Introduced: 4/6/2026
Version: 1

Current Status: Agenda Ready
Matter Type: WR General Agenda

Review of the 2025 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 Fund 111 (1501) as part of the Groundwater Monitoring Program in the Agency's Adopted FY 25-26 budget.

OVERVIEW OF 2025 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 2025 August Trough groundwater elevation contours for the 180-Foot and East Side Shallow Aquifers are included as Attachment A. Compared to the 2024 survey, groundwater elevations adjacent to the coast generally increased by 0 to 1 foot, with localized declines of up to 3 feet observed in areas slightly inland of the coastline. The groundwater elevations at the coast remain just above sea level.

In the East Side Trough, groundwater elevations north of Salinas decreased by approximately 2 to 9 feet. These declines are largely influenced by a single well, and its interpretation is limited due to data gaps in this area. However, the area towards the southeast experienced increases of 7 to 12 feet.

Similarly, the region south of Salinas towards Chualar saw decreases between 1 and 2 feet from last year.

The 2025 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 3-10 feet. In the Espinosa Lake area, groundwater elevations rose between 3 and 5 feet. 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 decreased in the area north of Salinas by 5 to 10 feet, with some individual wells showing greater decreases. Meanwhile, the southeastern area saw increases of 8 to 14 feet, however, data availability in this area was limited during the previous year. South of Salinas, towards Chualar, groundwater elevations decreased by 0 to 1 foot compared to last year, while a smaller area towards Spreckels experienced increases of 1 to 3 feet.

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Attachments:

- Attachment A: August Trough 2025 Groundwater Elevation Contours, 180-Ft, and East Side Shallow Aquifers
- Attachment B: August Trough 2025 Groundwater Elevation Contours, 400-Ft, and East Side Deep Aquifers