

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

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**ORDER NO. R4-2019-XXXX
(File No. 54-035)**

**WASTE DISCHARGE REQUIREMENTS
AND
WATER RECLAMATION REQUIREMENTS**

**CAMROSA WATER DISTRICT
CAMROSA WATER RECLAMATION FACILITY**

The following Permittee is subject to Waste Discharge Requirements (WDRs) and Water Reclamation Requirements (WRRs) set forth in this Order:

TABLE 1. PERMITTEE INFORMATION

Permittee	Camrosa Water District (CWD or Permittee)
Name of Facility	Camrosa Water Reclamation Facility (Camrosa WRF or Facility)
Facility Address	1900 South Lewis Road Camarillo, CA 93012 Ventura County

TABLE 2. ADMINISTRATIVE INFORMATION

This Order was adopted and shall become effective on:	October 10, 2019
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I, Renee Purdy, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board), on the date indicated above.

Renee Purdy, Executive Officer

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The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) finds the following:

I. BACKGROUND INFORMATION

A. Permittee

The Camrosa Water District (CWD or Permittee) owns and operates the Camrosa Water Reclamation Facility (Camrosa WRF) located at 1900 South Lewis Road, Camarillo, California, and maintains its treatment processes. During normal operation, almost 100% of the tertiary-treated effluent is beneficially reused for crop and landscape irrigation. CWD operates and maintains the recycled water distribution system and conducts training/inspections of individual user sites.

B. Facility and Project Description

1. The Camrosa WRF is an Eimco System Carrousel® denitIR® extended aeration treatment facility with a dry weather design capacity of 2.25 million gallons per day (MGD). The process flow diagram is depicted in Attachment B. The Facility has an oxidation process that provides nitrification in an aerobic zone and denitrification in an anoxic zone. The anoxic basin is attached to the carrousel and connected by inflow and outflow channels. Untreated wastewater is mainly collected from the northeastern portion of the City of Camarillo and the California State University, Channel Islands (CSUCI). The treatment process consists of two bar screens, headworks lift pumps, two separate carrousels for nitrification and denitrification, secondary clarification, up-flow sand filtration, chlorination, and two lined on-site holding ponds to help dissipate chlorine and to help equalize effluent flow. The recycled water is then conveyed to three off-site unlined ponds for storage until there is demand for it. These recycled water storage ponds are located approximately three miles north of the treatment facility. When the on-site holding ponds need to be maintained, the recycled water may be conveyed directly to the off-site holding ponds for storage. The on-site holding ponds may also be bypassed when the recycled water is conveyed directly to the Calleguas Municipal Water District Salinity Management Pipeline (SMP) or to CSUCI. There is incidental discharge to the underlying groundwater due to the recycled water storage ponds, but the main function of the ponds is to store recycled water for use in irrigation by neighboring farmers. Bar screenings are hauled off-site for disposal in a landfill, and sludge from the secondary clarifiers is transferred to drying beds and then hauled off-site for additional processing at a composting facility.
2. The Camrosa WRF may also discharge recycled water to Calleguas Creek or to the Pacific Ocean via the SMP when the demand for recycled water is low. Discharge of Camrosa WRF recycled water to Calleguas Creek is regulated under separate waste discharge requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0059501). Discharge to the Pacific Ocean via the Calleguas Municipal Water District Salinity Management Pipeline is also regulated under separate WDRs and NPDES permit (NPDES No. CA0064521).
3. CWD previously recycled treated wastewater under WDRs/WRRs in Order No. R4-2015-0030, adopted by this Regional Water Board on February 12, 2015.
4. In addition to producing recycled water at the Camrosa WRF, CWD also diverts water from Conejo Creek and the Camarillo Sanitary District for agricultural irrigation.

II. RECYCLED WATER DISTRIBUTION SYSTEM

CWD generates tertiary-treated effluent (recycled water) from its Camrosa WRF, diverts water from Conejo Creek, and collects recycled water from the Camarillo Sanitary District. CWD distributes water from these sources to local farmers and to the Pleasant Valley County Water District (PVCWD) for crop irrigation. CWD also distributes recycled water produced at the Camrosa WRF to the CSUCI campus for landscape irrigation. Table 3 below lists the recycled water users and Attachments C1, C2, and C3 depict the location of the current recycled water users in the distribution area.

TABLE 3. TERTIARY-TREATED RECYCLED WATER USERS

Distribution Point	Recycled Water User	Latitude (North)	Longitude (West)
2	3H Custom Farming	34.173056	119.046667
3	3H Custom Farming	34.175000	119.045000
4	B & H Farms	34.177222	119.045000
5	3H Custom Farming	34.180833	119.034167
6	Not in use since 2006	34.180000	119.039444
13	California State University Channel Islands	34.162500	119.043333
14	Pleasant Valley County Water District	34.187500	119.026194

The following sections describe the water quality and regulatory history of the Camrosa WRF and Camarillo Water Reclamation Plant (WRP), and how these two facilities are interconnected.

III. QUALITY OF TERTIARY-TREATED EFFLUENT – CAMROSA WRF

- A. The treatment process at the Camrosa WRF produces recycled water that consists of disinfected tertiary-treated effluent.
- B. The recycled water consistently complies with all water quality objectives and MCLs except for total trihalomethanes, ~~chloride, and total dissolved solids (TDS)~~.
- C. Total Trihalomethanes
 1. From January 2014 through December 2018, the Camrosa WRF produced recycled water containing a total trihalomethanes (TTHMs) concentration ranging from 2 µg/L to 279 µg/L. CWD installed covers on the chlorine contact chamber and the secondary clarifiers to help reduce the chlorine needed for disinfection during the last permit cycle; however, the TTHMs concentration in the final effluent continues to exceed the Maximum Contaminant Level (MCL) of 80 µg/L and therefore this Order includes a limit for TTHMs set at the MCL. Since the Camrosa WRF final effluent continues to exceed the MCL for TTHMs and CWD needs additional time to comply with the final effluent limitation, an interim effluent limitation has been imposed in this Order along with a time schedule.
 2. The Regional Water Board adopted WDRs in Order No. 95-059 for the Camrosa WRF on May 15, 1995. That Order did not include a final effluent limitation for TTHMs, however the MRP required monitoring for trihalomethanes.
 3. On February 12, 2015 the Regional Water Board adopted Order No. R4-2015-0030, which included a new final effluent limitation for TTHMs since the final effluent from the Camrosa WRF consistently exceeded the MCL for TTHMs of 80 µg/L. The concentration of TTHMs in the final effluent from 2004 through 2014

ranged from less than 0.03 mg/L to 219 mg/L. Since the Permittee was unable to meet the new final effluent limitation for TTHMs and the Permittee needed additional time to make the necessary improvements to the Camrosa WRF, the Order also included a time schedule with an interim monthly average effluent limitation for TTHMs. The interim effluent limitation of 190 mg/L was a performance-based value set at the 95th percentile of final effluent data collected between 2004 and 2014, using MINITAB. The time schedule required CWD to cover the chlorine contact chamber by July 2015 and to evaluate its efficacy in reducing TTHMs. In addition, if further reduction of TTHMs was required, the time schedule required CWD to implement additional alternatives to reduce TTHMs to below the MCL.

4. The Permittee completed multiple activities prescribed in Order No. R4-2015-0030 such as installing covers on the chlorine contact chamber in March 2017 and the secondary clarifiers in May 2018. The covers were installed to reduce the chlorine demand from sunlight and debris entering the treatment plant. After installation of the covers, CWD conducted maintenance on the oxidation ditches and secondary clarifiers. During this time, the plant was not operating under normal conditions because all the flow had to be directed to one oxidation ditch or one secondary clarifier at a time. It is unclear if the concentration of TTHMs in the recycled water was representative of normal conditions during this time, so it was difficult to immediately assess the efficacy of installing the covers.
5. Although CWD has made progress toward achieving the final effluent limitation for TTHMs during the previous permit cycle, CWD has not yet been able to consistently achieve the final effluent limitation of 80 µg/L. From June 2018 through March 2019 (after the covers for the chlorine contact chamber and secondary clarifiers were installed), the concentration of TTHMs in the recycled water ranged from 77 µg/L to 178 µg/L. The concentration of TTHMs in the final effluent has also been trending downward during the last permit cycle between February 2015 and March 2019.
6. CWD has not attained the final effluent limitations for TTHMs partly due to financing constraints during the last permit cycle. CWD was not able to secure financing for the covers on the chlorine contact chamber or the clarifiers until two years after the installation was initially scheduled.
7. As described in section XIII of this Order, CWD intends to investigate the viability of using sequential chlorination for disinfection to reduce TTHMs to the MCL of 80 µg/L.

D. Chloride and Total Dissolved Solids

Chloride and total dissolved solids (TDS) concentrations in the disinfected tertiary-treated effluent have fluctuated over the years due to the following:

1. The potable water composition supplied to the Camrosa Water District from the Metropolitan Water District (MWD) is not consistent and it has changed in the past as a result of drought. During the drought, instead of 100% State Project water, the potable water composition from MWD included 80% State Project water and 20% Colorado River water. Since Colorado River water contains more salts than State Project water, the imported water had a higher salt concentration than historical imported potable water supplies.

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2. Water conservation has resulted in decreased flows to the sewer system that are more concentrated in salts.
3. A significant amount of chloride loading occurs from the use of water softeners.
4. Due to the drought and reduced supplies of imported water, California water agencies have been encouraged to develop and utilize more local water resources. Local groundwater in the Pleasant Valley Groundwater Basin in the vicinity of CWD's recycled water storage ponds typically contains a higher salt content than imported water and its use increases concentrations of salts found in conventionally treated wastewater effluent. Local groundwater use displaces the need for imported water and reduces the overall amount of salts imported to the watershed.
5. From January 2014 through December 2018, Camrosa WRF produced recycled water containing chloride concentrations between 148 mg/L and 287 mg/L (~~Basin Plan Water Quality Objective of 150 mg/L~~) and TDS concentrations between 520 mg/L and 1199 mg/L (~~Basin Plan Water Quality Objective of 700 mg/L~~). Salts cannot be removed using the existing treatment system at the Camrosa WRF, nor can they be removed with conventional treatment in general. Because salts are a concern regionally and the groundwater does not meet the Basin Plan Water Quality Objectives for TDS and chloride (700 mg/L and 150 mg/L, respectively) ~~for applicable to the~~ confined aquifers in the Pleasant Valley Groundwater Basin (See section V of this Order for an overview of groundwater studies), CWD is collaborating with other dischargers in the watershed to develop and implement a multifaceted Salt and Nutrient Management Plan (SNMP) to address salts in the watershed (See section VII.I of this Order).
6. CWD is currently pumping groundwater from the Pleasant Valley Groundwater Basin, treating it through a reverse osmosis system, and using the treated groundwater to supplement the drinking water supply. The brine from the reverse osmosis treatment is discharged to the Pacific Ocean through the Calleguas Regional Salinity Management Pipeline. This system has been in operation since September 2014 and CWD is currently collecting data on the amount of salts it exports from the watershed and the effect this operation has on the effluent quality. The TDS and chloride concentrations in the recycled water are expected to eventually decrease as a result of CWD's efforts to remove salts from the potable water supply.
7. To assess the influence of CWD's storage ponds on groundwater concentrations of TDS and chloride, CWD is required to implement a groundwater monitoring program to track TDS and chloride levels in strategically located groundwater wells as identified in Section IV of the Monitoring and Reporting Program (CI-0821). The groundwater monitoring in this Order is intended to determine the overall effect the final effluent from the Camrosa WRF has on the surrounding groundwater basin due to the recycled water storage ponds.

IV. QUALITY OF TERTIARY-TREATED EFFLUENT – CAMARILLO WRP

- A. Camarillo Sanitary District (Camarillo SD) owns and operates the Camarillo Water Reclamation Plant (Camarillo WRP), a tertiary treatment plant located at 150 E. Howard Road, Camarillo, California.
- B. The Camarillo WRP primarily discharges tertiary-treated wastewater into Conejo Creek under WDRs contained in Order No. R4-2014-0062 (as amended by Order No. R4-

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2014-0062-A01) which serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0053597), adopted by this Regional Water Board on May 08, 2014.

- C. The treatment process at the Camarillo WRP produces recycled water consisting of disinfected tertiary-treated effluent, which can be used for landscape irrigation with unrestricted access, cooling, impoundments, and other purposes.
- D. Based on data from January 2013 to December 2018, Camarillo WRP produces recycled water containing chloride concentrations in the range of 193 mg/L to 259 mg/L; sulfate concentrations in the range of 149 to 351 mg/L; and TDS concentrations in the range of 880 to 1200 mg/L. Like the Camrosa WRF, the Camarillo WRP's existing treatment cannot remove salts. To remove salts, the Camarillo SD would need to install additional treatment processes. Because salts are a concern regionally, Camarillo SD is collaborating with other dischargers in the watershed to develop and implement an SNMP to address salts in the watershed, including a regional salinity management pipeline (Calleguas Municipal Water District Salinity Management Pipeline) for disposal of brine and other effluents with high salt concentrations.
- E. Order No. R4-2014-0062 for the Camarillo WRP prescribes effluent limitations for TDS, chloride, and sulfate based on the *Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) in the Calleguas Creek Watershed* adopted on October 04, 2007.
- F. Since the Camarillo WRP could not meet the final effluent limitations prescribed in the NPDES permit, Camarillo SD requested a TSO under California Water Code (CWC) section 13385(j)(3)(B)(iii) on May 06, 2011. In response to Camarillo SD's 2011 request, the Regional Water Board issued TSO No. R4-2011-0126 on July 14, 2011. TSO No. R4-2011-0126 was amended several times due to circumstances related to the construction of various infrastructure projects that are needed to comply with the final effluent limitations and changes in the water quality due to a change in the potable water source composition. Camarillo SD is currently in compliance with the TSO but, as described below, is also pursuing an alternative solution to meet the final effluent limitations in their NPDES permit instead of discharging the water to the SMP.
- G. On June 14, 2017, the City of Camarillo entered into an agreement with CWD to implement the Camarillo Sanitary District Interconnection Project. The purpose of the interconnection project is to convey Camarillo WRP recycled water to CWD for crop irrigation instead of discharging the recycled water to the ocean or to Conejo Creek. Since the Camarillo WRP recycled water does not meet the NPDES permit final effluent limitations for TDS, chloride, and sulfate, the Camarillo SD will be diverting the recycled water directly to PVCWD for recycling to avoid discharging under the NPDES permit. When there is not enough demand for Camarillo WRP's recycled water, the recycled water will be diverted to one of CWD's recycled water storage ponds. The Camarillo WRP recycled water will combine with Conejo Creek water in the storage pond at a ratio of approximately one-part Camarillo WRP recycled water to ten-parts Conejo Creek water. The additional salts introduced to the Pleasant Valley Groundwater Basin as a result of Camarillo WRP's discharge will be offset by additional actions Camarillo SD is performing to reduce salts in the watershed. Camarillo SD recently obtained approval to pump and treat approximately 4,500 acre-feet per year of brackish groundwater in the northeast area of the Pleasant Valley Groundwater Basin. The brine generated from treating the brackish water will be discharged to the ocean through the SMP and will remove additional salts from the watershed.

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V. GROUNDWATER STUDIES

Although the treatment systems at the Camrosa WRF do not include salts removal, CWD has performed several groundwater studies and is currently performing several tasks to help mitigate the high TDS and chloride concentrations in the effluent.

- A. In a technical memorandum titled *Perched Zone Study for a Portion of the Pleasant Valley Groundwater Basin - Phase I (July 1997)*, Woodward-Clyde Consultants synthesized available information about the groundwater in the vicinity of the Camrosa WRF and its storage ponds. The Pleasant Valley Groundwater Basin spans approximately 41.6 miles and ranges in elevation from about 20 feet to greater than 800 feet above mean sea level. The geology of the basin is complex and includes the Springville, Camarillo, and Bailey Faults. Water-bearing zones include lenticular sand and gravel within recent and upper Pleistocene alluvium geologic formations; the Fox Canyon aquifer zone within the San Pedro formation; and the Grimes Canyon aquifer zone within the Santa Barbara formation. The Fox Canyon and Grimes Canyon aquifer zones are collectively referred to as the Lower Aquifer System. Groundwater is generally present as perched water in near-surface sandy zones or is present as confined or semi-confined water within deeper sand or gravel deposits. Water from wells east of the Bailey Fault derived from the upper alluvium generally has a higher mineral content than water derived from wells located west of the Bailey Fault.
- B. Another study entitled *Shallow Groundwater of the Eastern Pleasant Valley Basin* (April 2005) was designed to assist in the determination of shallow aquifer geology and groundwater connectivity with other regional aquifers. The results of this study suggest that although the shallow aquifer is relatively well separated from other regional aquifer systems, few wells within the study exhibited true perched behavior in terms of the groundwater level data. The groundwater quality data also suggest that there is limited connectivity of the shallow aquifer to the other regional aquifers.
- C. CWD also conducted a baseline groundwater study entitled *1998 Annual Groundwater Monitoring Report Final Findings from 2-year Baseline Study*. The results of this study indicate that the effluent quality from the Camrosa WRF contains less TDS and chloride than the groundwater in the Pleasant Valley Groundwater Basin. The TDS concentrations up-gradient of the unlined ponds storing the treated effluent ranged from 1904 to 2002 mg/L, and the concentrations of chloride upgradient of the storage ponds ranged from 312 to 370 mg/L. The groundwater down-gradient of the storage ponds had concentrations of TDS and chloride ranging from 958 to 1072 mg/L and 204 to 234 mg/L respectively. There are no known additional discharges that would impact groundwater between the upgradient and downgradient sampling points.

VI. PURPOSE OF ORDER

- A. These WDRs/WRRs are being reissued to CWD pursuant to CWC sections 13263 and 13523. This Order updates the findings and requirements to incorporate changes to the recycled water system that have taken place since 2014, including an anticipated additional source of recycled water (Camarillo WRP), and an additional user of recycled water (PVCWD). This Order also prescribes limitations for recycled water, updates the time schedule for TTHMs, updates the design capacity of the Camrosa WRF based on the updated Engineering Report, and describes CWD's responsibilities for the production, distribution, monitoring, and application of recycled water. CWD is responsible for processing individual end-user applications, inspecting point-of-use facilities, and ensuring end-users' compliance with the requirements contained in this

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Order. The actual delivery of recycled water to end-users is subject to approval by DDW and/or its delegated local health agency.

- B. On October 29, 2014 DDW received a request from MWH Global, on behalf of the Camrosa Water District, to consider free chlorine disinfection technology for compliance with the California Water Recycling Criteria. Accompanying the request was a draft report titled *Bioassay Testing Results and Proposed Contactor Rerating* that was subsequently updated in April 2015. The final report outlines findings from a study conducted at the Camrosa WRF to demonstrate that the Camrosa WRF can use free chlorine disinfection to meet California Code of Regulations Title 22 (Title 22) requirements, thus allowing a shorter contact time in its chlorine contact chambers and increasing the design flow rate of the chlorine contact basin to 3.24 mgd without expanding the facility.
- C. On May 04, 2015, DDW conditionally approved CWD's updated Engineering Report and CWD's request to use free chlorine as an alternative treatment technology for recycled water disinfection. The updated Engineering Report includes new users and use sites, an analysis of the capacity of each unit process at the Camrosa WRF, and an operations plan for the Camrosa WRF. The capacity analysis included in the Engineering Report indicates the secondary clarifier is the unit process limiting the design capacity of the Camrosa WRF. Since the design capacity of the secondary clarifier is 2.25 mgd and all other unit processes have a greater design capacity, the Camrosa WRF may be rerated at 2.25 mgd without compromising treatment quality.
- D. On October 06, 2016 CWD submitted a proposal to the Regional Water Board for a new project that would convey up to 800 acre-feet per year of Title 22 recycled water from the Camarillo Sanitary District's Camarillo Water Reclamation Plant (CSD Interconnection Project). The Regional Water Board reviewed the information submitted and determined that the existing WDRs/WRRs in Order No. R4-2015-0030 would need to be amended since the proposal includes introducing a new water source and a new use area. On February 22, 2017, the Regional Water Board requested that CWD submit an application to amend the WDRs/WRRs including an approved updated use site report.
- E. On December 13, 2018, CWD submitted a Report of Waste Discharge to the Regional Water Board to permit the CSD Interconnection Project. On January 08, 2019, the Regional Water Board requested additional information to complete the application. The use site report was not yet complete at the time the application was submitted but on March 11, 2019 DDW approved the use site report for the Pleasant Valley County Water District use sites and the Engineering Report.

VII. REGULATION OF RECYCLED WATER

- A. State authority to oversee recycled water use is shared by DDW, the State Water Resources Control Board (State Water Board), and the Regional Water Boards. DDW is the agency with the primary responsibility for establishing water recycling criteria under Title 22 of the California Code of Regulations (CCR) to protect the health of the public using the groundwater basins as a source of potable water. The State Water Board and the Regional Water Boards are responsible for issuing WDRs and WRRs for water that is used or proposed to be used as recycled water.
- B. On January 6, 1977, the State Water Board adopted Resolution No. 77-1, Policy with Respect to Water Reclamation in California, which includes principles that encourage and recommend funding for water recycling and its use in water-short areas of the

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state. On September 26, 1988, the Regional Water Board also adopted Resolution No. 88-012, which encourages the beneficial use of recycled wastewater and supports water recycling projects.

- C. The State Water Board adopted the Recycled Water Policy (State Water Board Resolution No. 2009-0011) on February 3, 2009 and amended the Policy on January 22, 2013 (State Water Board Resolution No. 2013-0003). The Recycled Water Policy was further amended and adopted on December 11, 2018 (State Water Board Resolution No. 2018-0057) by the State Water Board and approved by the Office of Administrative Law (OAL) on April 08, 2019. In part, the purpose of the Recycled Water Policy is to protect groundwater resources and to increase the beneficial use of recycled water from municipal wastewater sources in a manner consistent with state and federal water quality laws and regulations. This Order includes requirements consistent with the Recycled Water Policy.
- D. In section 4 of the amended Recycled Water Policy (Resolution No. 2018-0057), two primary agencies are described with jurisdiction over the use and regulation of recycled water including the State and Regional Water Boards. The State Water Board establishes general policies governing the permitting of recycled water projects, develops uniform water recycling criteria appropriate to particular uses of water, processes and approves wastewater change petitions filed by wastewater dischargers for recycled water projects that have the potential to decrease flow in any portion of a watercourse such as a river or stream, adopts statewide orders for the permitting of recycled water projects, reviews and approves Title 22 engineering reports for recycled water use, and allocates and disperses funding for recycled water projects consistent with its roles of protecting water quality, public health, and sustaining water supplies. The State Water Board also exercises general oversight of recycled water projects, including review of Regional Water Board permitting practices. The regional water boards issue permits that include requirements needed to protect water quality, human health, and the environment consistent with the State and Regional Water Quality Control Plans, policies, and applicable law. The regional water boards also exercise their authority to encourage the use of recycled water.
- E. When the Recycled Water Policy was initially adopted with State Water Board Resolution 2009-0011, reference was made to the California Department of Public Health (CDPH) with respect to recycled water. A 1996 Memorandum of Agreement (MOA) between the California Department of Public Health (whose functions with respect to recycled water have been transferred to DDW) and the State Water Board on behalf of itself and the regional water boards regarding the use of recycled water allocates primary areas of responsibility and authority between these agencies. The MOA provides methods and mechanisms necessary to ensure ongoing and continuous future coordination of activities relative to the use of recycled water in California. This Order includes requirements consistent with the MOA.
- F. CWC section 13523 provides that a Regional Water Board, after consulting with and receiving recommendations from DDW or its delegated local health agency, and after any necessary hearing, shall, if it determines such action to be necessary to protect the health, safety, or welfare of the public, prescribe WRRs for water that is used or proposed to be used as recycled water. CWC section 13523 further provides that, at a minimum, the WRRs shall include, or be in conformance with, the statewide water recycling criteria established by DDW pursuant to CWC section 13521.

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- G.** CWC section 13523.5, on WRRs, states that a Regional Water Board may not deny issuance of WRRs to a project that violates only a salinity standard in a Basin Plan. This provision does not apply to WDRs. WDRs for projects that recycle water may contain effluent and other limitations on discharges of salts, as necessary to meet water quality objectives, comply with the Antidegradation Policy or otherwise protect beneficial uses.
- H.** Pursuant to CWC section 13523, the Regional Water Board has consulted with DDW regarding the proposed recycling project and has incorporated their recommendations into this Order.
- I.** Section 7.4 of the Recycled Water Policy states that site-specific groundwater monitoring shall not be required for irrigation projects where recycled water is applied at rates that minimize percolation of recycled water below the plants' root zone and account for the nutrient levels in the recycled water and nutrient demand by plants when applying fertilizers. The Recycled Water Policy also includes exceptions to this exemption from groundwater monitoring including when a regional water board determines there are unique site-specific conditions or such project-specific monitoring is required under the accepted salt and nutrient management plan, applicable basin plan, or other water board program such as the Irrigated Lands Program. Unique site-specific conditions include recycled water that is proposed to be stored in unlined ponds where the regional water board determines that it will result in an unacceptable threat to groundwater quality. These WDRs/WRRs are being issued with site-specific groundwater monitoring to CWD due to the unlined holding ponds which the Regional Water Board has determined may otherwise result in an unacceptable threat to water quality.
- J.** It is the intent of the recycled water policy for salts and nutrients be addressed regionally rather than imposing requirements solely on individual recycled water projects. Section 6.1.2 of the Recycled Water Policy states, "Salts and nutrients from all sources must be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The most effective way to address salt and nutrient loading is typically through the development of regional or subregional salt and nutrient management plans rather than imposing requirements solely on individual recycled water projects or other individual sources of salts and nutrients." In the case of this facility, the operation of the desalter is intended to address salt loading on a more regional basis. The operation of the desalter, in conjunction with the requirements in this Order, will work together to reduce the salts on a basin-wide basis.
- K.** A goal of the Recycled Water Policy is to increase the beneficial use of recycled water from municipal wastewater sources in a manner consistent with state and federal water quality laws and regulations. The Recycled Water Policy directs the Regional Water Boards to collaborate with generators of municipal wastewater and interested parties in the development of SNMPs to manage loadings of salts and nutrients to groundwater basins in a manner that is protective of beneficial uses, thereby supporting the sustainable use of local waters.

The stakeholders within the Calleguas Creek Watershed have developed a draft SNMP. Salts including TDS and chloride have been historically high in the Pleasant Valley Groundwater Basin, so the draft SNMP includes measures to improve the groundwater quality. The draft SNMP includes plans to build several groundwater desalters throughout the watershed and to extend the Salinity Management Pipeline (SMP)

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(currently in operation) further up the watershed. CWD currently has one of these desalters in operation ~~at adjacent to~~ the Camrosa WRF and discharges the brine to the SMP. These improvements will remove excess salts from the watershed by conveying salts in brine from the desalters to the ocean. Surface water and groundwater monitoring are also an integral part of the draft SNMP. The draft SNMP specifies that baseline monitoring would be conducted 6 months prior to using the pipeline and monitoring would continue for at least one year after use of the pipeline to assess the effect this system has on the watershed. Continuation of the sampling regime after one year of using the pipeline would be determined based on the data generated. There are no notable trends of nitrate in the Pleasant Valley Groundwater Basin. The lower aquifer system contains an average nitrate as nitrogen concentration at of 0.3 mg/L ~~on average~~. The upper aquifer system exhibits a median nitrate concentrations as nitrogen as high as 36.842.6 mg/L, exceeding the 10 mg/L Basin Plan Water Quality Objective. Nitrate concentrations in the recycled water are below the Basin Plan Water Quality Objective of 10 mg/L and this Order includes a final effluent limitation for nitrate to ensure the groundwater basin is protected.

VIII. A TIME SCHEDULE IS APPROPRIATE

- A. On March 22, 2019, CWD submitted a letter to the Regional Water Board requesting a time schedule to provide interim effluent limitations for TTHMs. CWD expressed concern that the Camrosa WRF's effluent concentrations may exceed the final effluent limitation for TTHMs and provided a schedule to attain compliance.
- B. CWD has been making progress toward achieving the final effluent limitation for TTHMs and CWD still needs additional time to complete a study and install improvements to the Camrosa WRF to meet the final effluent limitation for TTHMs.

~~C.~~ Section 13300 of the CWC states:

~~D.C.~~ "Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a permittee are approaching capacity, the board may require the permittee to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the permittee shall take in order to correct or prevent a violation of requirements."

~~E.D.~~ Title 23 of the California Code of Regulations, section 2231 governs time schedules and requires that time schedules shall not permit any unnecessary time lag and requires status reports. Time schedules should also include specific dates on which tasks are to be completed and the date on which full compliance will be achieved. This Order is consistent with the regulation.

~~F.E.~~ The Nonpoint Source Policy also recognizes that there are instances where it will take time to achieve water quality requirements, and in those cases, it may be appropriate to identify measurable long term and interim water quality goals, a timeline for achieving these goals, identification and implementation of pollution controls, provision for maintenance of the implementation actions, and provisions for additional actions if initial actions are inadequate. This Order is consistent with the Nonpoint Source Policy.

~~G.F.~~ Based on effluent monitoring data, the Permittee is not able to consistently comply with the final effluent limitation for TTHMs in this Order. Accordingly, pursuant

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to CWC section 13300, a discharge of waste is taking place and/or threatens to take place that violates requirements prescribed by the Regional Water Board.

H.G. The time schedule may not be longer than that which is reasonably necessary to achieve implementation of the water quality objectives. As detailed below, the estimated time for development and construction of an ammonia injection system is three years and three months, which is the allowable time to attain the MCL.

H.H. In considering a time schedule, the Board considered the significant outlays for implementation.

J.I. The time schedule requires CWD to conduct a study to assess the feasibility and effectiveness of using sequential chlorination for disinfection at the Camrosa WRF. CWD is required to submit a work plan, conduct the study, and submit a final report describing the results and feasibility of implementing sequential chlorination at the facility. The time schedule gives CWD one year and four months to complete the sequential chlorination study and submit a final report. This amount of time is appropriate in order for CWD to collect enough data to determine the most effective placement of the ammonia injection system and to give CWD enough time to develop a final report.

K.J. After conducting the sequential chlorination study, the time schedule includes five months to procure financing for the ammonia injection system and another seven months to install the ammonia injection system. This is an appropriate amount of time given the size and complexity of this project.

L.K. Once the ammonia injection system is installed, the Permittee has one year to operate and adjust the ammonia injection system. This amount of time is appropriate because it allows CWD to determine adjustments required based on seasonal variations in water quality.

M.L. After one year of adjustments to the system, the time schedule gives the permittee one additional year to determine the efficacy and reliability of the ammonia injection system. The Permittee requires one year to complete this task to ensure that the recycled water will reliably meet the final effluent limitation for TTHMs.

N.M. The time schedule includes an interim effluent limitation for TTHMs based on the 95th percentile of data collected during the previous permit cycle between 2015 and 2018. The interim effluent limitation permits temporary excursions above the primary MCL since the discharger is not able to immediately comply with the primary MCL. These excursions are not expected to negatively impact the uses or end users of the recycled water because TTHMs have not been detected in the groundwater around the holding ponds. In addition, the impact to the groundwater is expected to be minimal since the holding ponds are not designed for percolation and any percolation into the groundwater basin is incidental. TTHMs were not detected in the groundwater upgradient or downgradient of the recycled water holding ponds during the previous permit cycle. The interim limitations in this order remain unchanged from the previous Order, so the concentration of TTHMs in the groundwater is expected to remain below the detection limit. The groundwater monitoring required upgradient and downgradient of the recycled water holding ponds in this Order will continue to be used to assess any impacts the recycled water may have on the groundwater basin due to the holding ponds.

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IX. OTHER APPLICABLE PLANS, POLICIES AND AUTHORITIES

A. THE BASIN PLAN

1. The Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) designates beneficial uses for surface and groundwater; establishes narrative and numeric water quality objectives that shall be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the State's antidegradation policy; and includes implementation provisions, programs, and policies to protect all waters in the region. In addition, the Basin Plan incorporates all applicable State Water Board and Regional Water Board plans and policies and other pertinent water quality policies and regulations.
2. The Basin Plan incorporates the primary MCLs found in the California Code of Regulations by reference. This incorporation is prospective, including future changes to the incorporated provisions as the changes take effect. Groundwater designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents and radionuclides in excess of the MCLs. The Basin Plan also specifies that groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
3. The Basin Plan contains water quality objectives for groundwater in the Pleasant Valley and Santa Clara River Valley groundwater basins. The beneficial uses of these receiving groundwater basins are as follows:

TABLE 4. BENEFICIAL USES OF GROUNDWATER

Receiving Water Name	Beneficial Uses
Pleasant Valley (Ventura Central Basin; Department of Water Resources (DWR) Basin No. 4-6)	<u>Confined Aquifers</u> Existing Beneficial Uses: Municipal and domestic water supply (MUN); industrial service supply (IND); industrial process supply (PROC); and agricultural supply (AGR). <u>Unconfined & Perched Aquifers</u> Existing Beneficial Uses: IND; PROC; and AGR. Potential Beneficial Use: MUN.
Santa Clara River Valley (Oxnard) (DWR Basin No. 4-4.02)	<u>Oxnard Forebay</u> Existing Beneficial Uses: MUN, IND, PROC, and AGR. <u>Confined Aquifers</u> Existing Beneficial Uses: MUN, IND, PROC, and AGR. <u>Unconfined and Perched Aquifers</u> Existing Beneficial Uses: MUN and AGR. Potential Beneficial Uses: IND.

The limitations contained in this Order are intended to protect these uses and maintain water quality in these groundwater basins. Since MUN is a beneficial use, limitations are based on DDW's primary and secondary drinking water standards (MCLs) in the Domestic Water Quality and Monitoring Regulations, CCR, title 22, chapter 15, and Basin Plan objectives. These limitations are necessary to assure the protection of public health and the use of the groundwater basin for domestic supply. Final effluent limitations are included for those pollutants that exceeded the

MCLs during the previous permit cycle and include total trihalomethanes, haloacetic acids, and uranium. The final effluent limitation for carbon tetrachloride was removed since there were no detections during the previous permit cycle.

4. The Basin Plan also includes water quality objectives for nitrogen because nitrate levels can cause health problems in humans. To protect the groundwater from increased concentrations of nitrogen, this Order includes final effluent limitations for nitrate, nitrite, and the sum of nitrate and nitrite based on the Basin Plan objectives.
5. The Basin Plan water quality objectives for salts in these groundwater basins are:

TABLE 5. GROUNDWATER QUALITY OBJECTIVES FOR SALTS

DWR Basin No.	Basin	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron (mg/L)
4-6	Pleasant Valley				
	Confined aquifers	700	300	150	1.0
	Unconfined and perched aquifers	--	--	--	--
4-4.02	Santa Clara River Valley				
	Oxnard Plain				
	Oxnard Forebay	1200	600	150	1.0
	Confined Aquifers	1200	600	150	1.0
	Unconfined and perched aquifers	3000	1000	500	--

The recycled water ~~use areastorage ponds~~ for the Camrosa WRF ~~recycled water isare~~ located above the unconfined and semi-perched aquifer portion of the Pleasant Valley Groundwater Basin for which there are no groundwater quality objectives for salts in the Basin Plan. ~~Since there are no groundwater quality objectives for salts in the unconfined and semi-perched aquifers of the Pleasant Valley Groundwater Basin, the water quality objectives for the confined aquifers in the Pleasant Valley Groundwater Basin apply. However, because CWD removes salts from groundwater in the Pleasant Valley Groundwater basin using a desalter and discharges the brine to the ocean, effluent limitations greater than the water quality objectives for TDS and chloride are allowed in this Order.~~ Performance-based final effluent limitations were developed for TDS and chloride in this Order ~~because based upon data collected between 2009 and 2014. CWD intends to operate the desalter consistently and it will continue to remove salts from the groundwater basin.~~ Consistent with the procedure contained in Appendix E of the United States Environmental Protection Agency's (USEPA) *Technical Support Document for Water Quality-based Toxics Control* (USEPA's TSD), the monthly average limitations were set at the 95th percentile of final effluent data collected between 2009 and 2014. The final effluent limitations were derived statistically from a probability plot, using the MINITAB statistical software, Release 14.

Groundwater quality data from 1998, 2017, and 2018 showed that the TDS and chloride concentrations in the groundwater in the Pleasant Valley Groundwater Basin have been decreasing. ~~The TDS and chloride concentrations upgradient of the recycled water storage ponds continue to exceed the water quality objectives in the Basin Plan for confined aquifers but the TDS and chloride concentrations downgradient of the recycled water storage ponds tend to be lower than the concentrations upgradient.~~ The final effluent limitations are protective of the

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potential MUN beneficial use because there are no primary MCLs for TDS and chloride, but the limitations in this Order for these pollutants are all below the upper limit of the secondary drinking water consumer acceptance contaminant level ranges.

To be consistent with the methodology used to develop the final effluent limitations for TDS and chloride, performance-based The final effluent limitations were developed for sulfate and boron ~~are based on the~~ since there are no water quality objectives ~~for applicable to the~~ unconfined and semi-perched aquifers ~~in of~~ the Pleasant Valley Groundwater Basin. The final effluent limitations for sulfate and boron are protective of the potential MUN beneficial use because the final effluent limitation for sulfate is below the upper limit of the secondary MCL consumer acceptance level range and the final effluent limitation for boron is set ~~at below~~ its notification level.

Consistent with the Sources of Drinking Water Policy (State Water Board Resolution No. 88-63), the limitations in this Order are intended to protect the potential MUN beneficial use of the underlying groundwater basins and to help restore the water quality of the impacted aquifer.

The recycled water use area for the Camarillo WRP recycled water and the mixture of Camarillo WRP recycled water and Conejo Creek water includes the unconfined and confined aquifers of both the Pleasant Valley and Santa Clara River Valley Oxnard Plain. This Order does not assign limitations for the recycled water from Camarillo WRP because the Camarillo WRP shall comply with separate WDRs/WRRs under Order No. R4-2013-0140.

B. SAFE DRINKING WATER ACT

Pursuant to CWC section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

C. PORTER-COLOGNE WATER QUALITY CONTROL ACT

1. The direct use of Title 22 tertiary-treated and disinfected recycled water for impoundments and irrigation could affect the public health, safety, or welfare; requirements for such uses are, therefore, necessary in accordance with CWC section 13523.
2. CWC section 13263 requires that the Regional Water Board prescribe requirements as to the nature of any discharge to waters of the State, implementing any relevant water quality control plan and taking into consideration beneficial uses, water quality objectives, and the need to prevent nuisance.
3. Pursuant to CWC section 13263(g), discharges of waste into water of the state are privileges, not rights. Nothing in this Order creates a vested right to continue the discharge. CWC section 13263 authorizes the Regional Water Board to issue waste discharge requirements that implement any relevant water quality control plan.
4. CWC section 13267 authorizes the Regional Water Board to require technical and monitoring reports. The attached MRP establishes monitoring and reporting requirements to implement federal and state requirements.

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CWC section 13267(b) states, in part:

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 proposes to discharge 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 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 reports 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.

5. The need for technical and monitoring reports required by this Order, including the MRP, are based on the Report of Waste Discharge (ROWD) and Engineering Report; the recommendations from DDW; and other information in the Regional Water Board's files for the facility. The technical and monitoring reports are necessary to assure compliance with these WDRs and WRRs. The burden, including costs, of providing the technical reports required by this Order bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Specifically, the required monitoring will confirm that the operations of the Camrosa WRF meets the parameters of this Order and complies with the Basin Plan, thus protecting human health and the environment.
6. Pursuant to CWC section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Water Board in accordance with CCR, title 23, sections 2050-2068. The State Water Board must receive the petition by 5:00 p.m., 30 days after adoption of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or State holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found online at: http://waterboards.ca.gov/public_notices/petitions/water_quality.
7. The Regional Water Board has notified CWD, interested agencies, and persons of its intent to issue this Order for the production and use of recycled water and has provided them with an opportunity to submit written comments. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to these WDRs/WRRs. (CWC section 13263.)
8. In an enforcement action, it shall not be a defense for CWD that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, CWD shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored, or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.

D. ANTIDEGRADATION POLICY

1. On October 28, 1968, the State Water Board adopted Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in*

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California (Resolution 68-16), establishing an Antidegradation Policy for the State Water Board and Regional Water Boards. Resolution 68-16 requires the Regional Water Board, in regulating discharge of waste, to maintain high quality waters of the State until it is demonstrated that any change in quality (1) will be consistent with maximum benefit to the people of the State, (2) will not unreasonably affect beneficial uses, and (3) will not result in water quality less than that prescribed in the Regional Water Board's policies. Resolution 68-16 requires the discharge be regulated to meet best practicable treatment or control to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State be maintained. The Regional Water Board's Basin Plan incorporates, by reference, the state antidegradation policy.

- ~~2. The threshold question for application of the antidegradation policy is whether the water body receiving the discharge is a "high-quality water." A water body is a high-quality water if its water quality is better than the water quality objective applicable to that water body. A water body may be high quality for some pollutants and not for others.~~
- ~~3.2. This Order allows incidental percolation of the disinfected tertiary effluent to groundwater from storage ponds at the Facility. This Order requires the effluent to meet MCLs for drinking water and groundwater quality standards in the Basin Plan. The effluent limitations for TDS and chloride are performance-based which have been found, based on groundwater monitoring, to be higher quality than existing background concentrations of TDS and chloride in the groundwater. For chloride and TDS, available data indicates that the water quality in the Pleasant Valley Groundwater Basin is not higher quality than the water quality objective and has no assimilative capacity in the vicinity of the recycled water storage ponds that would be protected under the antidegradation policy. Previous studies conducted on the semi-perched aquifer also indicate that there is limited connectivity to the confined aquifers and that any impact to the confined aquifers from the recycled water storage ponds is expected to be minor. Data going back to February 1997 indicates that TDS and chloride concentrations in the Pleasant Valley Groundwater basin in the vicinity of the recycled water storage ponds exceed the water quality objectives for the confined aquifer. Between 1997 and 2018, the concentrations of TDS in the well upgradient of the ponds ranged from 890 to 2,002 mg/L and the concentrations of chloride in the upgradient well ranged from 176 and 370 mg/L. The range of concentrations for both TDS and chloride have consistently exceeded the water quality objectives of 150 mg/L for chloride and 700 mg/L for TDS, therefore the Pleasant Valley Groundwater Basin is not a high-quality water. Because the Pleasant Valley Groundwater Basin does not contain a high-quality water, no antidegradation analysis is necessary. Nevertheless, to the extent that the basin may have been a high-quality water as of 1968, the board finds the following: There are no water quality objectives applicable to the unconfined and semi-perched aquifers to which the recycled water storage ponds discharge nor are there primary MCLs for TDS and chloride. However, the limitations in this Order are more stringent than the upper limit of the secondary drinking water consumer acceptance contaminant level ranges, thereby protecting the potential MUN beneficial use and ensuring there is no degradation of groundwater quality.~~
- ~~4.3. With regard to the ponds, a~~Allowing the continued ~~discharge-percolation of recycled water to the storage ponds~~ is to the maximum benefit to the people of the State. The recycled water storage ponds are necessary infrastructure that make it

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possible to supply farmers in the region and the CSUCI campus with a consistent water supply. The use of recycled water for irrigation reduces the region's dependence on imported potable water while also reducing the mass of salts imported into the region. The closest potable supply well or agricultural supply well downgradient of the recycled water storage ponds is the University Well that supplies CWD's regional desalter. Groundwater is pumped by the facility, treated by reverse osmosis, and used in CWD's potable water supply. Since there are no potable or agricultural supply wells downgradient of the recycled water storage ponds before reaching the regional desalter, no other existing groundwater well is expected to be impacted from operation of the recycled water storage ponds. When CWD's desalter is in full operation, the desalter removes approximately 50% more TDS and 25% more chloride than is discharged in the recycled water. This is a conservative estimate comparing the total mass of TDS and chloride discharged to the ponds in recycled water to the mass of TDS and chloride discharged to the brine line. Since only a portion of the recycled water percolates into the groundwater, the mass of TDS and chloride that enters the groundwater is expected to be only a fraction of the amount assumed in the calculation.

5.4. The recycled water from the Camarillo WRP will be conveyed directly to PVCWD for reuse or stored in one of CWD's recycled water storage ponds and mixed with water diverted from Conejo Creek as part of the Camarillo Interconnection Project. Camarillo SD recently obtained approval to pump and treat approximately 4,500 acre-feet per year of brackish groundwater in the northeast area of the Pleasant Valley Groundwater Basin. The brine generated from treating the brackish water will be discharged to the ocean through the SMP and will remove additional salts from the watershed. It is anticipated that Camarillo SD's regional desalter will be in operation soon after Camarillo SD begins conveying water to one of CWD's recycled water storage ponds. Camarillo WRP's discharge to CWD's recycled water storage pond is regulated by a separate order, Order No. R4-2013-0140. In the meantime, this Order requires CWD to convey Camarillo SD's recycled water directly to recycled water users when there is immediate demand. This will limit the amount of water conveyed to the storage pond and reduce the salt loading to the groundwater basin. Based upon technical evaluations and projections, Camarillo SD's desalter will similarly offset the salt balance of the discharge to CWD's recycled water storage pond and result in a net loss of salt to the Pleasant Valley Groundwater Basin.

6.5. Using the Round Mountain desalter, this Order requires CWD to export more salt from the watershed than the mass of salts that percolate into the groundwater from the ponds and to submit an annual salt balance calculation to demonstrate that. CWD will also continue working with other stakeholders in the region to finalize and resubmit a Salt and Nutrient Management Plan.

~~i. This Order imposes effluent limitations to ensure the discharge will not cause or contribute to an exceedance of the water quality objectives for chloride and TDS in the basin. There are no primary MCLs for TDS and chloride but the limitations in this Order are more stringent than the upper limit of the secondary drinking water consumer acceptance contaminant level ranges, thereby protecting the MUN beneficial use.~~

7.6. Since the final effluent currently exceeds the primary MCL for TTHMs, a time schedule is included in this Order to allow the discharger to continue distributing recycled water for non-potable uses while conducting the tasks needed to comply

with the final effluent limitation. Allowance of a time schedule, and any degradation that occurs due to percolation from the ponds prior to the completion of the tasks in the time schedule, is also to the maximum benefit to the people of the State. In addition, groundwater quality data demonstrates that there is assimilative capacity in the Pleasant Valley Groundwater Basin in the vicinity of the recycled water storage ponds for TTHMs since there have been no detections of TTHMs in the groundwater from the upgradient and downgradient wells. This Order requires continued groundwater monitoring for TTHMs to ensure the groundwater basin continues to meet the MCL for TTHMs. The time schedule will ensure that the discharger may continue treating wastewater and distributing recycled water for non-potable uses while conducting the tasks needed to comply with the final effluent limitation. Further, CWD is implementing best practicable treatment and control. These controls include covers for the chlorine contact tanks and launder areas of the secondary clarifiers to reduce chlorine usage and investigating the feasibility of using sequential chlorination for disinfection.

8.7. With regard to the land application areas, application of recycled water for irrigation is limited to agronomic rates and therefore is not expected to measurably impact groundwater quality or lead to any degradation. To the extent there is any degradation, the use of recycled water for irrigation is to the maximum benefit to the people of the State and the application in accordance with agronomic rates constitutes best practicable treatment and control.

X. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND NOTIFICATION

The reissuance of the Discharger's WDRs is exempt from the provisions of the California Environmental Quality Act (public Resources Code section 21000 *et seq.*) pursuant to title 14 of the CCR section 15301, which provides a categorical exemption for existing facilities. There is no expansion of use beyond that existing under the prior Order(s).

THEREFORE, IT IS HEREBY ORDERED that Order No. R4-2015-0030 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 CWC (commencing with section 13000) and regulations and guidelines adopted thereunder, and CCR, title 22, division 4, chapter 3, CWD shall comply with the requirements in this Order.

XI. RECYCLED WATER TREATMENT SPECIFICATIONS

Treatment of recycled water shall be as described in the findings of this Order and as described in DDW's conditional approval letter issued on March 11, 2019.

XII. FINAL EFFLUENT LIMITATIONS

- A.** Recycled water used in compliance with this Order shall be limited to disinfected tertiary-treated municipal wastewater from the Camrosa WRF or the Camarillo WRP, or the combination of Camarillo WRP effluent, Camrosa effluent, and Conejo Creek water only, as proposed.
- B.** The disinfected tertiary-treated effluent produced at Camrosa WRF downstream of the chlorination basin shall not contain pollutants in excess of the following limits listed in Table 6.

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TABLE 6. FINAL EFFLUENT LIMITATIONS

Constituents	Units	Average Monthly	7-day Median	Average Daily	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (BOD ₅ 20°C)	mg/L	20 ¹	---	---	45 ¹	---	---
Total Suspended Solids (TSS)	mg/L	15 ¹	---	---	45 ¹	---	---
Settleable Solids	mL/L	0.1 ¹	---	---	0.3 ¹	---	---
Oil and Grease	mg/L	10	---	---	15	---	---
Total Coliform ²	MPN/100 mL	23	2.2	---	---	---	240
Turbidity ³	NTU	---	---	2	5	---	10
Total Dissolved Solids	mg/L	947	---	---	---	---	---
Chloride	mg/L	244	---	---	---	---	---
Sulfate	mg/L	<u>300212</u>	---	---	---	---	---
Boron	mg/L	<u>40.6</u>	---	---	---	---	---
Nitrate as Nitrate	mg/L	45	---	---	---	---	---
Nitrate as Nitrogen	mg/L	10	---	---	---	---	---
Nitrite as Nitrogen	mg/L	1	---	---	---	---	---
Nitrate-N + Nitrite-N	mg/L	10	---	---	---	---	---
Total Trihalomethanes	µg/L	80	---	---	---	---	---
Haloacetic Acids	µg/L	60	---	---	---	---	---
Uranium	pCi/L	20	---	---	---	---	---
pH	Units	---	---	---	---	6.5	8.5

- C.** Disinfected tertiary-treated effluent shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of DDW's Drinking Water Standards.
- D.** Disinfected tertiary-treated effluent used as recycled water that could affect the receiving groundwater shall not contain any substances in concentrations toxic to human, animal, or plant life.
- E.** Disinfected tertiary-treated effluent used as recycled water shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect the beneficial uses of the receiving groundwater.
- F.** The use of recycled water shall not impact tastes, odors, color, foaming, or other objectionable characteristics to the receiving water.
- G.** Maximum Contaminant Level Triggers

¹ This is a technology-based limit contained in similar orders for Publicly Owned Treatment Works (POTWs) indicative of treatment levels that are achievable by tertiary-treated wastewater treatment systems.

² The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform per 100 milliliters (22 CCR § 60301.230).

³ The turbidity levels for filtered wastewater shall not exceed any of the following: 1) An average of 2 NTU within a 24-hour period, 2) 5 NTU more than 5% of the time within a 24-hour period, and 3) 10 NTU at any time (22 CCR § 60301.320).

1. Trigger Mechanism

The final effluent produced at the Camrosa WRF will be monitored annually for all pollutants with MCLs for drinking water established by DDW and included in Attachment F. If the annual sampling result of these pollutants (target chemicals) exceeds the corresponding MCL, using the criteria established in the Monitoring and Reporting Program (MRP) CI No. 0821, then CWD will perform monthly effluent monitoring for these target chemicals until the MCL is met in two consecutive months, at which point CWD may resume the regular frequency of testing. If the final effluent continues to exceed a pollutant's MCL six months after the initial exceedance, CWD shall initiate an investigation into the cause of the exceedance and determine an appropriate remedy to bring the final effluent back into compliance. CWD shall submit a final report to the Regional Water Board describing the issue and the actions CWD performed to alleviate the problem.

2. Exceedances of Monitored Pollutants

The WDRs/WRRs may be reopened to include limitations or increased monitoring frequencies for constituents that exceed the applicable Basin Plan water quality objective or drinking water MCL.

3. Attenuation Study

An attenuation study may be conducted for the target chemicals where MCLs are exceeded, as described in the MRP. CWD shall submit a work plan, acceptable to the Executive Officer, detailing the proposed attenuation study within 120 days after an average annual result exceeds the pollutant's MCL.

XIII. TIME SCHEDULE FOR TOTAL TRIHALOMETHANES

- A. CWD shall implement this time schedule immediately and complete each milestone by the date indicated:

Activity	Start Date	Completion Date	Monitoring Activity	Analysis of Efficacy
Submit a Work Plan to the Regional Water Board to investigate the use of sequential chlorination to reduce trihalomethane formation	The Work Plan is a requirement from the previous time schedule, so development of the work plan is currently taking place.	June 30, 2019	Continue monthly monitoring of TTHMs.	N/A
Conduct a sequential chlorination study to investigate its effectiveness at reducing trihalomethane formation using the approved work plan	September 30, 2019	January 01, 2021	Continue monthly monitoring of TTHMs.	Determine the expected reduction in TTHMs as a result of sequential chlorination.
Submit a final report summarizing the results of the sequential chlorination study and subsequent steps CWD will take to comply with the final effluent limitation of TTHMs	N/A	January 31, 2021	Continue monthly monitoring of TTHMs.	N/A

Activity	Start Date	Completion Date	Monitoring Activity	Analysis of Efficacy
Budget for permanent ammonia injection system at the Camrosa WRF	January 01, 2021	May 31, 2021	Continue monthly monitoring of TTHMs.	N/A
Procure and install a permanent ammonia injection system	June 01, 2021	December 31, 2021	Continue monthly monitoring of TTHMs.	N/A
Operate and adjust the ammonia injection system	January 01 2022	December 31, 2022	Continue monthly monitoring of TTHMs.	Analyze effluent data to determine reduction in TTHMs.
Determine efficacy and reliability of the ammonia injection system and achieve compliance with the final effluent limitation for TTHMs	January 01, 2023	December 31, 2023	Continue monthly monitoring of TTHMs.	Monitor effluent to determine consistency and reliability of reductions in TTHMs.

- B.** The interim average monthly effluent limitation for TTHMs prescribed in this compliance schedule is a performance-based value set at the ninety-fifth percentile of final effluent data from 2015 through 2018, using MINITAB and coincides with the interim limitation of Order No. R4-2015-0030.
- C.** From September 12, 2019 to December 31, 2023, the Permittee shall comply with the following interim effluent limitation for TTHMs:

Constituent	Units	Average Monthly Effluent Limitation
Total Trihalomethanes	µg/L	190

If the analytical result of a single sample, monitored monthly, exceeds the interim monthly average effluent limitation for TTHMs, CWD should collect up to four additional samples, at approximately equal intervals during that calendar month, to determine compliance with the interim average monthly effluent limitation. If the final effluent exceeds the interim average monthly effluent limitation for two consecutive months, CWD shall notify the Regional Water Board immediately and initiate an investigation into the cause of the exceedance and conduct source control measures to bring the final effluent back into compliance with the interim limitation. CWD shall submit a summary of the investigation to the Regional Water Board in the following quarterly monitoring report.

- D.** The Permittee shall submit quarterly progress reports as part of the quarterly monitoring report required by the MRP in Attachment E of this Order. The reports shall summarize the progress to date, activities conducted during that quarter, and the activities planned for upcoming quarters.
- E.** The Permittee shall achieve full compliance with the final effluent limitation for TTHMs in this Order as soon as possible, but no later than December 31, 2023.
- F.** The Permittee shall submit a request to the Regional Water Board for any modifications to the time schedule if the Permittee is unable to meet any of the deadlines in the time

schedule above or if the Permittee determines the final effluent limitation will not be achieved by the deadline.

XIV. GENERAL REQUIREMENTS

- A.** Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.
- B.** Bypass, discharge, or delivery to the use area of inadequately treated recycled water, at any time, is prohibited.
- C.** The recycling facility shall be adequately protected from inundation and damage by storm flows.
- D.** Recycled water use or disposal shall not result in earth movement in geologically unstable areas.
- E.** The Camrosa WRF shall not be the source of pollution or nuisance at any time outside the boundary of the facility, including odors that unreasonably affect beneficial uses, odors injurious to health, or odors offensive to the senses of members of the community.
- F.** Adequate freeboard and/or protection shall be maintained in the recycled water storage ponds and tanks, and process tanks to ensure that direct rainfall will not cause overtopping.
- G.** The wastewater treatment and use of recycled water shall not result in problems caused by breeding of mosquitoes, gnats, midges, or other pests.
- H.** CWD shall always properly operate and maintain all treatment facilities and control systems (and related appurtenances) which are installed or used by CWD to achieve compliance with the conditions of this Order. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls (including appropriate quality assurance procedures).
- I.** A copy of these requirements shall be maintained at the Camrosa WRF and shall always be available to operating personnel.
- J.** CWD shall furnish each user of recycled water a copy of these requirements and ensure that the requirements are maintained at the user's facility and always available to operating personnel.
- K.** Supervisors and operators of this publicly owned wastewater treatment facility shall possess a certificate of appropriate grade as specified in CCR, title 23, Division 3, Chapter 26.
- L.** For any material change or proposed change in character, location, or volume of recycled water, or its uses, CWD shall submit at least 120 days prior to the proposed change an engineering report or addendum to the existing engineering report to the Regional Water Board and DDW (pursuant to section 13522.5 and CCR, Title 22, section 60323) for approval. The Engineering Report shall be prepared by a qualified engineer registered in California. This updated engineering report shall describe the current treatment plant, the impacts on the recycled water operation, and contain the operation and maintenance management plan, including a preventive (fail-safe) procedure and contingency plan for controlling accidental discharge and/or delivery to users of inadequately treated recycled water.

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XV. SPECIFICATIONS FOR RECYCLED WATER

- A. Recycled water shall be managed in conformance with the applicable regulations contained in 22 CCR.
- B. The Recycled Water Producer or Distributor⁴ shall collectively provide all users *disinfected tertiary recycled water*, as proposed, that meets the standards for recycled water, as described in CCR, title 22, sections 60301.230 and 60301.320.
- C. Recycled water shall be retained in the areas of use and shall not be allowed to escape as surface flow except as provided for in an NPDES permit.
- D. Recycled water use and monitoring shall be consistent with the *Total Maximum Daily Load for Boron, Chloride, Sulfate and TDS (Salts) in the Calleguas Creek Watershed* and any applicable Salt and Nutrient Management Plan for the basin/sub-basin.
- E. Recycled water shall not be applied to uses other than those enumerated below unless a revised engineering report has been submitted to DDW and the Regional Water Board and approved for other uses and/or requirements for these uses have been prescribed by this Regional Water Board, in accordance with CWC section 13523.
- F. All recycled water pipelines and valves shall be installed with purple identification tape or purple polyethylene vinyl wraps according to the American Water Works Association (AWWA) California-Nevada Section guidelines.
- G. CWD is permitted to use tertiary-treated recycled water produced at the Camrosa WRF for the following approved uses:
 - 1. Crop irrigation, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop;
 - 2. California State University, Channel Islands Campus landscape irrigation; and
 - 3. Upon approval of the necessary engineering plans by the Executive Officer of the Regional Water Board, recycled water may be used for the cooling towers located on the CSUCI campus.
- H. CWD is permitted to use the tertiary-treated recycled water produced at the Camarillo WRP or Camrosa WRF, or the mixture of tertiary-treated recycled water produced at the Camarillo WRP or Camrosa WRF and Conejo Creek water for crop irrigation.

XVI. SPECIFICATIONS AND REQUIREMENTS FOR DUAL-PLUMBED SYSTEMS

CSUCI has an interest in using recycled water for their cooling towers. If the use is approved by DDW and the Regional Water Board pursuant to section XV.E. above, the facility will be designated as dual-plumbed. The specifications for cooling towers and dual-plumbed systems are as follows:

Recycled water used for cooling industrial or commercial cooling or air conditioning that involves the use of a cooling tower, evaporative condenser, spraying, or any mechanism that creates a mist shall be disinfected tertiary recycled water.

- A. "Dual plumbed" means a system that utilizes separated piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

⁴ The Distributor may be a recycled water wholesaler, retail water supplier, or retailer as defined in CWC section 13575, the *Water Recycling Act of 1991*.

1. To serve plumbing outlets (excluding fire suppression systems) within a building, or
 2. Outdoor landscape irrigation at individual residences.
- B.** The public water supply shall not be used as a backup or supplemental source of water for a dual-plumbed recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of CCR title 17, sections 7602 (a) and 7603 (a), and that such connection has been approved by DDW and/or its delegated local agency.
- C.** CWD shall not deliver recycled water to a facility using a dual-plumbed system unless the report of recycled water use, required pursuant to CWC section 13522.5, and which meets the requirements set forth in this Order, has been submitted and approved by DDW and/or its delegated local agency. The Regional Water Board shall be furnished with a copy of DDW approval together with the aforementioned report within 30 days following the approval.
- D.** The report of recycled water use, submitted pursuant to CWC section 13522.5, shall contain the following information for dual-plumbed systems, in addition to the information required by CCR, title 22, section 60323 (Engineering Report):
1. A detailed description of the intended use site identifying the following:
 - i. The number, location, and type of facilities within the use area proposing to use dual-plumbed systems;
 - ii. The average daily number of persons estimated to be served by each facility;
 - iii. The specific boundaries of the proposed use site including a map showing the location of each facility to be served;
 - iv. The person or persons responsible for operation of the dual-plumbed system at each facility; and,
 - v. The specific use to be made of the recycled water at each facility.
 2. Plans and specifications describing the following:
 - i. Proposed piping system to be used;
 - ii. Pipe locations of both the recycled and potable systems;
 - iii. Type and location of the outlets and plumbing fixtures that will be accessible to the public; and,
 - iv. The methods and devices to be used to prevent backflow of recycled water into the public water system.
 3. The methods to be used by CWD to assure that the installation and operation of the dual-plumbed system will not result in cross connections between the recycled water piping system and the potable water piping system. These shall include a description of pressure, dye or other test methods to be used to test the system every four years.
- E.** Prior to the initial operation of the dual-plumbed recycled water system and annually thereafter, the dual-plumbed system within each facility and use site shall be 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 report submitted pursuant to 22 CCR, title 22, section 60314. The inspections and the

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testing shall be performed by a cross connection control specialist certified by the California-Nevada Section of the AWWA or an organization with equivalent certification requirements. A written report documenting the result of the inspection and testing for the prior year shall be submitted to DDW within 30 days following completion of the inspection or test.

- F.** CWD shall notify DDW of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of discovery of the incident.
- G.** Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with CCR, title 17, section 7605.

XVII. DDW SPECIFICATIONS FOR TREATMENT

- A.** The recycled water shall be disinfected by one of the following:
 - 1. A chlorine disinfection process following filtration that provides a chlorine contact time (CT); the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
 - 2. 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 the polio virus may be used for purposes of the demonstration.
- B.** CWD shall update and maintain an operations plan for the Camrosa WRF that addresses issues such as the operation, maintenance, and optimization of unit processes; sludge wasting; alarms; etc.
- C.** CWD shall notify DDW in instances of treatment process failures and/or non-compliance with the above requirements by the same means and under the same conditions as CWD would notify the Regional Water Board. Any discharge of untreated or partially treated wastewater to the use area, or the cessation of same, shall be reported immediately by telephone to the Regional Water Board, DDW, and the local County health officer.
- D.** Operating records and reports shall be maintained at the Camrosa WRF for all analysis specified in the reclamation criteria; records of operational problems; plant and equipment breakdowns; diversions to emergency storage or disposal; corrective or preventative action taken; and, process or equipment failures, time and cause of those failures, and corrective actions taken.
- E.** The Camrosa WRF shall be operated with a built-in automatic reliability feature that shall be triggered when the free chlorine residual contact time or the minimum free chlorine residual is below the target.
- F.** Ammonia analyzers, free chlorine analyzers, and flow meters shall be installed and properly calibrated to ensure proper disinfection.
- G.** Ammonia and free chlorine analyzers shall be routinely inspected and checked against a reference benchtop unit to determine accuracy. If an online analyzer reading varies from the benchtop reading, the online analyzer shall be recalibrated by a procedure recommended by the manufacturer.

- H. Flow meters shall be routinely inspected and checked against other flow determination methods to determine accuracy.
- I. A copy of the approved operations plan shall be maintained at the Camrosa WRF and be readily available to operations personnel and regulatory agencies. A quick reference plant operations data sheet shall be posted at the Camrosa WRF and include the following information:
 - 1. The alarm set points for tertiary turbidity, high flow, low free chlorine residual, low contact time, and low free chlorine residual contact time.
 - 2. The values of high tertiary turbidity, high flow, low free chlorine residual, and low free chlorine residual contact time when recycled water flow shall be diverted.
 - 3. The required frequency of calibration for critical online instruments such as turbidity meters, ammonia analyzers, and chlorine analyzers.
- J. Within 6 months of the effective date of this Order, CWD shall submit documentation to the Regional Water Board and DDW confirming the Camrosa WRF is capable of automatic coagulation activation or diverting filter influent whenever the filter influent turbidity exceeds 5 NTU for more than 15 minutes.
- K. Prior to using the recycled water for a cooling tower, CWD shall submit piping plans of the cooling tower building to DDW and the Regional Water Board before DDW approves the use of recycled water within the building.
- L. The truck fill stations shall be appropriately managed to restrict access only to users who have been properly trained on the use of recycled water and have signed a truck fill application.
- M. During current conditions where CWD disinfects the recycled water with free chlorine, CWD shall ensure the recycled water delivered to end users has a minimum free chlorine contact time of 59 mg-min/L and free chlorine modal contact time of 59 minutes at all times, and a minimum free chlorine residual at the chlorine contact chamber outlet of 1.0 mg/L at all times. During the sequential chlorination study when ammonia is injected into the chlorine contact chamber, CWD shall monitor the recycled water upstream the most upstream ammonia injection location to ensure the recycled water has a minimum free chlorine contact time of 22 mg-min/L, a free chlorine modal contact time of 22 minutes, and a free chlorine residual of 1 mg/L at all times.. After completion of the sequential chlorination study, CWD shall submit the results of the sequential chlorination study and the proposed free chlorine contact time, free chlorine modal contact time, and free residual chlorine values to the Regional Water Board and DDW for approval.

XVIII. USE AREA⁵ REQUIREMENTS

- A. Recycled water from the Camarillo WRP shall be conveyed directly to the end users when there is immediate demand.
- B. Application of recycled water to the use area shall be at reasonable agronomic rates and shall consider soil, climate, and nutrient demand. Application rates shall ensure that a nuisance is not created.

⁵ "Use area" is an area of recycled water use with defined boundaries, which may contain one or more facilities where recycled water is used.

- C. For each new/proposed recycled water use area, a use site report that addresses compliance with the following use area requirements and includes results of a completed shut-down test shall be submitted to the Regional Water Board and to DDW for approval.
- D. For existing recycled water use areas, use site reports and use site agreements shall be submitted to the Regional Water Board and to DDW within six months of the effective date of this Order.
- E. The use and distribution of recycled water shall comply with DDW's CCR, title 22, Division 4, Chapter 3 - *Water Recycling Criteria*; and the CCR, title 17, Division 1, Chapter 5, Subchapter 1, Group 4, Cross-Connection Control Requirements.
- F. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water. All back-up/ auxiliary potable supplies shall discharge through approved air-gaps or swivel-ell connections with approved backflow prevention on the potable supply line. Back-up/auxiliary supply piping plans shall be submitted and reviewed by DDW. A certified tester shall test all backflow devices annually. Air gaps shall be at least twice the pipe diameter and be located above ground. Swivel-ell connections shall be controlled by the domestic water supplier. The use site agreements shall include conditions that clarify the control and operation of swivel-ell connections.
- G. The American Water Works Association's (AWWA) *Guidelines for the Distribution of Non-Potable Water* needs to be followed, including purple pipe, adequate signs, etc. Adequate separation of at least 4-foot horizontal and 1-foot vertical separation shall be provided between recycled water lines and domestic potable water lines.
- H. Plans and maps showing domestic water lines and recycled water lines at each use site shall be maintained. The lines shall be marked clearly and labeled as domestic water lines and recycled water lines. Shut-down tests may be needed to demonstrate that cross-connections do not exist.
- I. Supervisors shall be appointed for the recycled water use areas and their staff shall be trained on the hazards of working with recycled water and periodically retrained.
- J. Recycled water use areas shall be inspected by the reclaimed water provider.
- K. No impoundment of *disinfected tertiary recycled water* shall occur within 100 feet of any domestic water supply well.
- L. No irrigation with *disinfected tertiary recycled water* shall take place within 50 feet of any domestic water supply well unless all the following conditions have been met:
 - 1. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface;
 - 2. The well contains an annular seal that extends from the surface into the aquitard;
 - 3. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities;
 - 4. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well; and,
 - 5. The owner of the well approves of the elimination of the buffer zone requirement.
- M. Any irrigation runoff shall be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized by the Regional Water Board.

Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.

- N. Recycled water use for landscape or crop irrigation should be limited to hours when public is not present.
- O. No recycled water shall be applied to irrigation areas during periods when soils are saturated.
- P. Incidental runoff from landscape irrigation shall be controlled through the following practices:
 - 1. Implementation of an operations and management plan that may apply to multiple sites and provides for detection of leaks, (for example, from broken sprinkler heads), and correction either within 72 hours of learning of the runoff, or prior to the release of 1,000 gallons, whichever occurs first,
 - 2. Proper design and aim of sprinkler heads,
 - 3. Refraining from application during precipitation events, and
 - 4. Management of any ponds containing recycled water such that no discharge occurs unless the discharge is otherwise regulated pursuant to an NPDES permit.
- Q. All use areas that are accessible to the public (including truck fill stations) shall be posted with signs that are visible to the public. The size shall be no less than 4 inches high by 8 inches wide and shall include the following wording: "RECYCLED WATER – DO NOT DRINK". Each sign shall display an international symbol similar to that shown in CCR, title 22, section 60310-A, (See Attachment C4). Alternative signage and wording, or an educational program, may be acceptable on a case-by-case basis, provided the use site demonstrates to the Regional Water Board and to DDW that the alternative approach will assure an equivalent degree of public notification.
- R. There shall be no public contact with recycled water. No hose bibs shall be present on portions of the recycled water piping system that are subject to access by the general public. Only quick couplers that differ from those used on the potable water system shall be used in such areas. Hose bibs at existing use sites shall be retrofitted immediately.
- S. Recycled water pipelines located along the property lines of homeowners can pose a potential for cross-connections. DDW recommends a buffer zone between the recycled water lines and the property lines, if such situations are present. If adequate buffer cannot be maintained, mitigation measures including relocation of pipelines, physical barrier, and homeowner education are recommended.

XIX. PROVISIONS

- A. Irrigation and impoundment of recycled water shall not cause or contribute to an exceedance of the Basin Plan water quality objectives.
- B. CWD shall submit plans for proposed and as-built drawings for recycled water projects to and obtain approval from DDW or its delegated local health agency for each recycled water project. The AWWA *Guidelines for the Distribution of Non-Potable Water* shall be followed, including installation of purple pipe, adequate signs, etc. As-built drawings shall show the final locations of the potable water, sewer, and recycled water pipelines, and indicate adequate separation between the recycled water and potable domestic

water lines, both of which shall also be marked clearly or labeled using separate colors for identification. In addition, a copy of each application to DDW for a recycled water project shall be delivered to the Regional Water Board for inclusion in the administrative file with the following information:

1. A description of each use area including, but not limited to, a description of what will be irrigated (e.g., landscape, specific food crop, etc.); method of irrigation (e.g., spray, flood, or drip); the location of domestic water supply facilities adjacent to the use areas; site containment measures; the party responsible for the distribution and use of the recycled water at the site; and, identification of other governmental entities which may have regulatory jurisdiction over the reuse site(s); and,
 2. A map showing specific areas of use, areas of public access, surrounding land uses, the location and construction details of wells in or near the use areas, the location and type of signage, the degree of potential access by employees or the public, and any exclusionary measures (e.g. fencing). CWD shall submit to the Regional Water Board a copy of the approved Recycled Water Project for the recycled water distribution system and DDW approval within 30 days of approval.
- C.** For any extension or expansion of the recycled water system or use areas not covered by the 2019 Engineering Report, CWD shall submit a report detailing the extension or expansion plan for review and approval by DDW or its delegated local health agency, and the Regional Water Board. The plan shall include, but not be limited to, the information specified in Sections XVIII.A.1. and 2., above. Following construction, as-built drawings shall be submitted to DDW or its delegated local health agency for approval prior to delivery of recycled water. CWD shall submit to the Regional Water Board a copy of the approved expansion plan and DDW approval within 30 days of approval.
- D.** If the recycled water system lateral pipelines are located on an easement contiguous to a homeowner's private property and where there is a reasonable probability that an illegal or accidental connection to the recycled water line could be made, CWD shall provide a buffer zone or other necessary measures between the recycled water lines and the easement to prevent any illegal or accidental connection to the recycled water lines. CWD shall notify homeowners about the recycled water lateral and restrictions on usage of recycled water.
- E.** CWD shall inspect the recycled water use areas on a periodic basis. CWD shall update the inspection schedule, based on the type of use site, for approval by DDW within 90 days of the effective date of this Order. An annual report including the findings of each inspection shall be submitted to DDW, the County Health Department, and the Regional Water Board.
- F.** CWD shall submit to the Regional Water Board, signed under penalty of perjury by the designated responsible party, technical self-monitoring reports according to the specifications contained in the Monitoring and Reporting Program, as may be amended by the Executive Officer.
- G.** CWD shall notify this Regional Water Board and DDW, immediately by telephone, of any confirmed coliform counts that could cause a violation of the requirements. This information shall be confirmed in the following monitoring report. For any actual coliform limit violation that occurred, the report shall also include the cause(s) of the high coliform counts, the corrective measures undertaken (including dates thereof), and the preventive measures undertaken to prevent a recurrence.

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- H. Discharges from the off-site recycled water storage pond to Calleguas Creek shall comply with NPDES No. CA0059501.
- I. This Order does not exempt CWD from compliance with any other laws, regulations, or ordinances which may be applicable; it does not legalize the recycling and use facilities; and it leaves unaffected any further constraint on the use of recycled water at certain site(s) that may be contained in other statutes or required by other agencies.
- J. This Order does not alleviate the responsibility of CWD to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of the recycled water distribution facility shall be contingent upon issuance of all necessary requirements and permits, including a conditional use permit.
- K. CWD shall furnish, within a reasonable time, any information the Regional Water Board or DDW may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. Upon request, CWD shall also furnish the Regional Water Board with copies of records required to be kept under this Order for at least three years.
- L. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* (Attachment D). If there is any conflict between the provisions stated hereinbefore and the Standard Provisions, the provisions stated hereinbefore shall prevail.
- M. This Order includes the attached Monitoring and Reporting Program No. CI-0821 (Attachment E). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.
- N. CWD shall operate the Round Mountain Desalter such that the amount of salts exported from the groundwater basin exceeds the amount of salts CWD introduces into the groundwater basin via percolation due to the recycled water storage ponds.
- O. CWD shall continue to work with stakeholders in the Pleasant Valley Groundwater Basin to complete the Salt and Nutrient Management Plan within one year of completion of their Groundwater Sustainability Plan required by the Groundwater Sustainability and Management Act, taking into consideration Los Angeles Water Board staff comments on the July 2016 preliminary draft salt and nutrient management plan.

XX. REOPENER

- A. This Order may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) failure to comply with any condition in this Order, (2) endangerment of human health or environment resulting from the permitted activities in this Order, (3) obtaining this Order by misrepresentation or failure to disclose all relevant facts, or (4) new information that justifies the application of different conditions. The filing of a request by CWD for modification, revocation and reissuance, or termination of the Order or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- B. This Order may be reopened to include the most scientifically relevant and appropriate limitations for this recycling Facility, including (1) a revised chloride limit based on monitoring results, antidegradation studies, or other Board Policy or (2) the application

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of an attenuation factor based upon an approved site-specific attenuation study conducted by CWD.

- C.** This Order may be reopened to modify limitations for constituents to protect beneficial uses, based on new information not available at the time this Order was adopted.
- D.** If after additional monitoring, reporting, and trend analysis documenting changed aquifer conditions, this Order may be reopened to ensure the groundwater is protected in a manner consistent with the state and federal water quality laws and regulations.
- E.** This Order may be reopened to incorporate any new regulatory requirements for sources of drinking water that are adopted after the effective date of this Order.
- F.** This Order may be reopened upon a determination by DDW that treatment and disinfection of recycled water is insufficient to protect human health.

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ATTACHMENT A – DEFINITIONS

Agronomic Rate

The rate of application of recycled water to plants necessary to satisfy the plants' evapotranspiration requirements, considering allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, and leaching requirement, thus minimizing the movement of nutrients below the plants' root zone.

Arithmetic Mean (μ)

Also called the average, is the sum of measured values divided by the number of samples.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during the calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Composite Sample, 24-hour

An aggregate sample derived from no fewer than eight samples collected at equal time intervals or collected proportional to the flow rate over the compositing period. The aggregate sample shall reflect the average source water quality covering the composite 24-hour sample period.

Conventional Treatment

A treatment chain that utilizes a sedimentation unit process between the coagulation and filtration processes and produces an effluent that meets the definition for disinfected tertiary recycled water.

Daily Discharge

Daily Discharge is defined as either: (1) the total mass of a constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Disinfected Tertiary Recycled Water

A filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater which has been disinfected by either:

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- (1) A chlorine disinfection process following filtration that provides a contact time (CT, the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
 - (2) 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.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

Dual Plumbed System

A system that utilizes separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

- (a) To serve plumbing outlets (excluding fire suppression systems) within a building or
- (b) Outdoor landscape irrigation at individual residences.

Estimated Chemical Concentration

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Filtered Wastewater

An oxidized wastewater that meets the criteria in subsection (a) or (b):

- (a) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
 - (1) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in travelling automatic backwash filters; and
 - (2) So that the turbidity of the filtered wastewater does not exceed any of the following:
 - i. An average 2 NTU within a 24-hour period;
 - ii. 5 NTU more than 5 percent of the time within a 24-hour period; and
 - iii. 10 NTU at any time.
- (b) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:
 - (1) 0.2 NTU more than 5 percent of the time within a 24-hour period; and
 - (2) 0.5 NTU at any time.

F-specific bacteriophage MS-2

A strain of a specific type of virus that infects coliform bacteria that is traceable to the American Type Culture Collection (ATCC 15597B1) and is grown on lawns of *E. Coli* (ATCC 15597).

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Grab Sample

An individual sample collected during a period not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

Incidental Runoff

Unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area.

Instantaneous Maximum Effluent Limitation

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation

The lowest allowable value for any single sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Contaminant Level (MCL)

The maximum permissible concentration of a contaminant established pursuant to section 116275(c)(1) and (d) of the Health and Safety Code or established by the United States Environmental Protection Agency (USEPA).

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median

The middle measurement in a set of data. The median of a data set is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the n/2 and n/2+1).

Method Detection Limit

MDL is the minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results.

Minimum Level (ML)

The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Modal Contact Time

The amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the effluent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

Not Detected (ND)

Sample results which are less than the laboratory's MDL.

Notification Level (NL)

The concentration of a contaminant established by the Department pursuant to section 116455 of the Health and Safety Code.

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NTU (Nephelometric Turbidity Unit)

A measurement of turbidity as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light scattered by the sample to the intensity of incident light as measured by method 2130 B. in Standard Methods for the Examination of Water and Wastewater, 20th ed.; Eaton, A.D., Clesceri, L.S., and Greenberg, A.E., Eds; American Public Health Association: Washington, DC, 1995; p.2-8.

Oxidized Wastewater

Wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Recycled Water

Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur therefore considered a valuable resource. (Wat. Code, § 13050(n).)

Spray Irrigation

The application of recycled water to plants to maintain vegetation or support growth of vegetation by applying it from sprinklers.

Surface Irrigation

Application of recycled water by means other than spraying such that contact between the edible portion of any food crop and recycled water is prevented (i.e., drip or flood irrigation).

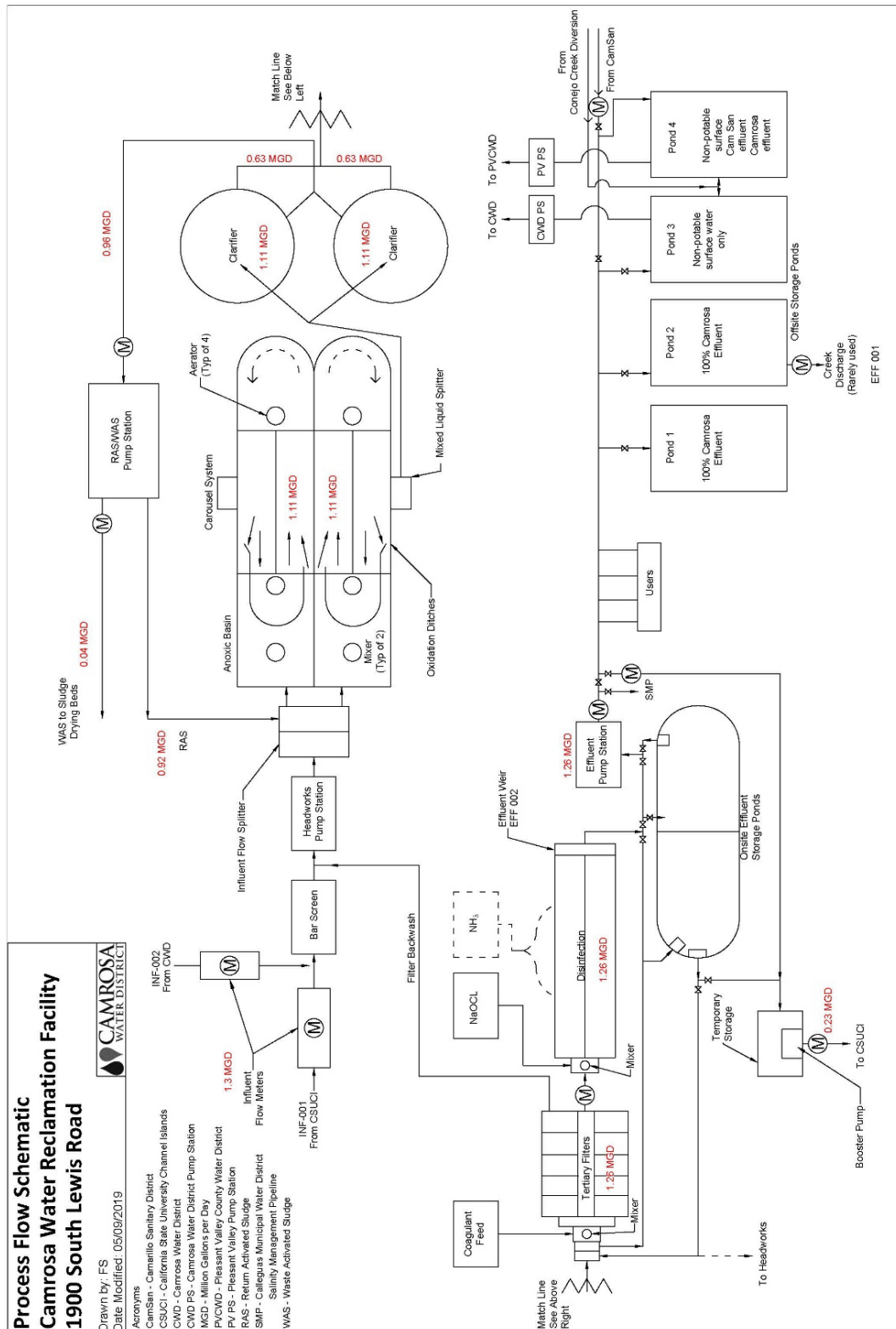
Use Area

An area of recycled water use with defined boundaries. Agricultural use areas may contain one or more facilities (ditch, irrigated fields, pumping stations, etc); use areas may also consist of an aggregate of small lots (e.g., residential/ industrial developments, roadway median irrigation, etc.).

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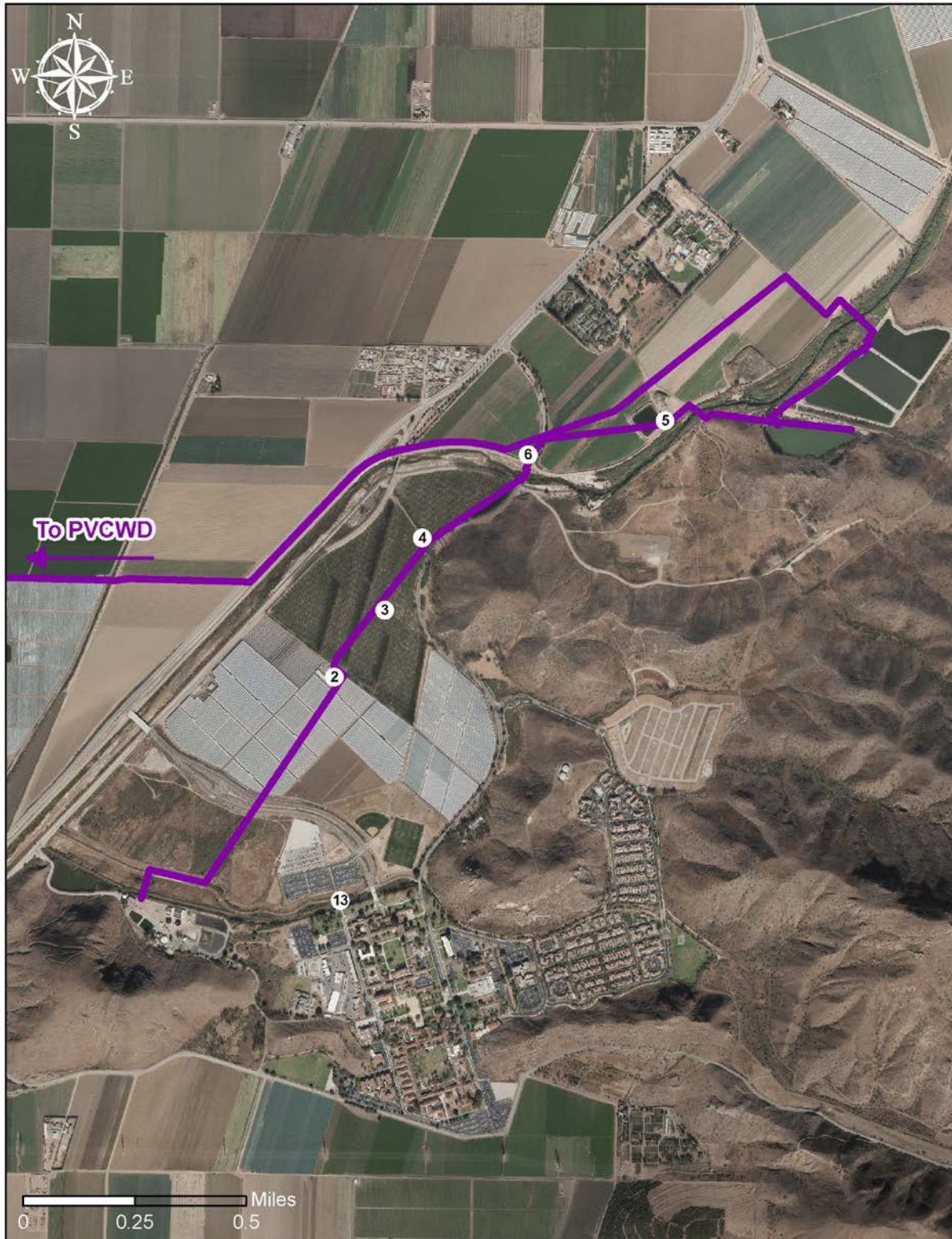
ATTACHMENT B – PROCESS FLOW DIAGRAM



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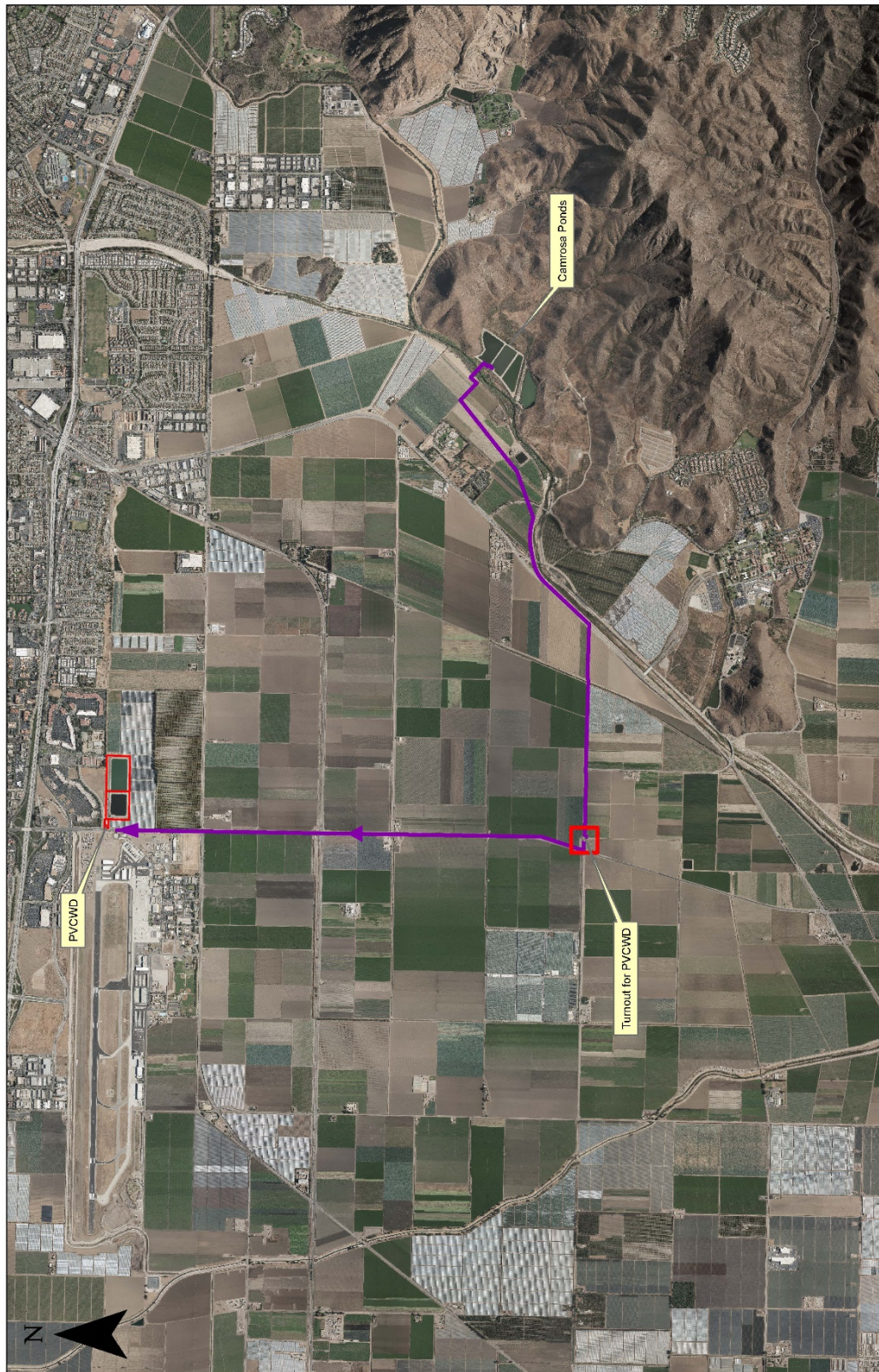
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ATTACHMENT C1 – RECYCLED WATER USER TURNOUTS CAMROSA WRF



REVISED TENTATIVE

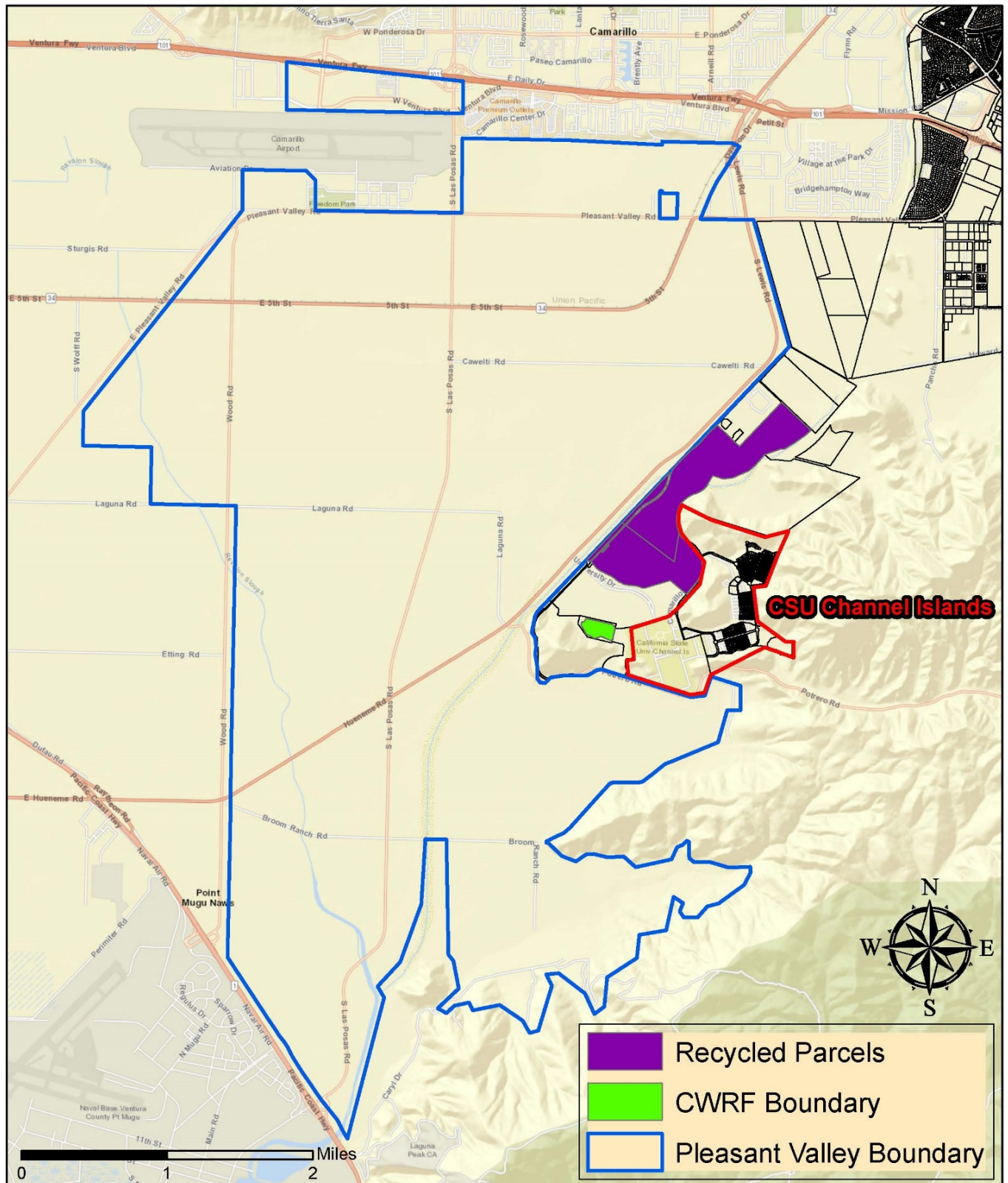
ATTACHMENT C2 – RECYCLED WATER TURNOUT FOR PVCWD



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ATTACHMENT C3 – USE AREA MAP



ATTACHMENT C4 – WATER RECYCLING CRITERIA SIGN



Water Recycling Criteria
FIGURE 60310-A

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ATTACHMENT D - STANDARD PROVISIONS

I. STANDARD PROVISIONS - APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

A. Duty to Comply

The Permittee shall comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Water Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Water Board. Failure to comply with any waste discharge requirement, monitoring and reporting requirement, or other order or prohibition issued, reissued, or amended by the Regional Water Board or State Water Board is a violation of these waste discharge requirements and the Water Code, which can result in the imposition of civil liability. [CWC sections 13268 and 13350(a)].

B. General Prohibition

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by CWC section 13050. [Health and Safety Code (H&SC) section 5411, CWC section 13263].

C. Availability

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel.

D. Change in Ownership

The Permittee shall notify any succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board. The Permittee shall notify the Regional board, in writing, at least 60 days in advance of ownership change and provide a date on which the transfer of this Order's responsibility and coverage will go from the current Discharger to the new discharger. The notification shall include an agreement between the parties to transfer responsibility for compliance with the Order. The agreement shall include an acknowledgement that the existing Discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date forward. The succeeding owner or operator shall submit a Report of Waste Discharge that requests an amendment to formally amend the Order to acknowledge the transfer.

E. Change in Discharge

In the event of a material change in the character, location, or volume of a discharge, the Permittee shall file with this Regional Water Board a new Report of Waste Discharge. [CWC section 13260 (c)]. A material change includes, but is not limited to, the following:

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

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3. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
4. Increase in flow beyond that specified in the waste discharge requirements.
5. Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR, title 23, section 2210].

F. Revision

These waste discharge requirements are subject to review and revision by the Regional Water Board. [CCR section 13263].

G. Notification

Where the Permittee becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Water Board, it shall promptly submit such facts or information. [CWC sections 13260 and 13267].

H. 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, do not protect the Permittee from his liability under Federal, State or local laws, nor do they create a vested right for the Permittee to continue the waste discharge. [CWC section 13263(g)].

I. 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.

J. Operation and Maintenance

The Permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control and related appurtenances) which are installed or used by the Permittee to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order. [CWC section 13263].

K. Hazardous Releases

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing

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with section 8574.16) of the Government Code, and immediately notify the State Water Board or the appropriate Regional Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of CWD section 13271 unless the discharge is in violation of a prohibition in the applicable Water Quality Control plan. [CWC section 13271].

L. Oil or Petroleum Releases

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any water of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with section 8574.1) of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. [CWC section 13272].

M. Entry and Inspection

The Permittee shall allow the Regional Water Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the Permittee's processes where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this Order;
2. Have access to and copy at reasonable times, any records that shall be kept under the conditions of this Order;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
4. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC section 13267].

N. Monitoring Program and Devices

The Permittee shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. [CWC section 13267].

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the Permittee shall submit to the Executive Officer a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

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Unless otherwise permitted by the Regional Water Board Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The Regional Water Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" [40 CFR Part 136] promulgated by the U.S. Environmental Protection Agency. [CCR title 23, section 2230].

O. Treatment Failure

In an enforcement action, it shall not be a defense for the Permittee that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the Permittee shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored, or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.

P. Discharge to Navigable Waters

Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to section 404 of the Clean Water Act and discharge subject to general National Pollutant Discharge Elimination System (NPDES) permit) shall file an NPDES permit application with the Regional Water Board.

Q. Endangerment to Health and Environment

The Permittee shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) shall be reported to the Executive Officer within 24 hours:

1. Any bypass from any portion of the treatment facility;
2. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances; and,
3. Any treatment plant upset which causes the effluent limitation of this order to be exceeded. [CWC sections 13263 and 13267].

R. Maintenance of Records

The Permittee shall retain records of all monitoring information including all calibration and maintenance records, all original 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. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or

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application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board Executive Officer.

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or method used; and
6. The results of such analyses.

S. Signatory Requirement

1. All application reports or information to be submitted to the Executive Officer shall be signed and certified as follows:
 - i. For a corporation – by a principle executive officer or at least the level of vice president.
 - ii. For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.
 - iii. For a municipality, state, federal or other public agency – by either a principal executive officer or ranking elected official.
2. A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:
 - i. The authorization is made in writing by a person described in paragraph (a) of this provision.
 - ii. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity.
 - iii. The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section shall make the following certification:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. [CWC Sections 13263, 13267, and 13268].”

T. Operator Certification

Supervisors and operators of municipal wastewater treatment plants and privately-owned facilities regulated by the PUC, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with CCR title 23, section 3680. State Water Boards may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment plant operator,

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the State Water Board may approve use of water treatment plant operator of appropriate grade certified by the State Department of Health Services where reclamation is involved.

Each plant shall be operated and maintained in accordance with the operation and maintenance manual prepared by the municipality through Clean Water Grant Program. [CWC title 23, section 2233(d)].

U. Additional Provisions Applicable to Publicly Owned Treatment Works' Adequate Capacity

The Discharger shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the "30-day (monthly) average" daily dry-weather flow equals or exceeds 75 percent of the design capacity (2.25 mgd) of waste treatment and/or disposal facilities. The Discharger's principal Executive Officer or ranking elected official shall sign a letter which transmits that report and certifies that the discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

1. The average daily flow for the calendar month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;
2. The Discharger's best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the POTW; and
3. A schedule of studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

This requirement is applicable to those facilities that have not reached 75 percent of capacity as of the effective date of this Order. For those facilities that have reached 75 percent of capacity by that date but for which no such report has been previously submitted, such report shall be filed within 90 days of the issuance of this Order.

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) CI-0821

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ATTACHMENT E - Monitoring and Reporting Program (MRP) CI-0821

This Monitoring and Reporting Program is issued by the Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) pursuant to California Water Code (CWC) section 13267(b)(1), which authorizes the Regional Water Board to require the submittal of technical and monitoring reports. The reports required by this MRP are necessary to ensure compliance with Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) Order No. R4-2019-xxxx for the Camrosa Water Reclamation Facility (WRF). The Camrosa Water District (CWD or Permittee) owns and operates the Camrosa WRF and the recycled water distribution system, respectively, and is therefore, responsible for compliance with this Order. CWD shall implement this MRP on the effective date of this Order. Failure to comply with this MRP could result in the imposition of monetary civil liability pursuant to Division 7 of the California Water Code and other applicable laws.

I. GENERAL MONITORING AND REPORTING REQUIREMENTS

- A.** Whenever possible, quarterly monitoring shall be performed during the months of February, May, August, and November; semiannual monitoring shall be performed during the months of February and August; and annual monitoring shall be performed during the third quarter (July thru September) of each calendar year. Should there be instances when monitoring could not be conducted during the specified months, the Permittee shall notify the Regional Water Board, state the reason why the monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual and annual analyses shall be reported in the quarterly monitoring report following the analysis. If the use of recycled water does not occur during that monitoring period, the Permittee shall collect a sample during the next reuse event. If there is no use of recycled water during the reporting period, the report shall so state. Monitoring reports shall continue to be submitted to the Regional Water Board, even if recycled water was not used during that period.
- B.** Monitoring shall be used to determine compliance with the requirements of this Order. A monitoring and reporting plan shall include, but not limited to, the following:
 - 1. Locations of each groundwater monitoring station where representative samples can be obtained and the rationale for the selection. CWD shall include a map, at a scale of 1-inch equals 1,200 feet or less, that clearly identifies the locations of all monitoring wells and production wells.
 - 2. Sampling protocols (as specified in Title 40 of the Code of Federal Regulations (CFR) Part 136 or American Water Works Associations (AWWA) standards where appropriate) and chain of custody procedures.
 - 3. For groundwater monitoring, an outline of the methods and procedures to be used for measuring water levels; purging wells; collecting samples; decontaminating equipment; containing, preserving, and shipping samples, and maintaining appropriate documentation. Also include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events.
 - 4. Laboratory or laboratories, which conducted the analyses. Include a copy or copies of laboratory certifications by the California Health Services Environmental Laboratory Accreditation Program (ELAP) every year or when CWD changes their contract laboratory.

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5. Analytical test methods used and the corresponding reporting detection limits (RDLs).
6. Quality assurance and control measures.
- C. The samples shall be analyzed using analytical methods described in 40 CFR Part 136; or where no methods are specified for a given pollutant, by methods approved by the State Water Resources Control Board, Division of Drinking Water (DDW), the Regional Water Board and/or the State Water Resources Control Board (State Water Board). The Permittee shall select the analytical methods that provide RDLs lower than the limits prescribed in this Order and lower than each pollutant's respective Maximum Contaminant Level (MCL). For those constituents that have drinking water notification levels (NLs) and/or public health goals (PHGs), the RDLs shall be equal to or lower than either the NLs or the PHGs whenever feasible. Every effort should be made to analyze pollutants using the lowest RDL possible.
- D. The Permittee shall instruct its laboratories to establish calibration standards so that the RDLs (or equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall the analytical data be derived from extrapolation beyond the lowest point of the calibration curve.
- E. CWD shall have written sampling protocols in place. For groundwater monitoring, the sampling protocols shall outline the methods and procedures used for measuring water levels, purging wells, collecting samples, decontaminating equipment, continuing, preserving, and shipping samples, and maintaining appropriate documentation. The sampling protocols shall also include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events.
- F. Upon request by the Permittee, the Regional Water Board, in consultation with DDW and the State Water Board Quality Assurance Program, may establish RDLs, in any of the following situations:
 1. When the pollutant has no established method under 40 CFR 136;
 2. When the method under 40 CFR 136 for the pollutant has an RDL higher than the limit specified in this Order; or
 3. When the Permittee agrees to use a test method that is more sensitive than those specified in 40 CFR Part 136.
- G. The laboratory conducting the analyses shall be certified by ELAP or approved by DDW, the Regional Water Board, or the State Water Board for each pollutant or parameter.
- H. Recycled water samples shall be analyzed within allowable holding time limits specified in 40 CFR Part 136.3. All quality assurance / quality control (QA/QC) analyses shall be run on the same dates the samples are analyzed. The Permittee shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Water Board or DDW staff. Proper chain of custody procedures shall be followed, and a copy of that documentation shall be submitted with the quarterly report.
- I. For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 1 to 800. The detection methods used for each analysis shall be reported with the results of the analyses.
- J. Each monitoring report shall include a separate section titled "Summary of Non-compliance" which discusses the compliance record and corrective actions taken or

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planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements as well as all excursions of the final effluent limitations.

- K. CWD shall immediately notify the Regional Water Board in writing if CWD's regional desalter is temporarily taken out of service and the RO membranes are flushed for temporary storage. The notification shall include the reason the desalter is not operating and when the desalter will be back on-line.
- L. CWD shall notify this Regional Water Board and DDW by telephone (Steven Webb (213) 576-6793 and Jeff Densmore (805) 566-1326) or electronic means (losangeles@waterboards.ca.gov and DDWRegion4@waterboards.ca.gov) within 24 hours of knowledge of any violations of this Order that may endanger human health or the environment. Written confirmation shall be submitted within 5 working days from date of notification. The report shall include, but shall not be limited to the following information:
 - 1. The nature and extent of the violation;
 - 2. The date and time when the violation started; when compliance was achieved; and, when injection was suspended and restored, as applicable;
 - 3. The duration of the violation;
 - 4. The cause(s) of the violation;
 - 5. Any corrective and/or remedial actions that have been taken and/or will be taken with a time schedule for implementation to prevent future violations; and,
 - 6. Any impact of the violation.

II. MONITORING REQUIREMENTS

A. MONITORING LOCATIONS

The Permittee shall establish the following monitoring locations to demonstrate compliance with the final effluent limitations and other requirements in this Order. Any changes to the monitoring locations described below shall be approved by the Executive Officer of the Regional Water Board prior to use.

TABLE E1. MONITORING LOCATIONS

Monitoring Location Name	Description
INF-001	The California State University Channel Islands (CSUCI) influent monitoring location is located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained. Latitude: 34.164800 N Longitude: 119.052303 W
INF-002	The City of Camarillo influent monitoring location is located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained. Latitude: 34.164800 N Longitude: 119.052303 W
EFF-002	The effluent sampling station shall be located immediately downstream of the chlorination chamber where representative samples of the final effluent can be obtained. Latitude: 34.164911 N Longitude: 119.053894

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Coordinates are approximate for administrative purposes.

B. INFLUENT MONITORING

1. Influent monitoring is required to determine compliance with water quality conditions and standards, and to assess treatment plant performance.
2. The Permittee shall monitor the influent to the facility at INF-001 and INF-002 described in Table E2 as follows:

TABLE E2. INFLUENT MONITORING

Constituent	Units	Type of Sample	Minimum Frequency of Analysis ¹
Total Flow	MGD	Recorder	Continuous ²
Total Volume	Million Gallons	Calculated	Monthly

C. RECYCLED WATER MONITORING

Recycled water monitoring is required to determine compliance with the permit conditions: (1) identify operational problems and aid in improving facility performance, and (2) provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

Monitoring frequency is determined based on historic monitoring frequency, best professional judgement, and the following criteria:

Criterion 1: Monitoring frequency is monthly for those pollutants in the final effluent that have exceeded their corresponding MCL or Basin Plan water quality objective;

Criterion 2: Monitoring frequency is quarterly for those pollutants in which some or all historic effluent monitoring data detected the pollutants in the final effluent, but without exceeding its corresponding MCL or Basin Plan water quality objective;

Criterion 3: Monitoring frequency is annually for those pollutants in which all historic monitoring data are not detected and have not exceeded the corresponding MCL or Basin Plan water quality objective.

The following shall constitute the recycled water monitoring program:

TABLE E3. FINAL EFFLUENT MONITORING

Constituent	Units	Type of Sample	Minimum Frequency of Analysis ¹
Final effluent produced at the Camrosa WRF	MGD Million Gallons	Recorder Calculated	Continuous ² Monthly
Camrosa WRF final effluent discharged to Calleguas Creek	MGD Million Gallons	Recorder Calculated	Continuous ² Monthly

¹ If the MCL or corresponding Basin Plan water quality objective is exceeded for a given pollutant, then its frequency of monitoring shall be increased to monthly until the discharge no longer exceeds the given MCL or achieves compliance with the corresponding effluent limitation.

² For constituents that are continuously monitored, the Permittee shall report the monthly minimum, monthly maximum, daily average, daily maximum, and daily minimum values.

Constituent	Units	Type of Sample	Minimum Frequency of Analysis ¹
Camrosa WRF final effluent discharged to the brine line	MGD Million Gallons	Recorder Calculated	Continuous ² Monthly
Final effluent produced at Camarillo WRP and delivered to CWD	MGD Million Gallons	Recorder Calculated	Continuous ² Monthly
Total flow and volume diverted from Conejo Creek	MGD Million Gallons	Recorder Calculated	Continuous ² Monthly
Total volume recycled water distributed to end users	Million Gallons	Calculated	Monthly
Total volume recycled water conveyed to each end user	Million Gallons	Calculated	Annually
pH	pH units	Recorder	Continuous ²
Turbidity ³	NTU	Recorder	Continuous ²
Total Coliform ⁴	MPN/100 mL	Grab	Daily ⁵
Total Chlorine Residual ⁶	mg/L	Recorder	Continuous ²
Free Chlorine Residual Contact Time	mg-min/L	Calculated	Continuous ²
Free Chlorine Modal Contact Time	minutes	Calculated	Continuous ²
Oil & Grease	mg/L	Grab	Quarterly
Settleable Solids	mL/L	Grab	Weekly
Total Suspended Solids (TSS)	mg/L	24-hour composite	Weekly
Biochemical Oxygen Demand (BOD ₅ 20°C)	mg/L	24-hour composite	Weekly
Total Dissolved Solids (TDS)	mg/L	24-hour composite	Monthly
Sulfate	mg/L	24-hour composite	Quarterly
Chloride	mg/L	24-hour composite	Monthly
Boron	mg/L	24-hour composite	Quarterly
Nitrate-N + nitrite-N	mg/L	24-hour composite	Quarterly
Nitrate-N	mg/L	24-hour composite	Quarterly
Nitrite-N	mg/L	24-hour composite	Quarterly
Ammonia-N	mg/L	24-hour composite	Annually
Total Organic Carbon (TOC)	mg/L	Grab	Quarterly
Chromium VI	µg/L	Grab	Quarterly
Total Trihalomethanes	µg/L	Grab	Monthly
Haloacetic Acids	µg/L	Grab	Monthly
Uranium	µg/L	Grab	Monthly

³ Turbidity shall be continuously monitored and recorded at a point after final filtration. The average value recorded each day, the amount of time that 5 NTU is exceeded, and the incident of exceeding 10 NTU, if any, shall be reported.

⁴ Samples shall be obtained subsequent to the chlorination process. The 7-day median shall also be reported.

⁵ Daily samples shall be collected Monday through Friday, except for holidays.

⁶ Chlorine residual concentration shall be monitored and recorded at a point after the final chlorine contact basins.

Constituent	Units	Type of Sample	Minimum Frequency of Analysis ¹
Radioactivity ⁷	pCi/L	Grab	Annually
Remaining Attachment F Pollutants	µg/L	24-hour composite; Grab for VOCs, and total chromium	Annually

III. RECYCLED WATER USE MONITORING

The Permittee shall submit a quarterly report, in a tabular form, listing the users serviced during the quarter, the amount of recycled water delivered to each user (reported in both gallons and in acre-feet), and the use of the recycled water. A summary of these data shall also be included in the annual report.

IV. GROUNDWATER MONITORING

The Permittee shall establish suitable and accessible groundwater monitoring wells and update the ~~groundwater monitoring work plan~~ Groundwater Monitoring Work Plan within 90 days following the adoption of this amended Order. A minimum of ~~three~~ wells shall be monitored and there shall be at least one well up-gradient and two wells down-gradient of the recycled water storage ponds. The Groundwater Monitoring Work Plan shall include the current two monitoring wells and the Permittee shall propose a location and construction details of the third monitoring well. The Groundwater Monitoring Work Plan is subject to approval by the Executive Officer of the Regional Water Board. Groundwater monitoring reports shall also provide background conditions in the groundwater basin, indicate the direction of groundwater flow, and specify the depth to groundwater for each monitoring well.

The following shall constitute the groundwater monitoring program:

TABLE E4. GROUNDWATER MONITORING

Constituent	Units	Type of Sample	Minimum Frequency of Analysis ⁸
Water Level Elevation ⁹	feet	---	semiannually
Total Coliform	MPN/100ml	grab	semiannually
Total Dissolved Solids	mg/L	grab	semiannually
Chloride	mg/L	grab	semiannually
Sulfate	mg/L	grab	semiannually
Boron	mg/L	grab	semiannually
Nitrate-N	mg/L	grab	semiannually

⁷ Radionuclides to be monitored are: Combined Radium-226 and Radium-228, Gross Alpha particle activity (excluding radon and uranium), Uranium, Strontium-90, Tritium, and Gross Beta.

⁸ After two years the Permittee may propose a reduced groundwater monitoring schedule, or elimination of the groundwater monitoring program completely, based on data collected during that period. The rationale for a modified groundwater monitoring program shall be stated and is subject to approval by the Executive Officer of the Regional Water Board.

⁹ Water level elevations shall be measured to the nearest 0.01 feet and referenced to mean sea level (MSL).

Constituent	Units	Type of Sample	Minimum Frequency of Analysis ⁸
Nitrite-N	mg/L	grab	semiannually
Total Organic Carbon	mg/L	grab	semiannually
Remaining Attachment F Pollutants	mg/L	grab	annually

V. POND SYSTEM MONITORING

This Order permits recycled water to be stored in recycled water storage ponds when recycled water is not immediately required. Recycled water storage ponds 1, 2, and 4 shall be monitored for the following:

TABLE E5. POND SYSTEM MONITORING

Parameter	Units	Sample Type	Sample Frequency	Reporting Frequency
Freeboard	0.1 feet	Measurement	Quarterly	Annually
Odors	---	Observation	Quarterly	Annually
Berm Condition	---	Observation	Quarterly	Annually

VI. USE AREA MONITORING

CWD is responsible for ensuring use area data is collected and submitted in the annual report. The following shall be recorded for each user with additional reporting for use areas as appropriate. The frequency of use area inspections shall be based on the complexity and risk of each use area. Use areas may be aggregated to combine acreage for calculation or observation purposes. Use area monitoring shall include:

TABLE E6. USE AREA MONITORING

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Recycled Water User	---	---	---	Annually
Average Monthly Recycled Water Flow	Gallons per day (gpd)	Meter	Monthly	Annually
Acreage Applied	Acres	Calculated	---	Annually
Application Rate	Inches/acre/year	Calculated	---	Annually
Soil Saturation and Ponding	---	Observation	Quarterly	Annually
Nuisance Odors/Vectors	---	Observation	Quarterly	Annually
Discharge Off-Site	---	Observation	Quarterly	Annually
Notification Signs ¹⁰	---	Observation	Quarterly	Annually

¹⁰ Notification signs shall be consistent with the requirements of CCR, title 22, section 60310 (g).

VII. GENERAL REPORTING REQUIREMENTS

The Permittee shall submit all reports to the Regional Water Board and DDW by the dates indicated below. All monitoring and annual summary reports shall be submitted electronically to the State Water Board's GeoTracker database in portable document format (pdf). In addition, analytical data shall be uploaded to the GeoTracker database under a site-specific global identification number. Information on the GeoTracker database is provided online at: http://www.waterboards.ca.gov/ust/electronic_submittal/index.shtml.

A. Quarterly Monitoring Reports

1. Quarterly monitoring reports shall include, at a minimum, the following information:
 - i. The volume of all recycled water used for the reporting period (including Camrosa WRF, Camarillo WRP, and/or recycled water mixed with Conejo Creek water). If no recycled water is used during the quarter, the report shall so state.
 - ii. A table listing the users serviced during the quarter, the amount of recycled water delivered to each user (reported in both gallons and in acre-feet), and the use of the recycled water.
 - iii. The date and time of sampling and analyses.
 - iv. All analytical results of samples collected during the monitoring period of the recycled water and groundwater.
 - v. The USEPA analytical method used, the method detection limit (MDL), and the RDL for each constituent analyzed.
 - vi. The applicable MCL, DDW condition, or permit limitation.
 - vii. Quality assurance and quality control (QA/QC) documents shall be submitted with each quarterly report. This documentation includes lab reports, results for duplicate samples, results for blank samples, and chain of custody forms.
 - viii. The name(s) of the laboratory that conducted the analyses and a copy of laboratory certifications from DDW's Environmental Laboratory Accreditation Program (ELAP).
 - ix. Records of any operational problems, plant upset(s), equipment breakdowns or malfunctions, and any diversion(s) of off-specification recycled water and the location(s) of final disposal.
 - x. Discussion of compliance, noncompliance, or violation of requirements.
 - xi. All corrective or preventive action(s) taken or planned with a schedule of implementation, if any.
2. For the purpose of reporting compliance with numeric limitations, analytical data shall be reported using the following reporting protocols:
 - i. Sample results greater than or equal to the RDL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample);
 - ii. Sample results less than the RDL but greater than or equal to the laboratory's method detection limit shall be reported as "Detected but Not Quantified", or DNQ. The laboratory shall write the estimated chemical concentration of the

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sample next to DNQ as well as the words “Estimated Concentration” (may be shortened to “Est. Conc.”); or

- iii. Sample results less than the laboratory’s MDL shall be reported as “Not Detected”, or ND.
- 3. If the Permittee samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) more frequently than required in this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.
- 4. The Regional Water Board may request supporting documentation, such as daily logs of operations.

B. Annual Reports

- 1. Annual monitoring reports shall include a minimum of the following:
 - i. Tabular and graphical summaries of the monitoring data obtained during the previous calendar year.
 - ii. A table listing the users and use areas serviced during the year, the amount of recycled water delivered to each user (reported in both gallons and in acre-feet), and the use of the recycled water. Newly permitted recycled water users shall be identified. When applicable, supplement to the Title 22 Engineering Report and the State Water Board approval letter supporting those additions shall be included.
 - iii. Annual volume of treated wastewater distributed for beneficial use in compliance with Title 22 in each of the use categories below:
 - a. Agricultural irrigation: pasture or crop irrigation
 - b. Landscape irrigation: irrigation of parks, greenbelts, playgrounds, school yards, athletic fields, cemeteries, residential landscaping, freeway landscaping, highway landscaping, and street landscaping.
 - c. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.
 - d. Commercial application: commercial facilities, business use (such as laundries or office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.
 - e. Geothermal energy production: augmentation of geothermal fields.
 - f. Other non-potable uses including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.
 - g. Groundwater recharge: surface or subsurface application, except for seawater intrusion barrier use.
 - iv. A salt balance including the total mass of TDS, chloride, sulfate, and boron produced at the Camrosa WRF, discharged for beneficial reuse, discharged to the SMP, discharged to Calleguas Creek, infiltrated into the ground from the recycled water storage ponds, and exported from the Pleasant Valley

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Groundwater Basin through operation of CWD's regional desalter. The salt balance shall also include the mass of salts conveyed from the Camarillo WRP to CWD's recycled water storage pond that infiltrated into the ground during the previous year and the mass of salts exported from the Pleasant Valley Groundwater basin through Camarillo SD's regional desalter. The net salt import/export shall be calculated and reported. The salt balance shall include a discussion of the data collected during the year and may include data from previous years to confirm the mass of salts exported from the groundwater basin exceeds the mass of salts introduced to the groundwater basin via the recycled water storage ponds.

- v. A discussion of the compliance record and corrective or preventive action(s) taken or planned to bring the recycled water into full compliance with the requirements in this Order.
 - vi. A description of any changes and anticipated changes, including any impacts in operation of any unit processes or facilities shall be provided.
 - vii. A list of the analytical methods employed for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall state the laboratories used by the Permittee to monitor compliance with this Order, their status of certification, and a summary of performance.
 - viii. Quality assurance and quality control (QA/QC) documents shall be submitted with each quarterly report. This documentation includes lab reports, results for duplicate samples, and results for blank samples.
 - ix. A list of current operating personnel, their responsibilities, and their corresponding grade and date of certification.
 - x. The date of the facility's Operation and Maintenance (O&M) Management Plan, the date the plan was last reviewed, and whether the plan is complete and valid for the current facilities.
 - xi. All pond system monitoring and use area monitoring required in Tables E5 and E6.
 - xii. A summary table of all inspections and enforcement activities initiated by CWD. Include a discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance. Copies of documentation of any enforcement actions taken by CWD shall be provided.
 - xiii. An evaluation of the performance of the recycled water system for both the Camrosa WRF and the Camarillo WRP including a discussion of capacity issues, system problems, and a forecast of the flows anticipated for the following year.
2. The Permittee shall submit to the Regional Water Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect the quality of the recycled water, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly. An annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used in the treatment process shall be included in the annual report.

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C. Report Submittal Dates

1. The Permittee shall submit the required reports to the Regional Water Board and to DDW. The reports shall be received on the dates indicated as follows:
 - i. **Quarterly Monitoring Reports** shall be received by the 15th day of the second month following the end of each quarterly monitoring period accord. The first Quarterly Monitoring Report under this program shall be received at the Regional Water Board and DDW by February 15, 2020, covering the monitoring period from September 12 to December 31, 2019. If sample collection for September 2019 was conducted prior to the effective date of this Order, compliance for September 2019 will be assessed based on Order No. R4-2015-0030.

TABLE E7. REPORTING PERIODS AND DUE DATES

Reporting Period	Report Due
January – March	May 15 th
April – June	August 15 th
July – September	November 15 th
October – December	February 15 th

- ii. The **Annual Summary Monitoring Report** shall be received by April 15th of each year. The first Annual Summary Report under this program shall be received at the Regional Water Board and DDW by April 15, 2020, covering the monitoring period of year 2019.

D. Summary of Non-compliance

All monitoring reports shall contain a separate section titled “Summary of Non-Compliance” that discusses the compliance record and corrective actions taken or planned to bring the reuse into full compliance with this Order. This section shall clearly list all instances of non-compliance. For every item where the requirements are not met, the Permittee shall submit a statement of the actions undertaken or proposed that will bring the recycled water program into full compliance with requirements at the earliest possible time and a timetable for implementation of the corrective measures.

E. Signatory Requirements

Monitoring reports shall be signed by either the principal Executive Officer or ranking elected official. A duly authorized representative of the aforementioned signatories may sign documents if all of the following are true:

1. An authorization is made in writing by the signatory;
2. The authorization specifies the representative as either an individual or position having responsibility for the overall operation of the regulated facility or activity; and,
3. The written authorization is submitted to the Executive Officer of this Regional Water Board.

The monitoring report shall contain the following completed declaration:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments thereto; and that, based on my inquiry of the individuals immediately responsible for obtaining the information, I

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believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

Executed on the day of _____ at _____

Signature

Title

F. Records of Monitoring

The Permittee shall retain records of all monitoring information, including all calibration and maintenance, monitoring instrumentation, and copies of all reports required by this Order, for a period of at least three (3) years from the date of sampling measurement or report. This period may be extended by request of the Regional Water Board or DDW at any time and shall be extended during the course of any unresolved litigation regarding the regulated activity.

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analysis;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G. Operations and Management Plan

The Permittee shall update an Operations and Management Plan (OMP) for the recycled water system and submit the OMP to the Regional Water Board and DDW within 90 days of the effective date of this Order. The OMP shall include a description of the water recycling program including a schedule for use site inspections and specify agronomic rates and nutrient application for the use area and a set of reasonably practicable measures to ensure compliance with this Order. The OMP shall include a water and nutrient budget for use areas, site supervisor training, and periodic inspections. CWD may submit a salt and nutrient management plan developed to comply with another Regional Water Board Order, such as waste discharge requirements or a waiver regulating discharges from irrigated lands, in lieu of an OMP.

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ATTACHMENT F – POLLUTANT LISTS

The following pollutants shall be analyzed at least annually, or more frequently if specified in the Monitoring and Reporting Program of Order No. R4-2019-xxxx. If the annual test result exceeds the corresponding MCL for the pollutant listed below, the Camrosa Water District (CWD) shall perform accelerated monthly effluent monitoring for the target chemicals until the MCL is no longer exceeded, at which point CWD may resume the regular frequency of testing. If the final effluent continues to exceed a pollutant's MCL six months after the initial exceedance, CWD shall initiate an investigation into the cause of the exceedance and determine an appropriate remedy to bring the final effluent back into compliance. CWD shall submit a final report to the Regional Water Board describing the issue and the actions CWD performed to alleviate the problem. The MCLs in Table F1 through F4 list serve as triggers for accelerated monitoring, not as effluent limitations.

TABLE F1 – Pollutants with Primary MCLs

Constituents	Units	Monthly Average MCL
Aluminum	µg/L	1000
Antimony	µg/L	6
Arsenic	µg/L	10
Barium	µg/L	1000
Beryllium	µg/L	4
Cadmium	µg/L	5
Total Chromium	µg/L	50
Cyanide	µg/L	150
Fluoride	µg/L	2000
Mercury	µg/L	2
Nickel	µg/L	100
Perchlorate	µg/L	6
Selenium	µg/L	50
Thallium	µg/L	2
Copper	µg/L	1300
Lead	µg/L	15
Benzene	µg/L	1
Carbon Tetrachloride	µg/L	0.5
1,2-Dichlorobenzene	µg/L	600
1,4-Dichlorobenzene	µg/L	5
1,1-Dichloroethane	µg/L	5
1,2-Dichloroethane (1,2-DCA)	µg/L	0.5
1,1-Dichloroethylene (1,1-DCE)	µg/L	6
Cis-1,2-Dichloroethylene	µg/L	6
Trans-1,2-Dichloroethylene	µg/L	10
Dichloromethane	µg/L	5
1,2-Dichloropropane	µg/L	5
1,3-Dichloropropene	µg/L	0.5
Ethylbenzene	µg/L	300
Methyl-tert-butyl-ether (MTBE)	µg/L	13
Monochlorobenzene	µg/L	70
Styrene	µg/L	100
1,1,2,2-Tetrachloroethane	µg/L	1

Constituents	Units	Monthly Average MCL
Tetrachloroethylene (PCE)	µg/L	5
Toluene	µg/L	150
1,2,4-Trichlorobenzene	µg/L	5
1,1,1-Trichloroethane	µg/L	200
1,1,2-Trichloroethane	µg/L	5
1,2,3-Trichloropropane	µg/L	0.005
Trichloroethylene (TCE)	µg/L	5
Trichlorofluoromethane	µg/L	150
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	1200
Vinyl Chloride	µg/L	0.5
Xylenes (m,p)	µg/L	1750 ¹⁶
Alachlor	µg/L	2
Atrazine	µg/L	1
Bentazon	µg/L	18
Benzo(a)pyrene	µg/L	0.2
Carbofuran	µg/L	18
Chlordane	µg/L	0.1
Dalapon	µg/L	200
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	0.2
2,4-Dichlorophenoxyacetic acid (2,4-D)	µg/L	70
Di(2-ethylhexyl) adipate	µg/L	400
Di(2-ethylhexyl) phthalate (DEHP)	µg/L	4
Dinoseb	µg/L	7
Diquat	µg/L	20
Endrin	µg/L	2
Endothall	µg/L	100
Ethylene Dibromide (EDB)	µg/L	0.05
Glyphosate	µg/L	700
Heptachlor	µg/L	0.01
Heptachlor epoxide	µg/L	0.01
Hexachlorobenzene	µg/L	1
Hexachlorocyclopentadiene	µg/L	50
Gamma BHC (Lindane)	µg/L	0.2
Methoxychlor	µg/L	30
Molinate	µg/L	20
Oxamyl	µg/L	50
Pentachlorophenol	µg/L	1
Picloram	µg/L	500
Polychlorinated Biphenyls (PCBs)	µg/L	0.5
Simazine	µg/L	4
2,4,5-TP (Silvex)	µg/L	50
2,3,7,8-TCDD (Dioxin)	µg/L	0.00003
Thiobencarb	µg/L	70
Toxaphene	µg/L	3

¹⁶ The MCL is for either a single isomer or the sum of the isomers.

TABLE F2 – Pollutants with Secondary MCLs

Constituents	Units	Monthly Average MCL
Copper	µg/L	1000
Foaming agents (MBAS)	µg/L	500
Iron	µg/L	300
Manganese	µg/L	50
Silver	µg/L	100
Zinc	µg/L	5000

TABLE F3 – Disinfection Byproducts MCLs

Constituents	Units	Monthly Average MCL
Total Trihalomethanes (TTHMs)* <ul style="list-style-type: none"> • Bromodichloromethane • Bromoform • Chloroform • Dibromochloromethane 	µg/L	80
Haloacetic acid (five) (HAA5) <ul style="list-style-type: none"> • Monochloroacetic acid • Dichloroacetic acid • Trichloroacetic acid • Monobromoacetic acid • Dibromoacetic acid 	µg/L	60
Bromate	µg/L	10
Chlorite	µg/L	1000

TABLE F4 – Radionuclide MCLs

Constituent	Units	Monthly Average
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15
Gross Beta particle activity (excluding radon and uranium)	mrem/yr	4
Radium-226 + Radium-228	pCi/L	5
Strontium-90	pCi/L	8
Tritium	pCi/L	20,000
Uranium	pCi/L	20

TABLE F5 – Remaining Priority Pollutants

Acenaphthene	Bis(2-ethylhexyl) phthalate
Acrolein	Butyl benzyl phthalate
Acrylonitrile	di-n-butyl phthalate
Benzidene	di-n-octyl phthalate
Chlorobenzene	Diethyl phthalate
Hexachloroethane	Dimethyl phthalate
Chloroethane	Benzo(a) anthracene
Bis(2-chloroethyl) ether	Benzo(a) pyrene
2-chloroethyl vinyl ether	Benzo(b) fluoranthene
2-chloronaphthalene	Benzo(k) fluoranthene

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2,4,6-trichlorophenol	Chrysene
Parachlorometa cresol	Acenaphthylene
Chloroform	Anthracene
2-chlorophenol	Benzo(ghi) perylene
1,3-dichlorobenzene	Fluorene
3,3-dichlorobenzidene	Phenanthrene
2,4-dichlorophenol	Dibenzo(a,h) anthracene
2,4-dimethylphenol	Indeno (1,2,3-c,d) pyrene
2,4-dinitrotoluene	Pyrene
2,6-dinitrotoluene	Tetrachloroethylene
1,2-diphenylhydrazine	Toluene
Fluoranthene	Trichloroethylene
4-chlorophenyl phenyl ether	Vinyl chloride
4-bromophenyl phenyl ether	Aldrin
Bis(2-chloroisopropyl) ether	Dieldrin
Bis(2-chlorethoxy) methane	4,4-DDT
Methylene chloride	4,4-DDE
Methyl chloride	4,4-DDD
Methyl bromide	Alpha Endosulfan
Bromoform	Beta Endosulfan
Dichlorobromomethane	Endosulfan sulfate
Chlorodibromomethane	Endrin Aldehyde
Hexachlorobutadiene	Alpha BHC
Isophorone	Beta BHC
Naphthalene	Delta BHC
Nitrobenzene	PCB-1242
2-nitrophenol	PCB-1254
4-nitrophenol	PCB-1221
4,6-dinitro-o-cresol	PCB-1232
N-nitrosodimethylamine	PCB-1248
n-nitrosodiphenylamine	PCB-1260
N-nitrosodi-n-propylamine	PCB-1016
Phenol	

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