

FOX CANYON GROUNDWATER MANAGEMENT AGENCY

A State of California Water Agency



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Jeff Pratt, P.E.

September 27, 2023

Board of Directors
Fox Canyon Groundwater Management Agency
800 South Victoria Avenue
Ventura, CA 93009-1610

SUBJECT: Update on Preparation of Updated Impact Analysis and Resolution for the City of Oxnard's Groundwater Recovery Enhancement and Treatment (GREAT) Program – (New Item)

RECOMMENDATION: Receive an update from Fox Canyon Groundwater Management Agency (FCGMA) staff on the preparation of an updated impact analysis and resolution for the City of Oxnard's (Oxnard) GREAT Program.

BACKGROUND:

The GREAT Program is a comprehensive water-supply project designed to improve water supply reliability, improve water quality for the future, and reduce Oxnard's reliance on imported supplies. It combines wastewater recycling, brackish groundwater desalination, groundwater injection, and storage and recovery to provide an additional water supply source to the Oxnard Plain. The GREAT Program relies on Oxnard's Advanced Water Purification Facility (AWPF), which produces highly treated recycled water. Under the program, Oxnard delivers recycled water from the AWPF to agricultural users in the Seawater Intrusion and Pumping Depression Management Areas of the Oxnard and Pleasant Valley Basins, and any unused allocation of agricultural users realized due to the delivery of GREAT Program recycled water accrues to the benefit of Oxnard in the form of a Recycled Water Pumping Allocation (RWPA) to be pumped from wells located in less impacted areas of the Oxnard Basin. In 2003, Oxnard adopted an Environmental Impact Report (EIR) for the GREAT Program pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq (SCH No. 2003011045).

On June 26, 2013, your Board adopted Resolution No. 2013-02 (Resolution), which approved those components of the GREAT Program needing FCGMA approval, i.e., the accrual and pumping of RWPA. The Resolution provides: "The City will receive 1 acre-foot of RWPA for each acre-foot of [recycled water] use that results in 1 acre-foot (AF) decrease in groundwater pumping by [recycled water] users." The Resolution also includes a Recycled Water Management Impact Analysis (RWIA) Plan, which describes and analyzes potential impacts and required mitigation, and includes recommended monitoring and reporting requirements, applicable to RWPA pumping. At the same time, your Board adopted a separate document entitled "California Environmental Quality Act Findings of Fact Regarding the Final Environmental Impact Report for the City of Oxnard's GREAT Program and Associated Recycled Water Management Plan" (CEQA Findings of Fact), which analyzed project alternatives and mitigation measures for the proposed delivery of recycled water and pumping of RWPA by Oxnard. Although the RWIA Plan and the CEQA Findings of Fact recognize that the Oxnard Basin could accommodate the anticipated RWPA pumping, both

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expressed concern that RWPA pumping may result in localized impacts, specifically that lower groundwater elevations in the Oxnard Forebay due to RWPA pumping could exacerbate the landward gradient that causes seawater intrusion into aquifers along the coast. Accordingly, the Resolution adopted by your Board included conditions on Oxnard's accrual and pumping of RWPA. Among other conditions, Section 14 of the Resolution provides: "Unless otherwise authorized pursuant to Coordination Meetings, the City shall not pump its RWPA from the [Oxnard] Forebay when evacuated groundwater from storage in the [Oxnard] Forebay reaches 80,000 acre-feet, or groundwater levels in the Forebay reach 19 feet above mean sea level." (Resolution, § 14).

Since 2016, Oxnard has been delivering GREAT Program recycled water to agricultural water purveyors and operators, and in turn, Oxnard has accrued RWPA under the Resolution. However, due to the lack of precipitation and dry conditions over the past seven years, groundwater conditions and levels in the Oxnard Forebay were not sufficient to satisfy Section 14 of the Resolution and allow Oxnard to pump RWPA until this year.

At the June 28, 2023, meeting, staff reported that Oxnard had accrued 6,622.077 AF of RWPA for its recycled water deliveries between 2016 and 2022 and that Oxnard Forebay conditions required by Section 14 of the Resolution were met to allow Oxnard to pump RWPA through the end of Water Year 2023-24 (as discussed in another agenda item). Although Oxnard can currently pump RWPA, Oxnard staff commented to your Board that it did not intend to extract against its RWPA at this time and provided other comments on the preparation of an amended resolution providing greater flexibility to pump its accrued RWPA in future years. In response to Oxnard's comments, staff provided the following recommendations:

1. An updated Recycled Water Impact Analysis (Impact Analysis) of Oxnard's proposed scenarios for RWPA pumping should be prepared.
2. Environmental impacts identified in an updated Impact Analysis should be analyzed to determine the applicability of CEQA environmental review requirements.
3. Updated RWPA pumping conditions and an updated Monitoring Plan should be prepared based on the findings of the updated Impact Analysis and updated CEQA environmental review.
4. An updated resolution should be prepared in coordination with Oxnard and UWCD based on the above.

Your Board directed staff to bring a new or amended Resolution back to the September 2023 meeting for consideration on the condition that an updated Impact Analysis was submitted to FCGMA by September 1, 2023. A final version of the updated Impact Analysis was received on September 19, 2023.

FCGMA staff worked diligently with Oxnard and UWCD staff during August and September to assist in completing an updated Impact Analysis which UWCD prepared based on Oxnard's proposed scenarios of recycled water deliveries and RWPA pumping. An initial draft updated Impact Analysis was circulated on August 21, 2023. Revisions were forwarded on August 25 and September 5, 2023. On September 6, 2023, Oxnard requested UWCD revise that draft to include additional modeling scenarios to simulate extractions from its "Rice Avenue" facilities; previous drafts simulated extraction only from its "Water Yard" facilities and from UWCD's Oxnard-Hueneme (OH) extraction facilities. This request necessitated additional staff analysis of impacts and resulted in another round of comments. UWCD distributed revised impact analyses on September 6, 8, and 14, 2023, including the additional scenarios requested by Oxnard. Thereafter, based on additional comments from Oxnard, UWCD distributed a revised version of the updated Impact Analysis on September 18, 2023; UWCD submitted a final version on September 19, 2023 (Item 3A). Although an updated Impact Analysis is now complete, there was not sufficient time before today's meeting for staff to analyze the impacts identified in the updated Impact Analysis or to meet with Oxnard and UWCD

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staff to discuss and prepare conditions to address those impacts for inclusion in a new or amended resolution.

DISCUSSION:

The updated Impact Analysis modeled 10 different scenarios of recycled water deliveries and RWPA pumping (Item 3A). Deliveries were varied, in different percentages, among the Saline Intrusion Management Area and the Pumping Depression Management Area, while maximum annual RWPA extractions were varied between 3,000 or 6,000 AFY during below normal, dry, and/or critical rainfall water years. In addition, RWPA extractions were varied among the following locations (all of which are outside the Saline Intrusion and Pumping Depression Management Areas):

- Oxnard's Water Yard wells, consisting of one well screened three wells screened in the Upper Aquifer System (UAS in Mugu Aquifer) and one well screened across both the UAS (Mugu Aquifer) and Lower Aquifer System (LAS in Hueneme Aquifer).
- Oxnard's Rice Avenue Facility, consisting of one well screened in the UAS (Mugu Aquifer) and one well screened in both the UAS and LAS (Mugu and Hueneme Aquifers).
- UWCD's OH Wells, consisting of four wells screened in the UAS (Oxnard and Mugu Aquifers).
- Combination with extractions split evenly between Oxnard's Water Yard and UWCD's OH wells.

The model results show increase or decrease in simulated landward subsurface flow (potential seawater intrusion) along four segments of the Oxnard Subbasin coast in both the UAS and LAS for each of the 10 scenarios (see Figure 1 and Table 5 in the Impact Analysis):

- A – Northern boundary of Oxnard Subbasin to Channel Islands Harbor
- B – Channel Islands Harbor to Ormond Beach (including Port Hueneme)
- C – Ormond Beach to Arnold Road
- D – Arnold Road to southern boundary of Oxnard Subbasin (including Point Mugu)

As explained above, staff is still evaluating the final updated Impact Analysis, but it appears to be appropriate for the scenarios of recycled water deliveries and RWPA pumping requested for modeling by Oxnard. Preliminarily, staff notes that the updated Impact Analysis indicates the project is likely to have a net benefit to the basin by reducing overall coastal landward flow which will reduce seawater intrusion. However, all modeled scenarios show a net increase in landward flow in coastal segment A extending from the northern basin boundary to Channel Islands Harbor. Note that there has not been documented seawater intrusion along this coastal segment. All scenarios, however, show minor to potentially significant increases in landward flow in the UAS along segment B from Channel Islands Harbor to Ormand Beach, which includes Port Hueneme where seawater intrusion is impacting the basin. The magnitude of the increased landward flow is directly correlated to the location and extraction rate of the wells used to extract RWPA.

CONCLUSION AND RECOMMENDATION:

At this time, staff is continuing to evaluate the final updated Impact Report and the impacts of the scenarios requested for modeling by Oxnard. Staff's evaluation of those impacts will inform (i) its preparation of a new or amended resolution for the GREAT Program in conjunction with Oxnard staff; and (ii) the development of an updated monitoring plan with Oxnard and UWCD staffs. In addition, FCGMA will continue to evaluate

the applicability of CEQA and ensure the preparation of any needed environmental review.¹ Based on the cooperative working relationship among FCGMA, Oxnard, and UWCD staffs over the past month and a half, staff anticipates being able to bring a new or amended resolution, an updated monitoring plan, and any necessary CEQA environmental review to your Board at the October 25, 2023 meeting.

Staff recommends that your Board receive and file this report. This letter has been reviewed by Agency Counsel. If you have any questions, please call me at (805) 650-4083.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Loeb', with a long horizontal flourish extending to the right.

Kimball R. Loeb, PG, CEG, CHG
Groundwater Manager

Attachment: Item 3A – Recycled Water Pumping Allocation Impact Analysis, September 19, 2023

¹ At this time, staff does not anticipate a subsequent or supplemental environmental impact report will need to be prepared.