



County of Monterey

Board of Supervisors
Chambers
168 W. Alisal St., 1st Floor
Salinas, CA 93901

Board Report

File #: WRAG 20-094, **Version:** 1

Consider receiving 2019 Groundwater Level Contour and Historical Seawater Intrusion Maps.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Supervisors:

Receive the 2019 Groundwater Level Contour and Historical Sea Water Intrusion Maps

SUMMARY/DISCUSSION:

August Trough Groundwater Level Survey

Each summer, Monterey County Water Resources Agency (MCWRA) staff conducts an intensive groundwater level survey of the northern Salinas Valley. Groundwater levels (GWLs) are sampled at approximately 160 wells from Chualar to the coast, to obtain a “snapshot” survey of conditions within and beyond the Seawater Intrusion Front. This is done during a time of the year when aquifers are most stressed by pumping. One of the key purposes of the survey is to monitor and assess groundwater level gradients sloping inland from the coast, driving seawater intrusion, which are most pronounced when pumping is at its seasonal peak.

Fall Groundwater Level Survey

In the late fall, from mid-November to mid-December, the MCWRA samples GWLs in approximately 460 wells throughout the Salinas Valley. The timing of this survey allows us to capture conditions in the groundwater basin at a time when a relative lull 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 Fall survey of groundwater levels is an assessment of the relative, year-to-year change in groundwater storage throughout the valley.

Historical Seawater Intrusion

Each summer, MCWRA staff samples approximately 120 agricultural, urban purveyor, and small diameter monitoring groundwater wells in the coastal area of the northern Salinas Valley. Water quality samples are collected from the agricultural and urban wells twice, once in June and again in August. The MCWRA’s network of small diameter monitoring wells is sampled once in September. Samples are analyzed by the County’s Consolidated Chemistry Lab. The data are then processed and evaluated, and contours are developed. The new 2019 polygons are then added to the Historical Sea Water Intrusion maps.

OTHER AGENCY INVOLVEMENT:

Monterey County Water Resources Agency collects, processes and analyses groundwater level and quality data to develop these maps.

FINANCING:

There is no financial impact in receiving this report.

Prepared by: Howard Franklin, Senior Hydrologist, (831) 755-4860

Approved by:

Brent Buche, General Manager, (831) 755-4860

ATTACHMENTS:

Attachment 1: August 2019 Groundwater Level Contour Map (Pressure 180-Foot and East Side Shallow Aquifers)

Attachment 2: August 2019 Groundwater Level Contour Map (Pressure 400-Foot and East Side Deep Aquifers)

Attachment 3: Fall 2019 Groundwater Level Contour Map (Pressure 180-Foot, East Side Shallow, Forebay and Upper Valley Aquifers)

Attachment 4: Fall 2019 Groundwater Level Contour Map (Pressure 400-Foot and East Side Deep Aquifers)

Attachment 5: 2019 Historical Seawater Intrusion Map of Pressure 180-Foot Aquifer

Attachment 6: 2019 Historical Seawater Intrusion Map of Pressure 400-Foot Aquifer

Groundwater Contour Maps:

<https://www.co.monterey.ca.us/government/government-links/water-resources-agency/documents/groundwater-elevation-contours#wra> <<https://www.co.monterey.ca.us/government/government-links/water-resources-agency/documents/groundwater-elevation-contours>>

Historical Sea Water Intrusion Maps:

<https://www.co.monterey.ca.us/government/government-links/water-resources-agency/programs/seawater-intrusion-monitoring#wra> <<https://www.co.monterey.ca.us/government/government-links/water-resources-agency/programs/seawater-intrusion-monitoring>>