



# Monterey County Water Resources Agency's Groundwater Monitoring Program: Data Collection and Reporting

Amy Woodrow, PG  
Senior Hydrologist





# MCWRA – A brief introduction

## Mission

Manage water resources sustainably while minimizing impacts from flooding for present and future generations.

## Vision

Be recognized throughout the region as a leader in water resource management through demonstrated knowledge, integrity, and the quality of our actions.

# Highlights from over 75 Years of Managing Water Resources

**1947** – Monterey County Flood Control and Water Conservation District formally established.

**1957** – Completion of Nacimiento Dam.

**1967** – Completion of San Antonio Dam.

**1977** – First ALERT flood warning system installed.

**1987** – Construction of Nacimiento Hydropower Plant completed.

**1998** – Castroville Seawater Intrusion Project began operation.

**2009** – Nacimiento Spillway Modification completed.

**2010** – Salinas River Diversion Facility completed.

**2024** – Formalized and began expansion of the Groundwater Monitoring Program.

# MCWRA began groundwater data collection in the 1940's

**1940's**  
Groundwater levels

**1960's**  
Water quality and seawater intrusion mapping

**1990's**  
Groundwater extraction and conservation reporting

**2010's**  
Collaboration with Groundwater Sustainability Agencies

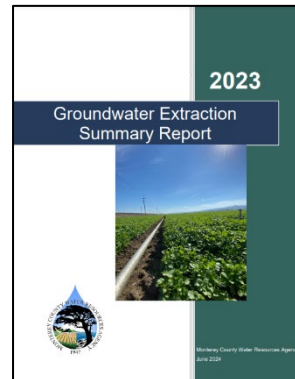
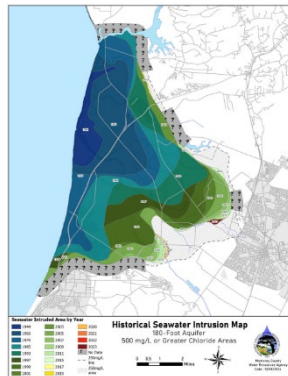
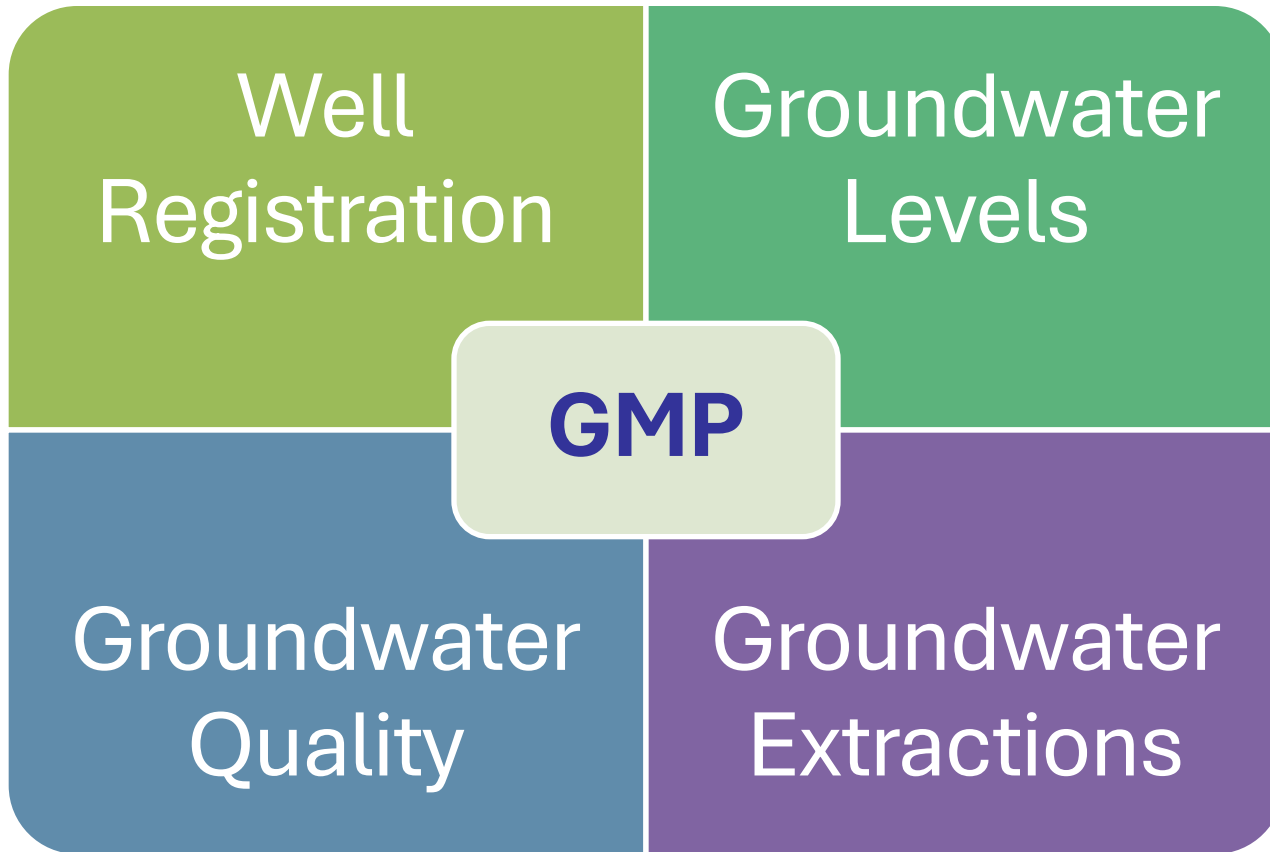


Image source: <https://www.agric.wa.gov.au/soil-salinity/monitoring-groundwater>

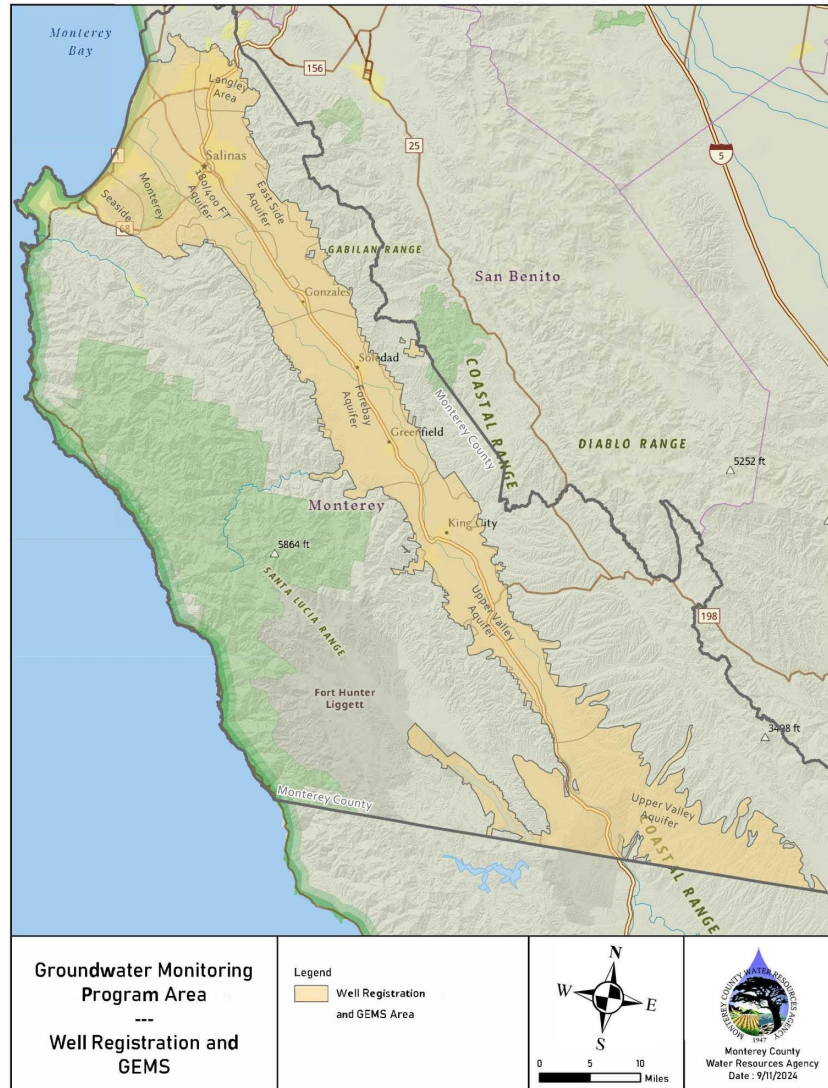
# Groundwater Monitoring Program



# Well Registration

- **What is the program?**
  - Registration of all existing and new wells.
  - Well location, construction, type of well
- **Why is it important?**
  - Well registration data are paired with other groundwater monitoring to understand which wells could be affected by changing groundwater conditions.
- **Where does it apply?**
  - Working to expand throughout the Salinas Valley Groundwater Basin.

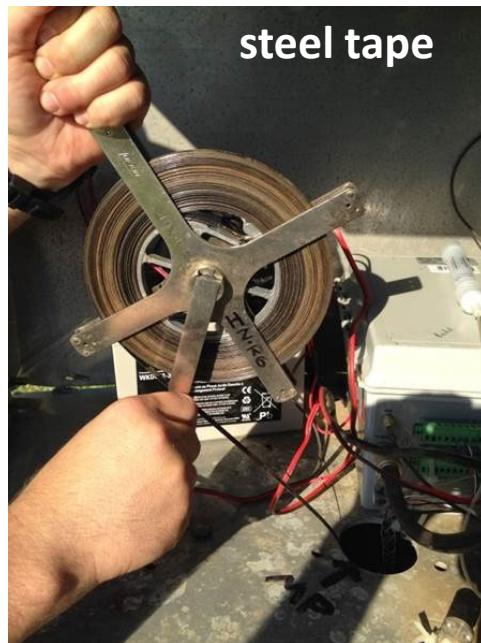
# Salinas Valley Groundwater Basin Extent



# Groundwater Level Monitoring

- What is the program?

- Collection of groundwater level data from 450+ monitoring wells and agricultural wells



electronic sounder



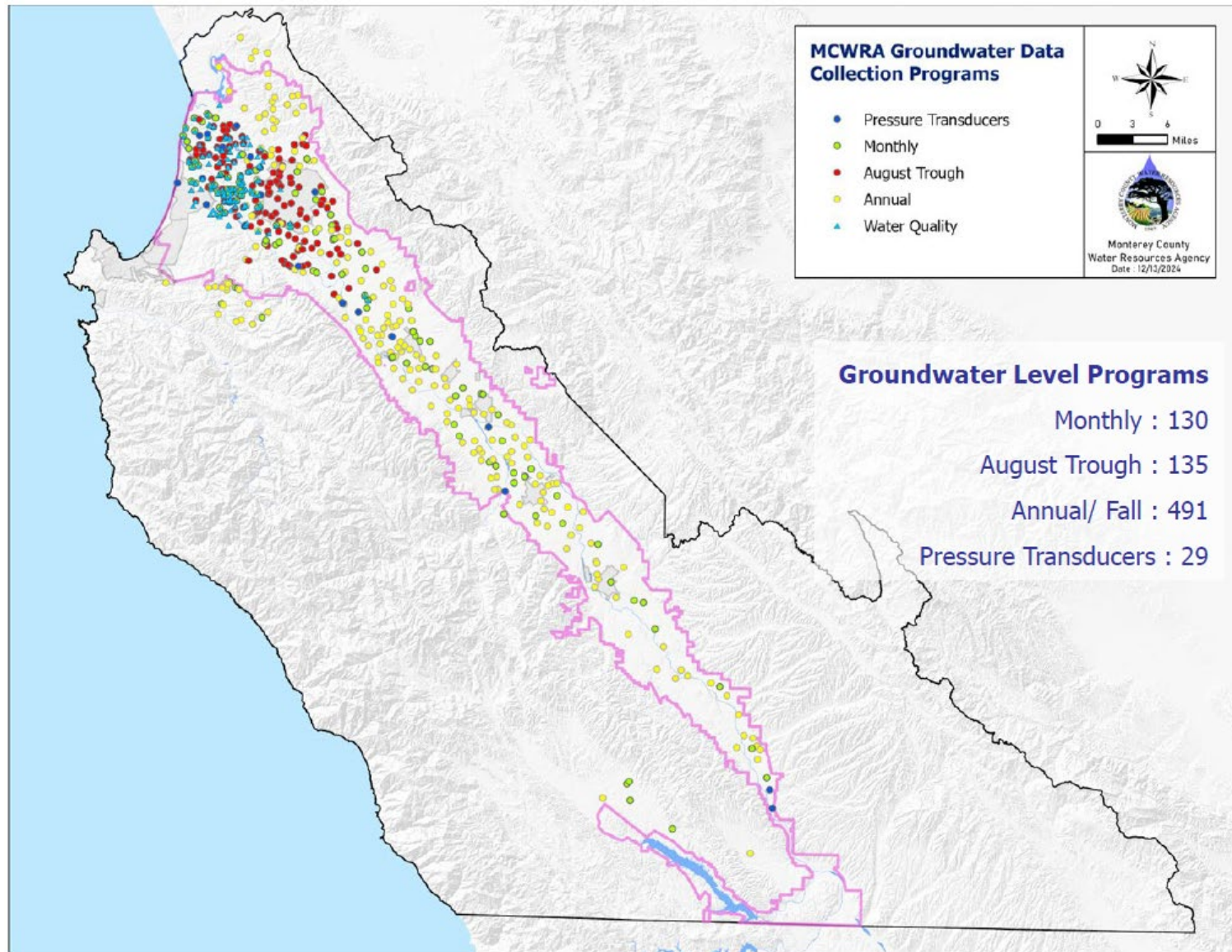
pressure transducer



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<https://www.usgs.gov/media/images/steel-tape-used-measuring-water-level-depth-wells>  
<https://www.enviroequipment.com/product/heron-water-tape-water-level-meter>  
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# Groundwater Level Monitoring (continued)



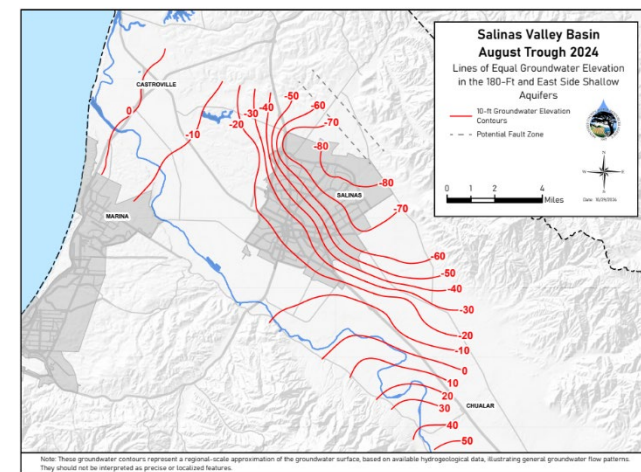
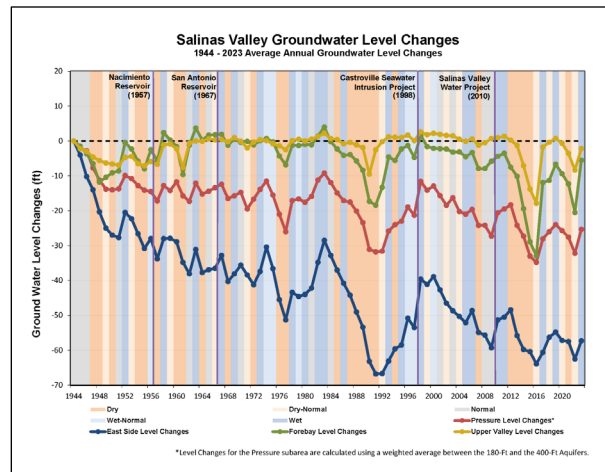
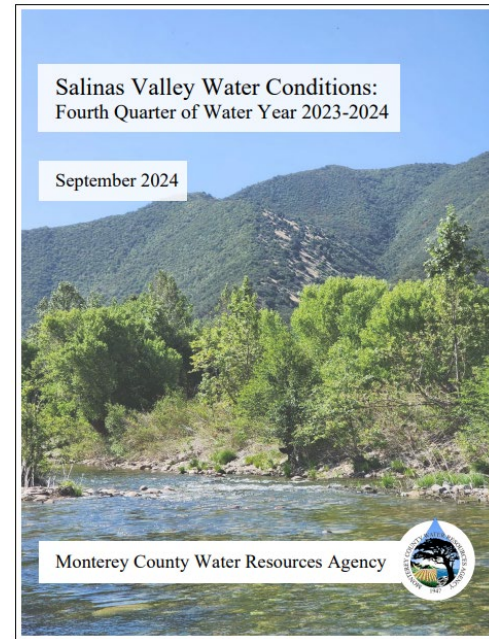
# Groundwater Level Monitoring (continued)

- **Why is it important?**

- Groundwater level data collected from wells are indicators of the quantity of groundwater in storage and the susceptibility of coastal aquifers to seawater intrusion.
- Long-term monitoring allows for an ongoing assessment of the ability of groundwater supplies to meet pumping demands.

# Groundwater Level Monitoring (continued)

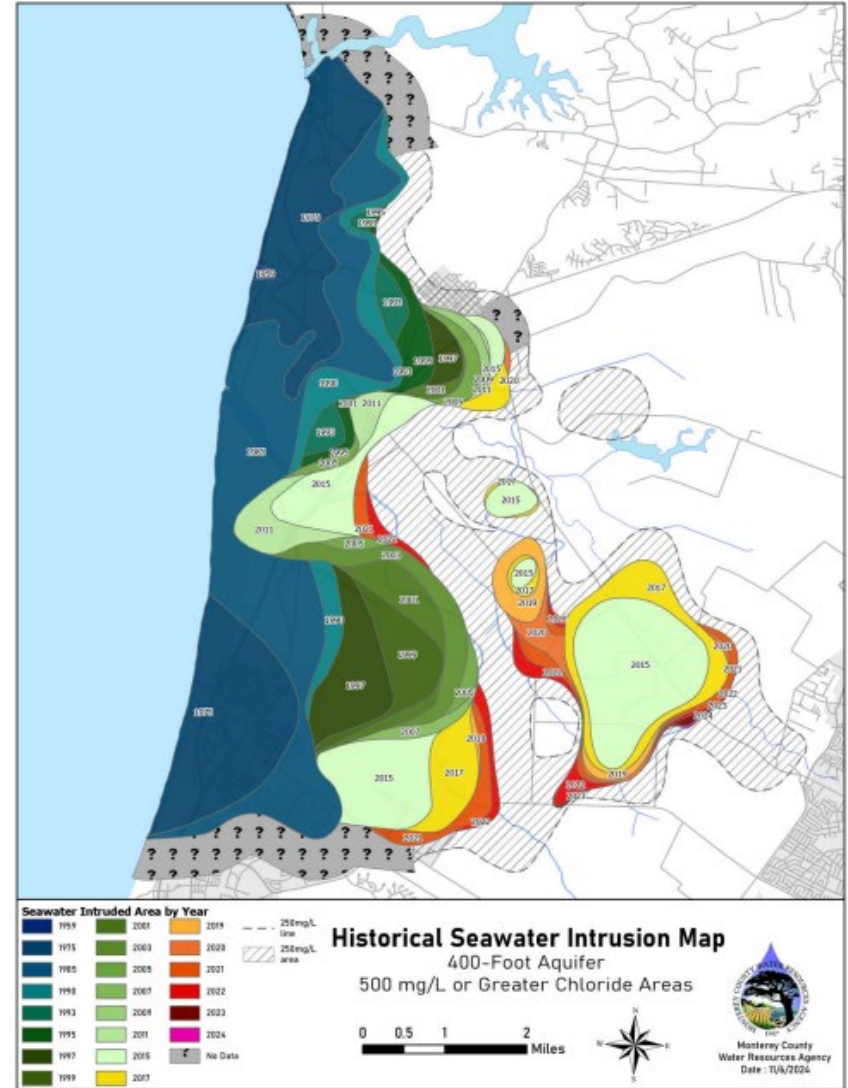
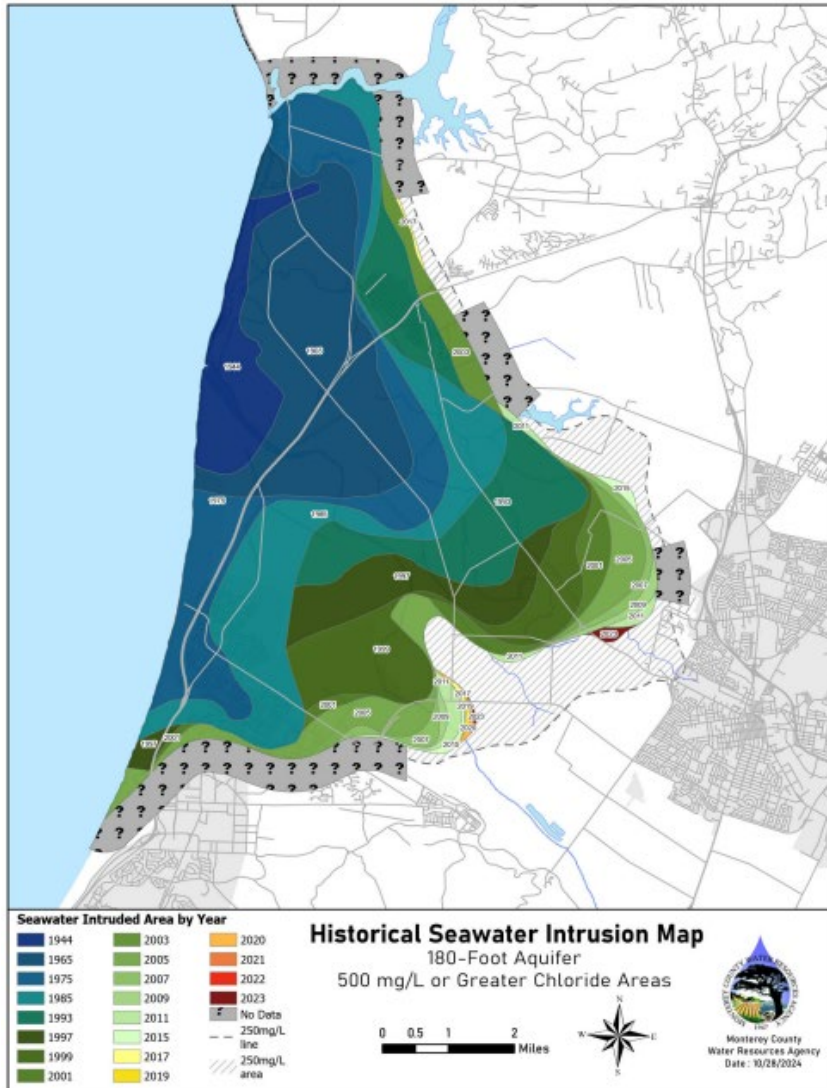
- **How are the data used?**
  - Groundwater elevation contour maps
  - Quarterly reports on water conditions
  - Annual charts of long-term change
  - Provided to other water management agencies



# Groundwater Quality Monitoring

- **What is the program?**
  - Collection of groundwater samples from 150+ monitoring wells and agricultural wells occurs twice per year in the summer.
  - Samples are analyzed by a certified laboratory for basic cations, anions, pH, total dissolved solids, and more.
- **Why is it important?**
  - Data are utilized for developing seawater intrusion contour maps and understanding regional changes in groundwater quality.

# Groundwater Quality Monitoring (continued)

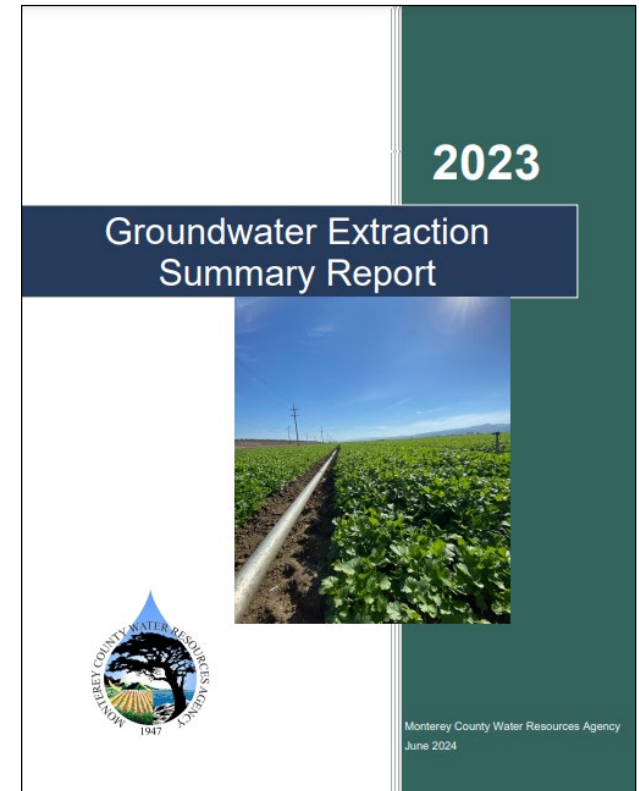


# Groundwater Extraction Monitoring

- **What is the program?**
  - Metering and reporting of monthly groundwater pumped from wells in the Salinas Valley Groundwater Basin.
  - Applies to all wells using more than two acre-feet per year.
- **Why is it important?**
  - Accurate data on the amount of water that is pumped from the basin, and the geographic distribution of that pumping, are necessary for groundwater management and compliance with the Sustainable Groundwater Management Act.
- **Where does the program occur?**
  - Working to expand it throughout the Salinas Valley Groundwater Basin.

# Groundwater Extraction Monitoring

- **How are the data used?**
  - After thorough review for quality assurance, the pumping data are aggregated and reported annually by MCWRA in a report.
  - Provided to Groundwater Sustainability Agencies within the Salinas Valley Groundwater Basin.



# Questions?



**Amy Woodrow**

**WoodrowA@countyofmonterey.gov**

**831-294-3882**

**[www.mcwater.info](http://www.mcwater.info)**

