



County of Monterey

Item No.2

Board Report

Board of Supervisors
Chambers
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Salinas, CA 93901

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Update on the 2024 Annual Groundwater Elevation Program - Groundwater Elevation Contour Maps and Cumulative Groundwater Change Chart

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 elevation 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.

Annual Groundwater Elevation Survey

In the latter part of each fall, from mid-November through December, the Agency measures groundwater levels in approximately 450 wells throughout the Salinas Valley, from the San Ardo oilfields to the coast. The timing of this sampling survey allows the Agency to capture conditions in the groundwater basin at a time when a relative decrease in agricultural pumping causes groundwater level troughs to relax, prior to the influence of seasonal recharge in response to winter/spring precipitation. In this way, the Annual survey of groundwater level data is an assessment of the relative, year-to-year change in groundwater storage throughout the valley.

The 2024 Annual groundwater elevation contours for the 180-Foot, East Side Shallow, Forebay and Upper Valley Aquifers are included as Attachment A. Compared to the 2023 survey, there was an overall increase in groundwater elevations by 0 to 2 feet near the coast, with groundwater elevations approximately at sea level. Groundwater elevations in the East Side trough increased by 1 to 8, though a smaller northwest section experienced a 1 to 3 foot decrease. Elevations in the area south of Salinas to Greenfield increased by 2 to 5 feet, though a smaller area near Spreckels saw decreases between 0 and 1 foot. From Greenfield to the north of San Lucas, groundwater elevations increased by 1 to 2 feet. South of San Lucas, groundwater elevations remained generally within a foot of last year's levels.

The 2024 Annual groundwater elevation contours for the 400-Foot and East Side Deep Aquifers are included as Attachment B. Near the coast, groundwater elevations were 1 to 3 feet higher than levels

last year and remained below sea level at the coast. The East Side trough and groundwater levels in the area north of Salinas increased by 1 to 8 feet, though a smaller northwest section experienced a 1 to 5 foot decrease. Groundwater elevations in the area south of Salinas to Gonzales were 1 to 5 feet higher than levels in 2023.

Cumulative Groundwater Level Change Chart

The Cumulative Groundwater Level Change Chart is produced using data from the Annual Groundwater Level Survey. This is a cumulative summary of the average change in groundwater elevations between each annual survey, calculated for each subarea, which helps to give an idea of the groundwater storage changes and trends over time.

For 2024, all four of the major subareas showed an increase in groundwater levels relative to the 2023 survey. Water Year 2024 was a normal-wet year, following a wet year and preceded by a three-year drought. The magnitude of change was less than in 2023 due to reduced precipitation and a slower rate of infiltration, as the soils were already saturated in that same year. However, the East Side subarea experienced a slightly more pronounced increase in elevation compared to the other subareas. The Cumulative Groundwater Level Change Chart for 1944-2024 is included as Attachment C with a more detailed summary of the changes in Attachment D.

OTHER AGENCY INVOLVEMENT:

None

FINANCING:

There is no financial impact in receiving this report. Activities associated with this program are included in Funds 111 & 116 of the FY 24-25 budget.

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Attachments:

1. Attachment A: Annual 2024 Groundwater Elevation Contours, 180-Ft and East Side Shallow, Forebay and Upper Valley Aquifers
2. Attachment B: Annual 2024 Groundwater Elevation Contours, 400-Ft and East Side Deep Aquifers
3. Attachment C: Cumulative Groundwater Level Change Chart, 1944-2024
4. Attachment D: Summary of Annual Groundwater Level Changes, 2023 to 2024