



County of Monterey

Item No.2

Board Report

Board of Supervisors
Chambers

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Salinas, CA 93901

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Review of the 2024 August Trough Groundwater Elevation Contour Maps

SUMMARY/DISCUSSION:

The Monterey County Water Resources Agency (Agency) is responsible for data collection and analysis of groundwater data throughout the Salinas Valley to support the ongoing groundwater level contouring, seawater intrusion mapping, and other programs related to current groundwater conditions. Conditions are assessed throughout the year to better understand how aquifers are responding during different hydrologic conditions as well as the relative groundwater storage fluctuations that occur on an annual basis.

These activities align with Strategic Plan Goals B7, Use of data and analysis to make informed decisions based on science and E1, improve public outreach to increase transparency, communication, education and information about Agency projects and programs. Activities associated with this program are included in Funds 111 & 116 of the FY 24-25 budget.

OVERVIEW OF 2024 DATA

August Trough Groundwater Level Survey

On a single day in August, Agency staff conducts an intensive groundwater level survey of the northern Salinas Valley referred to as August Trough. Groundwater levels (GWLs) are sampled at around 140 wells from Chualar to the coast, to obtain a snapshot of conditions within and beyond the seawater intrusion fronts. This is done during a time of the year when aquifers are most stressed by pumping. One of the key purposes of the August Trough survey is to monitor and assess the forces driving seawater intrusion, in particular groundwater level gradients sloping inland from the coast, which are most pronounced when pumping is at its seasonal peak.

The 2024 August Trough groundwater elevation contours for the 180-Foot and East Side Shallow Aquifers are included as Attachment A. Compared to the 2023 survey, groundwater elevations near the coast have increased by 1 to 3 feet. This increase resulted in groundwater elevations at the coast that are just above sea level.

In the East Side trough, groundwater elevations in the area north of Salinas have increased between 2 and 18 feet. However, a small area to the south experienced decreases of 1 to 5 feet. Similarly, the region south of Salinas towards Chualar saw increases between 1 and 2 feet from last year, while the area towards Spreckels saw decreases of 1 to 3 feet.

The 2024 August Trough groundwater elevation contours for the 400-Foot and East Side Deep Aquifers are included as Attachment B. Groundwater levels near the coast increased 1-2 feet. In the Espinosa Lake area, groundwater elevations rose between 1 and 3 feet, though a smaller northwest section experienced a 3 to 5 foot decrease. The absence of the 0-foot elevation contour near the coast indicates that the groundwater elevations in the 400-Foot Aquifer remained around 10 feet below sea level at the coast.

Groundwater elevations in the East Side trough increased in the area north of Salinas by 1 to 12 feet, though a smaller southeastern area saw decreases of 1 to 10 feet. South of Salinas, towards Chualar, groundwater elevations increased by 1 to 2 feet compared to last year, while a smaller area towards Spreckels experienced decreases of 1 to 2 feet.

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Attachments: Attachment A: August Trough 2024 Groundwater Elevation Contours, 180-Ft, and East Side Shallow Aquifers
Attachment B: August Trough 2024 Groundwater Elevation Contours, 400-Ft, and East Side Deep Aquifers