

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF DECEMBER 8-9, 2016

Prepared on September 8, 2016

ITEM NUMBER: —

SUBJECT: **Waste Discharge Requirements and Water Reclamation Requirements (Producer) for the City of Pacific Grove, Pacific Grove Local Water Project, Monterey County**

STAFF CONTACT: **Tom Kukol 805-549-3689 or tom.kukol@waterboards.ca.gov**

KEY INFORMATION

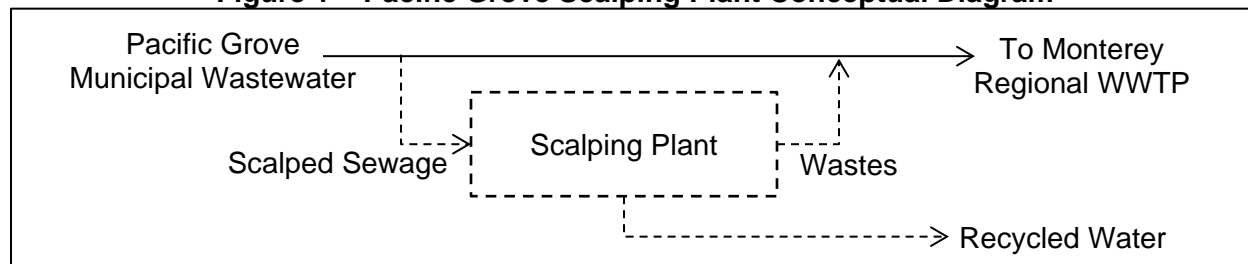
Facility Name: Pacific Grove Local Water Project
Facility Owner: City of Pacific Grove
Location: Pacific Grove Golf Links (Tip of the Monterey Peninsula)
Discharge Type: Recycled municipal sewage
Design Flow: 250,000 gpd
Current Flow: None
Treatment Type: Tertiary
Disposal: Wastes go to Monterey Regional Water Pollution Control Agency
Recycling: Golf Course and Cemetery Irrigation, Toilet Flushing at Crespi Pond and front nine restrooms
Existing Orders: None

This Action: Adopt Order No. R3-2016-0044

SUMMARY

The City of Pacific Grove, which conveys its municipal sewage to the Monterey Regional Water Pollution Control Agency’s regional wastewater treatment facility, proposes to make use of decommissioned infrastructure to “scalp” conveyed sewage, produce recycled water, and use the recycled water primarily for golf course and cemetery irrigation. The City of Pacific Grove proposes to discharge its scalping plant wastes back into the collection system tributary to the Monterey Regional Water Pollution Control Agency. Figure 1 shows a conceptual depiction of the proposed scalping plant.

Figure 1 – Pacific Grove Scalping Plant Conceptual Diagram



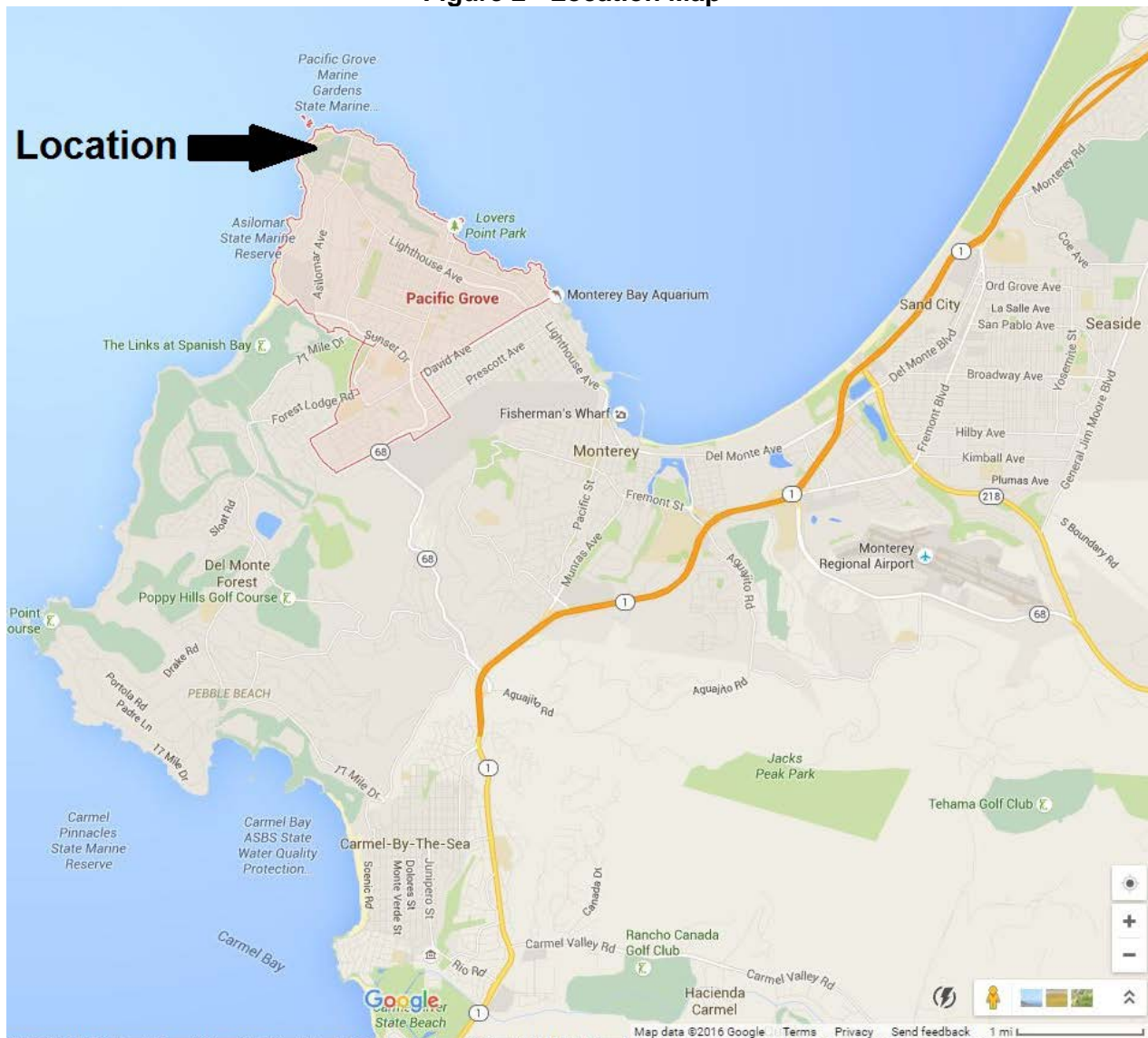
The City of Pacific Grove's proposed recycled water distribution and use has been enrolled under existing general waste discharge requirements (WDRs) for recycled water use. However, the City of Pacific Grove's proposed recycled water production must be regulated under WDRs. The proposed order would regulate the City of Pacific Grove's proposed recycled water production.

DISCUSSION

Background

Why: Decades ago, the City of Pacific Grove decommissioned its Point Pinos wastewater treatment plant (located as shown in Figure 2) when it regionalized sewer services at the Monterey Regional Water Pollution Control Agency (MRWPCA).

Figure 2 - Location Map



Now the City of Pacific Grove wants to make use of the decommissioned Point Pinos wastewater treatment plant to “scalp” collected sewage, produce recycled water, and use the recycled water primarily for golf course and cemetery irrigation. While the use of recycled water has been enrolled under general waste discharge requirements (WDRs) for recycled water use, the City of Pacific Grove’s proposed production of recycled water requires individual WDRs.

Facility Description: The City of Pacific Grove plans to produce, as needed, up to 250,000 gallons per day (125 acre-feet per year) of disinfected tertiary water for unrestricted landscape irrigation, public restroom toilet flushing, street sweeping, construction dust control, and sewer flushing uses. The City of Pacific Grove proposes to achieve disinfected tertiary recycled water using Membrane Bio-Reactor (MBR) technology, combined with Ultraviolet (UV) disinfection. Scalping plant wastes will be returned to the existing sanitary sewer system tributary to the MRWPCA regional wastewater treatment facility.

Compliance History: This is a proposed, new facility. It has no compliance history.

Proposed Order

Turbidity

The proposed turbidity limits implement California Title 22 Water Recycling Criteria’s §60301.320 definition of “filtered wastewater.” The discharger proposes to use membrane filtration. When membrane filtration is used, California Title 22 Water Recycling Criteria’s §60301.320 calls for the following turbidity limits:

95% of the time within a 24-hr period (NTU)	Instantaneous Maximum (NTU)
≤ 0.2	0.5

Biochemical Oxygen Demand (BOD)

The California Title 22 Water Recycling Criteria generally requires recycled water to be oxidized, but does not specifically establish numeric BOD levels. Traditionally, BOD limits for activated sludge processes are set at monthly average of 30 mg/L. However, the discharger’s Report of Waste Discharge stated a design objective to produce an effluent BOD of less than 5 mg/L. Recognizing that performance does not always meet design and that reasonable fluctuations can occur, and in order to give the discharger a reasonable limit, staff proposes a monthly average BOD effluent limit of 10 mg/L with a daily maximum of 25 mg/L.

Total Suspended Solids (TSS) and Turbidity

The California Title 22 Water Recycling Criteria does not specifically establish numeric TSS levels. Traditionally, TSS limits for activated sludge processes are set at monthly average of 30 mg/L. However, the discharger’s Report of Waste Discharge stated a design objective to produce an effluent TSS of less than 2.5 mg/L. Recognizing that performance does not always meet design and that reasonable fluctuations can occur, and in order to give the discharger a reasonable limit, staff proposes a monthly average BOD effluent limit of 10 mg/L with a daily maximum of 15 mg/L.

Even though the California Title 22 Water Recycling Criteria does not specify TSS, the criteria specify turbidity levels. TSS decrease turbidity, so there can be a correlation between TSS and turbidity. The proposed order uses Title 22’s Water Recycling turbidity criteria as effluent limits.

Total Coliform

The proposed order uses Title 22's Water Recycling total coliform criteria as effluent limits.

Salts

The proposed order is intended to regulate the production recycled water. The distribution and use of recycled water is regulated under a separate order. The order that regulates the distribution and use of recycled water is the order that controls the water at the point of discharge. It is at the point of discharge where salts need to be regulated; therefore this proposed order does not include salts limitations.

pH

pH of water can readily change when that water is exposed to different environmental conditions. For example, the act of storing, conveying, or applying water to land can alter the pH of water. The pH of a wastewater treatment plant effluent is not necessarily equal to the pH of water in storage, and the pH of water in storage is not necessarily equal to the pH of water that percolates through soil. Because specifying effluent pH is not a reliable control for protecting groundwater pH, staff proposes no pH limits.

Although no pH limits are proposed, turf grasses cannot tolerate a highly acidic or basic environment. Because the discharger will primarily recycle the water for turf grass irrigation, the discharger has incentive to keep the irrigation water's pH relatively neutral. Also, soils typically provide a buffering capacity that would naturally insulate groundwater from pH changes. Considering that, imposing a neutral pH requirement on the discharger's effluent (prior to storage, distribution, and use) would impose costs but provide no water quality benefit.

It should also be noted that the Title 22 Water Recycling criteria do not establish pH limitations.

Recycled Water Policy

Recycling water helps to fulfill the intent of the California Recycled Water Policy. One component of the California Recycled Water Policy is the development of salt and nutrient management plans to protect groundwater basins' water quality. As mentioned above, the proposed order is intended to regulate the production recycled water. The distribution and use of recycled water is regulated under a separate order. The order that regulates the distribution and use of recycled water is the order that controls the water at the point of discharge. It is at the point of discharge where salts and nutrients need to be regulated. To avoid redundant and/or conflicting requirements, staff proposes that any California Recycled Water Policy salt and nutrient management plan requirements be contained solely in the order that regulates the distribution and use of recycled water. The proposed order does not include any salt and nutrient management plan requirements.

ENVIRONMENTAL SUMMARY

The City of Pacific Grove is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Cal. Pub. Res. Code Section 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.

The Central Coast Water Board is a responsible agency pursuant to CEQA (CEQA Guidelines Section 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. Since the environmental impact report did not identify any potentially significant environmental effects within the Water Board's jurisdiction, the Water Board is not required to make any specific finding pursuant to CEQA Guidelines 15096.

COMMENTS

On _____, 2016, staff distributed this staff report, draft waste discharge requirements, and other attachments to the Discharger and the following known interested parties:

James Brezack, President Brezack & Associates Planning jbrezack@brezack.com	Reena Thomas Brezack & Associates Planning Rthomas@brezack.com
Sherly Rosilela State Water Resources Control Board Division of Drinking Water Sherly.Rosilela@waterboards.ca.gov	Randy Barnard State Water Resources Control Board Division of Drinking Water Randy.Barnard@waterboards.ca.gov
Jan R. Sweigert, P.E., District Engineer State Water Resources Control Board Division of Drinking Water Monterey District Jan.Sweigert@waterboards.ca.gov	Nicole Fowler Monterey County Health Department Environmental Health Bureau fowlerne@co.monterey.ca.us
Steve Hogg, Assistant General Manager Monterey Regional Water Pollution Control Agency stephen@mrwpca.com	Jody Hack State Water Resources Control Board Division of Financial Assistance Jody.Hack@waterboards.ca.gov
Steve Shimek, Executive Director Monterey Coastkeeper/The Otter Project exec@otterproject.org	Luke Coletti ljc@groknet.net
Chris Adair Central Coast Water Board Chris.Adair@waterboards.ca.gov	

Staff requested that all interested parties submit written comments by October 7, 2016

ATTACHMENTS

Proposed Order No. 2016-0044

RECOMMENDATION

Staff recommends adoption of Order No. 2016-0044