

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2011-0027

MASTER RECLAMATION PERMIT
FOR
TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT
TEHACHAPI-CUMMINGS RECYCLING SYSTEM
KERN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, ([hereafter Central Valley Water Board](#)) finds that:

1. The Tehachapi-Cummings County Water District ([hereafter District or Distributor](#)) has entered into an agreement with the California Department of Corrections and Rehabilitation ([hereafter Department or Producer](#)) to distribute disinfected tertiary recycled water for irrigation of lands near the California Correctional Institution in Tehachapi ([Prison](#)), Kern County. The Department operates a tertiary wastewater treatment facility (WWTF) that treats up to 1.1 million gallons per day (mgd) of sewage.
2. The Department submitted an Engineering Report in April 1998 and a Title 22 Engineering Report in February 2000, pursuant to Title 22, California Code of Regulations (CCR), Section 60323 (Title 22 Engineering Report) in support of expansion and upgrade of the existing prison WWTF; expansion of its effluent storage capacity; and delivery of disinfected tertiary recycled water to the District to be distributed for the growing of turf grass or sod. In addition, the District has entered into an agreement with the Horse Thief Country Club (golf course) in nearby Stallion Springs to distribute disinfected tertiary recycled water for irrigation of the golf course.
3. In November 2010, the Department submitted a Report of Waste Discharge to address the upgraded WWTF and an Updated Title 22 Report in part to address the delivery of the disinfected tertiary recycled water to the Reclamation Areas (sod farms and/or golf course).
4. According to the District, it will supplement its irrigation needs with disinfected tertiary recycled water for irrigation of the golf course and turf or sod farms generally west of the Prison, as shown in [Attachment A](#), which is attached hereto and made part of this Order by reference.
5. The term Reclamation Area as used herein includes a collection of parcels comprising the Horse Thief Golf Course (about 160 acres) and what is now about 560 acres of farmlands upon which recycled water is or will be used for irrigation. This Order allows the District flexibility in changing the size and use of the Reclamation Areas for recycled water land application.

6. For the purposes of this Order, the District's recycling system (Tehachapi-Cummings Recycling System) consists of two turnouts and a 12-inch main distribution pipeline. The southern turnout will provide disinfected tertiary recycled water to sod farms generally southwest of the Prison's tertiary WWTF and will also serve as a transmission point for distribution of the disinfected tertiary recycled water to the golf course. A western turnout will provide disinfected tertiary recycled water to sod farms that are generally west of the Prison's tertiary WWTF.
7. The Prison's tertiary WWTF consists of a headworks with screening and metering, an extended aeration basin, two secondary clarifiers, six backwash upflow sand filters, an ultraviolet (UV) light disinfection channel, three new lined storage basins, two sludge dewatering centrifuges, and a clay lined sludge storage area. The design flow capacity of the WWTF is 1.1 million gallons per day (mgd).
8. California Water Code (CWC) Section 13523.1 authorizes issuance by the Central Valley Water Board of a Master Reclamation Permit to producers or distributors, or both, of recycled water in lieu of issuing individual reclamation requirements to each recycled Water User. The Master Reclamation Permit must include Waste Discharge Requirements adopted pursuant to CWC Sections 13260 et seq.
9. As specified in CWC Section 13523.1 (b) this Order includes requirements for the District to: comply with the uniform statewide reclamation criteria established pursuant to Section 13523.1; establish and enforce rules and regulations for recycled water users (User) in accordance with statewide recycling criteria; establish a requirement for the District to submit quarterly reports summarizing reclaimed water use; and to conduct periodic inspections of the recycled water use sites. The rules and regulations shall, at a minimum, include the requirements detailed in Attachment B, which is attached hereto and made a part of this Order by reference. The District adopted Resolution 13-09 (District's Rules and Regulations) for the use and distribution of the disinfected tertiary treated water in June 2009 to address the requirements in Attachment B. The District's Resolution 13-09 must meet, at a minimum, the requirements detailed in Attachment B.
10. The District will be the Distributor of recycled water to the Reclamation Areas depicted in Attachment A. The distribution of recycled water to the User at individual Reclamation Areas will be done under a contract between the District and the User. The District will have the capability of shutting off water service to any User that fails to comply with the established rules and regulations.

Water Recycling

11. Disinfected tertiary recycled water will be stored at the Prison in three lined effluent storage ponds. The ponds will serve as the source water for the irrigation recycled water distribution system and provide storage during the winter months when irrigation is not needed due to rainfall or saturated soils. Each storage pond has a storage capacity of 31 million gallons (95 acre-feet) for a combined storage of 93 million gallons (285 acre feet).

12. Disinfected tertiary recycled water is approved for use on food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop; parks and playgrounds; school yards; residential landscaping; unrestricted access golf courses; and any other irrigation use not specified in Title 22, CCR, Section 60304, and not prohibited by other sections of the CCR.
13. The District plans to distribute disinfected tertiary recycled water primarily for the irrigation of the nearby golf course and turf farms, but can distribute the effluent for the additional uses listed in [Finding 12](#) with prior approval from the Executive Officer. The sod farms will irrigate using a mobile spray irrigation system to discharge the disinfected tertiary recycled water, while the golf course will utilize an existing water main hazard (pond) for reclaimed water storage and subsequent distribution to the golf course. The Reclamation Areas must be closely managed during irrigation to reduce the potential for runoff. Such runoff cannot occur to surface waters except under an NPDES permit, and the District and/or User are required to provide all runoff controls necessary to keep wastewater irrigation runoff inside the Reclamation Areas and out of drainage channels or surface waters. Minor amounts of incidental runoff or over-spray cannot be completely prevented. This Order requires incidental runoff and over-spray be minimized to the extent practicable through best management practices.
14. According to the *Western Fertilizer Handbook* (Second Horticultural Edition, 1998) and based on the available acreage, the annual nitrogen uptake by turf grass in the proposed Reclamation Areas would be greater than 150 lbs/acre. Total nitrogen concentrations in the effluent from the expanded WWTF are anticipated to be less than 10 mg/L and the effluent will be used to irrigate turf grass and a golf course that use the available nitrogen.

Basin Plan, Beneficial Uses, and Water Quality Objectives

15. The *Water Quality Control Plan for the Tulare Lake Basin, 2nd Edition, January 2004* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting all waters of the basin, and incorporates by reference plans and policies of the State Water Resources Control Board (State Water Board).
16. The Reclamation Areas lie within the Tulare Lake Hydrologic Basin, specifically the Grapevine Hydrologic Unit (No. 556.00), Tejon Creek Hydrologic Area (No. 556.20), as depicted on interagency hydrologic maps prepared by DWR in 1986. The Basin Plan designates the beneficial uses of groundwater as municipal and domestic supply, agricultural supply, industrial supply, and both contact and non-contact water recreation supply.
17. Surface water drainage is to Chanac Creek, an intermittent tributary to Tejon Creek which flows west to discharge to the San Joaquin Valley Floor. The Basin Plan designates Chanac Creek as a West Side Stream and designates the following beneficial uses for the West Side Streams: agricultural supply; industrial service and process supply; water

contact and non-contact water recreation; warm freshwater habitat; wildlife habitat; rare, threatened, or endangered species; and groundwater recharge.

18. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity. The toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.
19. The land use in the vicinity of the Prison WWTF and the Reclamation Areas is primarily urban commercial (the prison), agricultural, native vegetation, and rural residential. The primary crops grown within five miles of the Prison WWTF include turf (sod farms), apples, and carrots according to the land use maps prepared by DWR. Much of the surrounding area contains native vegetation.

Water Recycling Criteria

20. Untreated domestic wastewater contains pathogens harmful to humans that are typically measured by means of total or fecal coliform, as indicator organisms. California Department of Public Health (DPH) (formerly Department of Health Services), which has primary statewide responsibility for protecting public health, has established statewide criteria in Title 22, CCR, Section 60301 et seq., (hereafter Title 22) for the use of recycled water. Revisions of the water recycling criteria in Title 22 became effective on 2 December 2000. The revised Title 22 expands the range of allowable uses of recycled water, establishes criteria for these uses, and clarifies some of the ambiguity contained in the previous regulations.
21. A 1988 Memorandum of Agreement (MOA) between DPH and the State Water Resources Control Board (State Water Board) on the use of recycled water establishes basic principles relative to the agencies and the regional water boards. In addition, the MOA allocates primary areas of responsibility and authority between these agencies, and provides for methods and mechanisms necessary to assure ongoing, continuous future coordination of activities relative to the use of recycled water in California.
22. On 3 February 2009, the State Water Board adopted Resolution No. 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy). The Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gases.
23. On 23 April 2009, the Central Valley Water Board adopted Resolution No. R5-2009-0028, *In Support of Regionalization, Reclamation, Recycling and Conservation for Wastewater Treatment Plant* (Resolution R5-2009-0028). Resolution R5-2009-0028 encourages

water recycling, water conservation, and regionalization of wastewater treatment facilities. It requires the Prison to document:

- a) Efforts to promote new or expanded wastewater recycling opportunities and programs;
 - b) Water conservation measures; and
 - c) Regional wastewater management opportunities and solutions (e.g., regionalization).
24. The distribution of disinfected tertiary recycled water by the District is consistent with the intent of State Board Resolution No. 2009-0011 and Central Valley Water Board Resolution R5-2009-0028.
25. The Producer (Prison) submitted an Updated Title 22 Report in November 2010 to the Central Valley Water Board and DPH pursuant to Title 22 for on-site water recycling of disinfected recycled water as defined by Title 22, Section 60301.230. The Updated Title 22 Report addresses the Tehachapi-Cummings County Water District recycling project.

Antidegradation Analysis

26. State Water Resources Control Board Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:
- a. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
 - c. The District employs best practicable treatment or control (BPTC) to minimize degradation; and
 - d. The degradation is consistent with the maximum benefit to the people of the State.
27. The discharge from the upgraded tertiary WWTF has the potential to degrade water quality with respect to nitrates and salts. However, the resulting concentrations of nitrogen and salts will not cause degradation in excess of water quality objectives. The disinfected tertiary recycled water will be applied at agronomic rates reflecting the seasonal hydraulic and nutrient requirements of the Reclamation Areas. Total nitrogen concentrations in the disinfected tertiary recycled water will either be less than 10 mg/L or applied at agronomic rates, and the effluent will largely be used to irrigate various grasses (golf course and sod farms) that will use the available nitrogen.

28. The EC of the disinfected tertiary recycled water is about 675 $\mu\text{mhos/cm}$, while the EC of the underlying groundwater is anticipated to be about 500 to 600 $\mu\text{mhos/cm}$. While limited degradation may occur, the discharge concentration of 675 $\mu\text{mhos/cm}$ will be less than the Basin Plan effluent EC limit of 1,000 $\mu\text{mhos/cm}$, and resulting groundwater quality will be protective of the most stringent water quality objective for EC.
29. The beneficial uses of groundwater and surface water for the local groundwater basin (Cummings Valley) are listed in Findings 16 and 17. Based on the tertiary treatment of the wastewater, the resulting effluent concentrations, and the recycling of the disinfected tertiary water for irrigation; the discharge of the disinfected tertiary recycled water will not unreasonably affect present and anticipated future beneficial uses.
30. With application of the recycled water at agronomic rates, tertiary treatment of the recycled water, and discharge concentrations less than applicable water quality objectives; the discharge is applicable as BPTC.
31. Degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the State. The State Water Board's Recycled Water Policy (Resolution No. 2009-0011) promotes the use of recycled water as a means of increasing local water supplies and ensuring adequate water flows for fish and wildlife habitat. The policy is also intended to encourage beneficial use of, rather than solely disposal of, recycled water. This recycling project meets the requirements of Resolution No. 2009-0011, and is considered a maximum benefit to the people of the State.

Other Regulatory Considerations

32. Pursuant to section 20090(b) of Title 27, CCR, the discharge of wastewater to land is exempt from Title 27, provided:
 1. The applicable RWQCB has issued WDRS, reclamation requirements, or waived such issuance;
 2. The discharge is in compliance with the applicable water quality control plan; and
 3. The wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

As described in the above Antidegradation section, the disinfected tertiary recycled water complies with the Basin Plan, is in compliance with water quality limits, and does not need to be treated as hazardous waste. The discharge of the disinfected tertiary recycled water is, therefore, exempt from Title 27 Requirements.

CEQA

33. On 12 July 2006, the Tehachapi-Cummings County Water District, as Lead Agency, filed in accordance with the California Environmental Quality Act, an Initial Study and Proposed Negative Declaration for the proposed recycling project. Central Valley Water Board staff responded as a responsible agency under Title 14, Section 15040 in an 8 August 2006 letter generally concurring with the Initial Study, but expressing that the project description needs to indicate that all recycled water will be retained on the reclamation areas and that no runoff leave the site. On 6 December 2006, the Tehachapi-Cummings County Water District provided a Response to Comments document and adopted the Negative Declaration on 13 December 2006.
34. The Central Valley Water Board has reviewed the Negative Declaration and concurs that all potential water quality and related nuisance impacts have been mitigated to a less-than-significant level.
35. This Order contains additional requirements that will mitigate or avoid environmental effects on water quality. Specifically it:
 - a. Requires application of recycled water at reasonable agronomic rates considering soil, climate, and nutrient demand;
 - b. Requires areas irrigated with recycled water be managed to prevent nuisance conditions or breeding of mosquitoes; and
 - c. Establishes a Monitoring and Reporting Program, which includes inspections and regular maintenance of areas irrigated with recycled water.

General Findings

36. Pursuant to CWC Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.
37. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.
38. California Water Code Section 13267(b) states that:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

39. The technical reports required by this Order and the attached Monitoring and Reporting Program No. [R5-2011-0027](#) are necessary to assure compliance with this Master Reclamation Permit. [Master Reclamation Permit Order R5-2011-0027](#) complies with Section 13263(h) of the CWC and issuance of individual waste discharge requirements is not required.

Public Notice

40. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
41. The District and interested agencies and persons have been notified of the intent to prescribe recycling requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
42. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that, pursuant to Sections 13263, 13267, and 13523.1 of the CWC, the District and its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. Discharge of recycled water to wetlands, surface waters, or surface water drainage courses either by direct discharge or runoff from water recycling areas is prohibited.
2. Except as authorized by Recycled Water Specification B.16, discharges of recycled water, including windblown spray and runoff of recycled water applied to lands for irrigation for which valid recycling requirements are not in force, are prohibited.
3. Discharge within 24 hours before or after a significant precipitation event is prohibited.

B. Recycled Water Specifications

1. The recycled water discharge shall, at a minimum, be disinfected tertiary recycled water as defined in the most current Title 22 CCR, and be used in compliance with Title 22, Division 4, Chapter 3, Article 3, *Uses of Recycled Water*.
2. Application of recycled water shall be confined to the designated land application areas as defined in this Order and specified in the District's Master Reclamation Plan and/or Waste Discharge Requirements that are subject to Central Valley Water Board and DPH approval.

3. Application of waste constituents to the Reclamation Areas shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering soil, climate, and nutrient demand. The annual nutritive loading of the Reclamation Areas including the nutritive value of organic and chemical fertilizers and of the recycled water, shall not exceed the demand.
4. Public contact with recycled water shall be controlled using signs and/or other appropriate means. Signs of a size no less than four inches high by eight inches wide with proper wording (shown below) shall be placed at all areas of public access and around the perimeter of all areas used for effluent disposal or conveyance to alert the public of the use of recycled water. All signs shall display an international symbol similar to that shown in [Attachment C](#), a part of this Order, and present the following wording:

“RECYCLED WATER – DO NOT DRINK”

“AGUA DE DESPERDICIO RECLAMADA – POR FAVOR NO TOME”

5. All reclamation equipment, pumps, piping, valves, and outlets shall be appropriately marked to differentiate them from potable facilities. All reclamation distribution system piping shall be purple or adequately wrapped with purple tape.
6. Recycled water controllers, valves, and similar appurtenances shall be affixed with recycled water warning signs, and shall be equipped with removable handles or locking mechanisms to prevent public access or tampering. Quick couplers, if used, shall be of a type, or secured in a manner, that permits operation only by authorized personnel. Hose bibs shall not be used.
7. No physical connection shall exist between recycled water piping and any domestic water supply or domestic well, or between recycled water piping and any irrigation well that does not have an approved air gap or reduce pressure principle device.
8. Sprinkler heads shall be of the type approved for recycled water and shall create a minimum amount of mist. Drainage through sprinkler heads is prohibited.
9. Effluent pipelines and irrigation hardware must be appropriately labeled, and backflow prevention devices shall be used where a potential cross-connection could occur. There shall be at least a ten-foot horizontal and a one-foot vertical separation between all pipelines transporting recycled water and those transporting domestic supply, with the domestic supply above the recycled water pipeline.

10. The District will maintain the following setback distances from areas irrigated with recycled water:

<u>Setback Distance (feet)</u>	<u>To</u>
50	Edge of application area to domestic well
100	Wastewater/recycled water storage reservoir to domestic well
50	Application area to surface water

11. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:

- a. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from the ground and the surface.
- b. The well contains an annular seal that extends from the surface into the aquitard.
- c. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
- d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
- e. The owner of the well approves of the elimination of the buffer zone requirement.

12. Land application areas that are spray irrigated and allow public access shall be irrigated during periods of minimal use (typically between 9 p.m. and 6 a.m.). Consideration shall be given to allow maximum drying time prior to subsequent public use.

13. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.

14. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.

15. Areas irrigated with recycled water shall be managed to prevent nuisance conditions or breeding of mosquitoes. More specifically:

- a. All applied irrigation water must infiltrate completely within a 48-hour period;
- b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and
- c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.

16. Runoff and spray of recycled water shall not be discharged outside of the designated land application areas except in minor, incidental amounts in compliance with best management practices.

C. Groundwater Limitations

1. Release of waste constituents from any treatment, storage, or recycling component associated with the WWTF shall not cause or contribute to groundwater containing:
 - a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:
 - (i) Nitrate as nitrogen of 10 mg/L.
 - (ii) Total Coliform Organisms of 2.2 MPN/100 mL.
 - (iii) For constituents identified in Title 22, the MCLs quantified therein.
 - b. Containing taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

D. Provisions

1. The Producer, Distributor, and Users of recycled water shall comply with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as Standard Provisions.
2. The District shall establish, maintain, and enforce rules and regulations governing the design, construction, and use of recycled water distribution and use by its customers (currently Resolution 13-09 described in Finding 9). The rules and regulations must be as stringent as those described in Attachment B.
3. The District as the responsible agency under the Master Reclamation Permit shall comply with Monitoring and Reporting Program (MRP) No. [R5-2011-0027](#), which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
4. The District and individuals responsible for the distribution and use of recycled water shall keep a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.
5. The District and/or User must 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 District or User to achieve compliance with the conditions of this Order. This

Provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the District only when the operation is necessary to achieve compliance with the conditions of the Order.

6. 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 persons registered to practice in California pursuant to California Business and Professions Code sections 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 technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
7. The District and Users of recycled water must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the District shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the District will be in compliance. The District shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
8. The District and/or User shall maintain and operate all ponds sufficient to protect the integrity of containment levees and prevent overtopping or overflows. The November 2010 Title 22 Report identifies that the golf course plans to utilize a water hazard (pond) for storage of the disinfected tertiary treated water. Unless a California civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the District and/or User shall install and maintain in each pond permanent markers with calibration that indicates the water level at design capacity and enables determination of available operational freeboard.
9. The use of recycled water shall comply with the provisions of Title 22 CCR. Further, the District and/or User must obtain written approval from the Executive Officer prior to use of recycled water for uses other than those specified in this Order.
10. The Producer shall be responsible for ensuring that recycled water meets the quality standards required by Title 22. The District shall be responsible for the operation and maintenance of transport facilities and associated appurtenances used to distribute the

tertiary disinfected recycled water. The District has established Rules and Regulations for distribution of the disinfected tertiary treated water and shall hold the Users responsible for the application and use of recycled water on the designated Reclamation Areas and associated operations and maintenance in accordance with all applicable Title 22 requirements, its own Rules and Regulations, and this Order.

11. The District adopted Resolution 13-09 for the use and distribution of the disinfected tertiary treated water in June 2009. Resolution 13-09 will serve as the Operations and Maintenance (O&M) plan for the Tehachapi-Cummings Recycling System. Prior to commencing irrigation with recycled water, the District shall submit a copy of the signed agreement for all Users of the the recycled water.
12. Prior to commencing irrigation with recycled water, the District shall submit documentation that the DPH has approved the Title 22 Report for the Distribution of the disinfected tertiary treated water to the Reclamation Areas.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 8 April 2011.

Original signed by:

PAMELA C. CREEDON, Executive Officer

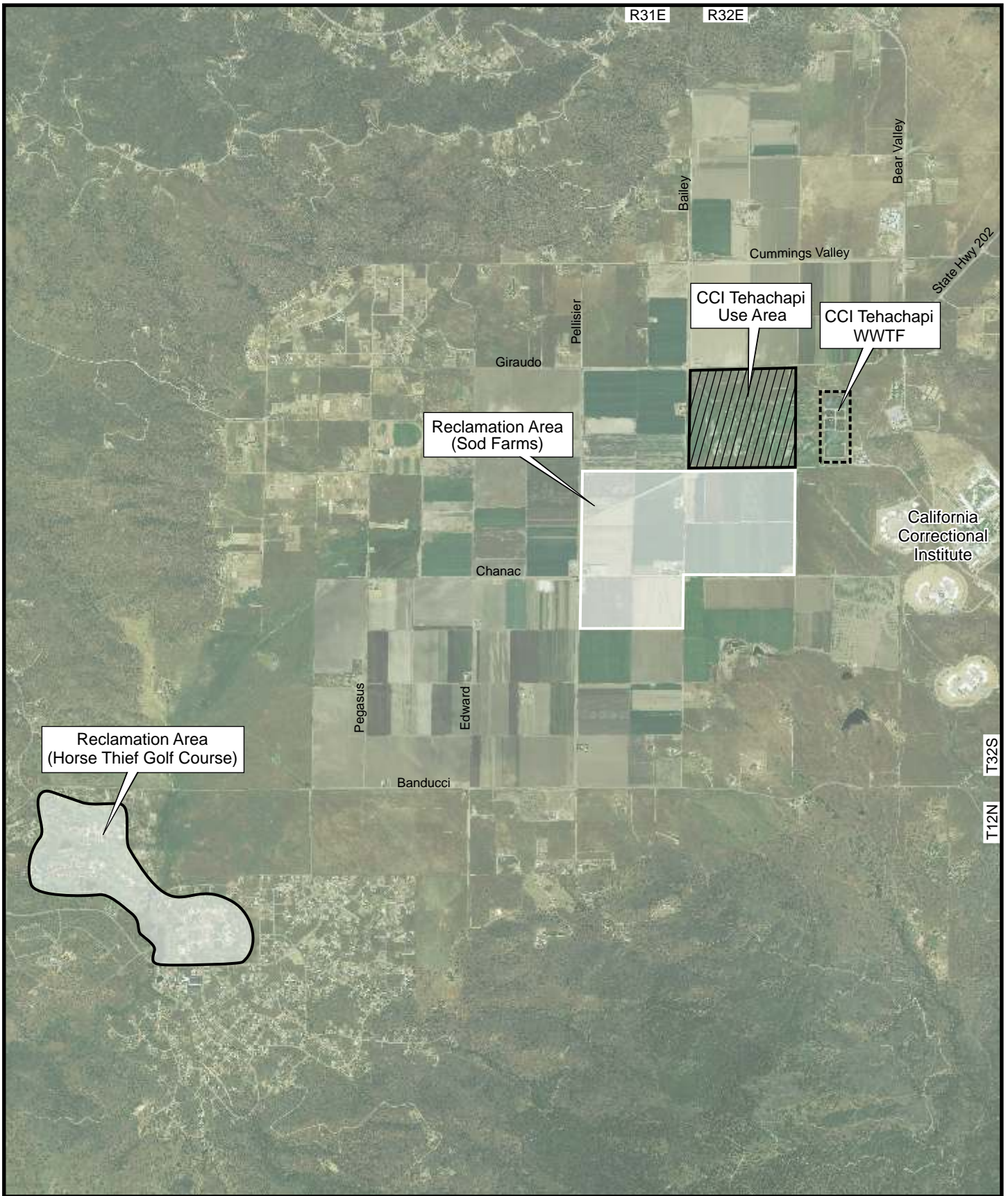
Order Attachments:

- A. Vicinity Map
- B. Rules and Regulations for Recycled Water Use Projects
- C. Nonpotable International Water Symbol

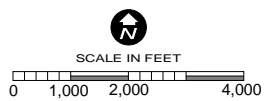
Monitoring and Reporting Program No. R5-2011-0027

Information Sheet

Standard Provisions (1 March 1991) (separate attachment to District only)



Map Source:
NAIP Aerial Photograph (2005)



VICINITY MAP
 ORDER NO. R5-2011-0027
 MASTER RECLAMATION PERMIT
 FOR
 TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT
 TEHACHAPI-CUMMINGS RECYCLING SYSTEM
 KERN COUNTY

ATTACHMENT A

ATTACHMENT B

ORDER R5-2011-0027

MASTER RECLAMATION PERMIT FOR TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT TEHACHAPI-CUMMINGS RECYCLING SYSTEM KERN COUNTY

RULES AND REGULATIONS FOR RECYCLED WATER USE PROJECTS

Pursuant to California Water Code (CWC) section 13523.1 (b)(3), this Order requires a recycled water agency ([Tehachapi-Cummings County Water District](#)) to establish and to enforce rules and regulations governing the design, construction and use of recycled water distribution and disposal systems by its customers. The rules and regulations shall be consistent with the following criteria:

- Title 22, Division 4, Chapter 3, Wastewater Reclamation Criteria;
- Title 17, Division 1, Chapter 5, Group 4, Article 1& 2, of the California Code of Regulations;
- The State Department of Public Health (DPH) (formerly Department of Health Services) Guidelines for Use of Recycled Water, and Guidelines for Use of Recycled Water for Construction Purposes;
- Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/ Nevada section, Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting to Recycled Water or alternate measures that are acceptable to the State DHS.

At a minimum, the rules and regulations shall notify the users that:

1. The use of recycled water shall not cause pollution, contamination, or nuisance, as defined by section 13050 of the CWC.
2. The Tehachapi-Cummings County Water District ([District](#)), the Central Valley Regional Water Quality Control Board ([Central Valley Water Board](#)), the State DPH, or an authorized representative of these parties, upon presentation of proper credentials, shall have the right to enter upon the recycled water use site during reasonable hours, to verify that the user of recycled water is complying with the District's rules and regulations.
3. The District or a responsible management entity ([RME or User](#)) assigned by the recycled water agency shall provide written notification, in a timely manner, to the District of any material change or proposed change in the character of the use of recycled water.
4. Prior to the initiation of recycled water service, the District or User shall submit plans and specifications for recycled water distribution facilities to the Regional Water Board, and the State DPH for approval.
5. The District shall designate a recycled water supervisor who is responsible for the recycled water system at each Reclamation Area under its control. Specific responsibilities of the District's supervisor include the proper installation, operation, and maintenance of the irrigation system; compliance of the project with the District's rules

and regulations, prevention of potential hazards and preservation of the recycled water distribution system plans in "as built" form. Designated recycled water supervisors shall obtain instruction in the use of recycled water from an institution approved by the State DPH.

6. The District may terminate service to a User who uses, transports, or stores such water in violation of the District's rules and regulations.
7. All recycled water storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm to the extent practicable unless the Regional Water Board Executive Officer approves relaxed storm protection measures for the facility.
8. The Central Valley Water Board may initiate enforcement action against any recycled water user, including but not limited to the termination of the recycled water supply, who:
 - a. Discharges recycled water in violation of any applicable discharge requirement prescribed by the Central Valley Water Board or in a manner which creates or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050.
 - b. Uses, transports, or stores such water in violation of the rules and regulations governing the design, construction and use of recycled water distribution and disposal systems issued by the recycled water distribution and disposal systems issued by the District in accordance with this attachment; or in a manner which creates or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050.
9. A copy of the recycled water rules and regulations, irrigation system layout map, and a recycled water system operations manual shall be maintained at the Reclamation Areas. These documents shall be available to operating personnel at all times.
10. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any domestic water supply well unless all of the following conditions have been met.
 - c. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from the ground and the surface.
 - d. The well contains an annular seal that extends from the surface into the aquitard.
 - e. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
 - f. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
 - g. The owner of the well approves of the elimination of the buffer zone requirement.
12. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well.
13. Irrigation with or impoundment of disinfected secondary- 2.2 or disinfected secondary 23 recycled water shall not take place within 100 feet of any domestic water supply well.

14. Irrigation with, or impoundment of, undisinfected secondary recycled water shall not take place within 150 feet of any domestic water supply well.
15. Recycled water facilities shall be operated in accordance with best management practices (BMP's) to minimize public contact with, and to prevent direct human consumption of recycled water.
16. All windblown spray and surface runoff of recycled water applied for irrigation onto property not owned or controlled by the discharger or recycled water user shall be prevented by implementation of BMP's.
17. Irrigation with recycled water shall be given during periods of minimal human use of the service area. Consideration shall be given to allow an adequate dry-out time before the irrigated area will be used by the public.
18. All drinking fountains located within the approved Reclamation Area shall be protected by location and/or structure from contact with recycled water spray, mist, or runoff. Protection shall be by design, construction practice, or system operation.
19. Facilities that may be used by the public, including but not limited to eating surfaces and playground equipment and located within the approved Reclamation Areas, shall be protected to the maximum extent possible by siting and/or structure from contact by irrigation with recycled water spray, mist or runoff. Protection shall be by design, construction practice or system operation.
20. Spray irrigation with recycled water, other than disinfected tertiary recycled water, shall not take place within 100 feet of the property line of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
21. All Reclamation Areas where recycled water is used and that are accessible to the public shall be controlled using signs and/or other appropriate means. Signs of a size no less than four inches high by eight inches wide with proper wording (shown below) shall be placed at all areas of public access and around the perimeter of all areas used for effluent disposal or conveyance to alert the public of the use of recycled water. All signs shall display an international symbol similar to that shown in [Attachment B](#), a part of this Order, and present the following wording:

“RECYCLED WATER-DO NOT DRINK”.

“AGUA DE DESPERDICIO RECLAMADA – POR FAVOR NO TOME”

22. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water or auxiliary water source system, other than the exceptions discussed in Finding 24 of this Attachment.
23. The recycled water piping system shall not include any hose bibs. Quick couplers that are different from that used in potable water system or auxiliary water source system may be used.

24. The public water supply shall not be used as backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of sections 7602(a) and 7603(a) of title 17 and the approval of the public water system has been obtained. If a "Swivel-ell" type connection is used it must be used in accordance with provisions of the Department of Public Health Policy Memo 95-004. Approved backflow prevention devices shall be provided, installed, tested, and maintained by the recycled water user in accordance with the applicable provisions of Title 17, Division 1, Chapter 5, Group 4, Article 2.
25. No person other than the District shall deliver recycled water to a facility.
26. All facilities shall be identified and labeled according to the type of water in each system.
27. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with chapter 7.9, section 4049.54 of the California Health and Safety Code.
28. Customer complaints concerning recycled water use that may involve public illness shall be reported to the County Environmental Health Department, DPH, Central Valley Water Board, and to the District who shall maintain a log of all customer complaints regarding recycled water.
29. Any backflow prevention device installed to protect the public water system shall be inspected and maintained in accordance with section 7605 of Title 17.
30. The amount of nitrogen from commercial fertilizers applied to irrigation use sites shall be managed to take into account the nitrogen content of the recycled water in order to ensure sufficient nitrogen uptake by the vegetation and prevent leaching of excess nitrates and nitrogen compounds into the soil beyond the root zone.



NONPOTABLE WATER INTERNATIONAL SYMBOL

ORDER NO. R5-2011-0027

MASTER RECLAMATION PERMIT

FOR

TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT

TEHACHAPI-CUMMINGS RECYCLING SYSTEM

KERN COUNTY

ATTACHMENT C

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2011-0027
FOR
MASTER RECLAMATION PERMIT
TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT
TEHACHAPI-CUMMINGS RECYCLING SYSTEM
KERN COUNTY

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code section 13267. The Tehachapi-Cummings County Water District ([hereafter District or Distributor](#)) shall not implement any changes to this MRP unless and until the Regional Water Board or Executive Officer issues a revised MRP. Changes to sample locations shall be established with concurrence of Regional Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

All analyses shall be performed in accordance with the latest edition of *Guidelines Establishing Test Procedures for Analysis of Pollutants*, promulgated by USEPA (40 CFR 136) or other procedures approved by the Central Valley Regional Water Quality Control Board. In reporting monitoring data, the District shall indicate whether any analysis was performed using a method not in conformance with USEPA's Guidelines.

RECLAMATION AREA MONITORING

Reclamation Area monitoring shall be conducted daily (for the lands to which disinfected tertiary treated water was applied that day) and the results reported in monitoring reports. Recycled water monitoring results shall be used in calculations to ascertain loading rates. Reclamation Areas shall be identified and monitored to include the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	gallons	Continuous	Daily
Rainfall	inches	Observation	Daily
Acreage applied ¹	acres	Calculated	Daily
Water application rate ²	gal/acre/day	Calculated	Daily
Total Nitrogen loading rate ²	lbs/acre/month	Calculated	Monthly
Salt loading rate ^{2,3}	lbs/acre/month	Calculated	Monthly

¹ Individual land application areas will be identified.

² For each land application area.

³ Salt loading rate shall be calculated using the applied volume of wastewater, actual application area, and the most recent results for effluent TDS.

At least once per month, the entire irrigated area shall be inspected by the District and/or it's Users to identify any equipment malfunction or other circumstances that might allow irrigation

runoff to leave the Reclamation Area and/or create ponding conditions that violate Master Reclamation Permit Order [R5-2011-0027](#). A log of these inspections shall be included in the annual monitoring reports. The log should include the following information:

1. Date of inspection;
2. A description of any violations noted;
3. Records of operational problems (if any);
4. Corrective or preventative measures taken to comply with WDRs; and
5. A description of enforcement actions taken (if any), including any schedule for achieving compliance.

REPORTING

The District and/or Users shall report monitoring data and information for a given year as required in this MRP on an annual basis and will submit the annual report no later than 1 February of the following year.

Monitoring data and/or discussions submitted concerning the Tehachapi-Cummings Recycling System must be signed and certified by either a principal executive officer or ranking elected or appointed official. When reports contain laboratory analyses performed by the District and the principal executive or equivalent is not in the direct line of supervision of the laboratory, reports must also be signed and certified by the chief of the laboratory.

In reporting monitoring data, the District and/or User shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the District complies with waste discharge requirements. If the District or its Users monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the discharge monitoring report.

Annual Report

Beginning on the 1st February of each year, the District shall submit an annual report containing the following items;

1. Names, certificates grades, and general responsibilities of all persons involved in the water recycling operation;
2. Names and telephone numbers of persons to contact regarding the use of recycled water during emergency and routine situations;
3. Statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations
4. Tabular summary all recycled water operations for the previous year including annual nutrient and hydraulic loading to individual land application areas; and

5. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.

All reports submitted in response to this Order shall comply with the signatory requirements in Standard Provision B.3.

A transmittal letter shall accompany each self-monitoring report. The letter shall discuss any violations during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the District has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory.

The District shall implement the above monitoring program on the first day of the month following adoption of this Order.

Ordered by: _____ Original signed by: _____
PAMELA C. CREEDON, Executive Officer
8 April 2011

(Date)

INFORMATION SHEET

MASTER RECLAMATION PERMIT NO. R5-2011-0027
TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT
TEHACHAPI-CUMMINGS RECYCLING SYSTEM
KERN COUNTY

Background

The Tehachapi-Cummings Water District (hereafter [District or Distributor](#)) proposes to distribute disinfected tertiary recycled water for irrigation of the Horse Thief Golf Course in nearby Stallion Springs and to approximately 560 acres of sod farms in the Cummings Valley. The disinfected recycled water is produced by the California Department of Corrections and Rehabilitation (hereafter [Department](#)), California Correctional Institution in Tehachapi (hereafter [Producer or Prison](#)) at the Prison's recently upgraded Wastewater Treatment Facility (WWTF). The WWTF is currently regulated by Waste Discharge Requirements ([WDR](#)) Order R5-2011-0007.

The District was formed in 1965 to provide and imported water supply, water resource management, and flood protection for the region. The District provides groundwater from three basins (Brite, Cummings, and Tehachapi) and imports surface water from the California Aqueduct.

The upgraded tertiary WWTF consists of headworks with screening and filtering, an extended aeration basin, two new secondary clarifiers; coagulation of clarified effluent; six continuous backwash sand filters; an ultraviolet light disinfection chamber; and three new effluent storage ponds. The design flow capacity of the WWTF is 1.1 million gallons per day ([mgd](#)).

The WWTF is designed to provide tertiary treatment and is regulated under Waste Discharge Requirements (WDRs) Order No. [R5-2011-0007](#). Order No. [R5-2011-0007](#) contains requirements to ensure protection of public health and compliance with Title 22 requirements. The tertiary recycled water shall, at a minimum, be adequately oxidized, coagulated, filtered, and disinfected. The monthly average biochemical oxygen demand ([BOD](#)) and total suspended solids shall not exceed 10 mg/L or a daily maximum of 20 mg/L. The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed 2.2 MPN/100 milliliters utilizing the bacteriological results of the last seven days for which the analyses have been completed, the number of total coliform bacteria shall not exceed 23 MPN/100 milliliters in more than one sample in any 30-day period, and no sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

Water Recycling Requirements

The Department of Public Health ([DPH](#)) (formerly Department of Health Services) has established statewide recycling water criteria in Title 22, California Code of Regulations, Section 60301 et seq., (hereafter [Title 22](#)) for the use of recycled water and has developed guidelines for specific uses. Revisions of the water recycling criteria in Title 22 became effective on 2 December 2000. The revised Title 22 expands the range of allowable uses of recycled water, establishes criteria for these uses, and clarifies some of the ambiguity contained in the previous regulations.

The Producer will treat the wastewater to the standards required in Title 22 for unrestricted irrigation of a golf course and other public use areas. As the responsible party named in the Master Reclamation Permit, the District is responsible for the operation and maintenance of transport facilities and associated appurtenances used to distribute the tertiary disinfected recycled water. The District shall hold its Users responsible for the application and use of recycled water on the designated Reclamation Areas and associated operations and maintenance in accordance with all applicable Title 22 requirements and this Order. The Order, as proposed, includes requirements for District to establish and enforce rules and regulations for recycled water users in accordance with statewide recycling criteria, and for its Users to conduct periodic inspections of the recycled water use sites.

Recycled water Users will include the owners of Horse Thief Golf Course and the Pacific and Superior Sod Farm Companies. The District will be responsible for administering User Agreements and informing individual owners regarding the use and application of recycled water as well as obtaining recorded covenants for land dedicated for effluent disposal to ensure unrestricted availability of land for disposal of effluent.

This Order as proposed would require the District as the Distributor of recycled water to implement and enforce specific measures relating to the use of recycled water. These include: (a) posting of appropriate warning signs around Use Areas, (b) maintaining setback distances, (c) ensuring distribution and delivery systems are well maintained and operational, and (d) requiring that recycled water be applied at agronomic rates.

The proposed Order would require the District and /or User to monitor its application in accordance with the proposed Monitoring and Reporting Program. Specifically, the proposed Order would require the District and/or its User to report the amounts of recycled water applied to the Use Areas, calculate nitrogen and salt loading to individual Use Areas, inspect the Use Areas on at least a monthly basis to ensure that water recycling is in compliance with the proposed Order; and submit required annual monitoring reports to the Regional Water Board.

The golf course and other application areas may contain numerous hills and sloped areas that would promote runoff unless closely managed during irrigation. In addition, the golf course may use ponds to store the recycled water that, during wet weather, may overflow and enter surface waters. Such runoff cannot occur except under an NPDES permit, and the District and/or its Users are required to provide all runoff controls necessary to keep wastewater irrigation runoff out of drainage channels or surface waters. However, minor amounts of incidental runoff or over-spray cannot be completely prevented. The proposed Order requires that incidental runoff or over-spray be minimized to the extent practicable through operational strategies.

Site and Groundwater Conditions

Topography in the area of the golf course consists of gently to moderately rolling hills, while the topography in the area of the sod farms is generally flat with surface flow to the west/northwest. The depth to groundwater in the vicinity of the WWTF is variable, but

available information indicates first encountered groundwater ranges from about 15 to 65 feet below the ground surface (bgs) with a direction of flow to the west/northwest.

Various groundwater monitoring wells are available in the vicinity of the Prison and the WWTF, but limited analytical data was available. Field electrical conductivity (EC) values for background wells present in the vicinity of the Prison range from about 500 to 600 micromhos per centimeter ($\mu\text{mhos/cm}$).

Soils in the area are typically sandy loams underlain by decomposed granite and are generally of moderate permeability. Soil units are generally thin to up to 350 feet thick. Soils in the area of the Sod Farms consist primarily of the Havala sandy loam and the Steuber sandy loam, both derived of granitic rocks. The Havala sandy loam is described as deep, well drained, and exhibits moderately slow permeability. The Steuber sandy loam is described as deep, well drained, and exhibits moderately rapid permeability. Soils in the area of the golf course consist primarily of the Walong sandy loam with lesser amounts of the Havala and Steuber sandy loams. The Walong sandy loam is described as well drained and exhibits moderately rapid permeability.

Basin Plan, Beneficial Uses, and Regulatory Considerations

The Reclamation Areas lie within the Tulare Lake Hydrologic Basin, specifically the Grapevine Hydrologic Unit (No. 556.00), Tejon Creek Hydrologic Area (No. 556.20), as depicted on interagency hydrologic maps prepared by DWR in 1986. The *Water Quality Control Plan for the Tulare Lake Basin* (2nd Edition, January 2004) (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting all waters of the basin, and incorporates by reference plans and policies of the State Water Resources Control Board (State Water Board). The Basin Plan establishes several salt management requirements to limit the incremental increase of salts and states that the maximum EC of discharges shall not exceed the EC of the source water plus 500 $\mu\text{mhos/cm}$ and the Basin Plan also states that discharges to areas that may recharge good quality groundwater shall not exceed an EC of 1,000 $\mu\text{mhos/cm}$.

Antidegradation

The antidegradation directives of State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California," or "Antidegradation Policy" require that waters of the State that are better in quality than established water quality objectives be maintained "consistent with the maximum benefit to the people of the State." Waters can be of high quality for some constituents or beneficial uses and not others. Policy and procedures for complying with this directive are set forth in the Basin Plan.

The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems. Degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the State, provided the terms of the Basin Plan are met. Constitutes of concern that

have the potential to degrade groundwater include, in part, nutrients and salts. However, the resulting concentrations of nitrogen and salts will not cause degradation in excess of water quality objectives because:

- a. For nitrogen, the Producer's WDR Order R5-2011-0007 sets a nitrogen limit of 10 mg/L or requires that the disinfected tertiary recycled water be applied at agronomic rates reflecting the seasonal hydraulic and nutrient requirements of the Reclamation Areas. Additionally, the District's Master Reclamation Permit contains Finding 27 requiring the application of the disinfected tertiary recycled water at agronomic rates. With application at agronomic rates, no degradation of groundwater for nitrates is expected to occur.
- b. For salinity, the Producer's WDR Order R5-2011-0007 contains effluent limits (EC of SW + 500 μ mhos/cm, 1,000 μ mhos/cm max; chloride - 175 mg/L; and boron - 1.0 mg/L) that are considered best practicable treatment and control. The average EC of the disinfected tertiary treated water in 2010 was about 675 μ mhos/cm, while the EC of the underlying groundwater is anticipated to be about 500 to 600 μ mhos/cm. While some degradation may occur, the degradation will be less than the Basin Plan effluent EC limit and the resulting groundwater quality will be protective of the most stringent water quality objective for EC.

Title 27

Title 27, CCR, section 20005 et seq. ([Title 27](#)) contains regulations to address certain discharges to land. Title 27 establishes a waste classification system, specifies siting and construction standards for full containment of classified waste, requires extensive monitoring of groundwater and the unsaturated zone for any indication of failure of containment, and specifies closure and post-closure maintenance requirements. Generally, no degradation of groundwater quality by any waste constituent in a classified waste is acceptable under Title 27 regulations.

The discharge of treated wastewater (disinfected tertiary recycled water) can be allowed under Title 27, provided any resulting degradation of groundwater is in accordance with the Basin Plan and the waste need not be managed as hazardous waste. With treatment to remove organics and recycling of effluent at agronomic rates, the discharge of disinfected tertiary recycled water to the Reclamation Areas authorized by this Order is in accordance with the Basin Plan and the Antidegradation Policy and is, therefore, exempt from Title 27 pursuant to Title 27, Section 20090(b).

CEQA

The District adopted a Negative Declaration on 13 December 2006. Central Valley Water Board staff reviewed the Negative Declaration and concurred that all potential water quality and related nuisance impacts have been mitigated to a less-than-significant level with regards to potential impacts to water quality.

The discharge described in Order R5-2011-0007 is consistent with the Notice of Exemption because it:

- a. Requires application of recycled water at reasonable agronomic rates;
- b. Requires areas irrigated with recycled water be managed to prevent nuisance conditions or breeding of mosquitoes; and
- c. Establishes a Monitoring and Reporting Program, which includes inspections and regular maintenance of areas irrigated with recycled water.

Reopener

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The proposed Order would set limitations based on the information provided thus far. It may be appropriate to reopen the Order if applicable laws and regulations change. The California Water Code requires that water recycling requirements implement all applicable requirements.