





Today's Action

Consider receiving the
2022 August Trough Groundwater
Level and
Seawater Intrusion Contour Maps



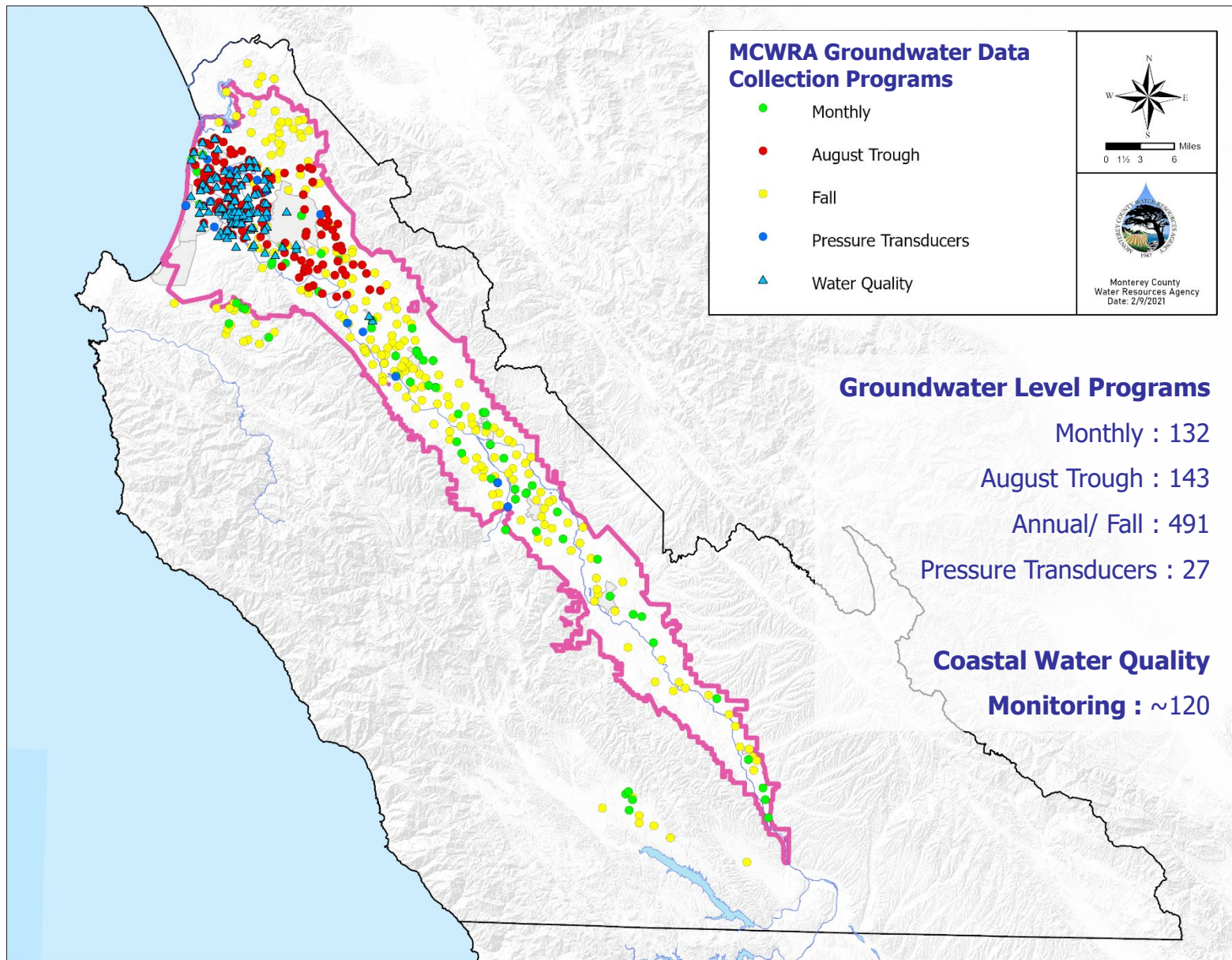
Prior BOS/ BOD Action

- The Basin Management Advisory Committee received this report February 1, 2023
- The Monterey County Water Resources Agency Board of Directors received this report February 21, 2023
- These activities can be linked to Strategic Plan Goals
 - B7 - Using data and analysis to make informed decisions based on science
 - E1 - Improve public outreach to increase transparency, communication education and information about Agency projects and programs
- Program line items
 - 23 - Groundwater monitoring of dedicated wells
 - 50 - August Trough
 - 52 - Coastal WQ Monitoring Program



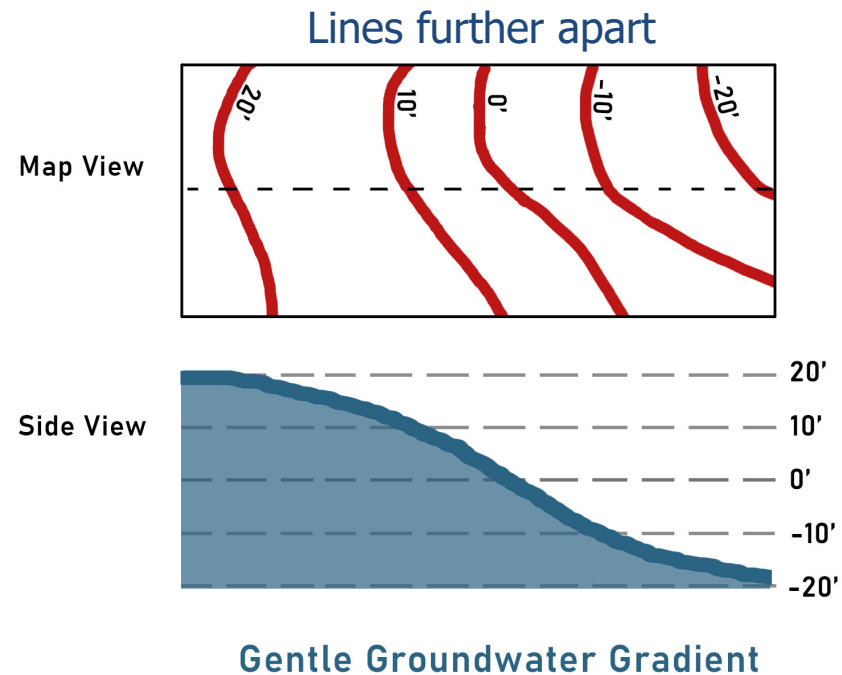
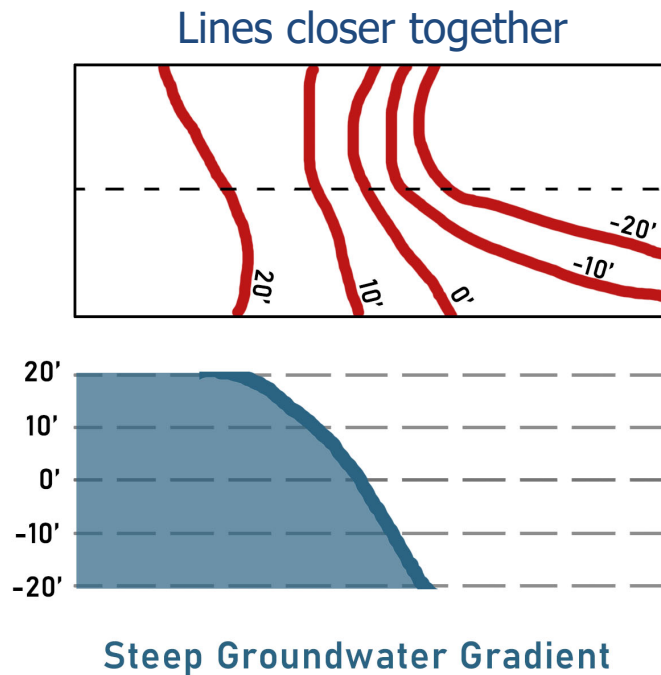
Financial Impact

- No financial impact to receive this report
- Activities associated with this program are funded by Funds 111 and 116, and are included in each year's budget



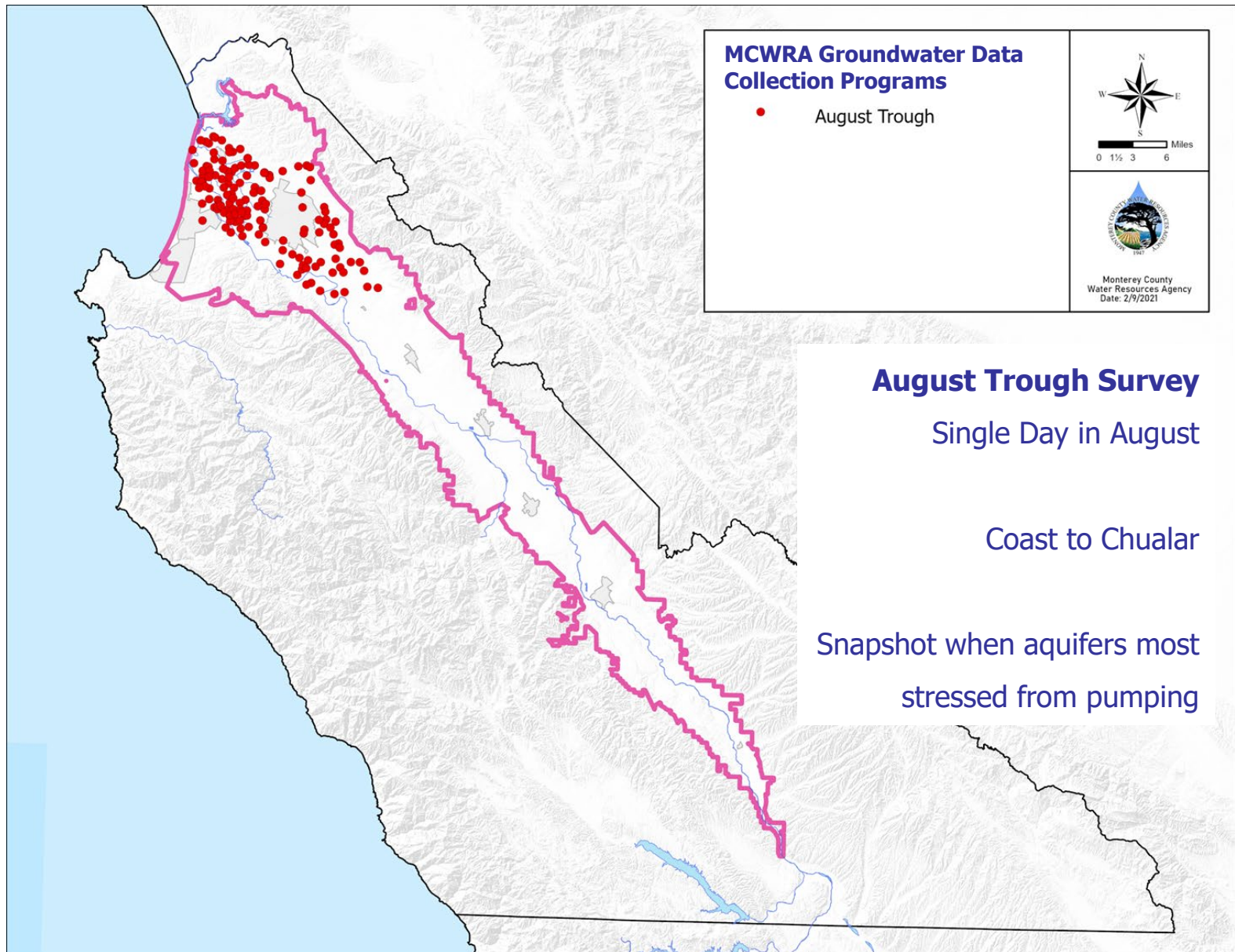
What are Groundwater Level Contours?

- Lines on a map representing equal lines of groundwater levels, or elevations relative to mean sea level





August 2022 Groundwater Level Contours



August Trough 2022

180-Ft and
East Side Shallow Aquifers

2022 10-ft
Groundwater
Elevation Contours



0 0.75 1.5 3 Miles

Date: 1/12/2023

Changes between 2021 and 2022:

- Decline near coast of 2-4'
- Deepening of East Side Trough by 10'
- Decline in levels up valley of 4-12'

CASTROVILLE

MARINA

SALINAS

CHUALAR

August Trough 2022

400-Ft and
East Side Deep Aquifers

2022 10-ft
Groundwater
Elevation Contours



0 0.75 1.5 3
Miles

Date: 1/12/2023

Changes between 2021 and 2022:

- Decline near coast of 3-6'
- Declines 10' near Castroville
- Decline near Espinosa Lake of 20-25'
- Deepening of East Side Trough by 10'
- Decline in levels up valley of 5-12'

CASTROVILLE

MARINA

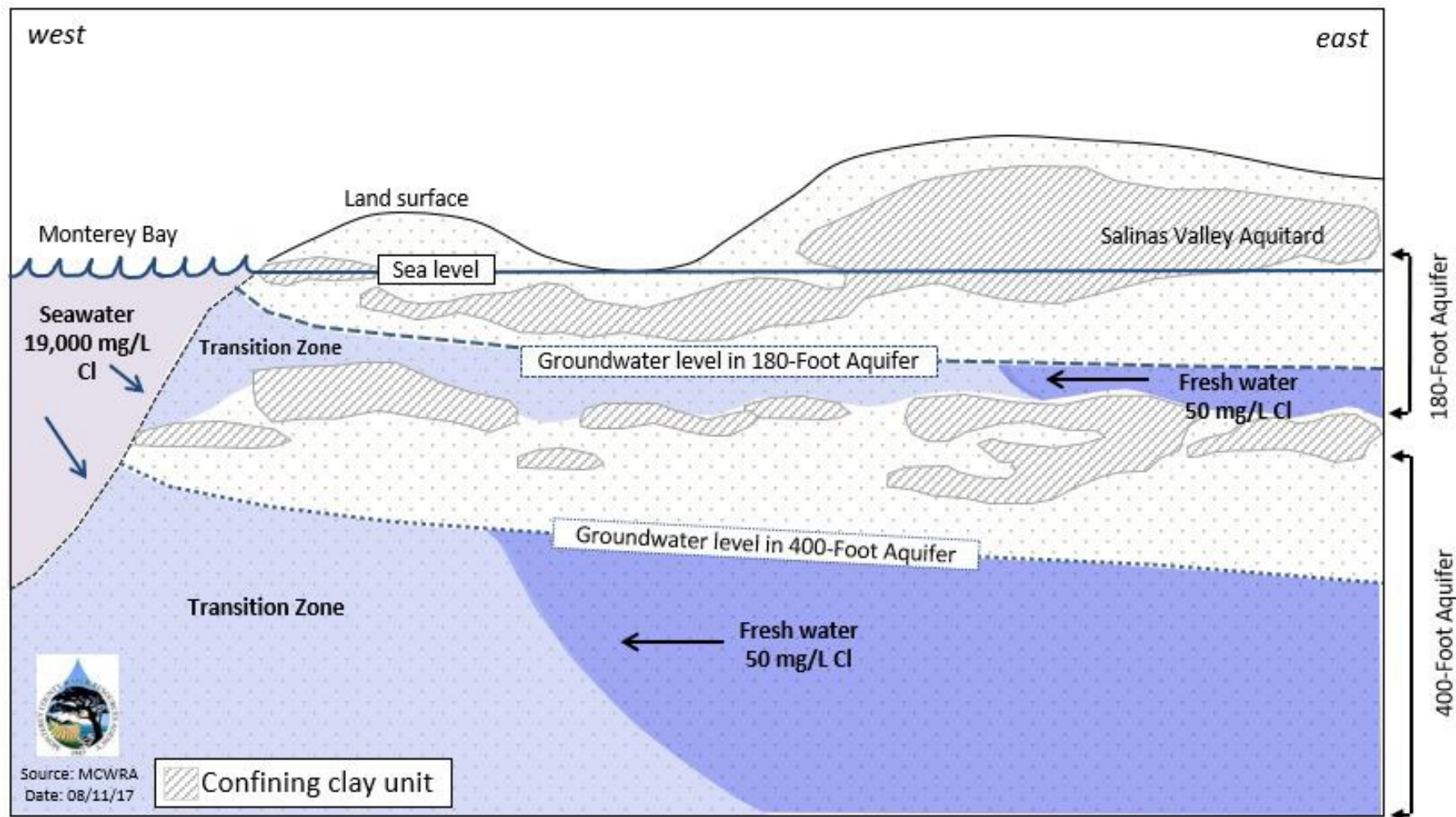
SALINAS

CHUALAR



2022 Seawater Intrusion Contours

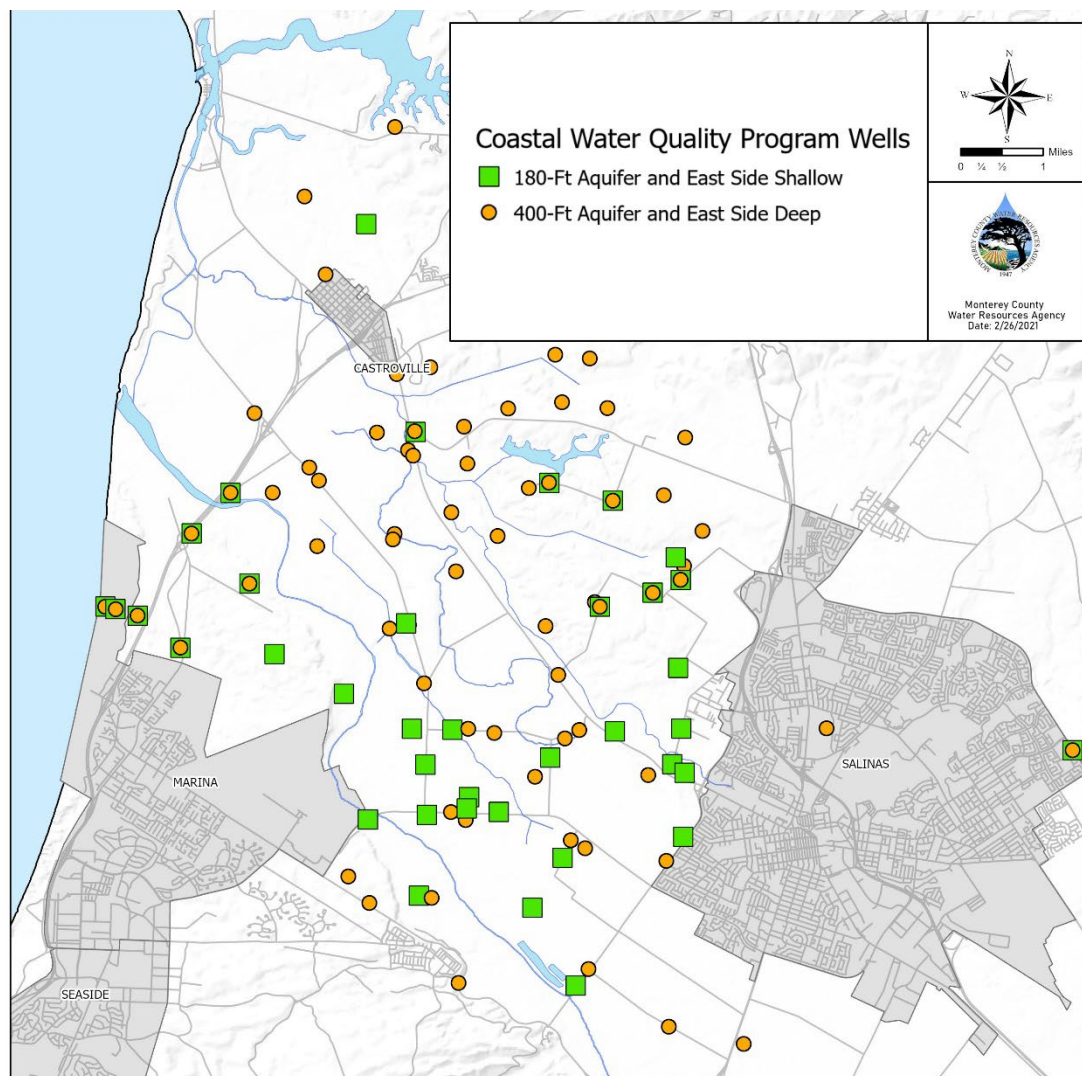
Seawater Intrusion – Transition Zone



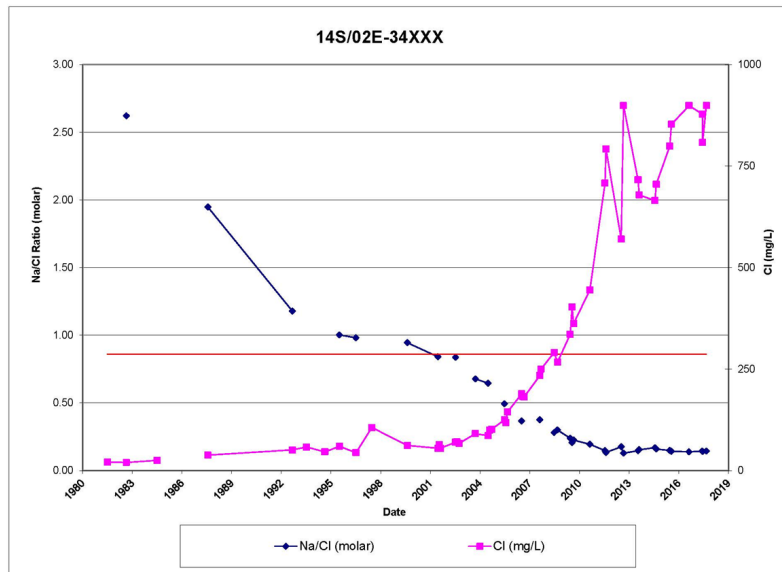
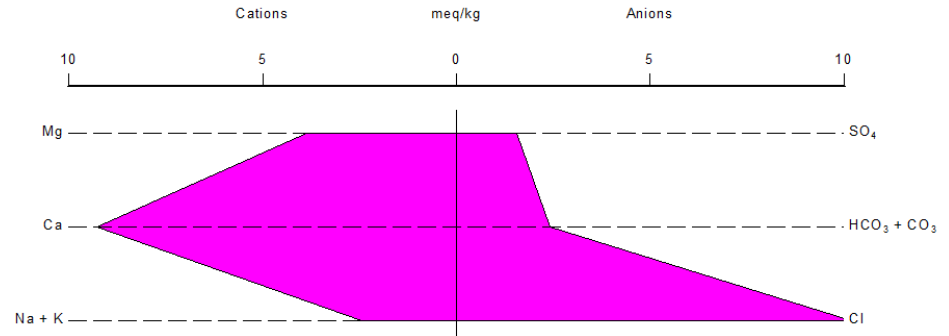
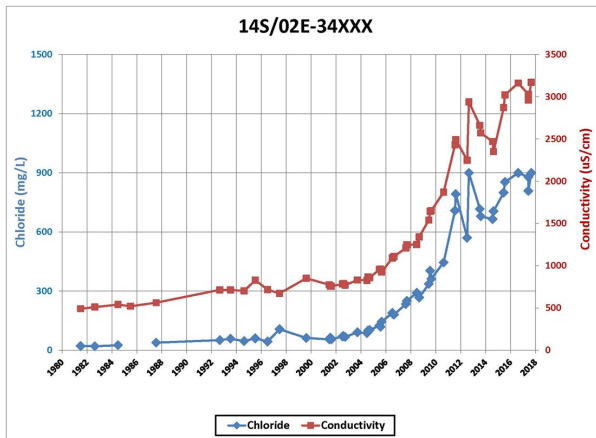
Seawater Intrusion – Monitoring Program

Groundwater Wells

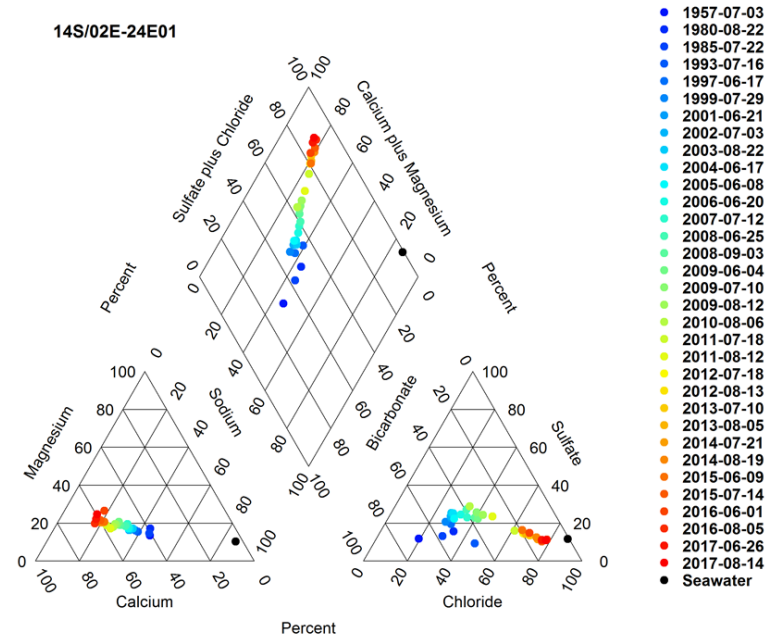
- Ag & Urban wells
- Dedicated monitoring wells
- Analyzed for Ag Waiver Panel (ELAP #1395)



Seawater Intrusion – Data Analysis



14S/02E-24E01



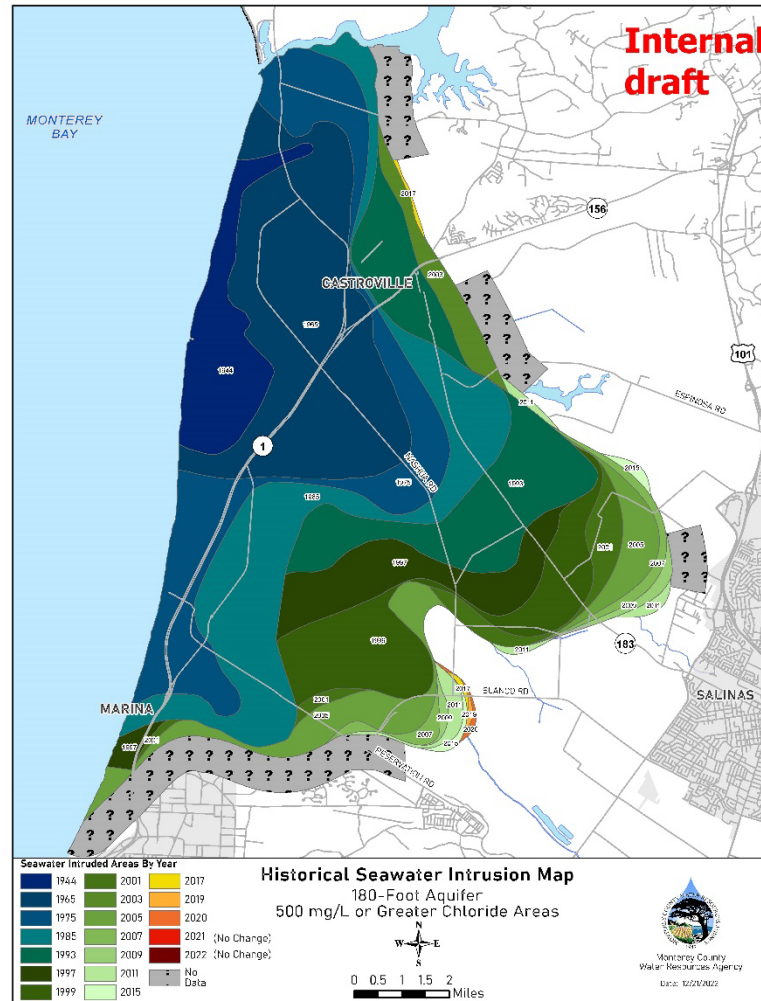
- 1957-07-03
- 1980-08-22
- 1985-07-22
- 1993-07-16
- 1997-06-17
- 1999-07-29
- 2001-06-21
- 2002-07-03
- 2003-08-22
- 2004-06-17
- 2005-06-08
- 2006-06-20
- 2007-07-12
- 2008-06-25
- 2008-09-03
- 2009-06-04
- 2009-07-10
- 2009-08-12
- 2010-08-06
- 2011-07-18
- 2011-08-12
- 2012-07-18
- 2012-08-13
- 2013-07-10
- 2013-08-05
- 2014-07-21
- 2014-08-19
- 2015-06-09
- 2015-07-14
- 2016-06-01
- 2016-08-05
- 2017-06-26
- 2017-08-14
- Seawater



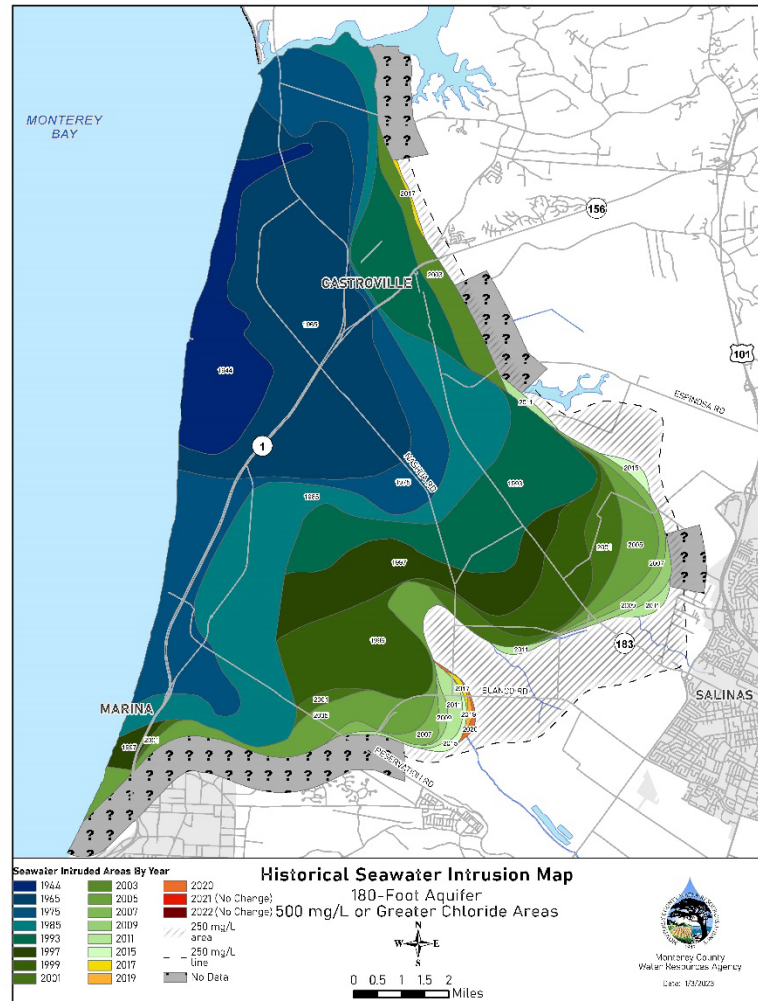
Seawater Intrusion – Data Analysis

- Data Development Process
 - Water Quality
 - Well Construction
 - Well Pumping Data
 - Groundwater Level Contours

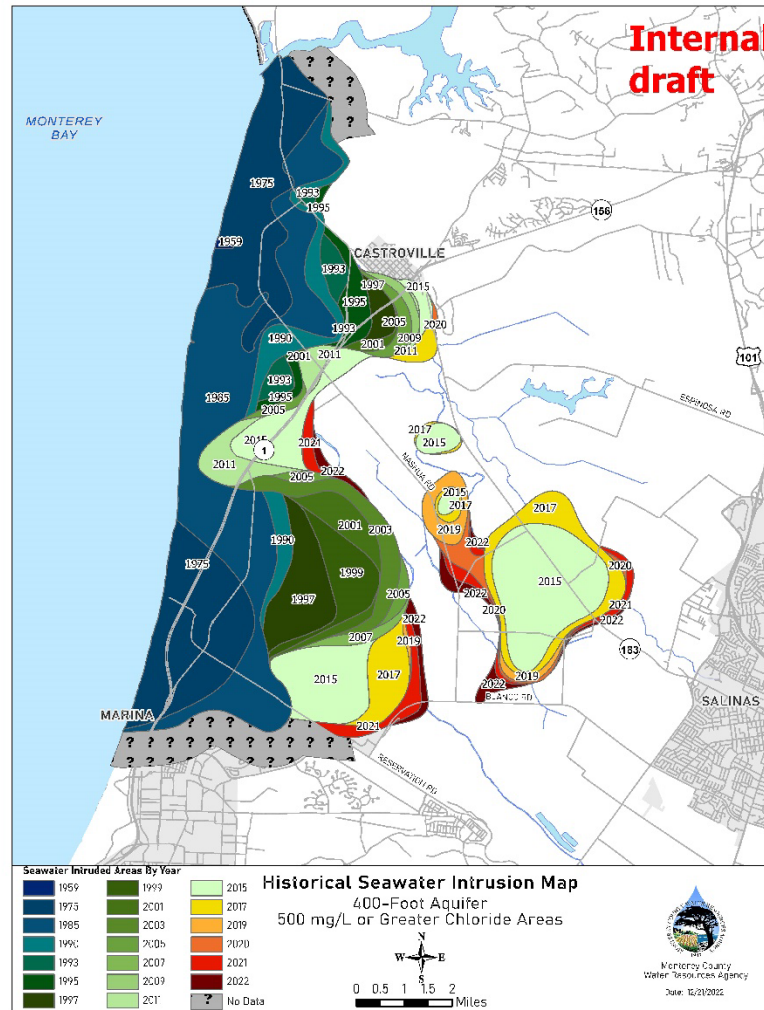
2022 180-Foot Aquifer 500 mg/L Chloride Areas



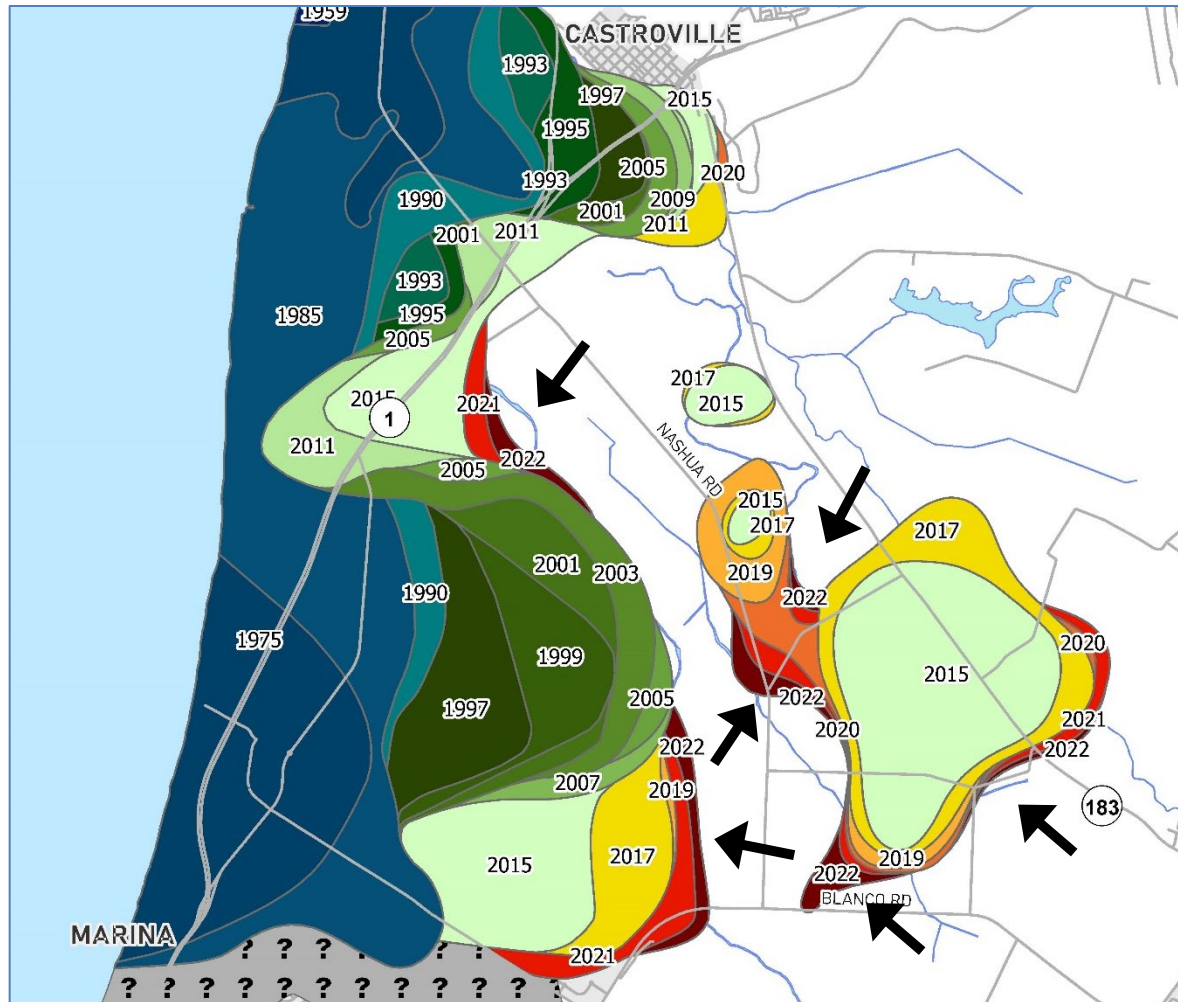
2022 180-Foot Aquifer 250 mg/L & 500 mg/L Chloride Areas



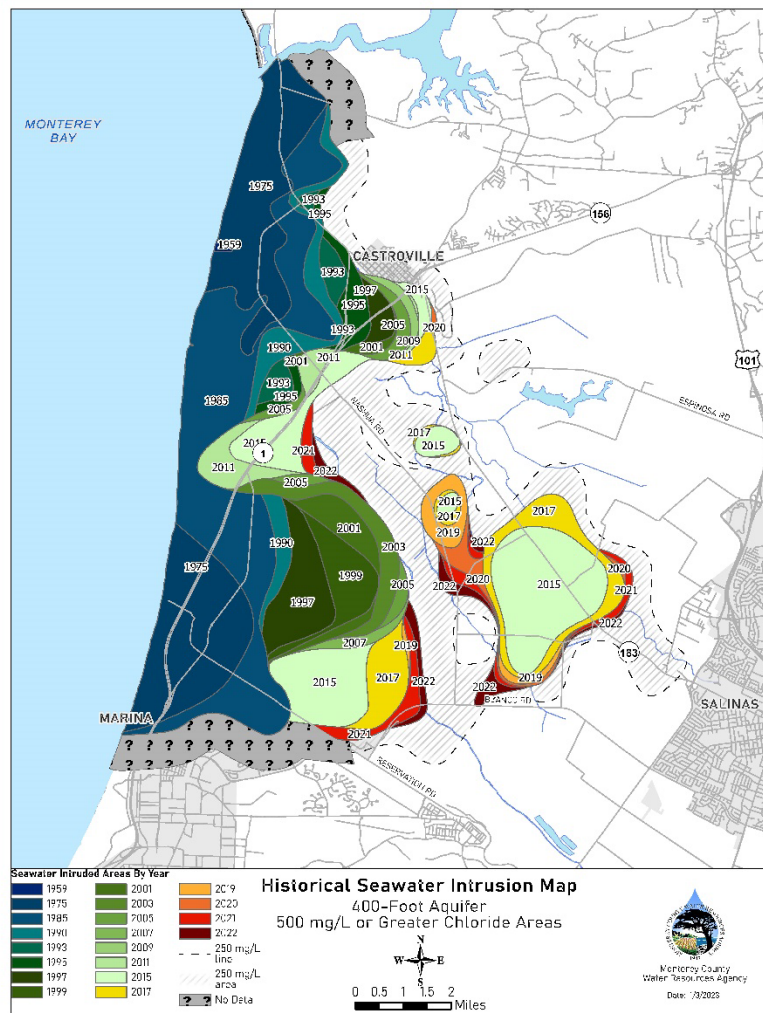
2022 400-Foot Aquifer 500 mg/L Chloride Areas



2022 400-Foot Aquifer 500 mg/L Chloride Areas



2022 400-Foot Aquifer 250 mg/L & 500 mg/L Chloride Areas





Conclusion

180-Ft Aquifer Contours

- No Advancement from 2021 Contours

400-Ft Aquifer Contours

- Some Lateral Advancement – Middle and Southern Lobe
- Expansion of the Large CI “Island” Continues
- Expansion at the “Arm” connecting Middle and Large Islands



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