

ATTACHMENT G – WATER RECLAMATION REQUIREMENTS AND PROVISIONS

A. Water Reclamation Findings

1. The California Department of Public Health (CDPH), formerly the California Department of Health Services (DHS) has established statewide reclamation criteria in Chapter 3, Division 4, Title 22, California Code of Regulations (CCR), Sections 60301 through 60355 (hereinafter Title 22) for the use of recycled water for irrigation, impoundments, cooling water, and other purposes. The CDPH has also established Guidelines for Use of Reclaimed Water. This Order (Order No. R1-2009-0003), including Attachment (G) implements the Title 22 recycled water criteria.
2. 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 and the State Water Resources Control Board on the Use of Reclaimed Water (MOA). This Order is consistent with the MOA.
3. This Order implements Section 13523.1 of the California Water Code (CWC) which authorizes issuance of a Master Reclamation Permit to suppliers or distributors, or both, of recycled water in lieu of issuing individual water reclamation requirements to each recycled water user.
4. The Discharger is required to develop and keep updated, an Engineering Report for the use of recycled water as required by Section 60323 of Title 22. The Title 22 Engineering Report must be approved by CDPH and the Regional Water Board prior to delivery of disinfected, advanced treated effluent to any recycled water use site requiring tertiary effluent. The Title 22 Engineering Report shall describe how the Discharger will operate the treatment facilities and reclamation system to comply with all applicable rules and regulations, including Title 22 and this Order. The Title 22 Engineering Report shall address the requirements of Section 60313(d) and 60314 of Title 22 if the Discharger proposes to provide recycled water to any facilities with dual plumbed systems. The Title 22 Engineering Report shall also discuss the possibility of incidental runoff from recycled water use areas and describe measures the Discharger will take to minimize the potential for incidental runoff.

Incidental runoff is defined as runoff that is unintentional (e.g., accidental breakage of a sprinkler head) and not associated with negligence on the part of the Discharger or the recycled water user. These incidents 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. Incidental runoff incidents shall be summarized in the Discharger's quarterly recycled water monitoring report. Enforcement action shall be considered where: 1) there is inadequate response by the Discharger to incidental runoff incidents; 2) there are repeated runoff incidents that were within the Discharger's control; 3) incidental runoff directly causes violations of water quality objectives; 4) there are incidents that create a condition of pollution or nuisance; and 5) there are discharges that reach surface water in violation of Discharge Prohibitions in section III of the Order and/or Water Reclamation Requirements and Provisions specified in Attachment G of the Order.
5. This Order authorizes the Discharger to reuse treated municipal wastewater that complies with effluent limitations and discharge specifications contained in section IV of the Order for uses that have been addressed in an approved Title 22 Engineering Report and for which recycled water user agreements have been negotiated.
 6. Effluent Limitations included in Order No. R1-2009-0003 will assure compliance with requirements contained in Title 22 and the CDPH/State Water Board MOA.
 7. The use of recycled water is exempt from the requirements of Title 23, CCR, Section 2510, et. seq., (hereinafter Chapter 15) and Title 27, CCR, pursuant to Section 2511(b) based on the following:
 - a. The Board is issuing a Master Reclamation Permit, and
 - b. The reclamation complies with the Basin Plan, and
 - c. The recycled water does not need to be managed according to 22 CCR, Division 4.5, Chapter 11, as a hazardous waste.
 8. The Regional Water Board consulted with CDPH, the Sonoma County Health Department, and the local Mosquito Abatement District and considered any recommendations regarding public health aspects for this use of recycled water.

B. Water 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 CWC Section 13050(m).

3. The Discharger shall be responsible to ensure that all users of recycled water comply with the terms and conditions of this Order and with any rules, ordinances, or regulations adopted by the Discharger.
4. Recycled water shall not be applied to irrigation areas during periods when uncontrolled runoff may occur.
5. Recycled water shall be applied in such a manner so as not to exceed vegetative demand or field capacity.
6. Recycled water shall not be allowed to escape the recycled use area(s) in the form of surface runoff. [CCR Title 22, Section 60310(e)]
7. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, food handling facilities, roadways, or any other area where the public would be accidentally exposed to recycled water. [CCR Title 22, Section 60310(e)(2)]
8. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff. [CCR Title 22, Section 60310(e)(3)]
9. There shall be no bypassing of untreated or partially treated wastewater from the recycled water plant or any intermediate processes to the point of use. [CCR Title 22, Section 60331]
10. All recycled water equipment, pumps, piping, valves, and outlets shall be appropriately marked to differentiate them from potable facilities.
11. The Discharger shall implement the requirements of the California Health and Safety Code 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's July 2004 Title 22 Recycled Water Engineering Report states that the Discharger has not installed substantial piping in the recycled water distribution system since June 1, 1993. The report further states that (1) when repairs or additions are made, all pipes, above or below ground, are replaced with purple pipe, (2) any time buried pipes are exposed in the future, these will be marked with purple tape, and (3) existing agricultural irrigation converted to recycled water in the future won't necessarily utilize purple pipe. The Discharger shall continue to implement the requirements of Health and Safety Code section 116815 during the term of this Order.

12. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibbs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access. [CCR Title 22, 60310(l)]
13. Cross-connections shall not occur between any recycled water system and any separate system conveying potable water. [22 CCR, Section 60310(h)] Supplementing recycled water with potable water shall not be allowed except through air gap separation [CCR Title 22, Section 30615].
14. All reservoirs and ponds storing wastewater or recycled water shall be adequately protected from erosion, washout, or flooding from a rainfall event having a predicted frequency of once in 100 years.
15. 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.
16. The use of recycled water shall not cause degradation of any water supply.
17. Areas irrigated with recycled water shall be managed to prevent ponding and conditions conducive to the proliferation of mosquitoes and other disease vectors, and to avoid creation of a public nuisance or health hazard. Irrigation water shall infiltrate completely within a 24-hour period.
18. 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.
19. DHS Guidance Memo No. 2003-02: Guidance Criteria for the 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 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 the 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. Where 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.
20. A minimum freeboard, consistent with pond design, but not less than two feet, shall be maintained under normal operating conditions in any reservoir or pond containing recycled water. When extraordinary operating conditions necessitate a freeboard of less than two feet, the Discharger will document the variance in the monthly self-monitoring report. The report will include an explanation of the circumstances under which the variance is required, the estimated minimum freeboard during the extraordinary period, and any permit violations occurring as a result of the variance.
21. The use of recycled water for dust suppression shall only occur during periods of dry weather and shall be limited to periods of short duration.

C. Water Reclamation Provisions

1. The Discharger shall manage recycled water, and shall develop, establish and enforce administrative procedures, engineering standards, rules, ordinances and/or regulations governing the design and construction of recycled water systems and use facilities and the use of recycled water in accordance with the criteria established in CCR Title 22 and this Order. The Discharger shall develop user agreements requiring user compliance with CCR Title 22 and this Order. Water reclamation engineering standards, rules, ordinances and/or regulations shall be approved by the Regional Water Board Executive Officer and CDPH. The Discharger has a recycled water use agreement with the Northwood Golf Course and is operating under the

authority of an easement on the Burch Property. User agreements and easements shall be subject to the review of the Regional Water Board Executive Officer to ensure that the user agreements and/or easements adequately implement requirements of this Order, including requirements for setbacks from drainage features and surface waters and best management practices to protect against runoff incidents.

Upon approval of the Discharger's procedures, engineering standards, rules, ordinances, and/or regulations, the Discharger may authorize specific additional water reclamation projects, on a case-by-case basis, in accordance with the approved program and agreements.

2. The Discharger submitted an Engineering Report in 2004 which was approved by CDPH. The Discharger shall submit revised and/or additional engineering report(s) for CDPH and Regional Water Board approval, prior to initiating any recycled water use (e.g., new industrial use, recreational surface impoundments, water cooling, new dual-plumbed system, etc.) not addressed in any previously approved CCR Title 22 engineering report(s). Engineering report(s) shall be prepared by a properly qualified engineer registered in California and experienced in the field of wastewater treatment, and shall contain (1) a description of the design of the reclamation system; (2) a contingency plan which will assure that no untreated or inadequately treated wastewater will be delivered to the use areas; and (3) a cross-connection control program (Title 17 of the California Code of Regulations). Engineering reports shall clearly indicate the means for compliance with CCR Title 22 regulations and this Order.
3. The Discharger shall conduct periodic inspections of the recycled water use areas, facilities, and operations to monitor and assure compliance with the conditions of this Order. The Discharger shall take whatever actions are necessary, including termination of delivery of recycled water, to correct any user violations. The Discharger shall, upon prior notification to the user, conduct regular inspections to assure cross-connections are not made with potable water systems and CDPH approved backflow prevention devices are installed and operable.
4. The Discharger shall be responsible for ensuring that recycled water meets the quality standards of this Order and for the operation and maintenance of transport facilities and associated appurtenances. The Discharger shall hold the recycled water users responsible for the application and use of recycled water on their designated areas and associated operations and maintenance in accordance with all applicable CCR Title 22 requirements and this Order.
5. The Discharger shall notify the Regional Water Board Executive Officer in anticipation of reclaiming water at a new location, prior to commencement of reclamation activities at the new location. The notice shall include the

- following: site location, acreage involved, County Assessor Parcel number(s), name of property owner and/or user, and a User Reclamation Plan. The User Reclamation Plan shall estimate the anticipated volume of recycled water to be used, describe the recycled water management facilities and operations plan, identify who is responsible for site management, reflect consultation with state and local health departments, and explain in detail how compliance with the User Reclamation Plan, CCR Title 22 Criteria, and the requirements of the Master Reclamation Permit will be achieved.
6. If, in the opinion of the Regional Water Board Executive Officer, recycled water use at proposed new locations cannot be adequately regulated under the Master Reclamation Permit, a Report of Waste Discharge may be requested and individual Water Reclamation Requirements may be adopted.
 7. Prior to the initial operation of any dual-plumbed recycled water system, and annually thereafter, the Discharger shall ensure that the dual-plumbed system within each facility and use area is inspected for possible cross connections with the potable water system. The recycled water system shall also be tested for possible cross connections at least once every four years. The testing shall be conducted in accordance with the method described in the Engineering Report. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection or testing for the prior year shall be submitted to CDPH and the Regional Water Board by February 1 of each year. [CCR Title 22, Section 60316]
 8. The Discharger shall notify the CDPH and the Regional Water Board of any incidents of backflow from any dual-plumbed recycled water system into the potable water system within 24 hours of the discovery of the incident.
 9. Any backflow prevention device installed to protect the public water system serving any dual-plumbed recycled water system shall be inspected and maintained in accordance with Section 7605 of Title 17, CCR.
 10. Any discharge of untreated or partially treated wastewater to the use area, and the cessation of the same, shall be reported immediately with an oral report¹ by telephone to the Regional Water Board Executive Officer, CDPH, and the local health officer.

¹ Oral reporting means obtaining direct contact with a Regional Water Board staff person. The oral report may be given in person or by telephone. After business hours, oral contact must be made by calling the State Office of Emergency Services or the Regional Water Board spill officer.