

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401-7906**

**WASTE DISCHARGE REQUIREMENTS
AND
WATER RECYCLING REQUIREMENTS (PRODUCER)
ORDER NO. R3-2016-0044
CIWQS Place No. 826844**

FOR THE

**CITY OF PACIFIC GROVE
PACIFIC GROVE LOCAL WATER PROJECT
MONTEREY COUNTY**

The California Regional Water Quality Control Board, Central Coast Region (hereafter also referred to as the "Water Board") finds that:

PURPOSE OF ORDER

1. California Water Code, Division 7, Chapter 7, Article 4, Section 13523 states that a water board shall prescribe water reclamation requirements for water that is proposed to be used as recycled water, if in the judgment of the water board it is necessary to protect the public health, safety, or welfare.
2. This order establishes requirements to be met by the City of Pacific Grove for the production of disinfected tertiary recycled water, as defined in California Code of Regulations, Title 22, Division 4, Chapter 3, section 60301.230.
3. This Order does not regulate the City of Pacific Grove's distribution and use of recycled water. A separate order regulates the City of Pacific Grove's distribution and use of recycled water.

FACILITY INFORMATION

4. The City of Pacific Grove submitted a June 2016 Report of Waste Discharge describing its proposed project.
5. The City of Pacific Grove is the water recycling facility owner and will contract for operations services.
6. The City of Pacific Grove's water recycling facility is located in Pacific Grove, south of Ocean View Boulevard, west of the intersection with Asilomar Avenue, within the Pacific Grove Golf Links property, on the site of the existing, decommissioned Point Pinos Pollution Control Plant.
7. According to the City of Pacific Grove's Report of Waste Discharge, the City of Pacific Grove will divert sewage from the existing Monterey Regional Water Pollution Control Agency (MRWPCA) sewer, treat that sewage to produce recycled water for various uses, and discharge all water recycling wastes either back into the MRWPCA sewer or, in the case of primary-treatment screenings that have been washed, compacted, and bagged, sent off-site for disposal at a class III landfill.

8. Water recycling treatment will include screening, activated sludge secondary biological treatment, membrane filtration, and ultraviolet disinfection, along with chemical disinfection to maintain a chlorine residual within the storage tanks and recycled water distribution system.
9. The City of Pacific Grove's project does not propose to discharge wastes, other than into the existing sanitary sewer system which connects to the MRWPCA's regional wastewater treatment facility. The MRWPCA discharges wastes under a separate Water Board order.

BASIN PLAN

10. The Central Coast Water Board has adopted the Water Quality Control Plan for the Central Coastal Basin (the Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region.
11. This order furthers the Basin Plan's goal of maximizing water recycling.
12. This order is protective of beneficial uses and water quality because this order prohibits waste discharges, other than into the existing sanitary sewer system tributary to the MRWPCA's regional wastewater treatment facility.

STORMWATER

13. The State Water Resources Control Board adopted general NPDES permits for stormwater discharges associated with industrial facilities and stormwater discharges associated with construction activities. The City of Pacific Grove's water recycling facility is an industrial facility that requires coverage for discharges of stormwater under the Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit or IGP). This order does not regulate stormwater discharges. It is incumbent upon the Discharger to obtain all necessary stormwater permits prior to discharging regulated stormwater.

RECYCLED WATER REGULATIONS AND POLICY

14. This order conforms with the California Constitution, Article 10, Section 2, which declares that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. This order promotes maximal water use.
15. This order conforms with California Water Code section 13523, which provides authority to the Central Coast Water Board to issue water reclamation requirements.
16. This order conforms to the State Water Resources Control Board's Recycled Water Policy, which strives to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code section 13050(n), in a manner that implements state and federal water quality laws.

ANTIDegradation

17. Because this order prohibits waste discharges, other than into the existing, separately regulated sanitary sewer system tributary to the MRWPCA's regional wastewater treatment facility or into a separately regulated class III landfill, this order will not allow wastes to

degrade waters. This order is consistent with State Water Resources Control Board Resolution 68-16, the "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (Antidegradation Policy).

MONITORING PROGRAM

18. Monitoring and Reporting Program (MRP) No. R3-2016-0044 is part of this Order. The MRP requires routine sampling and analysis to verify compliance with this Order. Monitoring reports are required quarterly and an annual report is required by January 30th of each year.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

19. The City of Pacific Grove is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Pub. Res. Code §15367). As the lead agency, the City certified an environmental impact report on November 19, 2014, for the project. The environmental impact report did not identify any potentially significant environmental effects with respect to the adoption of this order and within the jurisdiction of the Central Coast Water Board.

20. The Central Coast Water Board is a responsible agency pursuant to CEQA (CEQA Guidelines § 15096). The Central Coast Water Board has considered the environmental impact report and makes its own conclusions in this Order on whether and how to approve the waste discharge requirements for the project. The Central Coast Water Board has jurisdiction over water quality and beneficial uses of waters within the region. The proposed project, as modified by the requirements in this order, will have less than significant effects on water quality and beneficial uses.

EXISTING ORDERS

21. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems - The City of Pacific Grove's collection system is enrolled under State Water Resources Control Board Order No. 2006-0003-DWQ.

22. The City of Pacific Grove's distribution and use of recycled water is enrolled under the State Water Resources Control Board's General Waste Discharge Requirements for Recycled Water Use (Order WQ 2016-0068-DDW).

GENERAL FINDINGS

23. On September 8, 2016, the Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to consider adoption of waste discharge requirements for the discharge and provided them with a copy of the proposed Order and an opportunity to submit written comments and scheduled a public hearing. Written comments were required to be received October 7, 2016.

24. In a public hearing on December 8-9, 2016, the Central Coast Water Board heard and considered all comments pertaining to the discharge, all evidence in the record, and the applicable law and found this Order consistent with the above findings.

25. All technical and monitoring reports submitted pursuant to this Order are required pursuant to Section 13267 of the California Water Code. The Central Coast Water Board finds that the burden of these reports, including costs, bears a reasonable relationship to need for the reports and benefits to be obtained, namely ensuring compliance with the Recycled Water Policy and Regulations and preventing potential threats to human health and the environment. Failure to submit reports in accordance with schedules established by this Order or attachments to this Order, or failure to submit a report of sufficient technical quality to be

acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

IT IS HEREBY ORDERED that, pursuant to authority in California Water Code division 7, including sections 13263, 13267, and 13523, the City of Pacific Grove, its agents, successors, and assigns shall comply with the following:

Requirement authorities/sources are denoted as follows:

<u>Notation</u>	<u>Description</u>
ROWD	Requirement implements the project described in the Report of Waste Discharge
BPJ	Requirement represents staff's best professional judgment and common practice
T22	Requirement implements CCR Title 22, Div.4, Ch.3. Water Recycling Criteria
RWP	Requirement implements the SWRCB's Recycled Water Policy, as adopted in State Water Resources Control Board Resolution No. 2009-0011
BP	The requirement implements the "Basin Plan" (Water Quality Control Plan, Central Coast Basin)
MCL	The requirement implements California's Maximum Contaminant Level (22 CCR §63341)
CWC	California Water Code

A. PROHIBITIONS

1. Wastewater disposal, other than into the existing sanitary sewer system tributary to the Monterey Regional Water Pollution Control Agency's (MRWPCA) regional wastewater treatment facility, or into a separately regulated class III landfill, is prohibited. ^{ROWD}
2. Introduction of any substance into the recycling facility that adversely affects wastewater treatment is prohibited. ^{ROWD}
3. Recycling of untreated or partially treated wastewater is prohibited. ^{ROWD}
4. Storage freeboard of less than two feet is prohibited. ^{ROWD}

B. RECYCLED WATER SPECIFICATIONS

1. Recycled water production, distribution, and use shall at all times be in conformance with recycled water criteria established in Title 22, Division 4, Chapter 3 of the California Code of Regulations ("Title 22 Water Recycling Criteria") and the Engineering Report on file with the Water Board. ^{T22}

2. Recycled water shall be a disinfected tertiary recycled water, as defined in the Title 22 Water Recycling Criteria.^{ROWD, T22}
3. Recycled water shall not exceed the following limitations:

Constituent	Units	Monthly Average	Daily Maximum	Instantaneous Maximum
BOD ₅	mg/L	10	25	-
Total Suspended Solids	mg/L	10	15	-
Ammonia (as N)	mg/L	2.5	-	-
Turbidity*	NTU	-	-	0.5
		<0.2 NTU 95% of the time within a 24-hr period ^{T22}		

*Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at four-hour intervals over a 24-hour period. Compliance with turbidity pursuant to section 60301.320 (a)(2)(B) and (b)(1) shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2-hours over a 24-hour period.

4. The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed a Most Probable Number (MPN) of:^{T22}
 - a. 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed.
 - b. 23 per 100 milliliters in more than one sample in any 30-day period.
 - c. 240 per 100 milliliters at any time.
5. Design and operating requirements for TrojanUVFit™ 18AL40 UV reactor to meet the minimum disinfection criteria found in Title 22 of the California Code of Regulations are provided below. The Discharger shall:
 - a. Operate the 18AL40 UV reactor within the following parameter ranges:
 - i. from 0.11 to 1.01 MGD (78.4 to 702.5 gpm),
 - ii. UVTs at or above 40 percent,
 - iii. UV sensor intensities ranging from 0.63 to 6.69 mW/cm²,
 - iv. Power range 60 to 100 percent.
 - b. Confirm that the 18AL40 UV reactor will be operated utilizing the equations in the 2014 Division of Drinking Water's (DDW)'s conditional acceptance letter
 - c. Confirm that the 18AL40 UV reactor will be operated using a calibrated germicidal sensor that meets international standards (ONORM/DVGW) or the US EPA UV Disinfection Guidance Manual (UVDGM), where the sensor is calibrated against a traceable standard.
 - d. Operate the 18AL40 UV reactor with on-line monitoring of flow, UV intensity, UVT, UV lamp operation hours, and power provided at all times.
 - e. Operate the 18AL40 UV reactor with calibrated flow meters, UV intensity sensors, and UVT analyzers. State the calibration frequency.

- f. Check duty UV intensity sensors against a reference UV intensity sensor to document accuracy on a monthly basis.
 - g. Inspect and check duty online UVT analyzer against a reference bench-top unit to document accuracy on a weekly basis.
 - h. Verify accuracy flow meters measuring the flow through the UV reactor on a monthly basis. The verification must compare the flow meter readings with other flow determination methods.
 - i. Design TrojanUVFit™ 18AL40 UV with a built-in automatic reliability feature that triggers the following critical alarm setpoints.
 - i. Conditions that trigger an alarm and startup the redundant reactor include the following:
 1. the UV dose goes below 84 mJcm²,
 2. ballast failure and
 3. multiple lamp failure
 - ii. Conditions that divert effluent to waste include the following:
 1. UV dose is below 80 mJcm²
 2. UVT is below the minimum UVT of 40%
 3. UV intensity below the minimum validated of 0.63 mW/cm²
 4. complete UV reactor failure, and
 5. flow exceeds the maximum flow of 1.01 MGD (703 gpm) per reactor
 - j. Submit an operations plan to DDW for approval. The operations plan shall specify clearly the operational limits and responses required for critical alarms. A quick reference plant operations data sheet should be posted at the treatment plant and include the following information:
 - i. The alarm set points for turbidity, flow, UV dose, UV intensity, UVT, and power
 - ii. The values of flow, UV dose, UV intensity, and UVT when effluent must be diverted to waste
 - iii. The required frequency of calibration for all meters/analyzers measuring flow, UV transmittance, and UV intensity.
 - iv. The required frequency of mechanical cleaning, equipment inspection, and replacement of cleaning solution.
 - v. The UV lamp tracking procedures and replacement intervals.
 - k. To verify performance on the site-specific recycled water, upon completion of construction and prior to operation, an on-site check-point bioassay must be performed on the reactor using seeded MS2 coliphage as described in August 2012 NWRI Guidelines. The on-site bioassay protocol must be approved by the DOW and must be conducted over a range of flows. Results, documenting virus disinfection performance of the system to the standards found in Title 22 of the California Code of Regulations, must be submitted to the DOW for approval.
6. Delivery of reclaimed water shall cease as soon as possible if: ^{BPJ}
- a. Disinfection of wastewater ceases at any time; or

- b. Reclamation specifications are violated or threaten to be violated.

C. BIOSOLIDS SPECIFICATIONS

Biosolids refers to non-hazardous sewage sludge as defined in 40 CFR 503.9. The Discharger is responsible for ensuring that all biosolids produced at its facility are used or disposed of in accordance with the following, whether the Discharger uses or disposes of the biosolids itself or transfers them to another party for further treatment, use, or disposal.^{BPJ}

1. Sewage sludge that is hazardous (as defined in 40 CFR 261) must be disposed of in accordance with requirements of the Resource Conservation Recovery Act (RCRA).
2. Sludge with PCB levels in excess of 50 mg/kg must be disposed in accordance with 40 CFR 761.
3. All biosolids generated by the Discharger and disposed of in municipal solid waste landfills shall be disposed of in compliance with the applicable portions of 40 CFR 258.

D. PROVISIONS

1. Revisions and updates to the Recycled Water Program Technical Report and Engineering Report must be provided to demonstrate applicable operations and management programs in place.
2. Any revisions to the Recycled Water Program Technical Report and/or Title 22 Engineering Report shall be submitted to the Water Board executive officer as an application document.^{CWC}
3. The City of Pacific Grove reclamation plant shall be provided with a sufficient number of qualified personnel to operate the facility effectively so as to achieve the required level of treatment at all times.^{T22}
4. A preventive maintenance program shall be provided to ensure that all equipment is kept in a reliable operating condition.^{T22}
5. Operating records shall be maintained at the reclamation plant or a central depository within the operating agency. These shall include: all analyses specified in the reclamation criteria; records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; and all corrective or preventive action taken.^{T22}
6. Process or equipment failures triggering an alarm shall be recorded and maintained as a separate record file. The recorded information shall include the time and cause of failure and corrective action taken.^{T22}
7. Any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, shall be reported immediately by telephone to the regulatory agency, the State Department of Public Health, and the local health officer.^{T22}
8. The City of Pacific Grove shall comply with Monitoring and Reporting Program No. R3-2016-0044 (included as part of this Order), as ordered by the Executive Officer.^{CWC}

9. Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated December 5, 2013 (also referred to as "Standard Provisions").^{CWC}
10. Treatment and discharge shall not cause pollution or nuisance as defined in Section 13050 of the California Water Code.^{CWC}
11. All accumulated biosolids or solid residue shall be disposed of at a location authorized by law. The Discharger shall report to the Executive Officer plans to discharge at a facility not covered by existing waste discharge requirements or general waste discharge requirements at least six months before disposal begins. If the Executive Officer directs the Discharger to submit a report of waste discharge, Discharger shall not begin disposal until it has obtained coverage under individual or general waste discharge requirements or other authorization to discharge.^{CWC}
12. Treatment and storage facilities shall be managed to exclude the public and posted to warn the public of the presence of wastewater.^{BPJ}
13. Pursuant to Title 23, Division 3, Chapter 9, Article 2 of the California Code of Regulations, the Discharger must submit a report to the Executive Officer, no later than December 8, 2026, addressing:^{CWC}
 - a. Whether there will be changes in the continuity, character, location or volume of the discharge; and,
 - b. Whether, in its opinion, there is any portion of the Order that is incorrect, obsolete or otherwise in need of revision.

I, John M. Robertson, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region on December 8, 2016.

John M. Robertson, Executive Officer

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