



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 20, 2015

Mr. Gary Nyhoff
City Manager
City of Oxnard
300 West Third Street
Oxnard, CA 93030

ADOPTED WASTE DISCHARGE AND WATER RECYCLING REQUIREMENTS NO. R4-2011-0079-A01 AND MONITORING AND REPORTING PLAN ORDER NO. R4-2008-0083-A01, (CI-9456; NPDES PERMIT NO. CA0054097, ORDER NO. R4-2013-0094, CI-2022)

Dear Mr. Nyhoff:

On June 29, 2015, we transmitted to you the revised tentative order amendments Waste Discharge and Water Recycling Requirements R4-2011-0079-A01 and Monitoring and Reporting Program R4-2008-0083-A01.

Pursuant to Division 7 of the California Water Code, this Regional Water Board at a public meeting held on July 9, 2015, reviewed the revised tentative requirements, and considered all the factors in the case, and adopted Order No. R4-2011-0079-A01 and Monitoring and Reporting Program R4-2008-A01. They serve as your Waste Discharge and Water Recycling Requirements and Monitoring and Reporting Program. A copy of these adopted Orders are enclosed.

This Order included modifications listed in a change sheet issued on July 5, 2015.

The complete adopted Orders will be sent only to the Discharger. However, these documents are available on the Regional Water Board's website for your review. The Regional Water Board's web address is www.waterboards.ca.gov/losangeles.

If you have any questions, please contact me at (213) 620 2083.

Sincerely,

A handwritten signature in black ink that reads "Cris Morris".

Cris Morris, P.E. Chief
Municipal Permitting Unit

Enclosures

cc: (via email only)
Assemblymember Jacqui Irwin
John Brison, Assemblymember Jacqui Irwin Field Representative
Jeannette Sanchez, Assemblymember Jacqui Irwin Field Representative
Brett Williams, Assemblymember Jacqui Irwin Field Representative
James duBois, Driscoll's Farm
Casey Houweling, Houwelings's Tomatoes
Lucia McGovern, City of Camarillo
Ashli Desai, Larry Walker and Associates
Susan Mulligan, Calleguas Municipal Water District
Robert Kwong, Pleasant Valley County Water District
Robert Krimmer, Pleasant Valley County Water District
John Matthews, Pleasant Valley County Water District
Mike Solomon, United Water Conservation District
Gerhardt Hubner, Fox Canyon Groundwater Management Agency
Lynn Gray Jensen, Ventura County Coalition of Labor, Agriculture and Business
Robert Roy, Ventura County Agricultural Association
Tony Stafford, Camrosa General Manager
Don Jensen, Jensen Design
Lou Balderrama, City of Oxnard
Thien Ng, City of Oxnard
Martin Erickson, City of Oxnard
Ron Saperstein, City of Oxnard
Dan Rydberg, City of Oxnard
Mary Vorissis, MV Engineering
Joe Deakin, City of Simi Valley
Kurt Sousa, Division of Drinking Water
Jeff Densmore, Division of Drinking Water
Environmental Protection Agency, Region 9, Permit Branch (WTR-9)
NOAA, National Marine Fisheries
Department of Interior, U.S. Fish and Wildlife Service
Francis McChesney, State Water Resource Control Board, Office of Chief Counsel
Jennifer Fordyce, State Water Resource Control Board, Office of Chief Counsel
David Coupe, State Water Resource Control Board, Office of Chief Counsel
Department of Fish and Game, Region 5
California State Parks and Recreation
State Coastal Conservancy
Ventura County
Ventura Regional Sanitation District
Ventura Coast Keeper
Wishtoyo Foundation
Heal the Bay
Environment Now
Los Angeles Waterkeeper
Natural Resources Defense Council

**State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

320 West 4th Street, Suite 200
(213) 576-6660 • Fax (213) 576-6640
<http://www.waterboards.ca.gov>

**ORDER NO. R4-2011-0079-A01
(File No. 08-070)**

**WATER RECYCLING REQUIREMENTS AND WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF OXNARD
GROUNDWATER RECOVERY, ENHANCEMENT, AND TREATMENT PROGRAM –
NONPOTABLE REUSE PHASE I PROJECT**

ISSUED TO

CITY OF OXNARD

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

PURPOSE OF AMENDMENT TO ORDER NO. R4-2011-0079

The Pleasant Valley County Water District (PVCWD) and the City of Oxnard (City) requested the delivery of recycled water produced by the Advanced Water Purification Facility (AWPF) starting in August of 2015 to offset the loss of agricultural water due to the extended drought. The City's AWPF is part of the Groundwater Recovery, Enhancement, and Treatment (GREAT) Program, which is scheduled to deliver the water to Pleasant Valley growers in 2017. The PVCWD requests that the water be transported into PVCWD's irrigation distribution system and to the Oxnard Plain via the Calleguas Regional Salinity Management Pipeline (RSMP) until the planned permanent connection can be constructed or additional flows into the RSMP render the option not feasible, whichever comes first.

INTRODUCTION

1. The current water supply sources are insufficient to meet the City of Oxnard's (City's) current and growing demand and have limitations with respect to economics and reliability. The City's total water supply sources in 2008 is approximately 27,000 acre-feet per year (AF/Y), and it is projected that the City's demand will near 44,000 AF/Y over the next 20 years. In order to meet the current and future water demand, the City proposes to produce and distribute treated recycled water produced at the AWPF from its GREAT Program. The GREAT Program is a water resource project that combines wastewater recycling and reuses; groundwater injection, storage, and recovery; and groundwater desalination to provide more efficient uses of existing local water resources. The GREAT Program would provide the City with needed local water resources. Additional benefits would include increased spare capacity of the City ocean outfall, which could be used toward other beneficial uses and more reliable irrigation water supplies to growers at equal or better quality than its existing irrigation water supplies.

ADOPTED: February 28, 2011, AMENDED ORDER: July 9, 2015

2. The GREAT Program contains three sub-projects subject to three different permitting activities. These three sub-projects are:
 - A. **Nonpotable Recycle Project** (Project) reuses AWPf-treated recycled water (recycled water) including landscape and agricultural irrigation, industrial process water, and recreational purposes. These proposed Waste Discharge Requirements and Water Recycling Requirements regulate this use.
 - B. **Groundwater Injection Project** injects recycled water into the aquifers along the coastal area. Groundwater Injection Project will be regulated with a separate future permit containing the Groundwater Recharge Reuse requirements issued by this Regional Water Board.
 - C. **Groundwater Desalination Project** desalts brackish groundwater for potable uses. Groundwater Desalination Project will be regulated with a drinking water permit issued by the State Water Resource Control Board Division of Drinking Water (DDW).

The City owns and operates the Oxnard Wastewater Treatment Plant (Oxnard Plant) and the GREAT Program. The City is the primary purveyor of recycled water, distributed both within and outside of the City, for irrigation, industrial, and recreational, and other non-groundwater recharge uses.

REGULATORY AGENCIES

3. The Regional Water Board is the permitting agency for this Project involving the use of recycled water for nonpotable uses. The Regional Water Board issues Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) to assure that this Project does not adversely affect receiving water quality. In addition, the Regional Water Board is guided by DDW's requirements.
4. On June 12, 2008, the DDW provided the Regional Water Board with the comments on the Title 22 Engineering Report. These comments have been incorporated into the Order. The DDW is the agency with the primary responsibility for establishing criteria, under Title 22 and Title 17 of the Code of Regulations, to protect the health of the public using the recycled water and potable water supplies through control of cross-connections with potential contaminants.

PURPOSE OF ORDER

5. On January 9, 2007, the City submitted a Report of Waste Discharge (ROWD) and applied for Water Recycling Requirements, pursuant to California Water Code Section 13522.5, for the nonpotable reuse of recycled water.
6. This Order is a master water recycling permit issued to the City, pursuant to California Water Code Section 13523.1. This Order prescribes the City responsibilities for the production, distribution and application of recycled water. The City is also responsible for processing individual end-users' applications, inspecting point-of-use facilities, and ensuring end-users' compliance with the water recycling requirements contained in this Order. The actual delivery of recycled water to end-users is subject to approval by the DDW, and/or its delegated local health agency.

OXNARD WASTEWATER TREATMENT PLANT

7. The City owns and operates the Oxnard Plant, a publicly owned treatment work (POTW). The Oxnard Plant is a secondary treatment facility located at 6001 South Perkins Road, Oxnard, California. Figure 1 provides a map of the area around the Oxnard Plant. The Oxnard Plant has a dry weather design capacity of 31.7 million gallons per day (mgd). The treatment system consists of bar screening, aerated grit removal, primary clarification, bio-filtration, activated sludge, secondary clarification, flow equalization, chlorine disinfection, and dechlorination. Solid fractions recovered from wastewater treatment processes include screenings, grit, primary sludge and skimmings, thickened waste activated sludge. The fine solids (screenings and grit) which are primarily inorganic materials are hauled away to a landfill. The remaining solid fractions (primary sludge, skimmings, and thickened waste activated sludge) are anaerobically digested at the treatment plant. In addition, the City operates the oil and grease program through which it cleans interceptors for food establishments and uses the oil and grease in its digesters to increase methane production. The methane is then used to generate electricity, which occupies approximately 60% of total electricity uses, for the Oxnard Plant. The digested solids are dewatered using belt filter presses. The dewatered cake contains approximately 20% solids (Class B biosolids). The Oxnard Plant generates approximately 500 wet tons of Class B biosolids per week. The biosolids are managed by composting operations in Kern County. Figure 2 shows a flow schematic of the Oxnard Plant.
8. Treated wastewater is discharged to the Pacific Ocean off Ormond Beach, a water of the United States, under NPDES Order No. R4-2013-0094, adopted by the Regional Water Board on June 6, 2013.
9. The Oxnard Plant is located at the Oxnard Plain, and the proposed recycled water use areas are the Oxnard Plain and Pleasant Valley located above the Ventura Central Groundwater Basin.

GROUNDWATER RECOVERY, ENHANCEMENT, AND TREATMENT (GREAT) PROGRAM

10. The City plans to construct an AWPf nearby the Oxnard Plant for the GREAT Program in two phases (See Figure 1), which treats the secondary effluent, for reuse in Nonpotable Reuse and Groundwater Injection Projects. Table 1 presents the proposed quantity of recycled water to be produced for each phase.

| Table 1 – Projected Recycled Water Production Capacity | | |
|---|--------------------------|------------------------------|
| Phase | Secondary Effluent (mgd) | Product Recycled Water (mgd) |
| I | 8 - 9 | 6.25 |
| II | 32 - 36 | 25 |

The AWPf is designed to produce 6.25 mgd and 25 mgd of recycled water for Phases 1 and 2, respectively. At build-out (Phase 2), the treatment equipment will consist of four full treatment trains, each capable of producing 6.25 mgd of recycled water. Thus, the operators have the ability to remove trains from service for maintenance or repair. When a train is out of service, less water will be available for recycled use. Flow that is not treated through the AWPf will be discharged through the ocean outfall.

After Phase II approval, the use of recycled water may replace the imported potable water that is currently used for groundwater injection to protect against seawater intrusion. The City will be actively pursuing additional users for Phase I and Phase II. Any additional recycled water produced in future phases may be used for various irrigation, industrial uses, and recreational impoundments.

SOURCE AND TREATMENT OF RECYCLED WATER

11. The Oxnard Plant treats wastewater from industrial, commercial and residential sources generated by a population of approximately 220,000 in the City of Oxnard, the City of Port Hueneme, the US Naval Base, Ventura County, and some unincorporated areas of Ventura County. Approximately 20 percent of wastewater comes from industrial source, and the remaining 80 percent from commercial and residential sources. In addition to wastewater, infiltration and inflow of clear water is present in the collection system and is approximately 11 to 20 percent of the total flow depending on the season. In compliance with 40 Code of Federal Regulations part 403 and the NPDES permits for the Oxnard Plant, the City developed and has been implementing a Pretreatment Program. Two of the four primary objectives of the Pretreatment Program are to prevent to pass through of pollutants or to cause interference in the operation of the Oxnard Plant by regulating the discharge of toxic pollutants into the Oxnard Plant. The Pretreatment Program reduces the likelihood of toxic contamination of the effluent and provides reliability in the treatment process.
12. For the GREAT Program – Phase I, approximately 6 - 8 mgd of secondary-treated effluent will flow by gravity to the AWPf lift station wet well where lift pumps will feed to the strainers. The remaining secondary treated effluent will continue to be discharged to the Pacific Ocean. Figure 3 depicts the schematic of Phase I AWPf treatment process. The AWPf is comprised of the following:
 - A. **Strainer System:** Strainers installed prior to the microfiltration/ultrafiltration system will remove the fine particles from the secondary effluent.
 - B. **Microfiltration/Ultrafiltration (MF/UF) System:** MF/UF is a low-pressure filtration process and will be used to pretreat the secondary effluent prior to reverse osmosis (RO). As results of removing particulate and microbial contaminants, including turbidity, *Giardia*, and *Cryptosporidium*, MF/UF increases system reliability and reduces RO membrane fouling. The MF units will be periodically back washed to clean the membranes. However, the backwash is not 100 percent effective at removing particulates and foulants accumulating on the membrane surface. Therefore, a chemical cleaning process of feeding sodium hypochlorite to MF/UM is also needed. The chemical cleaning interval is 30 days or greater. The backwash will be sent back to the Oxnard Plant's headworks for reprocessing.
 - C. **Reverse Osmosis (RO) System:** RO is a pressure-driven membrane-separation process that removes dissolved contaminants (i.e., salts, minerals, metal ions, and organic compounds) and viruses from water. Filtered water will continuously be pumped at elevated pressure to the RO system. RO feed pumps are equipped with variable frequency drives to allow constant flux operation. The RO system will be designed for a finished water production capacity of 6.25 mgd for the AWPf Phase 1 and 25 mgd for Phase 2. It will have three stages to allow water recovery of 80 to 85

- percent, where concentrate from the first stage will be applied to a second stage, and concentrate from the second stage will be applied to a third stage. Permeate from the three stages will be blended into a final product water and will constitute the feedwater to the UV/AOX system. Similar to the MF/UF system, the membranes will foul with accumulation of particulates. Chemicals are used to routinely clean the membranes. Cleaning chemicals are returned to the Oxnard Plant's headworks.
- D. **Ultra Violet/Advanced Oxidation and Reduction (UV/AOX) System:** UV/AOX process is used for both disinfection and advanced oxidation and reduction of micropollutants at the AWPf. Recycled water destined for groundwater recharge, and agricultural and landscape irrigation will normally undergo UV/AOX treatment at all times. However, in those instances when only UV light disinfection is required, the AWPf will have the capability to apply a lower UV dose required for disinfection of water for "unrestricted reuse," also referred to as "disinfected tertiary recycled water" or "Title 22 recycled water," as defined by the DDW.
- E. **Post-Treatment Systems:** The post-treatment systems include decarbonator towers and liquid lime injection downstream of the UV/AOX process. Following UV/AOX, the water quality is projected to be very aggressive with an LSI in the range of -3.3 to -2.5; also, the water will have high concentrations of carbon dioxide, up to 50 mg/L. Carbon dioxide removal and lime dosing are needed for stabilization. If the water is not stabilized, it will be very corrosive and will not be suitable for recycled water uses or groundwater recharge. In order to remove carbon dioxide, water is distributed over media packed in the decarbonator towers. Air flow through the media strips the carbon dioxide and other volatile compounds. Liquid lime is then dosed to add calcium and alkalinity, thereby increasing the pH.
- F. **Chemical Systems:** Chemicals are used throughout the processing of the water. Membrane cleaning systems, water stabilization, and treatment involve chemical usage. Chemicals for this project are split into *continuously fed* chemicals and *batch cleaning* chemicals. Continuously fed chemicals are flow paced. These chemicals include hydrogen peroxide, sulfuric acid, threshold inhibitor, and liquid lime. Batch cleaning chemicals include sodium hypochlorite, sodium hydroxide, citric acid, and sodium bisulfite.

PUMP STATION, AND TRANSMISSION OF RECYCLED WATER

13. The finished water pump station will provide the AWPf-treated water to the recycled water transmission lines. Initially, the finished water pump station will have two duty pumps and one standby pump. Each of the finished water pumps will be provided with variable frequency drives. The finished water pump station discharge header also will be provided with a flow meter to monitor the amount of finished water delivered from the AWPf.
14. Recycled water will be distributed through a combination of existing and new transmission lines. Figure 4 shows existing water facilities in the Oxnard Plain. Figures 6 7and 8 show the operation of the RSMP to supply AWPf recycled water to the Pleasant Valley farmers and growers within the Oxnard Plain and the temporary connections required by this amendment. All pipelines and valves will be installed with purple identification tapes or purple polyethylene vinyl wraps according to "Guidelines for Distribution of Nonpotable

Water - American Water Works Association (AWWA) California-Nevada Section” published in 1992.

A. Transmission Lines of Agricultural Irrigation Uses

The following existing transmission lines will be used to distribute recycled water to agricultural users:

- a. Recycled water will be distributed through the existing United Water Conservation District (UWCD) Pumping Trough Pipeline (PTP) and Pleasant Valley County Water District (PVCWD) irrigation networks for agricultural irrigation by growers served by these networks.
- b. Recycled water will be distributed through the Hueneme Recycled Water pipeline which is parallel to the existing Ocean View Municipal Water District (OVMWD) potable pipeline for agricultural irrigation by growers along this pipeline.
- c. A transmission system to distribute recycled water to duck clubs has not yet been identified.

For Phase 1 of the GREAT Program, the following recycled water delivery system goals are:

- a. Establish recycled water delivery system to 6.25 mgd capacity.
- b. Construct Hueneme Recycled Water pipeline, approximately 26,000 Feet of 42 and 36 –inch pipeline.
- c. Construct Ventura Road Recycled Water Backbone Pipeline.
- d. Construct Tie-in to PVWCD irrigation system for delivery of recycled water.

To utilize the PVCWD irrigation network prior to construction of the Hueneme Recycled Water pipeline, a temporary connection will be made from the AWPf recycled water discharge to the RSMP and from the RSMP to the Oxnard plain. This temporary piping will be removed once the permanent piping has been constructed or temporary use of the RSMP for this purpose is no longer feasible. To maintain the recycled water quality being distributed to the growers of the Oxnard Plain, the temporary use of the RSMP shall expire 2 years from the adoption of this permit unless the WDR is modified at a future Regional Water Board meeting.

Future Phases of the GREAT Program would expand the recycled water delivery system to:

- a. Establish recycled water delivery system to 25 mgd capacity.
- b. Construct Hueneme Recycled Water pipeline extension.

- c. Construct piping and Tie-ins to Ventura Road Recycled Water Backbone pipeline for City recycled water uses such as landscape irrigation and approved industrial uses.
 - d. Construct piping Tie-ins to pumping trough pipeline irrigation system and other agricultural users for delivery of recycled water.”
- B. Transmission Lines of Municipal and Industrial Uses

The GREAT Program did not consider municipal and industrial use within the City for the recycled water. However, the City recently abandoned the Redwood Trunk Sewer line that extended from the northwestern portion of the City to the Oxnard Plant. The abandoned sewer line could potentially carry a pipe from the AWPF to the northwestern portion of the City and serve municipal and industrial facilities along its route. The future project is called the Recycled Water Backbone System (RWBS).

The transmission lines for both phases and the RWBS line are shown in Figure 5. The distribution area for each line is identified in Figure 5, as well.

APPLICABLE PLANS, POLICIES AND REGULATIONS

15. **Basin Plan** - The Regional Water Board adopted a revised *Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) on June 13, 1994, and amended by various Regional Water Board resolutions. This updated and consolidated plan represents the Board's master quality control planning document and regulations. The Basin Plan (i) designates beneficial uses for surface and groundwater, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the State's antidegradation policy, and (iii) includes implementation provisions, programs, and policies to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Water Board plans and policies and other pertinent water quality policies and regulations. This Order implements the applicable plans, policies, and provisions of the Board's Basin Plan.
16. The Basin Plan contains water quality objectives for the Pleasant Valley Groundwater Basin, which is considered to be the receiving water underlying the current recycled water use area.
17. The beneficial uses of the Ventura Central Groundwater Basin, including the Pleasant Valley Groundwater Basin, are municipal and domestic supply, industrial process supply, industrial service supply, and agricultural supply.
18. 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 California* (Resolution 68-16), establishing an Antidegradation Policy for the State Water Board and Regional Water Boards. State Board Resolution No. 68-16 (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 described 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.

Application of recycled water for irrigation is limited to agronomic rates and therefore is not expected to measurably impact groundwater quality. This Order allows incidental percolation of the AWPf treated recycle water and requires the effluent to meet primary MCLs for drinking water and groundwater quality standards in the Basin Plan. The effluent limitations for TDS and chloride are set by the Water Quality Objectives for the confined aquifers of the Basin Plan.

19. The California Legislature has declared that a substantial portion of the future water requirements of the state may be economically met by beneficial use of recycled water. (Wat. Code, § 13511.) The Legislature also expressed its intent that the state undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the state. (Wat. Code, § 13512.) This Order requires best practicable treatment or control, which is a combination of treatment, storage, and application methods that implement the requirements of title 22 and the Basin Plan. The use of recycled water in place of both raw and potable water supplies for the non-potable uses allowed under this order improves water supply availability and helps to ensure that higher quality water will continue to be available for human uses and for instream uses for fish and wildlife. Treatment technologies required under the permit include tertiary treatment and disinfection for pathogen removal. As required by the Antidegradation Policy, the Regional Water Board finds that the limited degradation of water that may occur as the result of percolation of disinfected tertiary treated effluent to groundwater under the conditions of this Order allows the City of Oxnard to recycle more of its wastewater discharged from the Oxnard Wastewater Treatment Plant and provides maximum benefit to the people of California. On February 3, 2009, the State Water Board adopted *Resolution 2009-0011, Adoption of a Policy for Water Quality Control for Recycled Water (Recycled Water Policy)* (Revised January 22, 2013, effective April 25, 2013.) The Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies. The Recycled Water Policy recommends that local water and wastewater entities together with other stakeholders who contribute salt and nutrients to a groundwater basin or sub-basin fund and develop Salt and Nutrient Management Plans (SNMPs) to comprehensively address all sources of salts and nutrients.
20. Section 13523 of the California Water Code 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 water recycling requirements for water that is used or proposed to be used as recycled water. Section 13523 further provides that the recycling requirements shall include, or be in conformance with, the statewide water recycling criteria established by DDW pursuant to Water Code section 13521.
21. The City proposes to use recycled water for irrigation and other industrial uses. All these reuse applications could affect the health, safety, and welfare of the public; therefore requirements are necessary.

22. Pursuant to the California Water Code section 13523, the Regional Water Board has consulted with the DDW regarding the proposed recycling project and has incorporated its recommendations in this Order.
23. DDW adopted revised Water Recycling Criteria (Chapter 3, Division 4, Title 22, California Code of Regulations) that became effective on December 2, 2000. Applicable criteria to this recycling project are prescribed in this Order. The GREAT Program's recycled water is treated through reverse osmosis and disinfection, and exceeds the quality of recycled water required for the applications proposed in this Order.
24. The City had prepared an Engineering Report on its proposed production, distribution, and use of recycled water for irrigation in March 2008, as required by Section 60323 of Title 22, California Code of Regulations. On June 12, 2008, the DDW provided the Regional Water Board with comments on the Title 22 Engineering Report.
25. The requirements contained in this Order are in conformance with the goals and objectives of the Basin Plan and implement the requirements of the California Water Code and CCR Title 22, Division 4, Chapter 3 - *Water Recycling Criteria*.
26. The City prepared and certified the "Final Program Environmental Impact Report", State Clearinghouse No. 2003011045, in compliance with the California Environmental Quality Act (Public Resources Code Section 21000, et seq.). This report was prepared by CH2MHILL for the City of Oxnard in May 2004. The project consists of upgrades to the Oxnard Plant to achieve water recycling and construction of a backbone recycled water distribution system, including utilization of existing pipelines.
27. This issuance of water recycling requirements by a regulatory agency for the protection of the environment is exempt from the provisions of Chapter 3 [commencing with Section 21100, et seq., Division 13 (California Environmental Quality Act), Public Resources Code] in accordance with Section 15308, Title 14, California Code of Regulations.
28. Pursuant to California Water Code section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Water Resources Control Board. A petition must be received by the State Water Resources Control Board, 1001 I Street, Sacramento, California, 95814, within 30 days of adoption of the Order.
29. Regional Board encourages Oxnard to work with all parties of the GREAT agreement to maximize the benefits of recycled water delivery for region-wide benefits, especially groundwater levels and quality.
30. Regional Water Board recognizes that groundwater management is a local issue. The Regional Board supports the Sustainable Groundwater Management Act of 2014 (GMA), signed by Governor Brown on Sept. 16, 2014, in which the legislature recommends the development of local groundwater management plans. UWCD and FCGMA and local water agencies created Resolution No. 2013-02 of the Fox Canyon Groundwater Management Agency (FCGMA) and signed it on June 26, 2013 to address the implementation of the first phase of the GREAT program through a collaborative process. The Regional Board encourages FCGMA, as the GMA lead, to coordinate recycled water use, surface water use, and groundwater use for regional benefit. The Regional Water Board has notified the City of Oxnard, interested agencies and persons of its intent to issue

Master Water Recycling Requirements for the production, distribution and use of recycled water, and has provided them with an opportunity to submit their written views and recommendations.

The Regional Water Board, in a public meeting, heard and considered all comments pertaining to these water recycling requirements.

IT IS HEREBY ORDERED that the City of Oxnard shall comply with the following:

I. AWPf INFLUENT SPECIFICATIONS

For purposes of this Order, the AWPf includes Strainer, Microfiltration/Ultrafiltration, Reverse Osmosis, Ultra Violet/Advanced Oxidation and Reduction, Post-Treatment, and Chemical Systems. The influent to the AWPf is secondary treated effluent from the Oxnard Plant.

The influent shall, at all times, be adequately oxidized. The influent shall be considered adequately oxidized when it meets the following characteristics:

1. The monthly average Biochemical Oxygen Demand (BOD₅ 20°C) value does not exceed 30 mg/L. Compliance shall be determined monthly using the average of the analytical results of all 24-hour composite samples taken at least weekly during the month.
2. The monthly average Total Suspended Solids (TSS) concentration does not exceed 30 mg/L. Compliance shall be determined monthly using the average of the analytical results of all 24-hour composite samples taken daily during the month.

II. RECYCLED WATER LIMITATIONS

1. The AWPf-treated recycled water is required to meet the limits (Table 2) for the following constituents at the effluent sampling station identified in Order No. R4-2008-0083-A01..

| Table 2 – AWPf-Treated Effluent Limits and Monitoring | | | |
|--|--------------|------------------------|----------------------|
| Constituent | Units | Monthly Average | Daily Maximum |
| Oil and grease | mg/L | 10 | 15 |
| Total dissolved solids | mg/L | | 700 |
| Chloride | mg/L | | 150 |
| Boron | mg/L | | 1.0 |
| Sulfate | mg/L | | 300 |
| Total Nitrogen ¹ | mg/L | | 10 |

¹ Total nitrogen is the sum of Nitrite-N, Nitrate-N, NH₃-N, and organic-N

2. Monitoring only is required for the other constituents identified in Table 3.

| Table 3 – AWPf-Treated Effluent Monitoring Only | |
|--|--------------|
| Constituent | Units |
| Settleable solids | mL/L |
| Suspended solids | mg/L |
| BOD ₅ 20°C | mg/L |
| Nitrate-N | mg/L |
| Nitrite-N | mg/L |
| Nitrate-N + nitrite-N | mg/L |
| Inorganic with primary MCL | mg/L |
| Constituents/parameters with secondary MCL | mg/L |
| Regulated organic chemicals | µg/L |
| Remaining priority pollutants | µg/L |
| Disinfection byproduct | µg/L |
| Radioactivity | pCi/L |
| Chemicals with NLs | µg/L |
| Endocrine disrupting chemicals ² | µg/L |
| Pharmaceuticals and other chemicals | µg/L |

3. At the Las Posas temporary piping sampling station (refer to Order No. R4-2008-0083-A01) the recycled water distributed to the PVCWD via the RSMP shall not contain constituents with concentrations in excess of the following limits (Table 4):

| Table 4 – AWPf- Treated Effluent Monitoring via RSMP | | | |
|---|--------------|------------------------|----------------------|
| Constituent | Units | Monthly Average | Daily Maximum |
| Oil and grease | mg/L | 10 | 15 |
| Total dissolved solids | mg/L | -- | 700 |
| Chloride | mg/L | -- | 150 |
| Sulfate | mg/L | -- | 300 |
| Boron | mg/L | -- | 1.0 |
| Total nitrogen ² | mg/L | -- | 10 |

² Total nitrogen is the sum of Nitrite-N, Nitrate-N, NH₃-N, and organic-N

4. Monitoring is also required for the recycled water delivered to the Oxnard Plain via the RSMP for constituents identified in Table 5 below.

| Table 5 – Recycled Water via RSMP Monitoring Only | |
|--|--------------|
| Constituent | Units |
| Inorganic with primary MCL | mg/L |
| Constituents/parameters with secondary MCL | mg/L |

5. The turbidity of the reverse osmosis product water prior to disinfection shall not exceed 0.2 NTU more than 5 percent of the time within a 24-hour period and 0.5 at NTU at any time. The turbidity shall be continuously measured with at least one reading every 1.2 hours and recorded. When the turbidity requirements are exceeded, delivery of recycled water shall be suspended until such time the cause of the exceedance has been identified and corrected. The City shall notify and submit a report according to Provision VII.8. of this Order.
6. Recycled water shall be, at all times, adequately disinfected such that the number of total coliform bacteria shall not exceed any of the following, based on daily grab samples:
- A. A 7-day median of 2.2 most probable number (MPN) per 100 milliliters;
 - B. 23 MPN per 100 milliliters in more than one sample in any 30 day period prior to delivery of recycled water; and,
 - C. 240 MPN per 100 milliliters in any sample prior to delivery of recycled water.
7. By March 31, 2011, the City shall send the report to the Regional Water Board and the DDW that demonstrates equivalency of UV/AOX disinfection to chlorine disinfection as used in recycled water treatment plants. Equivalency of UV disinfection to a conventional process used in wastewater recycling and reuse must be demonstrated by the following criteria:
- A. Total coliform count equal to or less than 2.2 MPN/100 ml met with the sample statistical frequency as required for chlorine disinfection; and,
 - B. Virus inactivation efficiency equivalent to that achieved with chlorine disinfection 4 log of inactivation (i.e., 99.99 percent reduction), based on plaque-forming units of F-specific bacteriophage MS2 or polio virus in wastewater.
8. The pH of the recycled water shall be, at all times, within the range of 6.5 to 8.5 pH units. Excursions from this range shall not be considered a violation provided the duration is not more than 10 minutes in a 24-hour period, and the pH shall at all times be within 6 to 9.

9. The recycled water shall not contain trace, toxic and other constituents in concentrations exceeding:
 - A. The current applicable Maximum Contaminant Levels (MCLs) for drinking water established by the DDW included in the Attachments A-1 to A-5;
 - B. Any new Federal or State MCL upon adoption; or,
 - C. At levels that adversely affect the beneficial uses of receiving groundwater.
10. The radioactivity of the recycled water shall not exceed the limits specified in Sections 64441 and 64443, Article 5, Chapter 15, Title 22 of the California Code of Regulations, or subsequent revisions.
11. The 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.
12. The recycled water shall not cause a measurable increase in organic chemical contaminants in the groundwater.

III. SPECIFICATIONS FOR USE OF RECYCLED WATER

1. The AWPf-treated recycled water may be used for the following:
 - A. Surface irrigation in the following areas:
 - a. Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop;
 - b. Parks and playgrounds;
 - c. School yards;
 - d. Residential and freeway landscaping;
 - e. Unrestricted access golf courses; and,
 - f. Other allowable irrigation applications specified in the Water Recycling Criteria, Chapter 3, Title 22, CCR, provided approval from DDW and Regional Water Board Executive Officer are obtained prior to delivery.
 - g. Delivery of the following uses may begin after approval by the DDW:
 - 1) Dust control on roads, streets and fields,
 - 2) Backfill consolidation around piping,
 - 3) Soil compaction,
 - 4) Cleaning roads, sidewalks, and outdoor work areas, and

- 5) Flushing sanitary sewers.
 - B. Industrial or commercial cooling tower;
 - C. Industrial boiler feed; and,
 - D. Recreational Impoundments.
2. The recycled water shall not be used for any other uses than those specified in section III.1 unless an engineering report has been submitted for such other uses, except for groundwater recharge reuse, and has been approved in writing by the Executive Officer and DDW.
3. Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.
4. The delivery of recycled water to end-users shall be subject to DDW approval and/or its delegated local agency.
5. The dual plumbed system may be used to deliver recycled water to end-users. The detailed dual plumbed system requirements are available at Section V. of this Order.
6. During the use of the RSMP to deliver water to the Oxnard Plain, the AWPf treated recycled water will mix with variable amounts of brine including the flow discharged from the Camrosa's Round Mountain Desalter facility. The discharge of brine from the Camrosa Desalter is covered under NPDES permit CA0064521, Order R4-2014-0033 issued by this Regional Board on March 6, 2014 and amended at the July 9, 2015 Regional Board Hearing. To satisfy the Recycled Water Limitations in Table 4 at the Las Posas sampling point on the temporary piping between the RSMP and the PVCWD, the recommended daily average minimum flow rate from the AWPf to the RSMP is 3.0 mgd. If the monitoring results of the recycled water being distributed from the AWPf to the RSMP do not confirm attainment of the limits of this Order, then the recommended daily average minimum flow (calculated from weekly readings) shall be applied to the sum of the flow meters at the four connections from the RSMP to the growers as shown in Figure 6.
7. The temporary use of the RSMP shall not interfere with the efforts to comply with the Total Maximum Daily Load for Boron, Chloride, Sulfate and TDS (Salts) in the Calleguas Creek Watershed (Salts TMDL) adopted by the Los Angeles Regional Water Quality Control Board on October 4, 2007. If the Regional Water Board determines that the temporary use of the RSMP interferes with the salinity management operations to comply with the Salts TMDL and disposal of brine from the Camrosa Municipal Water District, the Calleguas Municipal Water District and/or other stakeholders of the Calleguas Creek watershed, the Los Angeles may rescind or modify these water recycling requirements and waste discharge requirements at a subsequent Regional Water Board meeting. If the Regional Water Board finds that the temporary use of the RSMP contributes to the degradation of groundwater quality, the Regional Water Board may also terminate or modify the WDR at a subsequent Regional Water Board meeting.

8. Prior to using a tanker truck or a residential vehicle to pick up AWPf treated recycle water from the AWPf and distribute it for one of the uses identified above, the City shall submit a project proposal to DDW and the EO for review and approval and shall comply with the DDW requirements and precautions listed below:

A. Project Proposal for Hauling Operations and/or Residential Fill Stations

The project proposal for hauling and fill stations shall include, but not be limited to, the following components.

- a. Program description
- b. Recycled water fill station protocol
- c. Customer/driver qualification and training, and
- d. Recycled water use application agreement.

Once the DDW has reviewed and approved the proposal, the Regional Water Board will issue an approval letter to incorporate specific requirements for such use.

B. DDW Recycled Water Handling and Use Requirements/Precautions

- a. Use areas receiving hauled recycled water must follow the same Title 17 and Title 22 requirements as a similar use area receiving traditionally piped recycled water.
- b. If the hauler requests to supply recycled water to a use area that uses any plumbed potable or recycled water distribution systems, the City must follow all applicable Title 17 and Title 22 regulations, including cross connection control testing and backflow prevention device installation prior to allowing pick up of recycled water. Dual plumbed use areas can only receive recycled water from a recycled water agency per Title 22, section 60313(a).
- c. The hauler should keep a log book for each vehicle, tank, or container used to transport recycled water. The log book must be available for inspection at all times. The hauler must carry a copy in the vehicle at all times while hauling recycled water. The log book should include:
 - 1) Date of delivery/use
 - 2) Volume of water delivered/used
 - 3) Intended use of water
 - 4) Name and address of the recipient/customer

- d. Do not drink recycled water or use it for food preparation. Additionally, the hauler or Recycled Water Site Supervisor must notify workers and/or the public when recycled water is used at a use site and inform them not to drink recycled water or use it for food preparation.
- e. Haulers should apply hand sanitizer or wash their hands with soap and potable water after working with recycled water and especially before eating or smoking.
- f. Precautions should be taken to avoid food coming in contact with recycled water while the use site is wet.
- g. Haulers should be equipped with an adequate first aid kit. Cuts or abrasions should be promptly washed, disinfected, and bandaged.
- h. Recycled water shall not be allowed to spray on external drinking water fountains.
- i. Recycled water shall not be applied where it could contact or enter passing vehicles, storm drains, buildings or areas where food is handled or eaten.
- j. Haulers shall take adequate measures to prevent overspray, ponding, or run off of recycled water from the authorized recycled water use area.
- k. No irrigation or impoundment of recycled water is allowed within a minimum of 50 feet of any domestic drinking water well.
- l. No connection shall be made between a tank or container of recycled water and any part of a potable water system.

IV. USE AREA REQUIREMENTS

Use area is an area of recycled water use with defined boundaries, which may contain one or more facilities where recycled water is used. The City shall be responsible to ensure that all users of recycled water comply with the following:

1. The City has the option of a public educational program³ or signage. Except where the DDW and the Regional Water Board, acting through the DDW and the Regional Water Board, have approved an educational program that assures an equivalent degree of public notification, all use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER – DO NOT DRINK". Each sign shall display an international symbol similar to that shown in Figure 9 to alert people who do not read English.

3 The public educational program is based on Title 22 Code of Regulations, Chapter 3 Water Recycling Criteria, Article 4 Use Area Requirements, Section 60310(g), stating: "The Department (CDPH) may accept alternative signage and wording, or an educational program, provided the applicant demonstrates to the Department that the alternative approach will assure an equivalent degree of public notification."

2. No physical connection shall be made or allowed to exist between any recycled water piping and any piping conveying potable water, except as allowed under Section 7604 of Title 17, California Code of Regulations.
3. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.
4. Recycled water use shall not result in earth movement in geologically unstable areas.
5. No impoundment or recycled water holding ponds of disinfected recycled water shall occur within 100 feet of any domestic water wells, potable water reservoirs, and streams used as sources of water supply.
6. Whenever a cooling system, using recycled water in conjunction with an air conditioning facility, utilizes a cooling tower or otherwise creates a mist that could come into contact with employees or members of the public, the cooling system shall comply with the following:
 - A. A drift eliminator shall be used whenever the cooling system is in operation.
 - B. A chlorine, or other, biocide shall be used to treat the cooling system recirculating water to minimize the growth of *Legionella* and other microorganisms.
7. No irrigation areas with recycled water shall be located within 50 feet of any domestic water supply well unless all of the following conditions have been met:
 - A. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface;
 - B. The well contains an annular seal that extends from the surface into the aquitard;
 - C. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities;
 - D. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well; and,
 - E. The owner of the well approves of the elimination of the buffer zone requirement.
8. No irrigation shall take place within 50 feet of any reservoir or stream used as a source of domestic water.

9. Use of recycled water shall comply with the following:
 - A. Recycled water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to: prevent clogging of spray nozzles, prevent over-watering, and minimize the production of run-off. Pipelines shall be maintained so as to prevent leakage;
 - B. Any irrigation runoff shall be confined to the recycled water use area and shall not be allowed to escape as surface flow, unless the runoff does not pose a public health threat and is authorized under a National Pollutant Discharge Elimination System (NPDES) permit, Waste Discharge Requirements, Conditional Waiver of Waste Discharge Requirements for Irrigated Lands, State Water Board, or other orders issued by this Regional Water Board. For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order;
 - C. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities, and shall not contact any drinking water fountain and public present. Drinking water fountains must be equipped with hoods or covers;
 - D. Recycled water shall not be used for irrigation during periods of rainfall and/or run-off;
 - E. Recycled water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes; and,
 - F. Recycled water use should be limited to times when public is not present.
10. All above ground irrigation appurtenances need to be marked appropriately.
11. The area using recycled water shall be inspected annually by the City.
12. Supervisors must be appointed for the recycled water use areas and their staff must be trained on the hazards of working with recycled water and periodically retrained.
13. The City has developed the User Agreements and Ordinances with the potential agricultural, industrial, and recreational users of recycled water. Copies of the User Agreements and Ordinances shall be provided to the Regional Water Board and the DDW for review and approval. User Agreements for the recycled water via the temporary use of the RSMP shall either be the previously approved user agreement or an updated agreement that has been reviewed and approved by the Regional Water Board and the DDW.
14. The Agreement between the City of Oxnard and the Calleguas Municipal Water District to temporarily use the RSMP shall be provided to the Regional Water Board for review and approval.
15. If the recycled water system lateral pipelines are located along the property lines of homeowners, there may be a potential for cross connections. A buffer zone between the recycled water lines and the property owners is necessary. However, if the City

cannot maintain adequate control of the recycled water system pipelines, the pipelines will need to be relocated or a physical barrier needs to be installed to prevent this type of potential problem. The homeowners need to be educated on the use of recycled water in the area. If the recycled water system lateral pipelines are located along the property lines of homeowners, the City shall specify a plan to interface with the homeowners as a part of the Rules of Service Agreement in an adjacent property awareness program.

V. REQUIREMENTS FOR DUAL PLUMBED SYSTEM

1. 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 that complies with the requirements of Sections 7602 (a) and 7603 (a) of Title 17, California Code of Regulations.

Air gaps shall be at least twice the pipe diameter and be located above ground.

2. The City shall not deliver recycled water for any internal use to any individually-owned residential units, including free-standing structures and multiplexes, with the exception of condominium projects pursuant to Section 13553 of the California Water Code as enacted on October 12, 2007.
3. The City shall not deliver recycled water for internal use, except for fire suppression system, to any facility that produces or processes food products or beverages.
4. The City shall not deliver recycled water to a facility using a dual plumbed system unless the report required under Section 13522.5 of the Water Code has been submitted to, and approved by, the Regional Water Board and DDW.
5. The City that shall submit a report to DDW pursuant to Section 13522.5 of the Water Code and Section 60414 of the Health and Safety Code, which shall contain the following information for dual plumbed systems, in addition to the information required by Section 60323 of Title 22 of the California Code of Regulations:
 - A. A detailed description of the intended use site identifying the following:
 - a. The number, location, and type of facilities within the use area proposing to use dual plumbed systems;
 - b. The average number of persons estimated to be served by each facility on a daily basis;
 - c. The specific boundaries of the proposed use site including a map showing the location of each facility to be served;
 - d. The person or persons responsible for operation of the dual plumbed system at each facility; and,
 - e. The specific use to be made of the recycled water at each facility.

- B. Plans and specifications describing the following:
 - a. Proposed piping system to be used;
 - b. Pipe locations of both recycled and potable systems;
 - c. Type and location of the outlets and plumbing fixtures that will be accessible to the public; and,
 - d. The methods and devices to be used to prevent backflow of recycled water into the public water system.
 - C. The methods to be used by the City 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.
6. 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 Section 7605 of Title 17, California Code of Regulations. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection and testing for the prior year shall be submitted to the DDW within 30 days following completion of the inspection or testing.
7. Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with Section 7605 of Title 17, California Code of Regulations.

VI. GENERAL REQUIREMENTS

- 1. Bypass, discharge, or delivery to the use area of inadequately treated wastewater, at any time, is prohibited.
- 2. The recycling facility shall be adequately protected from inundation and damage by storm flows and run-off.
- 3. Adequate freeboard and/or protection shall be maintained in the recycled water storage tanks, process tanks, and impoundments to ensure that direct rainfall will not cause overtopping.
- 4. The wastewater treatment and use of recycled water shall not cause pollution or nuisance.

5. The wastewater treatment and use of recycled water shall not result in problems caused by breeding of mosquitoes, gnats, midges, or other pests.
6. The use of recycled water shall not impart tastes, odors, color, foaming, or other objectionable characteristics to the receiving groundwater.
7. The use of recycled water, which could affect the receiving ground water, shall not contain any substance in concentration toxic to human, animal, or plant life.
8. Odors of sewage origin shall not be perceivable beyond the limits of the property owned or controlled by the City and/or recycled water user.

VII. PROVISIONS

1. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements". If there is any conflict between provisions stated hereinbefore and said "Standard Provisions", those provisions stated hereinbefore prevail.
2. This Order includes the Monitoring and Reporting Program included in Order No. 2008-0083-A01. 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.
3. A copy of these requirements shall be maintained at the water recycling facility so as to be available at all times to operating personnel.
4. The City shall furnish each purveyor and user of recycled water a copy of these requirements and ensure that the requirements are maintained at the purveyor and user's facilities so as to be available at all times to operating personnel.
5. The City shall be responsible to ensure that all users of recycled water comply with the specifications and requirements for such use.
6. The recycled water delivered to the Oxnard Plain growers through the RSMP will contain variable amounts of brine, including the flow discharged from Camrosa's Round Mountain Desalter facility. To ensure recycled water quality is sufficient for protection of beneficial uses and groundwater quality, water quality analysis of the recycled water sampled at the Las Posas temporary piping is required.
7. The Regional Water Board recognizes that groundwater management is a local issue. The Regional Water Board supports the Sustainable Groundwater Management Act of 2014 (GMA), signed by Governor Brown on Sept. 16, 2014, in which the legislature recommends the development of local groundwater management plans. Staff notes that United Water Conservation District (UWCD) and FCGMA and local water agencies have created a GMA through a collaborative process and Resolution No. 2013-02 concerns the implementation of Phase 1 of the City of Oxnard's GREAT program and recycled water management within the region.

8. The City shall, at all times, properly operate and maintain all treatment facilities and control systems (and related appurtenances) that are installed or used by the City to achieve compliance with the 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).
9. The City shall submit to the Regional Water Board and DDW, for approval of the Executive Officer, within 90 days of adoption of this Order an operating 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 wastewater.
10. For any violation of requirements in this Order, the City shall notify DDW and the Regional Water Board within 24 hours of knowledge of the violation either by telephone or electronic mail. This notification shall be followed by a written report within 5 working days of notification, unless otherwise specified in this Order. The report shall include, but not limited to, the following information, as appropriate:
 - A. Nature and extent of the violation;
 - B. Date and time: when the violation started, when compliance was achieved; and, when delivery was suspended and restored, as applicable;
 - C. Duration of violation;
 - D. Cause/s of violation;
 - E. Corrective and/or remedial actions taken and/or will be taken with time schedule for implementation; and,
 - F. Impact of the violation.
11. Supervisors and operators of the wastewater recycling facility shall possess a certificate of appropriate grade as specified in Title 23, California Code of Regulations, Section 3680 or subsequent revisions.
12. In accordance with Section 13522.5 of the California Water Code, and Title 22, Division 4, Chapter 3, Article 7, Section 60323 of the California Code of Regulations, the City shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the recycled water or its uses to the Regional Water Board and to the DDW.
13. For any extension or expansion of the recycled water system or use areas, the City shall submit a report detailing the extension or expansion plan for approval of the DDW. Following construction, as-built drawings shall be submitted to the DDW for approval prior to delivery of recycled water. The Executive Officer shall be furnished with as-built drawings and a copy of the DDW approval.

14. The City shall notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of ownership and/or operation of the recycling facility and responsibility for complying with this Order. The notice shall include a written agreement between the existing and new recycled water producer indicating the specific date for the transfer of responsibility for compliance with this Order. The agreement shall include an acknowledgement that the City is liable for any violations that occurred up to the transfer date and the new recycled water producer is liable from the transfer date on.
15. The City 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:
 - A. Enter upon the City's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and,
 - D. 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.
14. The City must comply with all conditions of these water recycling requirements. 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 requirements.
15. These requirements do not exempt the City from compliance with any other laws, regulations, or ordinances that may be applicable; they do not legalize the recycling and use facilities; and they leave 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.
16. This Order does not alleviate the responsibility of the City 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 recycling facility shall be contingent upon issuance of all necessary requirements and permits, including a conditional use permit.
17. The provisions of these water recycling requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.
18. In an enforcement action, it shall not be a defense by the City 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 City 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.

19. After notice and opportunity for a hearing, this Order may be modified, revoked and reissued, or terminated for cause, which include but is not limited to: failure to comply with any condition of in this Order; endangerment of human health or environment resulting from the permitted activities in this Order; obtaining this Order by misrepresentation or failure to disclose all relevant facts; acquisition of new information that could have justified the application of different conditions if known at the time of Order adoption.

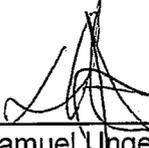
The filing of a request by the City for modification, revocation and reissuance, or termination of the Order; or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

20. The City shall furnish, within a reasonable time, any information the Regional Water Board or the DDW may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The City shall also furnish the Regional Water Board, upon request, with copies of records required to be kept under this Order.

VIII. EFFECTIVE DATE OF ORDER

This Order takes effect upon adoption.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on July 9, 2015.


Chief Deputy E.O.
fss
Samuel Unger
Executive Officer

EERICKSON

FIGURE 1 – VICINITY MAP

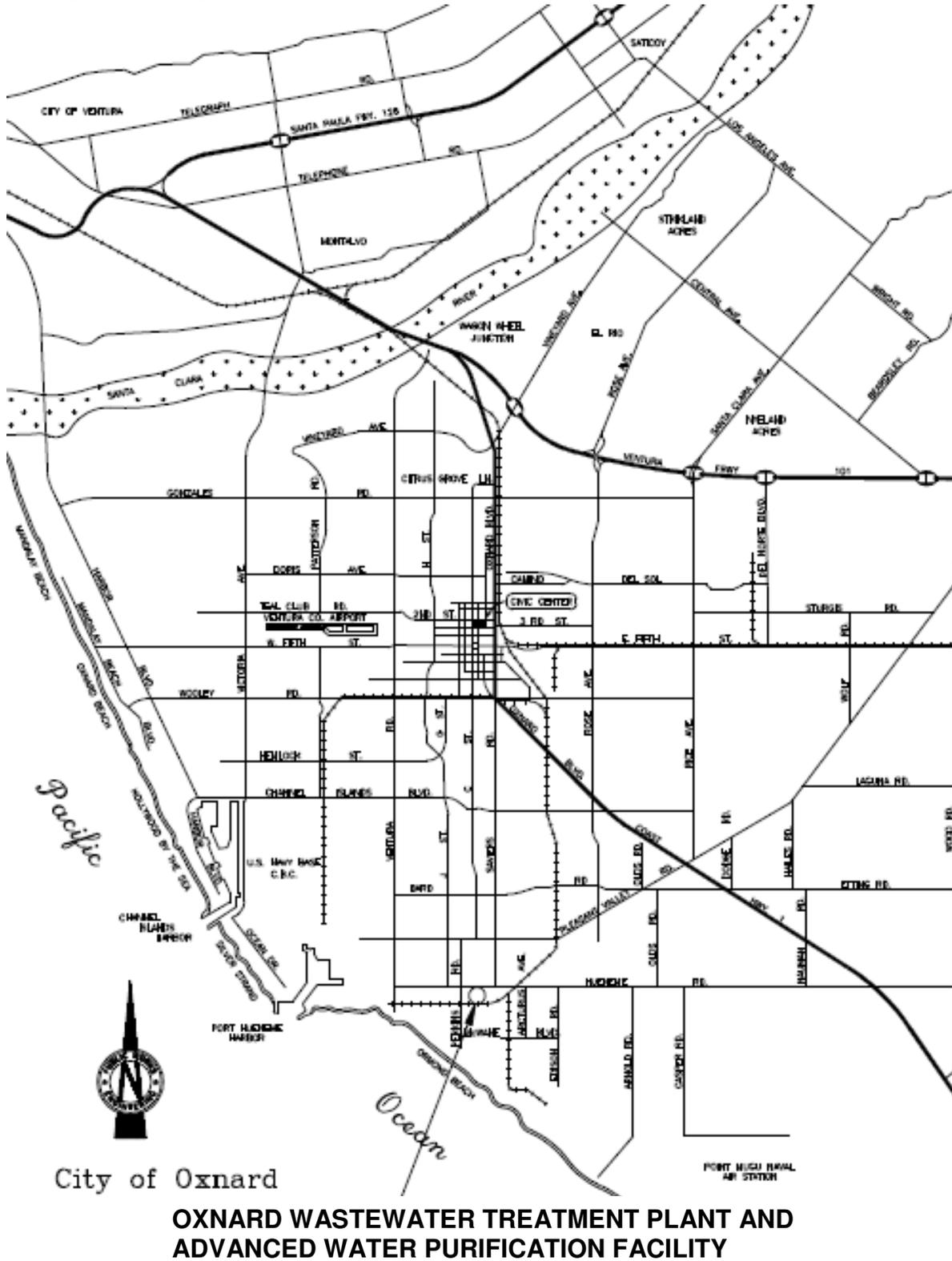


FIGURE 2 – FLOW SCHEMATIC AT OXNARD WASTEWATER TREATMENT PLANT

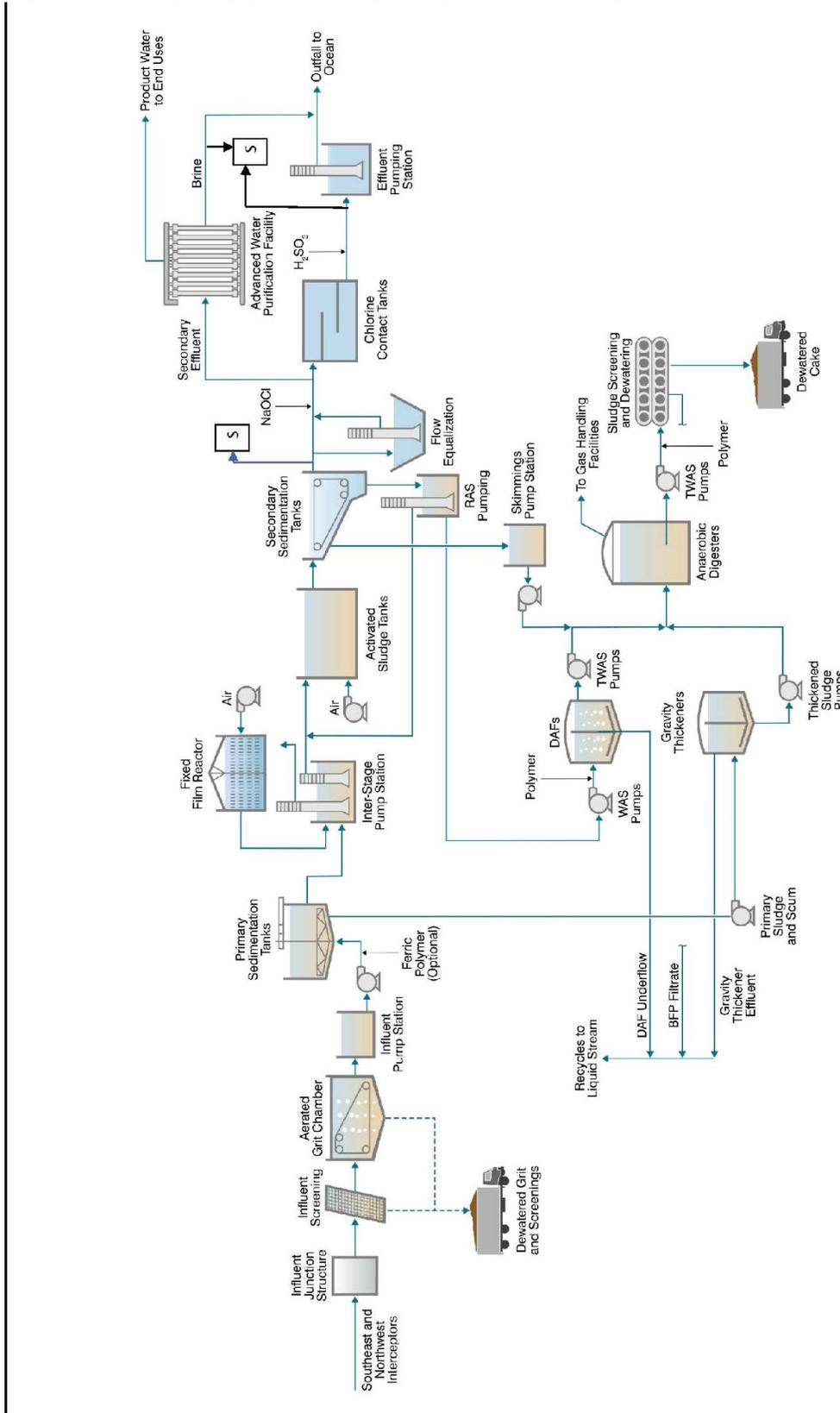


FIGURE 3 – ADVANCED WATER PURIFICATION PROCESS

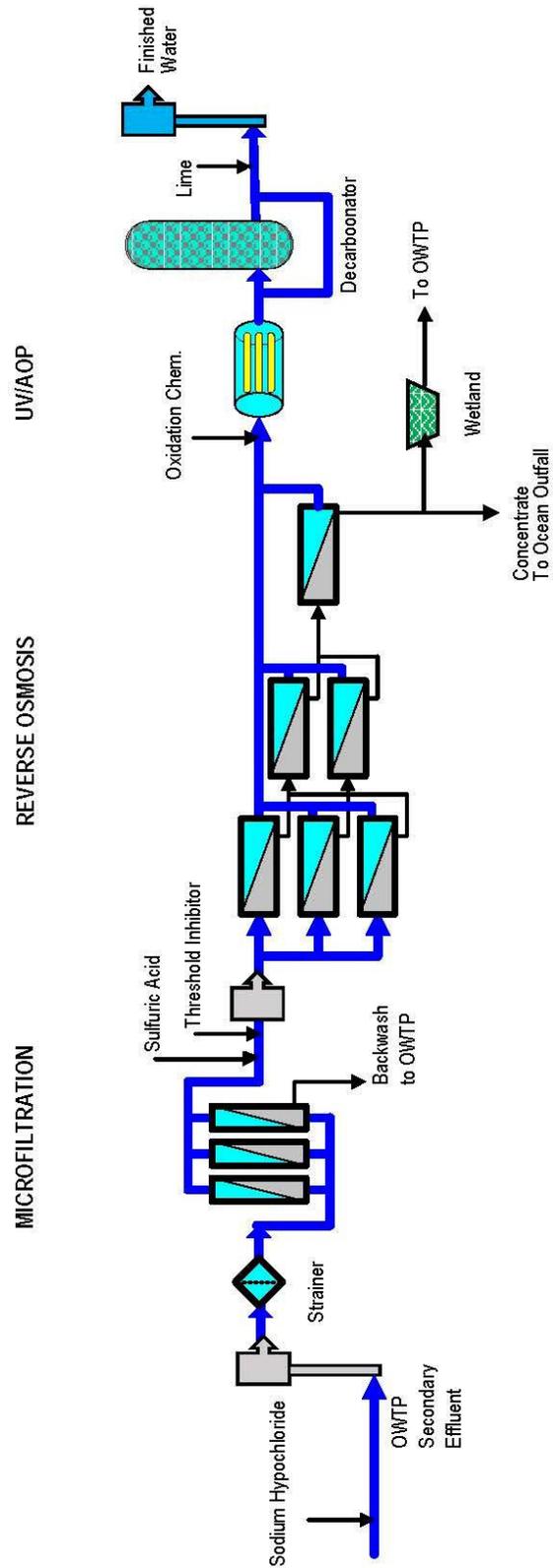


FIGURE 4 – EXISTING WATER FACILITIES IN OXNARD PLAIN

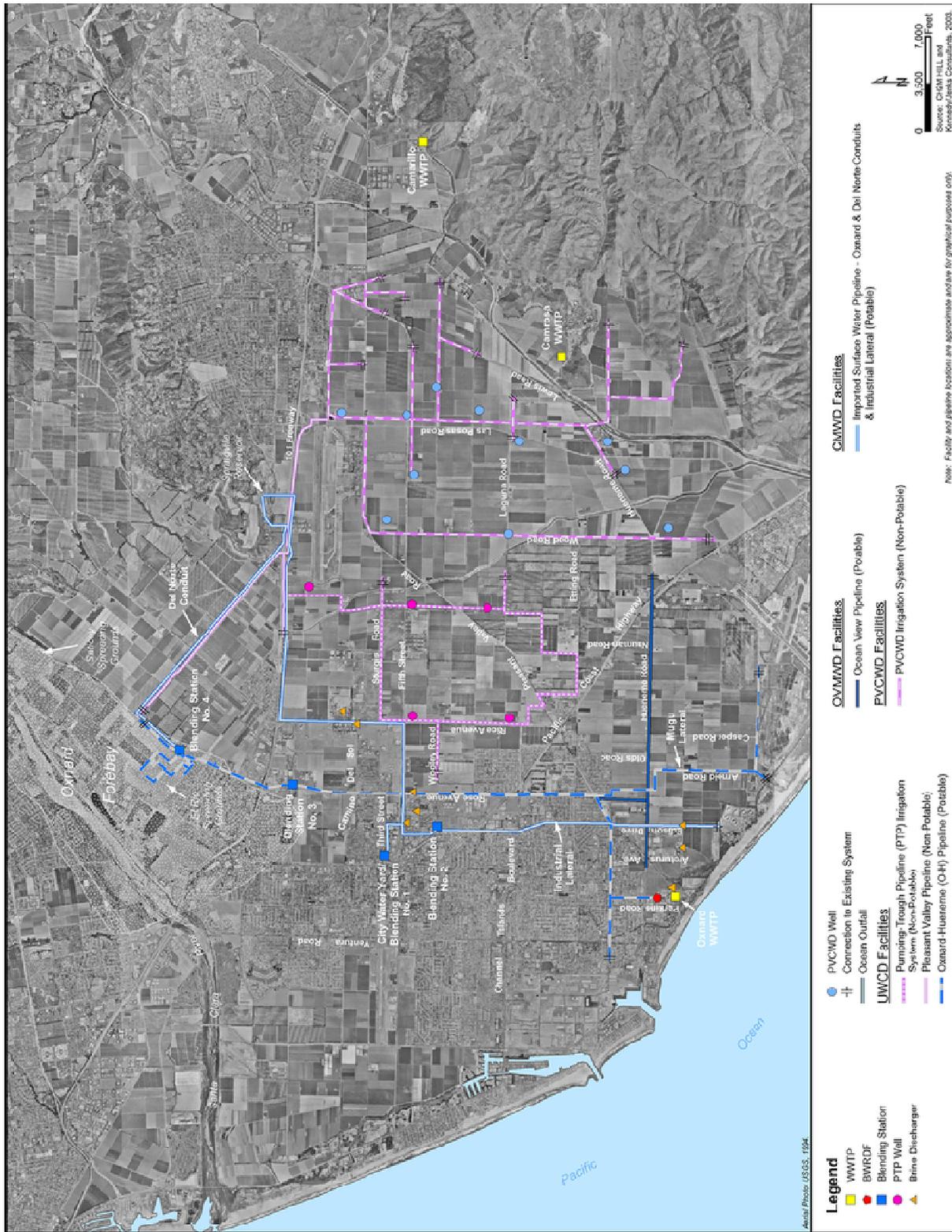


FIGURE 5 – RECYCLED WATER DISTRIBUTION AREA

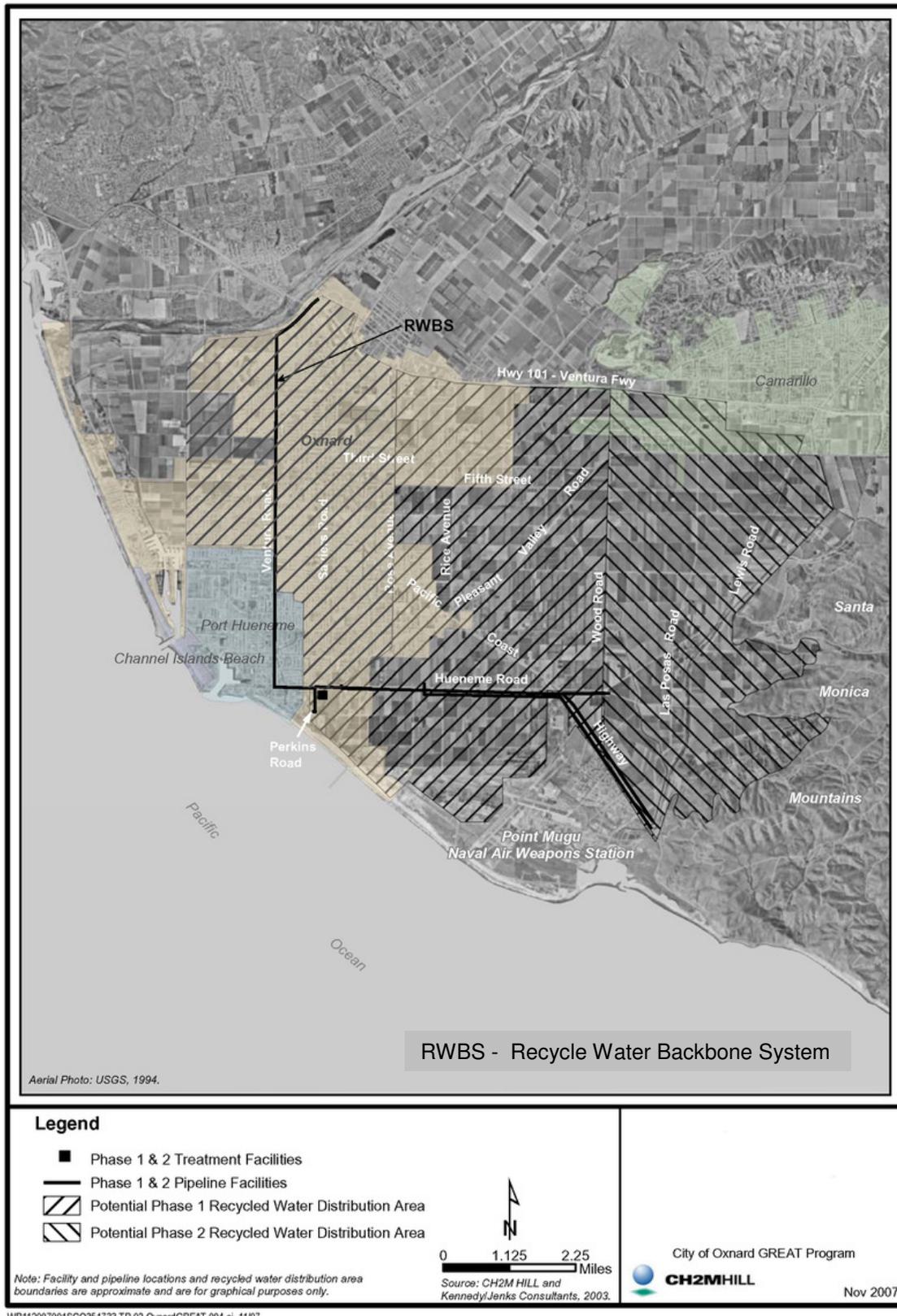


FIGURE 6 – CONCEPTUAL DESIGN OF OPERATION OF CALLEGUAS REGIONAL SALINITY PIPELINE TO SUPPLY AWPf RECYCLED WATER TO PLEASANT VALLEY

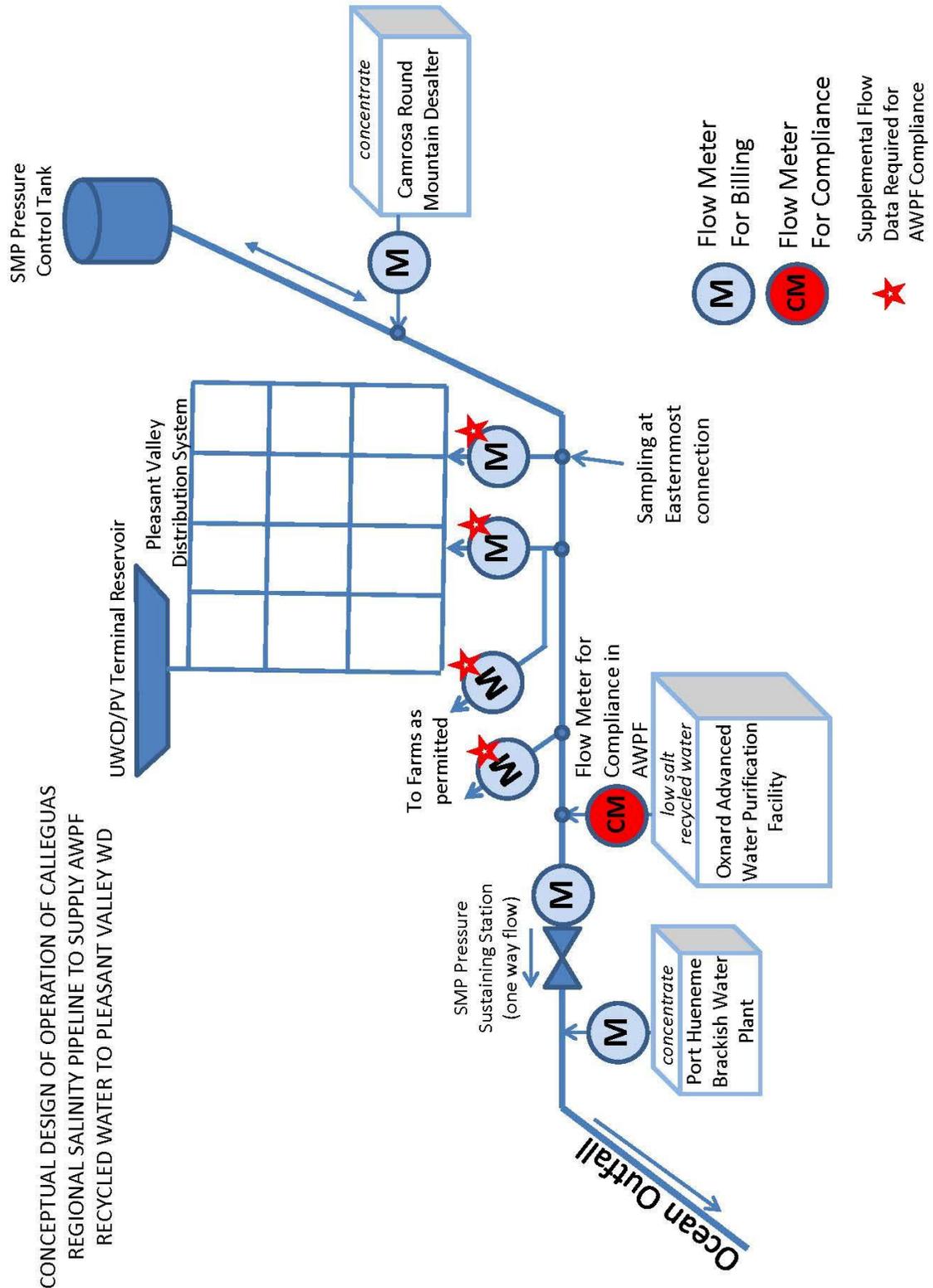


FIGURE 7 TEMPORARY CONNECTIONS: RSMP/AWPF RECYCLED WATER DISTRIBUTION

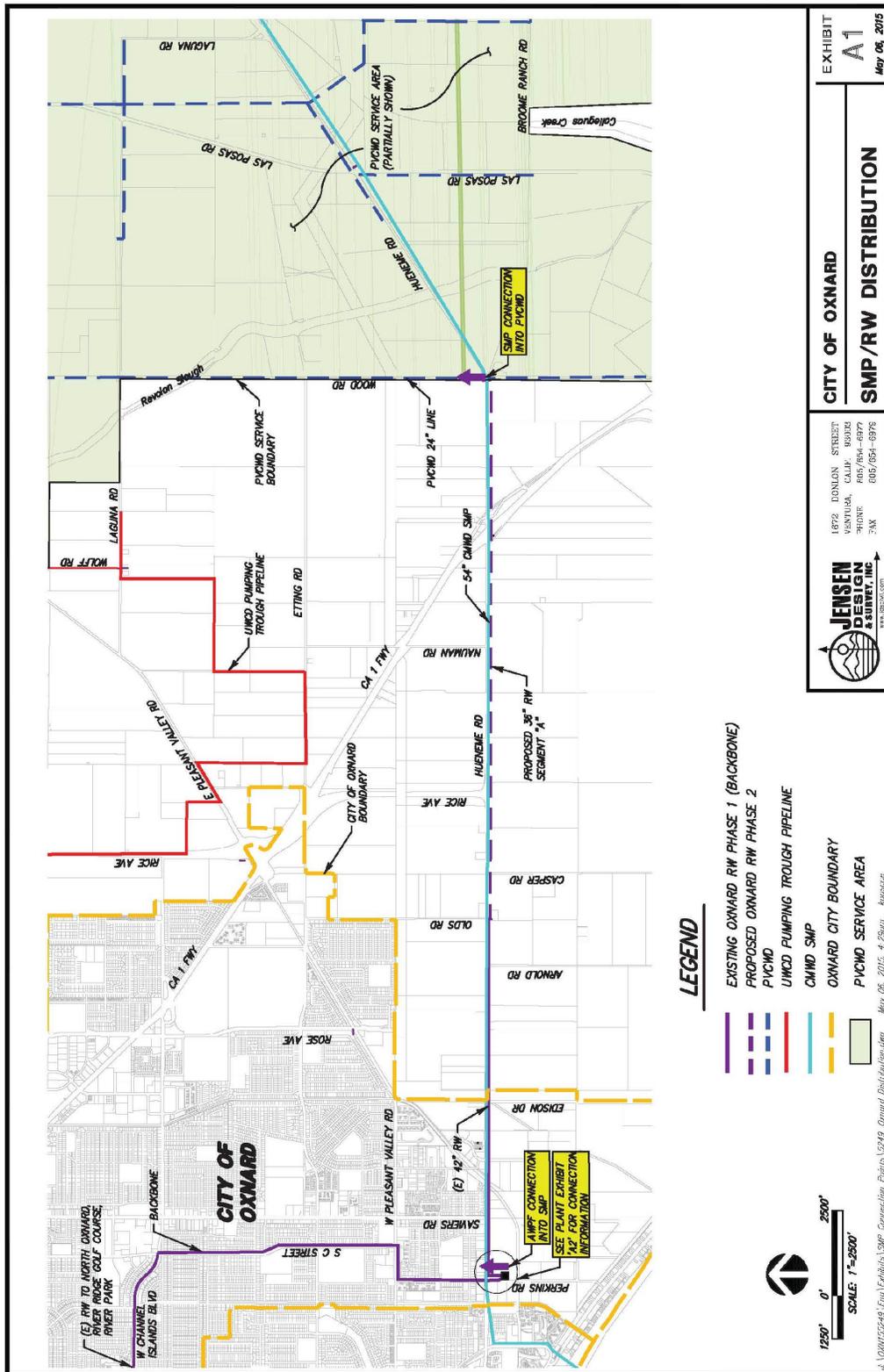
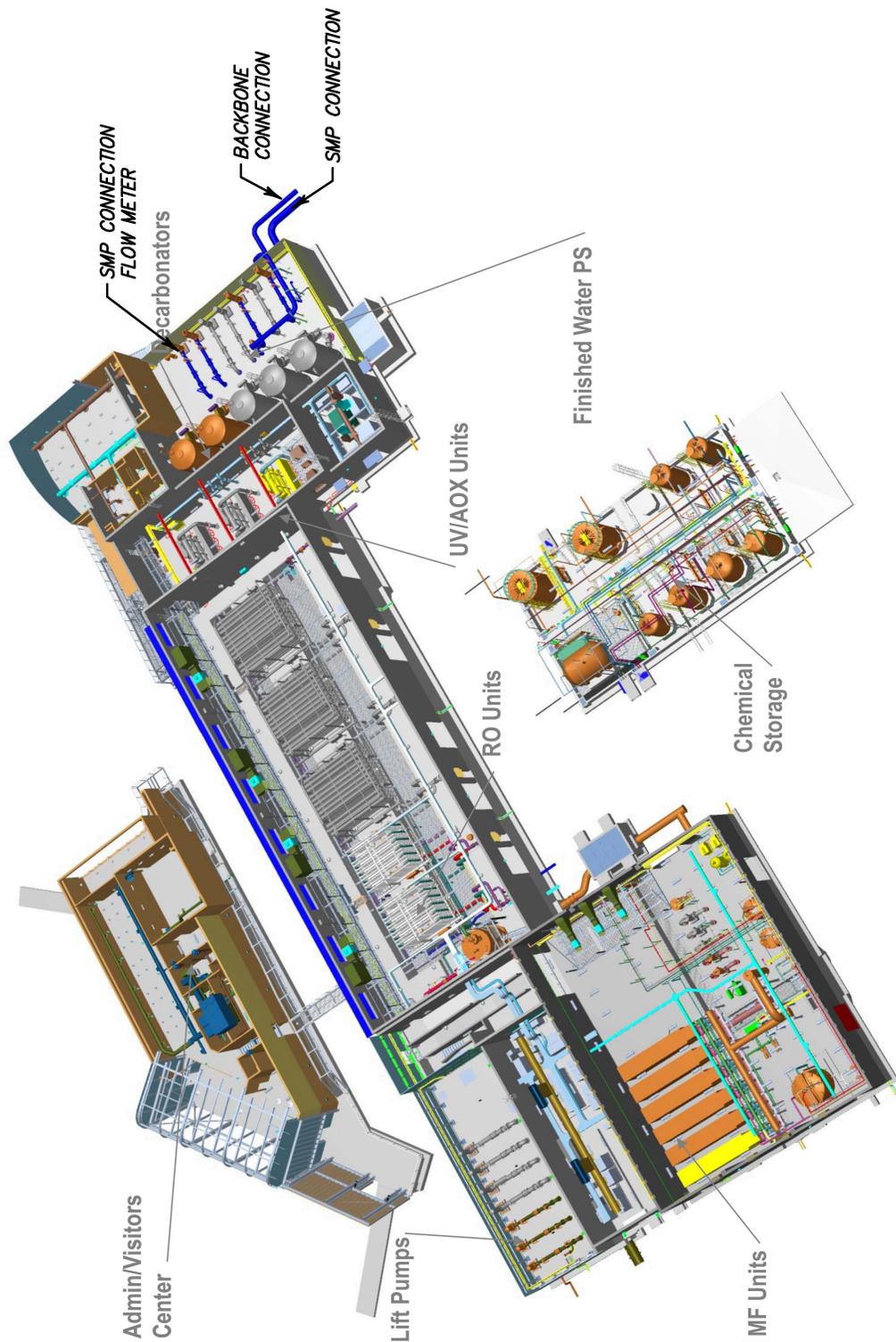


FIGURE 8 AWPf DISCHARGE CONNECTIONS



AWPF PLANT SCHEMATIC

FIGURE 9 – EXHIBITION OF “RECYCLED WATER – DO NOT DRINK”



State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 2008-0083-A01
MONITORING AND REPORTING PROGRAM NO. 9456
FOR CITY OF OXNARD
GROUNDWATER ENHANCEMENT AND TREATMENT PROGRAM – NONPOTABLE REUSE
PROJECT
(File No. 08-070)

The City of Oxnard (City) shall implement this monitoring and reporting program on the effective date of this Order.

PURPOSE OF AMENDED MONITORING AND REPORTING PROGRAM FOR ORDER NO. R4-2011-0079-A01 AND ORDER NO. R4-2008-0083

The Pleasant Valley County Water District (PVCWD) and the City of Oxnard (City) requested the delivery of recycled water produced by the Advanced Water Purification Facility (AWPF) starting in August of 2015 to offset the loss of agricultural water due to the extended drought. The City's AWPF is part of the Groundwater Recovery, Enhancement, and Treatment (GREAT) Program, which is scheduled to deliver the water to Pleasant Valley growers in 2017. The PVCWD requests that the water be transported into the PVCWD's irrigation distribution system and to the Oxnard Plain immediately via the Calleguas Regional Salinity Management Pipeline (RSMP) until the planned permanent connection can be constructed or additional flows into the RSMP render the option not feasible, whichever comes first.

I. SUBMITTAL OF REPORTS

1. The City shall submit the required reports, outlined in the following paragraphs, to the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), and to the State Water Resource Control Board Division of Drinking Water (DDW). The reports shall be received at the Regional Board and the DDW on the dates indicated as follows:
 - A. **Quarterly Monitoring Reports** shall be received at the Regional Board by the 15th day of the second month following the end of each quarterly monitoring period according to Table M1. The first Quarterly Monitoring Report under this program shall be received at the Regional Board and the DDW by the quarter following startup.

| Table M1 Quarterly Report 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 |

- B. **Annual Summary Report** shall be received at the Regional Board and the DDW by March 1 of each year and cover the monitoring period from January to December.
 - C. **Monthly Monitoring Reports** shall be received at the Regional Board by the 15th day of each month during the first two months of operation of the RSMP for PVCWMD irrigation.
2. The Permittee shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>) no later than the 15th day following the end of the second month of the designated monitoring period. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

II. **MONITORING REQUIREMENTS**

1. Quarterly monitoring shall be performed during the 1st quarter (January, February, and March), the 2nd quarter (April, May, and June), the 3rd quarter (July, August, and September), and the 4th quarter (October, November, and December); and annual monitoring shall be conducted during the third quarter of each calendar year. However, if the use of recycled water does not occur during that monitoring period, the City shall collect a sample during the next reuse event. Results of quarterly and annual analyses shall be reported in the following quarterly monitoring report. 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 Board, regardless of whether or not there was a use of recycled water.
2. Monitoring shall be used to determine compliance with the requirements of this Order and shall include, but not limited to, the following:
 - A. Sampling protocols (specified in 40 CFR part 136 or AWWA standards where appropriate) and chain of custody procedures.
 - B. Laboratory or laboratories, which conducted the analyses. Include copy or copies of laboratory certifications by the State Water Resource Control Board Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP¹) every year or when the City changes their contract laboratory.
 - C. Analytical test methods used for recycled water and the corresponding detection limits.
 - D. Quality assurance and control measures.

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 commercially available methods approved by the USEPA. The City shall select the analytical

¹ ELAP is a part of the DDW.

- methods that provide reporting detection limits (DLRs) lower than the limits prescribed in this Order. For those constituents that have drinking water notification levels (NLs) and/or public health goals (PHGs), the DLRs shall be equal to or lower than either the NLs or the PHGs. If this is not feasible, each quarterly monitoring report shall report efforts to modify the process, the equipment or the laboratory to provide the desirable DLRs. The City shall instruct its laboratories to establish calibration standards so that the DLRs (or its equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall the City use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
3. Upon request by the City, the Regional Board, in consultation with the USEPA and the State Board Quality Assurance Program, may establish DLRs, in any of the following situations:
 - A. When the pollutant has no established method under 40 CFR 136 (revised May 14, 1999, or subsequent revision);
 - B. When the method under 40 CFR 136 for the pollutant has a DLR higher than the limit specified in this Order; or,
 - C. When the City agrees to use a test method that is more sensitive than those specified in 40 CFR part 136 and is commercially available.
 4. Samples of final effluent must be analyzed within allowable holding time limits as specified in 40 CFR part 136.3. All QA/QC analyses must be run on the same dates when samples were actually analyzed. The City shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the quarterly report.
 5. For all bacterial analyses, sample dilutions should 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.

III. REPORTING REQUIREMENTS

The City shall submit all reports, shown on Section I SUBMITTAL OF REPORTS to the Regional Board and the DDW by the dates indicated. All quarterly, and annual monitoring reports should contain a separate section titled “Summary of Non-Compliance”, which discusses the compliance records and corrective actions taken or planned that may be needed to bring the reuse into full compliance with water recycling requirements. This section shall clearly list all non-compliance with water recycling requirements, as well as all excursions of effluent limitations.

1. Quarterly Reports

- A. These reports shall include, at a minimum, the following information:

- a. The volume of the secondary-treated influent and Advanced Wastewater Purification Facility (AWPF) treated recycled water. If no recycled water is used during the quarter, the report shall so state. To monitor the flow rate variation during the use of the RSMP and the potential impact it has on the water quality at the Las Posas sampling point, the average daily flow rate at the AWPF discharge to the RSMP shall also be reported. In addition, the weekly flow amounts at each connection to the Oxnard Plain growers shall be recorded and included as daily average for each week, weekly total and monthly amount.
 - b. A summary report of the use of recycled water via tanker truck and/or a residential fill station, if any, shall be included in the quarterly report.
 - c. The date and time of sampling and analyses.
 - d. All analytical results of samples collected during the monitoring period of the secondary-treated influent and AWPF-treated recycled water.
 - e. UV dose calculations, lamp intensity readings, and UV transmittance.
 - f. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any discharge(s) of the AWPF-treated recycled water.
 - g. Discussion of compliance, noncompliance, or violation of requirements.
 - h. All corrective or preventive action(s) taken or planned with schedule of implementation, if any.
- B. For the purpose of reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:
- a. Sample results greater than or equal to the DLR must be reported “as measured” by the laboratory (i.e., the measured chemical concentration in the sample); or
 - b. Sample results less than the DLR, but greater than or equal to the laboratory’s method detection limit (MDL), must be reported as “Detected, but Not Quantified”, or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words “Estimated Concentration” (may be shortened to Est. Conc.); or
 - c. Sample results less than the laboratory’s MDL must be reported as “Not-Detected”, or ND.
- C. If the City samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any sample 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.

- D. The Regional Board may request supporting documentation, such as daily logs of operations.

2. Annual Reports

- A. Tabular and graphical summaries of the monitoring data (AWPF-treated recycled water) obtained during the previous calendar year.
- B. Discussion of the compliance record and corrective or preventive action(s) taken or planned that may be needed to bring the AWPF-treated recycled water into full compliance with the requirements in this Order.
- C. The description of any changes and anticipated changes including any impacts in operation of any unit processes or facilities shall be provided.
- D. A list of the analytical methods employed for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall restate, for the record, the laboratories used by the City to monitor compliance with this Order, their status of certification, and provide a summary of performance.
- E. The report shall confirm operator certification and provide a list of current operating personnel, their responsibilities, and their corresponding grade of certification.
- F. The report shall also include the date of the facility's Operation and Maintenance Management Plan, the date the plan was last reviewed, and whether the plan is complete and valid for the current facilities.
- G. During the period when the RSMP is being utilized to facilitate the distribution of AWPF treated recycled water to the growers in the Oxnard Plain, the report shall include any issues or problems associated with the groundwater and a discussion of the Permittee's compliance with Resolution No. 2013-02 of the Fox Canyon Groundwater Management Agency (GMA). This section of the report shall also include the most recent report submitted to the Fox Canyon GMA.

3. Monthly Reports during the Initial Operations of the Temporary Use of the RSMP

- A. These reports shall include information collected during the first two months of utilizing the RSMP, including the samples collected at a new monitoring location on the Las Posas temporary piping as shown on Figure 6 connecting the RSMP to the PVCMD, so that the sample will reflect the comingled water from the RSMP and the AWPF.

B. These reports shall include, at a minimum, the following information:

- a. Startup procedures used to provide an adequate mixture of AWPF treated recycled water and brine in accordance with Order No. R4-2011-0079-A01.
- b. The average daily flow rate pumped into the RSMP from the AWPF and the total monthly volume.
- c. The weekly flow and total monthly volume transferred from the RSMP through each of four connection points to agricultural users. In addition, the weekly flow will be translated into an average daily flow rates for each weekly period.
- d. The date and time of sampling and analyses.
- e. All analytical results of samples collected during the first two months of the temporary use of the RSMP.
- f. Discussion of compliance, noncompliance, or violation of requirements.
- g. All corrective or preventive action(s) taken or planned with a schedule of implementation, if any.

C. For the purpose of reporting compliance with numerical limitations and supporting documentation, requirements noted in III.1.B, C and D also apply.

IV. MONITORING FOR SECONDARY TREATED EFFLUENT (INFLUENT TO AWPF)

1. The sampling station shall be established where representative samples of influent can be obtained. Samples may be obtained at a single station, provided that the station is representative of wastewater quality entering the AWPF. Should there be any change in the sampling station, the proposed station shall be approved by the Executive Officer prior to its use.
2. Influent Monitoring Program (Table M2)

| Table M2 Influent Monitoring Program | | | |
|---|--------------|-----------------------|--------------------------------------|
| Constituent | Units | Type of Sample | Minimum Frequency of Analysis |
| Total influent | MGD | --- | continuous |
| BOD ₅ 20°C | mg/L | 24-hr composite | weekly |
| Suspended solids | mg/L | 24-hr composite | weekly |

V. RECYCLED WATER MONITORING

1. The sampling station shall be established where representative samples of recycled water can be obtained. For this recycling project, recycled water samples shall be obtained from the final effluent channel downstream. Should there be any change in the sampling point, the proposed station shall be approved by the Executive Officer prior to its use. The monitoring program for this sampling point is provided in Table M3.
2. Monitoring Program for Disinfected AWPf-Treated Recycled Water (Table M3)

| Table M3 – AWPf-Treated Effluent Monitoring | | | |
|---|--------------|-----------------------------------|--------------------------------------|
| Constituent | Units | Type of Sample² | Minimum Frequency of Analysis |
| Effluent flow | MGD | -- | Continuous |
| Turbidity ³ | NTU | --- | Continuous |
| Total coliform | MPN/100ml | Grab | Daily |
| pH | pH units | Grab | Daily |
| Settleable solids | mL/L | Grab | Daily |
| Suspended solids | mg/L | 24-hr comp. | Weekly |
| BOD ₅ 20°C | mg/L | 24-hr comp. | Weekly |
| Oil and grease | mg/L | Grab | Monthly |
| Total dissolved solids | mg/L | 24-hr comp. | Monthly |
| Chloride | mg/L | 24-hr comp. | Monthly |
| Boron | mg/L | 24-hr comp. | Monthly |
| Sulfate | mg/L | 24-hr comp. | Monthly |
| Nitrate-N | mg/L | 24-hr comp. | Quarterly |
| Nitrite-N | mg/L | 24-hr comp. | Quarterly |
| Nitrate-N + nitrite-N | mg/L | 24-hr comp. | Quarterly |
| Inorganic ⁴ with primary MCL | mg/L | 24-hr comp./Grab | Quarterly |
| Constituents/parameters ⁵ with secondary MCL | -- | 24-hr comp. | Quarterly |

² Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. When an automatic composite sampler is not used, composite sampling shall be done as follows: If the duration of the discharge is equal to or less than 24 hours but greater than eight (8) hours, at least eight (8) flow-weighted samples shall be obtained during the discharge period and composited. For discharge duration of less than eight (8) hours, individual 'grab' sample may be substituted.

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 0.2 NTU is exceeded, and the incident of exceeding 0.5 NTU, if any, shall be reported.

⁴ See Attachment A-1 for specific constituents to be monitored.

⁵ See Attachment A-5 for specific constituents to be monitored.

| Table M3 – AWPf-Treated Effluent Monitoring | | | |
|---|--------------|-----------------------------------|--------------------------------------|
| Constituent | Units | Type of Sample² | Minimum Frequency of Analysis |
| Regulated organic chemicals ⁶ | µg/L | 24-hr comp./Grab | Quarterly |
| Remaining priority pollutants ⁷ | µg/L | 24-hr comp./Grab | Quarterly |
| Disinfection byproduct ^{8, 9} | µg/L | 24-hr comp./Grab | Quarterly |
| Radioactivity ¹⁰ | pCi/L | 24-hr comp. | Annually |
| Chemicals with NLs ^{11, 12} | µg/L | 24-hr comp./Grab | Annually ^[11] |
| Endocrine disrupting chemicals ^{11, 13} | µg/L | 24-hr comp. | Annually ^[11] |
| Pharmaceuticals and other chemicals ^{11, 14} | µg/L | 24 –hr comp. | Annually ^[11] |

3. During the use of the RSMP, a new monitoring location shall be established on the Las Posas temporary piping from the RSMP line to the PVCWD distribution system. The monitoring program for this sampling point downstream of the RSMP is provided

⁶ See Attachment A-3 for specific constituents to be monitored. Grab samples shall be used for analyses of volatile organics and cyanide; composite samples shall be used for others.

⁷ See Attachment A-7 for specific constituents to be monitored. Grab samples shall be used for analyses of volatile organics and cyanide; composite samples shall be used for others.

⁸ See Attachment A-4 for specific constituents to be monitored. Grab samples shall be used for analyses of volatile organics and cyanide; composite samples shall be used for others.

⁹ There are no numeric limits for these constituents, no numeric limits are anticipated at this time, and analytical methods may not be widely available.

Monitoring for these constituents are viewed as a diligent way of assessing and verifying recycled water quality characteristics, which can be useful in addressing issues of public perception about the safety of recycled water. Further, should there be a positive finding, the Regional Board and the DDW can give the result due consideration as to whether it is of concern or not. Just what such consideration might entail would depend on the knowns and unknowns of these constituents, including its potential health effects at the given concentration, the source of the chemical, as well as possible means of better control to limit its presence, treatment strategies if necessary, and other appropriate actions.

¹⁰ See Attachment A-2 for specific constituents to be monitored.

¹¹ Prior to the commencement of delivering recycled water, at least one grab sample of recycled water shall be collected and analyzed. The results for the initial recycled water quality analysis shall be submitted to the Regional Board. After that, at least one grab sample of recycled water shall be collected and analyzed every year.

¹² See Attachment A-6 for specific constituents to be monitored. Grab samples shall be used for analyses of volatile organics and cyanide; composite samples shall be used for others.

¹³ Endocrine disrupting chemicals include ethinyl estradiol, 17-B estradiol, estrone, bisphenol A, nonylphenol and nonylphenol polyethoxylate, octylphenol and octylphenol polyethoxylate, and polybrominated diphenyl ethers. These chemicals need to be monitored only when the analytical methods for these chemicals are applicable and approved by the USEPA.

¹⁴ Pharmaceuticals and other chemicals include acetaminopen, amoxicillin, azithromycin, caffeine, carbamazepine, ciprofloxacin, ethylenediamine tetra-acetic acid (EDTA), gemfibrozil, ibuprofen, iodinated contrast media, lipitor, methadone, morphine, salicylic acid, and triclosan. These chemicals need to be monitored only when the analytical methods for these chemicals are applicable and approved by the USEPA.

in Table M4. If quarterly sampling of total nitrogen and constituents with either a primary or secondary MCL for a year does not identify concentrations above MCL or Basin Plan limits, then the monitoring frequency for those constituents can be reduced to bi-annually.

| Table M4 – AWPf-Treated Effluent Monitoring via RSMP | | | |
|---|--------------|------------------------------------|--------------------------------------|
| Constituent | Units | Type of Sample¹⁵ | Minimum Frequency of Analysis |
| Total dissolved solids | mg/L | 24-hr comp. | Monthly |
| Chloride | mg/L | 24-hr comp. | Monthly |
| Boron | mg/L | 24-hr comp. | Monthly |
| Sulfate | mg/L | 24-hr comp. | Monthly |
| Total nitrogen | mg/L | 24-hr comp. | Monthly |
| Inorganic ⁴ with primary MCL | mg/L | 24-hr comp/Grab | Quarterly |
| Constituents/parameters ⁵ with secondary MCL | mg/L | 24-hr comp | Quarterly |

VI. RECYCLED WATER USE MONITORING

The City shall submit a quarterly report, in a tabular form, on the list of users serviced during the quarter, the amount of recycled water delivered to each user, and the use of the recycled water. A summary of these data shall be included in the annual report.

VII. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The City shall summarize and arrange the monitoring data in tabular form to demonstrate compliance with requirements.
2. For every item where the requirements are not met, the City shall submit a statement of the actions undertaken or proposed which will bring the recycled water into full compliance with requirements at the earliest possible time, and submit a timetable for implementation of the corrective measures.
3. 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:

¹⁵ Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. The 24 hour composite sample for the Las Posas sample point is based on time increments. When an automatic composite sampler is not used, composite sampling shall be done as follows: If the duration of the discharge is equal to or less than 24 hours but greater than eight (8) hours, at least eight (8) flow-weighted samples shall be obtained during the discharge period and composited. For discharge duration of less than eight (8) hours, individual 'grab' sample may be substituted.

- a. The authorization is made in writing by the signatory;
 - b. The authorization specifies the representative as either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
 - c. The written authorization is submitted to the Executive Officer of this Regional Board.
4. 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 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

5. The City 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 Board or the DDW at any time and shall be extended during the course of any unresolved litigation regarding the regulated activity.
6. Records of monitoring information shall include:
- a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analysis;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.

7. The City shall submit to the Regional 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.

Ordered by:



Samuel Unger
Executive Officer

Chief Deputy E.O.
for

Date: July 9, 2015

/EERICKSON

Attachment A-1

| Table 64431-A – Inorganic Chemicals* | |
|---|--|
| Chemical | Maximum Contaminant Levels (mg/L) |
| Aluminum | 1 |
| Antimony | 0.006 |
| Arsenic | 0.05 |
| Asbestos | 7 MFL** |
| Barium | 1 |
| Beryllium | 0.004 |
| Cadmium | 0.005 |
| Chromium | 0.05 |
| Cyanide | 0.15 |
| Mercury | 0.002 |
| Nickel | 0.1 |
| Nitrate | 45 |
| Nitrate + Nitrite | 10 |
| Nitrite (as nitrogen) | 1 |
| Perchlorate | 0.006 |
| Selenium | 0.05 |
| Thallium | 0.002 |
| Fluoride | 2 |

California Code of Regulation (CCR) Title 22, Section 64431

* Last update: March 9, 2008, or most current version.

**MFL = million fibers per liter; MCL for fibers exceeding 10µm in length.

Attachment A-2

| Table 4 – Radioactivity* | |
|--|---|
| Chemical | Maximum Contaminant Levels (pCi/L) |
| Combined Radium-226 and Radium-228 | 5 |
| Gross Alpha Particle Activity (Including Radium-226 but Excluding Radon and Uranium) | 15 |
| Tritium | 20,000 |
| Strontium-90 | 8 |
| Gross Beta Particle Activity | 50 |
| Uranium | 20 |

California Code of Regulation (CCR) Title 22, Section 64443

*Last update: March 9, 2008, or most current version.

Attachment A-3

| Table 64444-A – Organic Chemicals* | |
|---|--|
| Chemical | Maximum Contaminant Levels (mg/L) |
| (a) Volatile Organic Chemicals | |
| Benzene | 0.001 |
| Carbon Tetrachloride (CTC) | 0.0005 |
| 1,2-Dichlorobenzene | 0.6 |
| 1,4-Dichlorobenzene | 0.005 |
| 1,1-Dichloroethane | 0.005 |
| 1,2-Dichloroethane (1,2-DCA) | 0.0005 |
| 1,1-Dichloroethene (1,1-DCE) | 0.006 |
| Cis-1,2-Dichloroethylene | 0.006 |
| Trans-1,2-Dichloroethylene | 0.01 |
| Dichloromethane | 0.005 |
| 1,2-Dichloropropane | 0.005 |
| 1,3-Dichloropropene | 0.0005 |
| Ethylbenzene | 0.3 |
| Methyl-tert-butyl-ether (MTBE) | 0.013 |
| Monochlorobenzene | 0.07 |
| Styrene | 0.1 |
| 1,1,2,2-Tetrachloroethane | 0.001 |
| Tetrachloroethylene (PCE) | 0.005 |
| Toluene | 0.15 |
| 1,2,4-Trichlorobenzene | 0.005 |
| 1,1,1-Trichloroethane | 0.2 |
| 1,1,2-Trichloroethane | 0.005 |
| Trichloroethylene (TCE) | 0.005 |
| Trichlorofluoromethane | 0.15 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 1.2 |
| Vinyl Chloride | 0.0005 |
| Xylenes (m,p) | 1.75** |
| (b) Non-Volatile synthetic Organic Chemicals | |
| Alachlor | 0.002 |
| Atrazine | 0.001 |
| Bentazon | 0.018 |
| Benzo(a)pyrene | 0.0002 |
| Carbofuran | 0.018 |
| Chlordane | 0.0001 |
| 2,4-D | 0.07 |
| Dalapon | 0.2 |
| 1,2-Dibromo-3-chloropropane (DBCP) | 0.0002 |
| Di(2-ethylhexyl)adipate | 0.4 |

(Continuous to the Next Page)

(Continuous from the Previous Page)

| Table 64444-A – Organic Chemicals* | |
|---|--|
| Chemical | Maximum Contaminant Levels (mg/L) |
| Di(2-ethylhexyl)phthalate | 0.004 |
| Dinoseb | 0.007 |
| Diquat | 0.02 |
| Endothall | 0.1 |
| Endrin | 0.002 |
| Ethylene Dibromide (EDB) | 0.00005 |
| Glyphosate | 0.7 |
| Heptachlor | 0.00001 |
| Heptachlor Epoxide | 0.00001 |
| Hexachlorobenzene | 0.001 |
| Hexachlorocyclopentadiene | 0.05 |
| Lindane | 0.0002 |
| Methoxychlor | 0.03 |
| Molinate | 0.02 |
| Oxamyl | 0.05 |
| Pentachlorophenol | 0.001 |
| Picloram | 0.5 |
| Polychlorinated Biphenyls | 0.0005 |
| Simazine | 0.004 |
| Thiobencarb | 0.07 |
| Toxaphene | 0.003 |
| 2,3,7,8-TCDD (Dioxin) | 3×10^{-8} |
| 2,4,5-TP (Silvex) | 0.05 |

California Code of Regulation (CCR) Title 22, Section 64444

* Last update: March 9, 2008, or most current version.

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

Attachment A-4

| Table 64533-A – Primary MCLs for Disinfection Byproducts* | |
|--|--|
| Constituent | Maximum Contaminant Levels (mg/L) |
| Total Trihalomethanes (TTHM) | 0.080 |
| Bromodichloromethane | |
| Bromoform | |
| Chloroform | |
| Dibromochloromethane | |
| Haloacetic acid (five) (HAA5) | 0.060 |
| Monochloroacetic acid | |
| Dichloroacetic acid | |
| Trichloroacetic acid | |
| Monobromoacetic acid | |
| Dibromoacetic acid | |
| Bromate** | 0.010 |
| Chlorite*** | 1.0 |

California Code of Regulation (CCR) Title 22, Section 64533, Chapter 15.5

** Last update: March 9, 2008, or most current version.

** Bromate is listed for plants using ozone disinfection only.

**** Chlorite is listed for plants using chlorine dioxide only.

Attachment A-5

| Table 64449-A – Secondary Maximum Contaminant Levels Consumer Acceptance Limits* | |
|---|--------------|
| Chemical | Units |
| Aluminum | 0.2 mg/L |
| Copper | 1.0 mg/L |
| Color | 15 units |
| Foam Agents (MBAS) | 0.5 mg/L |
| Iron | 0.3 mg/L |
| Manganese | 0.05 mg/L |
| Methyl-tert-butyl-ether (MTBE) | 0.005 mg/L |
| Odor – Threshold | 3 units |
| Silver | 0.1 mg/L |
| Thiobencarb | 0.001 mg/L |
| Turbidity | 5 units |
| Zinc | 5.0 mg/L |

California Code of Regulation (CCR) Title 22, Section 64449

* Last update: June 12, 2008, or most current version.

Attachment A-6

| Monitoring for Chemicals with Notification Levels* |
|---|
| Boron |
| n-Butylbenzene |
| sec-Butylbenzene |
| tert-Butylbenzene |
| Carbon disulfide |
| Chlorate |
| 2-Chlorotoluene |
| 4-Chlorotoluene |
| Dichlorodifluoromethane (Freon 12) |
| 1,4-Dioxane |
| Ethylene glycol |
| Formaldehyde |
| HMX |
| Isopropylbenzene |
| Manganese |
| Methyl isobutyl ketone (MIBK) |
| Naphthalene |
| n-Nitrosodiethylamine (NDEA) |
| n-Nitrosodimethylamine (NDMA) |
| n-Nitrosodi-n-propylamine (NDPA) |
| Propachlor |
| n-Propylbenzene |
| RDX |
| Tertiary butyl alcohol (TBA) |
| 1,2,3-Trichloropropane (1,2,3-TCP) |
| 1,2,4-Trimethylbenzene |
| 1,3,5-Trimethylbenzene |
| 2,4,6-Trinitrotoluene (TNT) |
| Vanadium |

* Last update: December 14, 2007, or most current version.

Attachment A-7

Monitoring for Remaining Priority Pollutants

| | | |
|--------------------------|----------------------------------|---------------------------|
| Pesticides | Base/Neutral Extractibles | Di-n-butyl phthalate |
| Aldrin | Acenaphthene | Di-n-octyl phthalate |
| Dieldrin | Benzidine | Diethyl phthalate |
| 4,4'-DDT | Hexachloroethane | Dimethyl phthalate |
| 4,4'-DDE | Bis(2-chloroethyl)ether | Benzo(a)anthracene |
| 4,4'-DDD | 2-chloronaphthalene | Benzo(a)fluoranthene |
| Alpha-endosulfan | 1,3-dichlorobenzene | Benzo(k)fluoranthene |
| Beta-endosulfan | 3,3'-dichlorobenzidine | Chrysene |
| Endosulfan sulfate | 2,4-dinitrotoluene | Acenaphthylene |
| Endrin aldehyde | 2,6-dinitrotoluene | Anthracene |
| Alpha-BHC | 1,2-diphenylhydrazine | 1,12-benzoperylene |
| Beta-BHC | Fluoranthene | Fluorene |
| Delta-BHC | 4-chlorophenyl phenyl ether | Phenanthrene |
| Acid Extractibles | 4-bromophenyl phenyl ether | 1,2,5,6-dibenzanthracene |
| 2,4,6-trichlorophenol | Bis(2-chloroisopropyl)ether | Indeno(1,2,3-cd)pyrene |
| P-chloro-m-cresol | Bis(2-chloroethoxyl)methane | Pyrene |
| 2-chlorophenol | Hexachlorobutadiene | Volatile Organics |
| 2,4-dichlorophenol | Isophorone | Acrolein |
| 2,4-dimethylphenol | Naphthalene | Acrylonitrile |
| 2-nitrophenol | Nitrobenzene | Chlorobenzene |
| 4-nitrophenol | N-nitrosodimethylamine | Chloroethane |
| 2,4-dinitrophenol | N-nitrosodi-n-propylamine | 1,1-dichloroethylene |
| 4,6-dinitro-o-cresol | N-nitrosodiphenylamine | Methyl chloride |
| Phenol | Bis(2-ethylhexyl)phthalate | Methyl bromide |
| --- | Butyl benzyl phthalate | 2-chloroethyl vinyl ether |