-hour storm or flood event or greater, and notification of the Regional Water Board Executive Officer, if a discharge occurs.

10. Use areas that are spray irrigated and allow public access shall be irrigated during periods of minimal use. Consideration shall be given to allow maximum drying time prior to subsequent public use.

11. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities, roadways, or any other area where the public would accidentally be exposed to recycled water. [CCR title 22, section 60310(e)(3)]

12. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff. [CCR title 22, section 60310(e)(3)]

13. All recycled water equipment, pumps, piping, valves, quick couplers and outlets shall be a type or secured in a manner that only permits operation by authorized personnel and shall be appropriately marked to differentiate them from potable facilities.

14. The main shutoff valve of the recycled water meter shall be tagged with a recycled water warning sign. The valve shall be equipped with an appropriate locking device to prevent unauthorized operation of the valve.

15. The Discharger shall implement the requirements of the California Health and Safety Code (CHSC), section 116815 regarding the installation of purple pipe. CHSC 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 Discharger shall document compliance with this requirement on an annual basis in its annual monitoring report. The Discharger shall continue to implement the requirements of CHSC section 116815 during the term of this Order.

16. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. 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. [CCR title 22, section 60310(l)]

17. Cross-connections shall not occur between any recycled water system and any system conveying potable water. [CCR title 22, section 60310(h)] Supplementing recycled water with potable water shall not be allowed except through air gap separation. [CCR title 22, section 30615]

18. Disinfected secondary recycled water shall not be irrigated within 100 feet, and disinfected tertiary 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 CCR title 22, section 60310(a) have been met and approved by CDPH.

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

20. 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. The following practices shall be implemented, at a minimum:

    a. Irrigation water shall infiltrate completely within a 48-hour period; and

    b. Low-pressure and unpressurized pipelines and ditches that may be accessible to mosquitoes shall not be used to store recycled water.

21. 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'. [CCR title 22, section 60310(g)] Each sign shall display an international symbol similar to that shown in CCR title 22, Figure 60310-A. These warning signs shall be posted at least every 500 feet with a minimum of a sign at each corner and access road. CDPH may accept alternative signage or wording, or an educational program, provided that the applicant demonstrates to CDPH that the alternative approach will assure an equivalent degree of public notification.

22. DHS (now CDPH) Guidance Memo No. 2003-02: *Guidance Criteria for Separation of Water Mains and Non-Potable Pipelines* provides guidance for the separation of new potable water mains and recycled water pipelines which shall be implemented as follows:

    a. There shall be at least a four-foot horizontal separation between all pipelines transporting recycled water and potable water and those transporting disinfected tertiary recycled water and new potable water mains.

    b. There shall be at least a one-foot vertical separation at crossings between all pipelines transporting recycled water and potable water mains, with the potable water main above the recycled water pipeline, unless approved by CDPH.

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

    d. Recycled water pipelines shall not be installed in the same trench as new water mains.

    e. When site conditions make it impossible to comply with the above conditions, any variation shall be approved by CDPH and comply with alternative construction criteria for separation between sanitary sewers

and potable water mains as described in the CDPH document titled "Criteria for Separation of Water Mains and Sanitary Sewers", treating the recycled water line as if a sanitary sewer.

23. The use of recycled water for dust suppression shall only occur during periods of dry weather, shall be limited to periods of short duration, and shall be limited to areas under the control of the Discharger.

VIII. SOLIDS DISCHARGE SPECIFICATIONS

A. Sludge Storage, Disposal, and Handling Requirements

1. Sludge, as used in this Order, means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screenings generated during preliminary treatment.

2. All collected sludges and other solid waste removed from liquid wastes shall be removed from screens, sumps, ponds, and tanks as needed to ensure optimal plant operation and disposed of in accordance with applicable federal and State regulations.

3. Sludge or biosolids that are disposed of in a municipal solid waste landfill or used as daily landfill cover shall meet the applicable requirements of 40 CFR 258. In the annual self-monitoring report, the Discharger shall report the amount of sludge placed in a landfill and the landfill(s) which received the sludge or biosolids.

4. The Discharger shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Order that may adversely affect human health or the environment.

5. 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.

6. Solids and sludge treatment and storage sites 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.

7. The discharge of sewage sludge and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in waters of the state.

8. Any proposed change in biosolids use or disposal practice from a previously approved practice shall be reported to the Regional Water Board Executive Officer and USEPA Regional Administrator at least 90 days in advance of the change.

9. Facilities for the storage of Class B biosolids shall be located, designed and maintained to restrict public access to the biosolids.

10. Biosolids storage facilities shall be designed and maintained to prevent washout or inundation from a storm or flood with a return frequency of 100 years.

11. Biosolids storage facilities shall be designed, maintained, and operated to minimize the generation of leachate.

IX. RECEIVING WATER LIMITATIONS

A. Groundwater Limitations

1. The collection, treatment, storage, and disposal of wastewater shall not cause or contribute to a statistically significant degradation of groundwater quality unless a technical evaluation is performed that demonstrates that any degradation that could reasonably be expected to occur, after implementation of all regulatory requirements and reasonable best management practices, will not violate groundwater quality objectives or cause impacts to beneficial uses of groundwater.

2. The collection, treatment, storage and disposal of the treated wastewater shall not cause or contribute to levels of chemical constituents in groundwater that exceed the levels specified in title 22, Division 4, Chapter 15, Article 4, section 64435 of the California Code of Regulations or listed in Table 3-2 of the Basin Plan.

3. The collection, treatment, storage and disposal of the treated wastewater shall not cause or contribute to levels of radionuclides in groundwater in excess of the limits specified in title 22, Division 4, Chapter 15, Article 5, section 64443 of the California Code of Regulations.

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

5. In groundwater used for domestic and municipal supply (MUN), the collection, treatment, storage and disposal of the treated wastewater shall not cause the median concentration of coliform organisms over any 7-day period to exceed 1.1 MPN per 100 milliliters or 1 colony per 100 milliliters.

X. GENERAL PROVISIONS

Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities. The Discharger shall comply with the following provisions:

A. Standard Provisions

1. **Availability.** A copy of this Order and the associated Monitoring and Reporting Program shall be maintained at the Facility and be available at all times to operating personnel.

2. **Enforcement.** The Discharger shall implement the project as described in this Order. Violation of any requirements contained in this Order subject the Discharger to enforcement action, including civil liability, under the Water Code.

3. **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.

4. **Operation and Maintenance.** The Discharger 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 Discharger to achieve compliance with this Order. 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 Discharger only when necessary to achieve compliance with the conditions of this Order.

   The Discharger shall maintain an updated Operation and Maintenance Manual (O&M Manual) for the Facility. The Discharger shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel on-site and regulatory inspectors. The O&M Manual shall include the following:

a. A description of the Facility table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

b. A detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation, and equipment.

c. A description of proper record keeping to document equipment service, record process control parameters, and administrative records needed to provide successful operations.

d. A description of laboratory and quality assurance procedures.

e. All process and equipment inspection and maintenance schedules.

f. A description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.

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

5. **Change in Discharge.** The Discharger shall promptly report to the Regional Water Board any material change in the character, location, or volume of the discharge. New ponds associated with the treatment and or storage of wastewater or treated effluent shall be constructed in a manner that protects groundwater. The Discharger shall submit design proposals for new wastewater storage ponds to the Regional Water Board Executive Officer for review prior to construction and demonstrate that the pond complies with the Water Code and any other applicable regulations. Pond design and operation plan must include features and best management practices (BMPs) to protect groundwater and prevent exceedances of groundwater quality objectives.

6. **Change in Ownership.** In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the

Discharger, the Discharger shall notify the succeeding owner or operator of existence of this Order, and the status of the Dischargers' annual fee account; a copy of which shall be forwarded to the Regional Water Board.

7. **Vested Rights.** This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Discharger from liability under federal, state, or local laws, nor create a vested right for the Discharger to continue the waste discharge.

8. **Monitoring and Reporting.** The Discharger shall comply with the Monitoring and Reporting Program and any modifications to these documents as specified by the Regional Water Board Executive Officer. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the CDPH and shall conform to CDPH guidelines. The Discharger shall comply with the MRP in Attachment C of this Order and future revisions thereto.

9. **Records Retention.** The Discharger shall maintain records of all monitoring information, including calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer.

10. **Signatory Requirements.** All Report of Waste Discharge (ROWD) applications submitted to the Regional Water Board shall be signed and certified by a principal Executive Officer, ranking elected official, or responsible corporate officer.

    a. For the purposes of this provision, a principal Executive Officer of a federal agency includes:

        i. The chief executive officer of the agency; or

        ii. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA).

    b. For purposes of this provision, a responsible corporate officer means:

        i. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other

person who performs similar policy or decision making functions for the corporation; or

ii. The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

c. Reports required by this Order and other information requested by the Regional Water Board may be signed by a duly authorized representative provided:

i. The authorization is made in writing by a person described in paragraphs (a) or (b) 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 entity; 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.

d. 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."

11. **Inspections.** The Discharger shall permit authorized staff of the Regional Water Board the following:

a. Entrance to the premises in which treatment, collection or management of waste occurs, where an effluent source is located or in which any records required by this Order are kept;

b. Access to inspect and copy any monitoring equipment or records required for compliance with terms and conditions of this Order; and

c. Access to sample any discharge or monitoring location associated with the Facility.

12. **Noncompliance.** In the event the Discharger is unable to comply with any of the conditions of this Order due to breakdown of waste treatment equipment, accidents caused by human error or negligence, or other causes such as acts of nature, the Discharger shall notify the Regional Water Board Executive Officer by telephone as soon as it or its agents have knowledge of the incident and confirm this notification in writing within five (5) business days of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring.

13. **Adequate Capacity.** If the Discharger's wastewater treatment plant will reach capacity within 4 years, the Discharger shall notify the Regional Water Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies, and the press. 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 30-day flow. The Discharger shall demonstrate that adequate steps are being taken to address the capacity problem. The Discharger shall submit a technical report to the Regional Water Board showing how flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Water Board, or within 120 days after receipt of Regional Water Board notification, that the WWTF will reach capacity within 4 years. The time for filing the required technical report may be extended by the Regional Water Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Water Board itself (title 23, CCR, section 2232).

B. Other Provisions

1. **Reopener Provisions**.

   a. **Standard Revisions.** If applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.

   b. **Reasonable Potential.** This Order may be reopened for modification to include an effluent limitation, if monitoring establishes that the discharge causes, or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.

   c. **Salt and Nutrient Management Plans.** The Recycled Water Policy adopted by the State Water Board on February 3, 2009, and effective May 14, 2009, recognizes the fact that some groundwater basins in the state contain salts and nutrients that exceed or threaten to exceed water quality objectives in the applicable Basin Plans, and that not all Basin Plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salt or nutrients. The Recycled Water Policy finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects. The Regional Water Board is developing a plan to address salt and nutrient management. This Order may be reopened to incorporate provisions consistent with any salt and nutrient management plan(s) adopted by the Regional Water Board.

2. **Provisions for Municipal Facilities**

   a. **Sanitary Sewer Overflows**. On May 2, 2006, the State Water Board adopted State Water Board Order No. 2006-0003-DWQ, Statewide General WDRs for Sanitary Sewer Systems. Order No. 2006-0003-DWQ requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the General WDRs by November 2, 2006. On February 20, 2008, the State Water Board adopted Order No. WQ-2008-0002-EXEC Adopting Amended Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The Discharger shall maintain coverage under, and shall be subject to the requirements of Order Nos. 2006-0003-DWQ and WQ-2008-0002-EXEC and any future

revisions thereto for operation of its wastewater collection system. In addition to compliance with Statewide General WDRs for Sanitary Sewer Systems, the Discharger shall comply with the following:

i. The Discharger shall take all feasible steps to stop spills and sanitary sewer overflows (SSOs) as soon as possible. All reasonable steps should be taken to collect spilled material and protect the public from contact with wastes or waste-contaminated soil or surfaces.

ii. The Discharger shall report orally and in writing to the Regional Water Board staff all SSOs and unauthorized spills of waste. Spill notification and reporting shall be conducted in accordance with the Monitoring and Reporting Program (Section V.C).

b. **Discharge of Biosolids**. Biosolids refers to sludge that has been treated, tested, and demonstrated to be capable of being beneficially and legally used pursuant to federal and state regulations as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities.

For the discharge of biosolids from the WWTF, the Discharger shall comply with the following requirements:

i. Statewide General WDRs for Discharge of Biosolids to Land

The beneficial use of biosolids by application to land as soil amendment is not covered or authorized by this Order. Biosolids that are applied to land as soil amendment by the Discharger within the North Coast Region shall comply with State Water Board Water Quality Order No. 2004-12-DWQ (*General Waste Discharge Requirements for the Discharge of Biosolids to Land as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities*) or other permits issued by the Regional Water Board. If the Discharger intends to land apply biosolids, the Discharger shall submit a Notice of Intent to Comply in accordance with the enrollment requirements of Order No. 2004-0012-DWQ; or

ii. Alternatively, the Discharger may dispose of biosolids at another appropriately permitted facility.

iii. New sludge treatment and storage facilities must comply with the Water Code and CCR title 27 requirements for the protection of water quality.

iv. The use and disposal of biosolids shall comply with all of the land application and disposal requirements in 40 CFR 503, which are enforceable by the USEPA, not the Regional Water Board. If during the life of this Order, the State accepts primacy for implementation of 40 CFR 503, the Regional Water Board may also initiate enforcement where appropriate.

c. **Source Control.** The Discharger shall perform source control functions and provide a summary of source control activities conducted in the Discharger's Annual WWTF Report (due March 1st to the Regional Water Board). Source control functions and requirements shall include the following:

i. Implement the necessary legal authorities to monitor and enforce source control standards, restrict discharges of toxic materials and grease to the collection system and inspect facilities connected to the system.

ii. If waste haulers are allowed to discharge to the Facility, establish a waste hauler permit system, to be reviewed by the Regional Water Board Executive Officer, to regulate waste haulers discharging to the collection system or Facility.

iii. Perform public outreach to educate industrial, commercial, and residential users about the importance of preventing discharges of industrial and toxic wastes to the wastewater treatment plant.

iv. Perform ongoing inspections and monitoring of activities at the TRACEN facility that could result in discharges of toxic pollutants, as necessary, to ensure adequate source control. Examples of activities that shall be inspected and/or monitored include, but are not limited to, automotive and machine shops, galley grease traps, and any future soil or groundwater cleanups.

d. **Operator Certification.** Supervisors and operators of 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.

3. Special Studies, Technical Reports, and Additional Monitoring Requirements

a. Agricultural Use Area Sampling

i. The Discharger shall prepare and submit, for approval by the Regional Water Board Executive Officer and Department of Toxic Substances Control (DTSC), a sampling plan describing the Discharger's plan and schedule for sampling soils prior to construction in project areas with a history of agricultural chemical use to determine if hazardous substances are present. The sampling plan shall be submitted to the Regional Water Board and DTSC as soon as possible, but no later than 30 days from the adoption date of this Order.

ii. The Discharger shall complete soil sampling in advance of any soil grading work in agricultural use areas. If soil sampling reveals evidence of release of toxic chemicals, project grading shall not commence until all DTSC requirements are satisfied.

iii. The Discharger shall submit to the Regional Water Board Executive Officer and DTSC, a written report with an analysis of the soil sampling results within 90 days of completing soil sampling. If soil sampling reveals the presence of hazardous substances, the written report shall include a soil cleanup plan, developed in coordination with the DTSC and the Regional Water Board and in accordance with state laws and regulations. The soil cleanup plan shall address plans for excavation, removal, and disposal of contaminated soils off-site to an approved disposal facility.

iv. Subsequent to excavation and removal of any contaminated soils from the site, confirmation soil sampling shall be conducted to demonstrate that cleanup goals have been achieved. Soil sample results shall be submitted to the Regional Water Board Executive Officer and DTSC.

b. Groundwater Monitoring Plan

i. The Discharger shall submit a work plan within 30 days of the adoption date of this Order for concurrence by the Regional Water Board Executive Officer, to determine the impacts on groundwater from each storage pond, including groundwater gradient direction. The work plan shall describe the steps the Discharger intends to follow to site, construct, develop, and sample new monitoring wells for compliance with groundwater monitoring requirements in Attachment C, section IV.A, Table C-9. The work plan shall include the following:

(a) Proposed location(s) of upgradient monitoring well(s) that will be unaffected by the discharge from the Facility, which is in the same formation as the proposed downgradient montoring wells.
(b) Proposed locations to construct groundwater monitoring wells downgradient of each pond
(c) Proposed well construction techniques, including screening intervals.
(d) Surveyed elevations and locations of the proposed wells to the nearest 0.01 foot and 0.1 foot, respectively.
(e) Proposed time schedule for construction of new groundwater monitoring wells and implementation of monitoring new groundwater monitoring wells in place of existing groundwater monitoring wells.

ii. Implementation – Upon concurrence by the Regional Water Board Executive Officer, the Discharger shall construct the new groundwater monitoring wells identified in the groundwater monitoring workplan.

iii. Well Construction Report – The Discharger shall submit a well construction report within 60 days of completing well construction and initial monitoring of the new groundwater monitoring wells. The report shall include monitoring well boring logs, well construction diagrams, well casing and water level elevations, a water level contour map, and sampling and analysis data. The report shall also include a plan for disposal of wastes generated during well construction, development and monitoring activities. Pursuant to Water Code section 13260 and California Code of Regulations Title 27, which regulate land disposal activities, the Regional Water Board requires proof that storage and disposal of non-hazardous waste or inert materials (which may include discarded product or recycled material) will not result in degradation of water quality, human health, or the environment.

XI. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below.

A. Average Monthly Effluent Limitation (AMEL)

The arithmetic mean of all samples collected in a calendar month, calculated as the sum of all samples in a calendar month divided by the number of samples. If only one sample is collected in a calendar month, that sample result will

constitute the monthly average and daily maximum results for the purpose of determining compliance with effluent limitations.

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

B. Average Weekly Effluent Limitation (AWEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

C. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by subsection B, above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

D. Instantaneous Minimum Effluent Limitations

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous

minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

E. Instantaneous Maximum Effluent Limitations

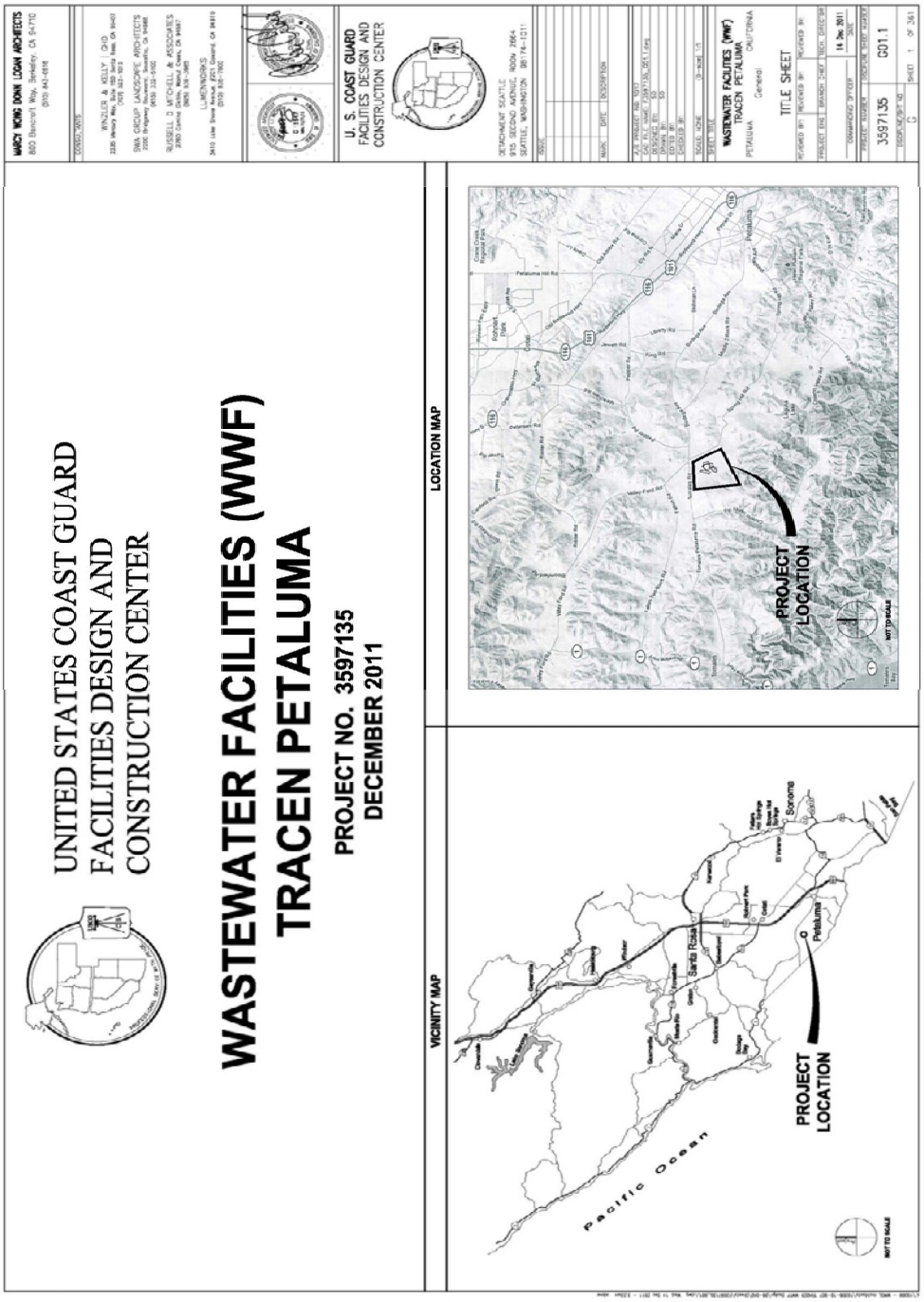
If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

F. Bacteriological Limitations

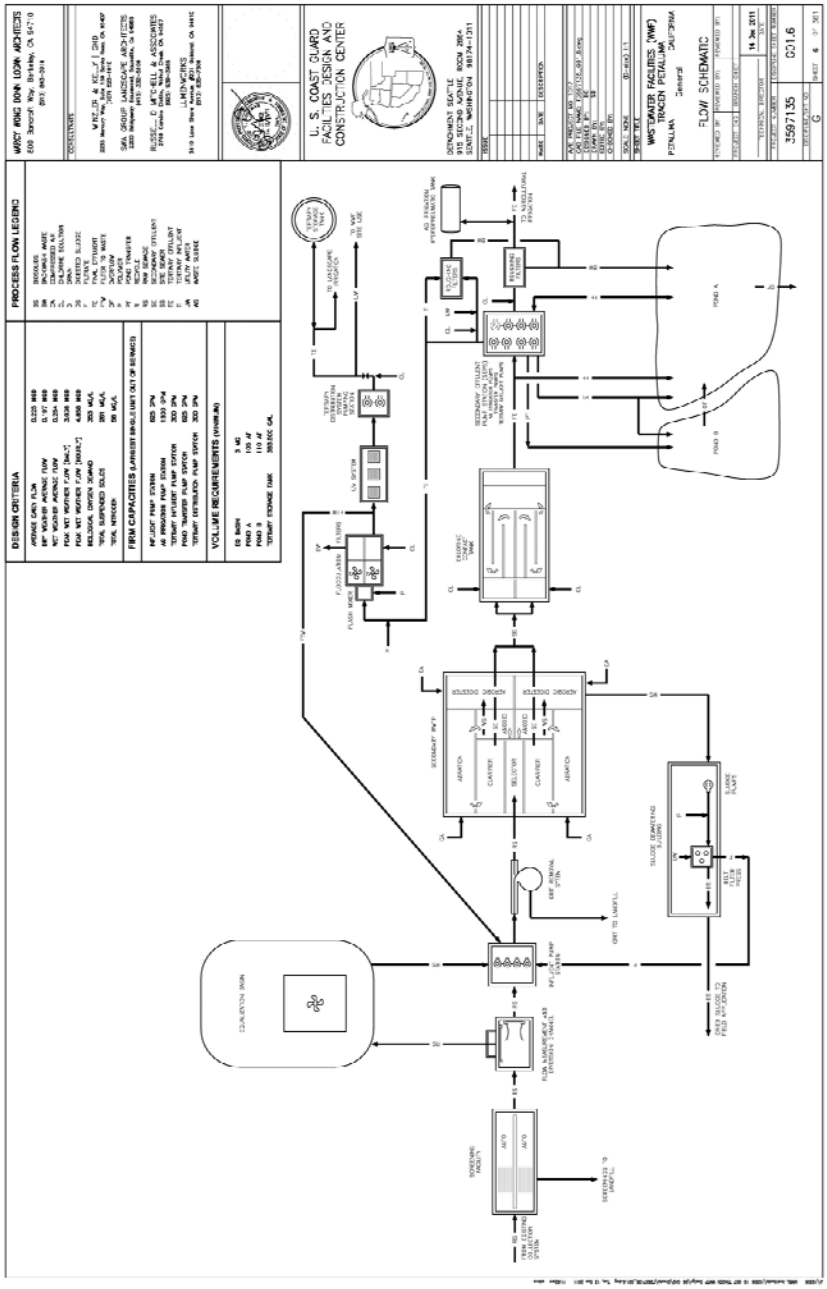
1. Median. The median is the central tendency concentration of the pollutant. The data set shall be ranked from low to high, ranking the ND concentrations lowest, DNQ determinations next, followed by quantified values. The order of the individual ND and DNQ determinations is not important. The median value is determined based on the number of data points in the data set. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, the median is the average of the two middle values, unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two middle data points. DNQ is lower than a detected value, and ND is lower than DNQ.

2. Compliance with the 7-day median will be determined as a rolling median during periods when sampling occurs more frequently than weekly. During periods when sampling is weekly, this requirement shall apply to each weekly sample.

ATTACHMENT A – FACILITY LOCATION MAP



ATTACHMENT B – FACILITY FLOW SCHEMATIC



ATTACHMENT C– MONITORING AND REPORTING PROGRAM

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ATTACHMENT C – MONITORING AND REPORTING PROGRAM (MRP) NO. R1-2012-0033

California Water Code sections 13267 and 13383 authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement California regulations.

I. GENERAL MONITORING PROVISIONS

A. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

B. Laboratories analyzing monitoring samples shall be certified by the California Department of Public Health (CDPH; formerly the Department of Health Services), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

C. Compliance and reasonable potential monitoring analyses shall be conducted using commercially available and reasonably achievable detection limits that are lower than the applicable effluent limitation. If no minimum level (ML) value is below the effluent limitation, the lowest ML shall be selected as the reporting level (RL).

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table C-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	INF-001	Untreated influent wastewater collected at the Facility headworks at a representative point preceding primary treatment
--	INT-001	Internal monitoring location for purposes of monitoring effluent turbidity following the tertiary filters
---	INT-002	Internal monitoring location for purposes of monitoring disinfected tertiary recycled water to demonstrate compliance with ultraviolet light discharge specifications.
001	EFF-001	Disinfected secondary treated recycled water from the Facility following the chlorination disinfection system prior to discharge to secondary recycled water storage ponds.
002	EFF-002	Disinfected, tertiary treated recycled water from the Facility following the ultraviolet light disinfection system prior to discharge to tertiary recycled water holding tank.

Table C-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	REC-003	Secondary treated recycled water discharged to the agricultural reclamation system.
004	REC-004	Disinfected, tertiary recycled water discharged to urban irrigation areas
--	MW-1, MW-2, MW-3	Groundwater Monitoring Wells

III. MONITORING REQUIREMENTS

A. Monitoring Location INF-001

Table C-2. Influent Monitoring – Monitoring Location INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow (Average Daily)	mgd	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite	Weekly
Total Suspended Solids	mg/L	24-hr Composite	Weekly
pH	std units	Grab	Weekly

B. Monitoring Secondary Effluent – Monitoring Location EFF-001

Table C-3. Effluent Monitoring – Monitoring Location EFF-001

When discharging to effluent storage ponds at Discharge Point 001, the Discharger shall monitor treated effluent at Monitoring Location EFF-001 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow (Average Daily)[1]	mgd	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	Grab	Weekly
Total Suspended Solids	mg/L	Grab	Weekly
Total Coliform Organisms	MPN/100 mL	Grab	Daily

[1] Flow monitoring may occur immediately upstream of the chlorine contact basin.

Table C-3. Effluent Monitoring – Monitoring Location EFF-001

When discharging to effluent storage ponds at Discharge Point 001, the Discharger shall monitor treated effluent at Monitoring Location EFF-001 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	std units	Grab	Weekly
Total Chlorine Residual	mg/L	Meter	Continuous[2]

C. Monitoring Tertiary Effluent – Monitoring Locations INT-001, INT-002, and EFF-003

1. **Filtration Process Monitoring.** Filtration process monitoring shall demonstrate compliance with Reclamation Specification VI.A (Filtration Process Requirements) of the Order. The following filtration process monitoring, reporting, and compliance requirements shall apply.

   a. **Monitoring.** The Discharger shall monitor effluent following the tertiary filters at Monitoring Location INT-001 and prior to disinfection as follows:

Table C-4 Effluent Monitoring – Monitoring Location INT-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Turbidity	NTU	Meter	Continuous

The turbidity of the filter effluent shall be continuously measured and recorded. Should the turbidity meter and recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24 hours. The recorded data shall be maintained by the Discharger for at least 3 years. The daily maximum, daily average, and 95th percentile turbidity results shall be reported for monitoring location INT-001 on the monthly monitoring reports.

   b. **Compliance.** Compliance with the turbidity limitations specified in the California Code of Regulations Water Recycling Criteria (title 22), as referenced in Reclamation Specification VI.A of the Order shall be determined as follows:

[2] Report lowest daily chlorine residual.

i. Compliance with the daily average turbidity reclamation specification shall be determined by averaging all turbidity readings collected in a calendar day, using the levels of recorded turbidity taken at intervals of no more than 1.2 hours over a 24-hour period.

ii. Compliance with the 95th percentile effluent turbidity reclamation specification shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2 hours over a 24-hour period.

iii. Exceedances of the maximum turbidity requirement shall not be considered a violation of these waste discharge requirements if such exceedance does not exceed one minute.

c. **Reporting.**

i. The Discharger shall report the daily maximum and 95th percentile (24-hour period) result for each day that effluent is processed through the tertiary filters.

ii. If the filter turbidity exceeds 2 NTU based on a daily average or 5 NTU for more than 15 minutes, the incident shall be reported in the monthly self-monitoring report.

iii. If the filter effluent turbidity exceeds 10 NTU at any time, the event shall initiate a plant shut down, diversion of inadequately treated wastewater to temporary storage or an upstream treatment process, and the incident shall be reported to the California Department of Health and the Regional Water Board by telephone within 24 hours in accordance with General Provision IX.A.12 of the Order. A written report describing the incident and the actions undertaken in response shall be included in the monthly self-monitoring report.

2. UV Disinfection Process Monitoring. UV disinfection process monitoring shall demonstrate compliance with section VI.B.2 (Ultraviolet Light Disinfection System) of the Order. The following process monitoring, reporting and compliance requirements shall apply.

a. **Monitoring.** The Discharger shall monitor effluent following the UV disinfection process at Monitoring Location INT-002 and prior to transfer to the tertiary effluent storage tank as follows:

Table C-5 Effluent Monitoring – Monitoring Location INT-002

Parameter	Units	Sample Type	Minimum Sampling Frequency
Operational UV Dose	mJ/cm^2	Calculation	30-minute intervals
UV Transmittance	percent	meter	continuous

The UV transmittance of the effluent from the UV disinfection system shall be monitored continuously and recorded. The operational UV dose shall be calculated from the UV transmittance and exposure time, using lamp age and sleeve fouling factors.

b. **Compliance.** Compliance with the UV disinfection process requirements specified in the California Code of Regulations Water Recycling Criteria (title 22), as referenced in Reclamation Specification VI.B.2 of the Order shall be determined as follows:

i. The UV transmittance shall not fall below 55 percent of maximum at any time, unless otherwise approved by CDPH.

ii. The operational UV dose shall not fall below 100 millijoules per square centimeter (mJ/cm^2) at any time, unless otherwise approved by CDPH.

c. **Reporting.**

i. The Discharger shall report daily average and lowest daily transmittance and operational UV dose on its monthly monitoring reports.

ii. If the UV disinfection equipment fails, the UV transmittance falls below 55 percent, or the UV dose falls below 100 mJ/cm^2 at any time, the event shall initiate a plant shut down, diversion of inadequately treated wastewater to temporary storage or an upstream treatment process, and the event shall be reported to the Regional Water Board and CDPH by telephone within 24 hours in accordance with General Provision IX.A.12 of the Order. A written report describing the incident and the actions undertaken in response shall be included in the monthly self-monitoring report.

3. Tertiary chlorine disinfection process monitoring shall apply as follows: demonstrate compliance with Effluent Limitation IV.B.1 (Total Coliform Bacteria) and Reclamation Specification VI.B.1 (Chlorine Disinfection System) of the Order. The following process monitoring, reporting and compliance requirements shall apply:

a. **Monitoring.** When transferring tertiary recycled water to Discharge Point 002 (tertiary recycled water tank), the Discharger shall monitor treated effluent at Monitoring Location EFF-002 as follows:

Table C-6. Effluent Monitoring – Monitoring Location EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow (Mean Daily)	mgd	Meter	Continuous
Total Coliform Organisms	MPN/100 mL	Grab	Daily

b. **Compliance.** Tertiary chlorine disinfection monitoring results shall demonstrate compliance with the tertiary disinfection process requirements specified in the California Code of Regulations Water Recycling Criteria (title 22), as referenced in Reclamation Specification VI.B.1 of the Order.

c. **Reporting.**

i. The Discharger shall report the results of daily total coliform bacteria monitoring, running 7-day median calculation, and maximum daily coliform reading.

ii. If effluent total coliform exceeds 240 MPN/100 mL, the event shall initiate a plant shut down, diversion of inadequately treated wastewater to temporary storage or an upstream treatment process, and the incident shall be reported to the California Department of Health and the Regional Water Board by telephone within 24 hours in accordance with General Provision IX.A.12 of the Order. A written report describing the incident and the actions undertaken in response shall be included in the monthly self-monitoring report.

D. Monitoring Reclamation (Discharge Monitoring Points 003 and 004)

1. Reclamation Water Quality Monitoring

When discharging at Discharge Point 003 (agricultural irrigation area) or 004 (urban landscape irrigation areas), the Discharger shall monitor treated effluent at Monitoring Location REC-003 and/or REC-004 as follows:

Table C-7. Effluent Monitoring – Monitoring Location REC-003/REC-004

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow (Mean Daily)	mgd	Meter	Continuous
Total Nitrogen[3] (as N)	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Boron	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Priority Pollutants[4], [5]	µg/L	Grab	Twice Annually
Visual Observations[6]	---	---	Weekly

2. **Reclamation Water Production and Use**

Recycled water quality characteristics and precipitation data shall be used to ascertain nitrogen loading rates to the agricultural and urban recycled water use sites. The following information shall be reported during periods that recycled water is being delivered to agricultural or urban recycled water use sites:

Table C-8. Recycled Water Production and Use

Parameter	Units	Sample Type	Minimum Sampling Frequency
Volume of recycled water[7]	Acre-feet	Meter	Monthly

[3] Total Nitrogen is comprised of nitrate, nitrite, ammonia and organic nitrogen.

[4] The Discharger shall monitor for pollutants identified in the California Toxics Rule at 40 CFR 131.38.

[5] Priority pollutant monitoring is required at REC-004 only in accordance with the Recycled Water Policy requirement for semi-annual priority pollutant monitoring at landscape irrigation sites. Monitoring shall occur during the normal landscape irrigation season (between May and October). The first two monitoring events shall be for the complete list of CTR pollutants. Monitoring may be reduced to those pollutants that are present at, or near, the applicable water quality objectives.

[6] During periods of discharge to the reclamation distribution system, visual observations shall be conducted at least weekly to verify compliance with recycled water requirements in the Order and shall confirm proper operation of the recycled water system and associated BMPs, and include a record of any malfunctions or findings of improper operation, including, but not limited to odors, evidence of surface run-off, or ponding that exceeds 24-hours. The monthly monitoring report shall include the daily volume of treated wastewater discharged to the irrigation system and any observations indicating non-compliance with the provisions of the waste discharge requirements.

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total area of application	Acres	Observation	Monthly
Total Nitrogen application rate[8,9]	Lbs/Acre-Month	Calculation	Monthly
Rainfall	Inches	Gage	Daily

3. **Reclamation Compliance Reporting**

   The Discharger shall submit the following records regarding the reclamation system with its monitoring reports:

   a. A summary of any operational problems, equipment or process malfunctions, and any diversion of recycled water that does not meet the requirements specified in this Order; and

   b. A detailed description of any corrective or preventative actions taken.

IV. RECEIVING WATER MONITORING REQUIREMENTS

A. Groundwater Monitoring

1. The Discharger shall monitor groundwater at groundwater approved monitoring well locations as follows:

Table C-9. Groundwater Monitoring – Monitoring Wells

Parameter	Units	Sample Type	Minimum Sampling Frequency
Depth to Groundwater	0.01 feet	Grab	2x / Year
Nitrogen, Total (as N)	mg/L	Grab	2x / Year
Total Dissolved Solids	mg/L	Grab	2x / Year
Chloride	mg/L	Grab	2x / Year
Boron	mg/L	Grab	2x / Year
Sodium	mg/L	Grab	2x / Year

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7 Estimation of the volume of recycled water shall not include other potable or non-potable "make-up" water used in conjunction with recycled water.

8 Nitrogen application rate shall consider nitrogen content of the recycled water, based on effluent monitoring data.

9 Nitrogen concentrations shall be calculated and reported "as N". For example, nitrate-nitrogen = 27 mg/L as NO_3 shall be converted and reported as nitrate-nitrogen = 6.1 mg/L as N using a conversion factor of 14.067 (N)/62.0049 (NO_3)

2. The Discharger shall submit a written plan to demonstrate compliance with Receiving Water Limitation IX.A.5 of the Order.

V. REPORTING REQUIREMENTS

A. Self-Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs to the Regional Water Board. The CIWQS Web site will provide additional directions for SMR submittal in the event of a service interruption for electronic submittal.

2. The Discharger shall submit monthly SMRs including the results for all monitoring specified in this MRP. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. All monitoring results shall include complete laboratory data sheets for each analysis and be submitted in conjunction with the monthly SMR.

4. Monitoring periods for all required monitoring shall be completed according to the following schedule:

Table C-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	May 1, 2012	All	First day of second calendar month following month of sampling
Daily	May 1, 2012	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	-------
Monthly	May 1, 2012	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
Quarterly	May 1, 2012	January-March April-June July-September October-December	First day of second calendar month following the quarter of sampling

Table C-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
2X / Year	June 1, 2012	June and November	First day of second calendar month following month of sampling (August and January)
Annually	May 1, 2012	January 1 through December 31	March 1 each year

5. **Reporting Protocols**. The Discharger shall report with each sample result the applicable ML, the RL and the current MDL, as determined by the procedure in Standard Methods.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

   d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

VI. Self-Monitoring Reports. The Discharger shall submit self-monitoring reports (SMRs) in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the Facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:

   i. Facility name and address;

   ii. WDID number;

   iii. Applicable period of monitoring and reporting;

   iv. Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation);

   v. Corrective actions taken or planned; and

   vi. The proposed time schedule for corrective actions.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the General Provisions, to the address listed below:

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

B. Other Reports

1. **Annual Report.** The Discharger shall submit an annual report to the Regional Water Board for each calendar year. The report shall be submitted by March 1st of the following year. The report shall, at a minimum, include the following:

   a. **Monitoring Data Summaries.** Both tabular and, where appropriate, graphical summaries of the monitoring data and disposal records from the previous year. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved under section Part

136 or as specified in this Order, the results of this monitoring shall be included in the calculation and report of the data submitted in the SMR.

b. **Annual Recycled Water Report.** The Discharger shall submit an annual recycled water report that shall include:

i. A compliance summary and discussion of the compliance record for the prior calendar year, including:

(a) If violations occurred during the monitoring period, the report shall discuss the corrective actions taken and planned to bring the reclamation system into full compliance with this Order.

(b) An evaluation verifying that the application of recycled water occurred at reasonable agronomic rates as identified in the Irrigation Management Plan for the Facility and utilizing the data required by Table C-8 of the MRP. If the agronomic rate evaluation determines that exceedances of the agronomic rate may be occurring, the Discharger shall identify and implement corrective actions to ensure recycled water use occurs at reasonable agronomic rates.

(c) Certification that all reasonable BMPs and management practices were implemented to ensure efficient and compliant operation of the recycled water system.

(d) Identification of any other problems that occurred in the recycled water system during the prior year and plans to rectify those problems in the coming year.

ii. A summary of scheduled and unanticipated maintenance of the reclamation system appurtenances and irrigation areas;

iii. Copies of any approval letter(s) prepared by CDPH regarding any amendments to the title 22 Recycled Water Engineering Report and a description of approved changes to the reclamation system; and

iv. Documentation of compliance with California Health and Safety Code section 116815 (regarding the installation and marking of recycled water piping) identified in Reclamation Requirement VII.B.15.

c. **Compliance Reporting.** A comprehensive discussion of the Facility's compliance (or lack thereof) with all effluent limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.

d. **Contact Information.** The names and telephone numbers of persons to contact regarding the Facility for routine and emergency situations.

e. **Calibration Records.** A statement certifying when monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

f. **Operation and Maintenance (O&M) Manual and Spill Contingency Plan Review.** A statement certifying whether the current O&M manual and spill contingency plan reflect the wastewater treatment facility as currently constructed and operated, and the dates when those documents were last reviewed and last revised for adequacy.

g. **Source Control Activity Reporting.** The Discharger shall submit a description of the Discharger's source control activities performed during the calendar year, as required by Provision X.B.2.c in the Order, including:

   i. A copy of any source control standards.

   ii. A summary of any inspections or monitoring conducted during the previous year of TRACEN departments or activities that may contribute pollutants that should not be discharged to the wastewater treatment facility.

   iii. A summary of public education and public participation activities to involve and inform the TRACEN population regarding pollutants that should not be discharged to the wastewater treatment facility.

h. **Biosolids Handling and Disposal Activity Reporting.** The Discharger shall submit a description of the solids handling, disposal and reuse activities over the previous twelve months. At a minimum, the report shall contain:

   i. Annual sludge production, in dry tons and percent solids.

   ii. A schematic diagram showing sludge handling facilities (e.g., digesters, thickeners, drying beds, etc.), if any, and a solids flow diagram.

   iii. Methods of final disposal of sludge:

      (a) For any portion of sludge discharged to a sanitary landfill, the Discharger shall provide the volume of sludge transported to the land fill, the names and locations of the facilities receiving sludge, the Regional Water Board's WDRs order number for the regulated landfill, and the landfill classification.

(b) For any portion of sludge discharged through land application, the Discharger shall provide the volume of biosolids applied, the date and locations where biosolids were applied, the Regional Water Board's WDRs order number for the regulated discharge, a demonstration that the discharge was conducted in compliance with applicable permits and regulations, and, if applicable, corrective actions taken or planned to bring the discharge into compliance with WDRs.

(c) For any portion of sludge further treated through composting, the Discharger shall provide a summary of the composting process, the volume of sludge composted, and a demonstration and signed certification statement that the composting process and final product met all requirements for Class A biosolids.

i. **Sanitary Sewer System Reporting.** The Discharger shall submit a description of the Discharger's activities within the sanitary sewer system over the previous calendar year. The report shall contain:

(a). A description of efforts to reduce infiltration and inflow;

(b). A description of any change in the local legal authorities enacted to implement the Sewer System Management Plan (SSMP);

(c). A summary of the SSOs that occurred in the past year. The summary shall include the date, location of overflow point, affected receiving water (if any), estimated volume, and cause of the SSO;

(d). A summary of compliance and enforcement activities during the past year. The summary shall include fines, other penalties, or corrective actions taken as a result of the SSO. The summary shall also include a description of public participation activities to involve and inform the public; and

(e). Documentation that all feasible steps to stop and mitigate impacts of SSOs have been taken.

C. Spills and Overflows Notification

1. All spills, unauthorized discharges, and sanitary sewer overflows (SSOs) equal to or in excess of 1,000 gallons or any size spill or SSO that result in a discharge to a drainage channel or a surface water:

a. As soon as possible, but not later than **two (2) hours** after becoming aware of the discharge, the Discharger shall notify the California Emergency

Management Agency (CalEMA), the local health officer or directors of environmental health with jurisdiction over affected water bodies or land areas, and the Regional Water Board.[10]

Information to be provided verbally to the Regional Water Board includes:

i. Name and contact information of caller;
ii. Date, time and location of spill occurrence;
iii. Estimates of spill volume, rate of flow, and spill duration;
iv. Surface water bodies impacted, if any;
v. Cause of spill;
vi. Cleanup actions taken or repairs made; and
vii. Responding agencies.

b. As soon as possible, but not later than **twenty-four (24) hours** after becoming aware of a discharge, the Discharger shall submit to the Regional Water Board a certification that CalEMA and the local health officer or directors of environmental health with jurisdiction over affected water bodies or land areas have been notified of the discharge. For the purpose of this requirement, "certification" means a CalEMA certification number and, for the local health department, name of local health staff, department name, phone number and date and time contacted.

c. Within **five (5) business days**, the Discharger shall submit a written report to the Regional Water Board office. The report must include information provided in the verbal notification and additional information as follows:

i. Other agencies notified by telephone and copies of reports submitted to other agencies;
ii. All available details related to the cause of the spill;
iii. Detailed description of cleanup actions and repairs taken; and
iv. Description of corrective actions that will be taken to minimize or prevent future spills.

d. In the cover letter of the monthly report, the Discharger shall include a brief written summary of the event and any additional details related to the cause or resolution of the event, including, but not limited to results of any water quality monitoring conducted.

2. All spills, unauthorized discharges, and sanitary sewer overflows (SSOs) less than 1,000 gallons that do not reach a drainage channel or a surface water:

[10] The contact number for spill reporting for the CalEMA is (800) 852-7550. The contact number of the Regional Water Board during normal business hours is (707) 576-2220. After normal business hours, spill reporting to CalEMA will satisfy the 2 hour notification requirement for the Regional Water Board.

a. As soon as possible, but not later than **twenty-four (24) hours** after becoming aware of the discharge, the Discharger shall notify the Regional Water Board and provide the applicable information in requirement 1.a of this section.

b. In the cover letter of the monthly monitoring report, the Discharger shall include a written description of the spill event.

ATTACHMENT D – FACT SHEET

I. FACILITY INFORMATION

A. Background

The U.S. Coast Guard Petaluma Training Facility (hereinafter Discharger) is currently discharging pursuant to Waste Discharge Requirements Order No. 85-162. The Discharger submitted a Report of Waste Discharge (ROWD), on July 13, 2006 and May 20, 2011, and applied for renewal of waste discharge requirements to discharge up to 0.197 mgd ADWF of treated wastewater from the U.S Coast Guard Training Facility Wastewater Treatment Facility (hereinafter Facility) to land owned by the Discharger. The July 13, 2006, ROWD contained information about the Discharger's existing Facility and general information about the Discharger's plans to upgrade the Facility. By letter dated December 15, 2006, Regional Water Board staff deemed the ROWD incomplete due to the fact that a final project had not been selected to resolve compliance issues at the Facility. The ROWD needed to be amended to identify the selected project before proceeding with revision of the WDRs. In addition, a certified environmental document was necessary prior to the adoption of WDRs to demonstrate that the project complies with CEQA. The May 20, 2011, ROWD contains information about the Discharger's Facility upgrade project, documentation of completing and certifying environmental documents, and additional information needed to complete the ROWD. The Discharger submitted additional information to complete the ROWD on August 24, 2011.

B. General Facility Information

The Discharger owns and operates a wastewater collection, treatment, and disposal facility that provides sewerage service to residential and commercial parcels at the Petaluma Training Center (TRACEN) and the Two Rock Elementary School located outside of the TRACEN boundary. The TRACEN Facility currently supports a population of 1,350 people, with 127 family housing units, dining facilities for up to 600 students, and office, recreational, and workspace areas for approximately 500 instructors, and support and auxiliary personnel. In addition, the Facility has a recreational vehicle dump station approximately 3,000 feet from the headworks, and accepts sewage trucked from the U.S. Coast Guard Point Reyes Station housing site.

The Discharger identified plans to expand the treatment capacity of the Facility to accommodate planned expansion of housing and classroom facilities at TRACEN. Specifically, the Discharger is planning to expand housing and classroom facilities in

two phases. The first phase will result in a population increase from 1,350 (current) to 1,700 and the second phase will result in a population increase to 2,200.

C. Existing Wastewater Treatment and Reclamation Facility

The existing Facility is designed to provide secondary treatment and disinfection for an average dry weather flow of up to 0.1 mgd. Daily flows in the wet weather months can average more than 0.3 mgd. The existing Facility consists of a headworks with influent flow meter and grease trap, three facultative treatment ponds, and chlorination facilities utilizing gaseous chlorine. The existing Facility also includes two effluent storage ponds and one emergency storage pond for a total storage volume of 5.1 million gallons, and 28.5 acres of pasture on land owned by the Discharger that is irrigated with disinfected secondary effluent. The existing Facility is inadequately designed to meet the goal of storing treated effluent during the winter months and reclaiming disinfected, secondary effluent during dry months. For many years, the effluent has not consistently met water quality standards and requirements in Order No. 85-162. In addition, storage volume is insufficient to handle winter season wastewater flows, rainfall, and infiltration and inflow (I&I) and the Discharger has discharged disinfected, secondary treated effluent to land adjacent to Stemple Creek to prevent overtopping of its storage ponds. These violations resulted in Cease and Desist Order No. 98-33 being adopted by the Regional Water Board on March 26, 1998.

The wastewater collection system consists of approximately 30,000 linear feet of various pipe materials, including polyvinyl chloride, high density polyethylene (HDPE), cast iron, ductile iron, and vitrified clay that range in size from 4 to10 inches in diameter. The majority of all sanitary sewer flow is conveyed by gravity to the Facility. The Discharger is enrolled under State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*. The Discharger has identified I&I as a problem. The Discharger has completed evaluations of its collection system to identify sources of I&I, including video surveys, smoke testing, and dye studies and has a program to systematically repair and replace problematic areas of the collection system, including lift stations, pipeline, and manholes. Based on an I&I study in 2010, the Discharger has identified approximately 3,800 lineal feet of collection system pipeline and 49 manholes for replacement or repair.

In 2011, grease interceptors were constructed at food handling facilities at TRACEN to prevent the gross discharge of grease to the collection system.

D. New Wastewater Treatment and Reclamation Facility

The Discharger plans to upgrade the Facility to address deficiencies with the existing system; improve reliability; increase treatment, storage, and disposal capacity to accommodate planned expansion of housing and classroom facilities at TRACEN; and add tertiary treatment for part of the flow so that urban areas of the Facility can be

irrigated with recycled water. The Discharger plans to construct wastewater treatment and storage facilities to handle the increased population of 2,200 (phase 2), although some facilities, such as aeration basins needed for phase 2 may be constructed, but no aeration equipment would be installed until needed. The reclamation system will be constructed to handle recycled water flows that result from the phase 1 population increase and will be expanded when the population increases above the phase 1 population of 1,700.

The new Facility includes a new headworks including flow monitoring and automated screening and grit removal; a flow equalization basin; secondary treatment facilities consisting of an activated sludge system with biological nutrient removal (BNR); and chlorine disinfection facilities utilizing sodium hypochlorite. The activated sludge units consist of primary and secondary aeration basins, settling compartments and aerobic digestion compartments. BNR will be accomplished using sequenced aeration in a series of aeration tank compartments. The secondary treatment facility will be divided into two trains to provide flexibility of loading efficiency and redundancy for maintenance. The new secondary treatment process units are designed to treat an average dry weather flow of 0.197 mgd and a sustained flow of 625 gallons per minute (0.9 mgd) for a duration of a month. The influent pumps will be set at 0.9 mgd to ensure that the peak treatment capacity is never exceeded and excess influent flows will be directed to the flow equalization basin which will allow the facility to handle a peak wet weather flow of 3.036 mgd. This is the flow that is identified as the peak wet weather flow in Table 3 and Discharge Prohibition III.J of the Order.

The new Facility also includes sludge handling and storage facilities that will consist of a belt filter press housed in an enclosed building and 6 bays of redundant dewatering facilities and storage. All of the storage bays will be constructed with concrete floors. Two of the storage bays will be outfitted with synthetic filter media to act as sludge drying beds for redundancy in operations. All bays slope toward a trench drain that will route flows back to the headworks for treatment. The Discharger plans to land apply treated, dewatered sludge on-site and plans to enroll under the statewide biosolids general permit and will develop a sludge management plan consistent with that permit.

The new Facility will also include expanded storage ponds with a capacity of 70 million gallons and disposal of disinfected secondary treated effluent on 84 acres of agricultural spray fields owned by the Discharger and used by a local rancher to grow grass crop to be harvested and used as feed for dairy cows. Initially, the Discharger plans to develop 73 acres of agricultural spray field. An additional 11 acres of agricultural spray field will be added when expansion of the training facility campus requires the additional spray fields.

The new Facility will also include tertiary wastewater treatment facilities that will consist of coagulation, filtration, and ultraviolet (UV) light disinfection for reuse on 25

acres of urban landscape areas on the TRACEN property. The tertiary facility will be designed to treat 300 gallons per minute and will typically be operated 8 to 10 hours per day during the dry season to produce the volume of tertiary recycled water needed to meet the urban irrigation demand. The Facility includes a 380,000 gallon holding tank for temporary storage of tertiary recycled water. This volume corresponds to two days of maximum landscape irrigation demand.

The new Facility has been designed to meet the standards for disinfected secondary and disinfected tertiary recycled water contained in Chapter 3, Division 4, title 22 of the California Code of Regulations.

Attachment A provides a map of the area around the Facility, and Attachment B provides a Facility flow schematic.

II. FINDINGS

A. Legal Authorities. This Order serves as Waste Discharge Requirements (WDRs) for discharges to land issued pursuant to section 13263 of the California Water Code (Water Code). This Order also serves as Reclamation (Recycled Water) Requirements pursuant to section 13523 of the Water Code.

B. Basin Plan. As required by Water Code section 13263(a), these WDRs are crafted to implement the Water Quality Control Plan for the North Coast Region (Basin Plan), and in so doing, the Regional Water Board has taken into consideration the beneficial uses to be protected, the water quality objectives (both numeric and narrative) reasonably required for that purpose, other (including previous) waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241. The Basin Plan contains implementation plans and policies for protecting waters of the basin. The Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

Thus, beneficial uses applicable to area groundwater within the Estero Americano Area of the Bodega Hydrologic Unit to be protected are as follows:

1. Municipal and Domestic Supply (MUN)
2. Agricultural Water Supply (AGR)
3. Freshwater Replenishment to Surface Waters (FRSH)

The Facility is located immediately adjacent to Stemple Creek, a tributary to the Estero Americano. The existing and potential beneficial uses of the Estero Americano Hydrologic Area of the Bodega Hydrologic Unit (waters potentially affected by the proposed activity) that are to be protected are as follows:

1. Municipal and Domestic Supply (MUN)
2. Agricultural Supply (AGR)
3. Industrial Service Supply (IND)
4. Process Water Supply (PRO)
5. Groundwater Recharge (GWR)
6. Navigation (NAV)
7. Water Contact Recreation (REC-1)
8. Non-Contact Water Recreation (REC-2)
9. Commercial and Sport Fishing (COMM)
10. Cold Freshwater Habitat (COLD)
11. Wildlife Habitat (WILD)
12. Rare, Threatened, or Endangered Species (RARE)
13. Marine Habitat (MAR)
14. Migration of Aquatic Organisms (MIGR)
15. Spawning, Reproduction, and/or Development (SPWN)
16. Shellfish Harvesting (SHELL)
17. Estuarine Habitat (EST)
18. Aquaculture (AQUA)

C. California Water Code. The California Water Code (Water Code) establishes the authority for the Regional Water Board to establish water quality objectives, impose discharge prohibitions, and prescribe waste discharge and reclamation requirements. Water Code section 13241 requires each regional board to "establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance […]." The control of pollutants discharged is established through effluent limitations and other requirements in WDR permits. Water Code section 13243 provides that "A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted. Water Code section 13260 et seq establishes regulations associated with the prescription of waste discharge requirements and Water Code Chapter 7 (section 13500 et seq) establishes regulations associated with the prescription of reclamation requirements.

It is the Regional Water Board's intent that this Order shall ensure attainment of water quality standards, applicable water quality objectives, and protection of beneficial uses

of receiving waters. This Order therefore requires the Discharger to comply with all prohibitions, effluent limitations, discharge specifications, reclamation specifications, reclamation provisions and requirements, receiving water limitations, standard provisions, and monitoring and reporting requirements. The Order further prohibits discharges from causing violations of water quality objectives or causing conditions to occur that create a condition of nuisance or water quality impairment in receiving waters as a result of the discharge.

D. California Code of Regulations (CCR). The discharge authorized herein and the treatment and storage facilities associated with the discharge are exempt from the requirements of title 27, CCR, section 20005 et seq. The exemption, pursuant to section 20090(b) of title 27, allows for the exemption of discharges of wastewater if;

1. The applicable Regional Board has issued WDRs;
2. The discharge is in compliance with the applicable water quality control plan (Basin Plan); and
3. The wastewater does not need to be managed as a hazardous waste.

E. Water Reclamation. The following findings establish additional legal authorities for the regulation of recycled water.

1. In 1977, the State Water Board adopted Resolution 77-1, titled *Policy with Respect to Water Reclamation in California* (Resolution 77-1). Resolution 77-1, in part, encourages the use of recycled water in the state.

2. The California Department of Public Health (CDPH) has established statewide reclamation criteria in Chapter 3, Division 4, title 22, CCR, sections 60301 through 60355 (hereinafter title 22) for the use of recycled water for irrigation, impoundments, cooling water, and other purposes. The CDPH has also established Guidelines for Use of Reclaimed Water. This Order implements the title 22 recycled water criteria.

3. In 1996, the State Water Board and CDPH 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 [now CDPH] and the State Water Resources Control Board on the Use of Reclaimed Water (MOA). This Order is consistent with the MOA.

4. On February 3, 2009, the State Water Board adopted Resolution 2009-0011, titled *Adoption of a Policy for the Water Quality Control of Recycled Water* (Recycled Water Policy) (Resolution 2009-0011). The goal of Resolution No. 2009-0011 is to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code section 13050(n). In accordance with the Recycled Water Policy, activities involving recycled water use that could impact high quality

waters are required to implement best practicable treatment or control of the discharge necessary to ensure that pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.

F. Antidegradation Policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, the State antidegradation policy. The permitted discharge is consistent with the provisions of State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California.

The Discharger submitted an antidegradation analysis of the proposed Facility upgrade project that analyzed the potential for degradation from the treatment, storage, secondary irrigation, and tertiary irrigation facilities. Although the treatment capacity of the existing Facility will be increased, it will provide a higher level of treatment, as well as increased storage and reclamation capacity to address deficiencies in the existing storage and reclamation facilities.

The upgraded secondary treatment facility will result in a decrease in effluent concentrations of biochemical oxygen demand (BOD), total suspended solids, and nitrogen. Average BOD concentrations are estimated to drop from 37 mg/L to less than 30 mg/L; average total suspended solids concentrations are estimated to drop from 67 mg/L to less than 45 mg/L, and total nitrogen concentrations are estimated to be below 10 mg/L due to the addition of a biological nitrogen removal process. BOD and TSS loadings will drop during the first two phases of project construction and will be slightly higher if and when build-out flows are reached. At build-out flows, the secondary treatment system is estimated to result in an increase in BOD loading from 39 lb/day to a maximum of 56 lb/day while the TSS loading is estimated to increase from 70 lb/day to a maximum of 85 lb/day. Loading increases are expected to be less than the maximum values identified because treatment efficiencies are expected to be better than the maximum concentrations projected (resulting in lower than the maximum projected loadings). In addition, storage pond BMPs (synthetic liners and aeration) and irrigation BMPs (agronomic rates and the cessation of wet-weather irrigation) are also expected to result in lower loadings.

Secondary treated effluent will be stored in ponds that are lined with an engineered synthetic liner (60 mil textured HDPE) to minimize the potential for leakage. The storage ponds will be constructed in areas of tight clay soils with impermeabilities exceeding 1×10^{-6} cm/sec. The analysis of potential leakage through the lined secondary storage ponds predicted leakage of no more than 21 gpd and estimated groundwater base flow of approximately 620 gpd. In addition, storage ponds will be equipped with solar mixers to reduce the potential for algal blooms by providing

adequate mixing and distribution of water in the storage ponds. The antidegradation analysis included an evaluation of pollutants of concern (ammonia, chloride, nitrate, total dissolved solids, sodium, pH, and total coliform) and demonstrated that storage of secondary effluent in lined storage ponds could potentially result in minor increases of several pollutants (ammonia, chloride, nitrate, and sodium) in groundwater at concentrations that would not result in any exceedances of applicable water quality objectives.

The analysis of the secondary (agricultural) and tertiary (urban) irrigation facilities showed that when irrigation occurs at agronomic rates, as is planned, no seepage or runoff is anticipated to occur. The analysis of the irrigation facilities shows that nitrogen is the limiting agronomic factor, thus nitrogen agronomic rates were used to determine the irrigation capacity of the agricultural and urban landscape irrigation areas. Disinfected, secondary recycled water will be used to irrigate oats, rye, and barley (two to three crops per year). Following wet winter seasons (25-year precipitation event), the analysis predicted secondary irrigation of 73 million gallons (MG) over 115.5 acres at build-out, resulting in a nitrogen application rate of 52 lb/acre-year, which is significantly less than nitrogen application rates reported in USEPA's *Design Manual for Land Treatment of Municipal Wastewater* which reports crop uptake rates of between 133.6 and 178 lb/acre-year. In addition, disinfected, tertiary effluent will be used to irrigate urban turf areas at agronomic rates and will utilize BMPs to prevent runoff of recycled water to surface waters.

The permitted discharge is consistent with the provisions of State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. This Order provides for an increased discharge from an ADWF of 0.18 mgd to 0.197 mgd containing a volume and mass of pollutants (BOD, total suspended solids, salts, and total nitrogen) that may ultimately enter groundwater underlying the site. Compliance with this Order will therefore allow some degradation of groundwater quality, but will ensure that the discharge will not cause a violation of water quality objectives.

This Order is consistent with the maximum benefit to people of the State because it: (i) allows expansion of an undersized, underperforming wastewater treatment system; (ii) monitors groundwater impacts from disposal of treated wastewater; and (iii) accommodates planned housing and economic expansion in the Petaluma area. Compliance with these requirements mandates the use of enhanced treatment technology for BOD, TSS, and nitrogen, which constitute best practicable treatment or control of the discharge.

G. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act

(Fish and Game Code sections 2050 to 2097). The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

H. Monitoring and Reporting. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment C. The Executive Officer of the Regional Water Board is delegated the authority to modify the Monitoring and Reporting Program, as determined appropriate to protect water quality.