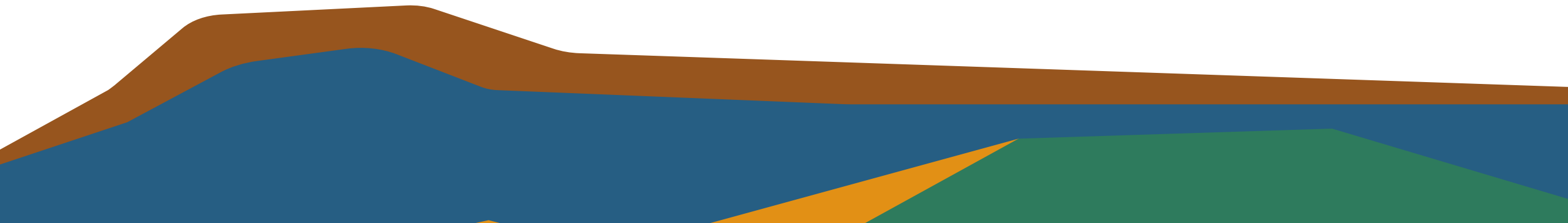




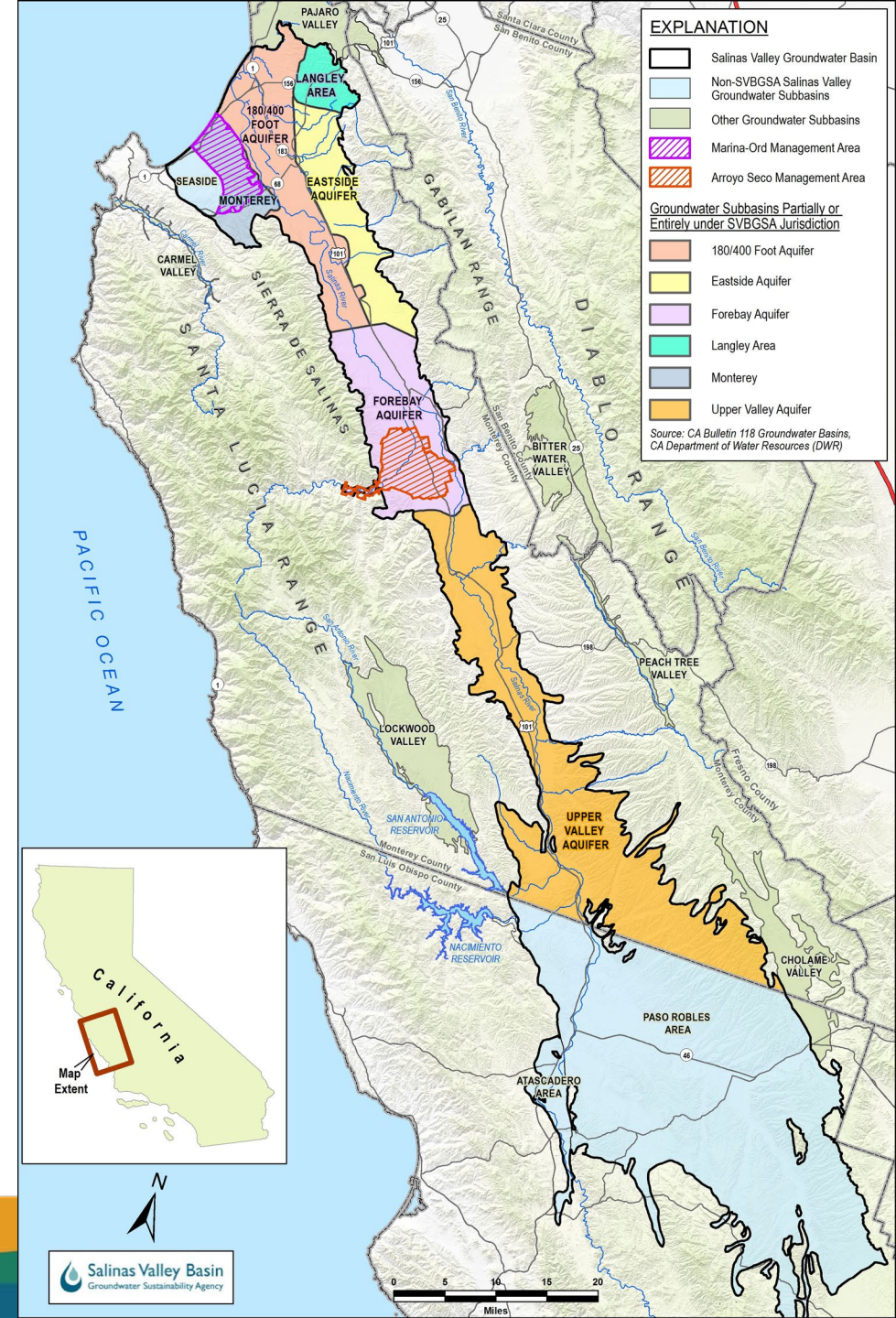
Sustainable Groundwater Management Act Perspective on Water Use Efficiency

2025 Irrigation and Nutrient Management Meeting
February 19, 2025



Salinas Valley Basin GSA

- Sustainable Groundwater Management Act (SGMA) passed in 2014
- 6 Subbasins & Groundwater Sustainability Plans
 - 180/400
 - Monterey
 - Langley
 - Eastside
 - Forebay
 - Upper Valley
- Partner GSAs
 - Marina Coast Water District GSA
 - Arroyo Seco GSA
 - County of Monterey GSA

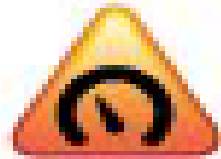


Groundwater Conditions and Management Challenges

- Groundwater Level Declines
- Seawater Intrusion
- Loss of Groundwater in Storage
- Dry Wells
- Nitrate contamination
- Naturally Occurring Arsenic
- Environmental Habitat Degradation
- Surface Water Pollution



Lowering
GW Levels



Reduction
of Storage



Seawater
Intrusion



Degraded
Quality



Land
Subsidence



Surface Water
Depletion

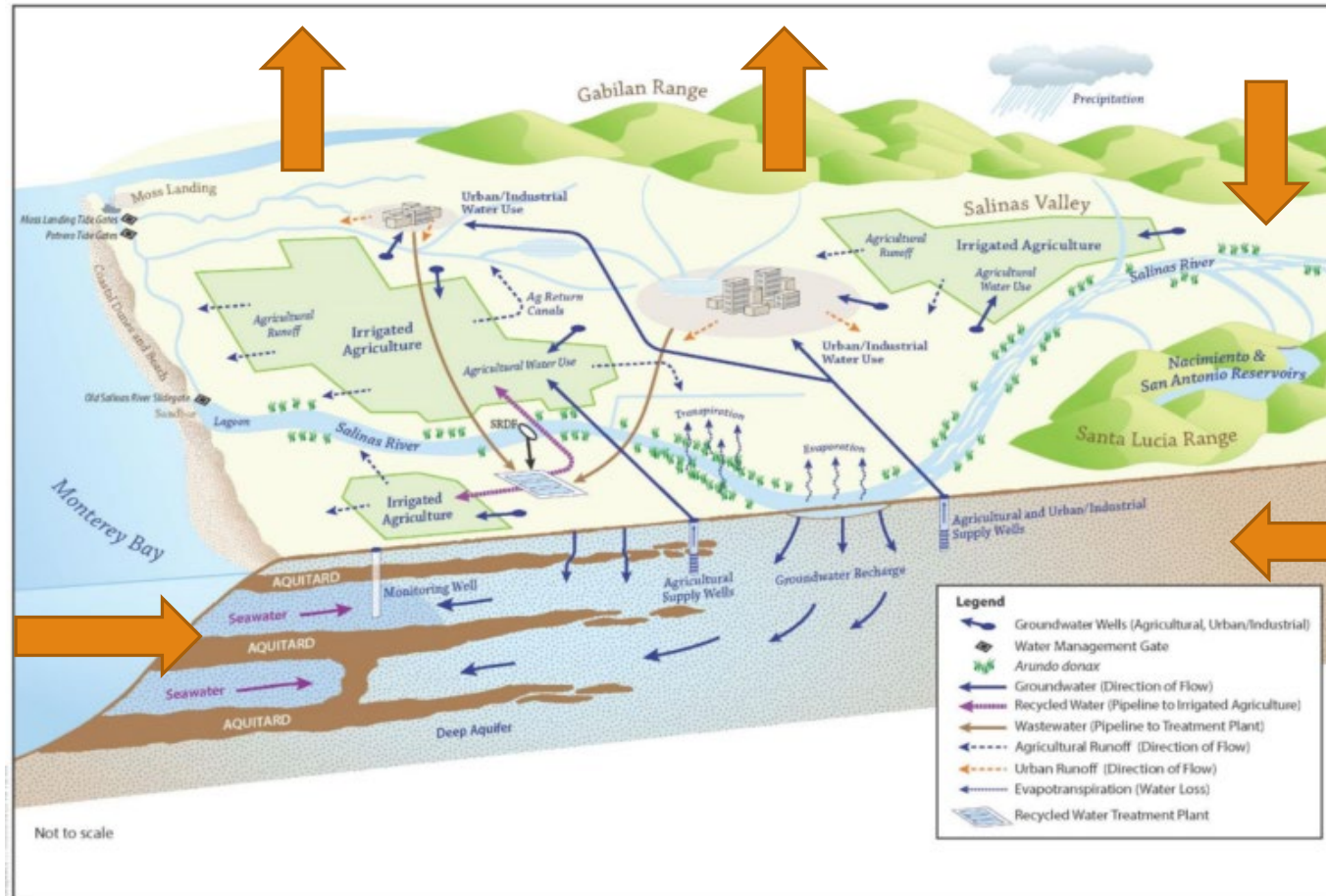


Water Budget and Sustainable Yield

Pumping
outflow

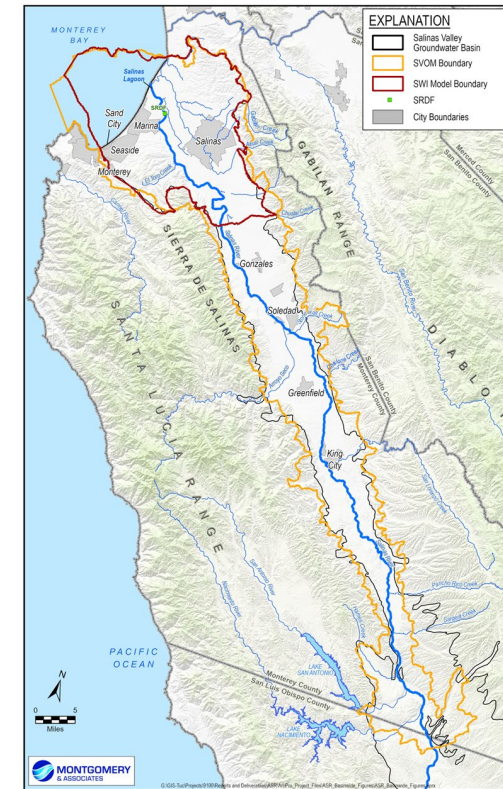
Evapotranspiration

Inflow from
stream,
precipitation,
irrigation

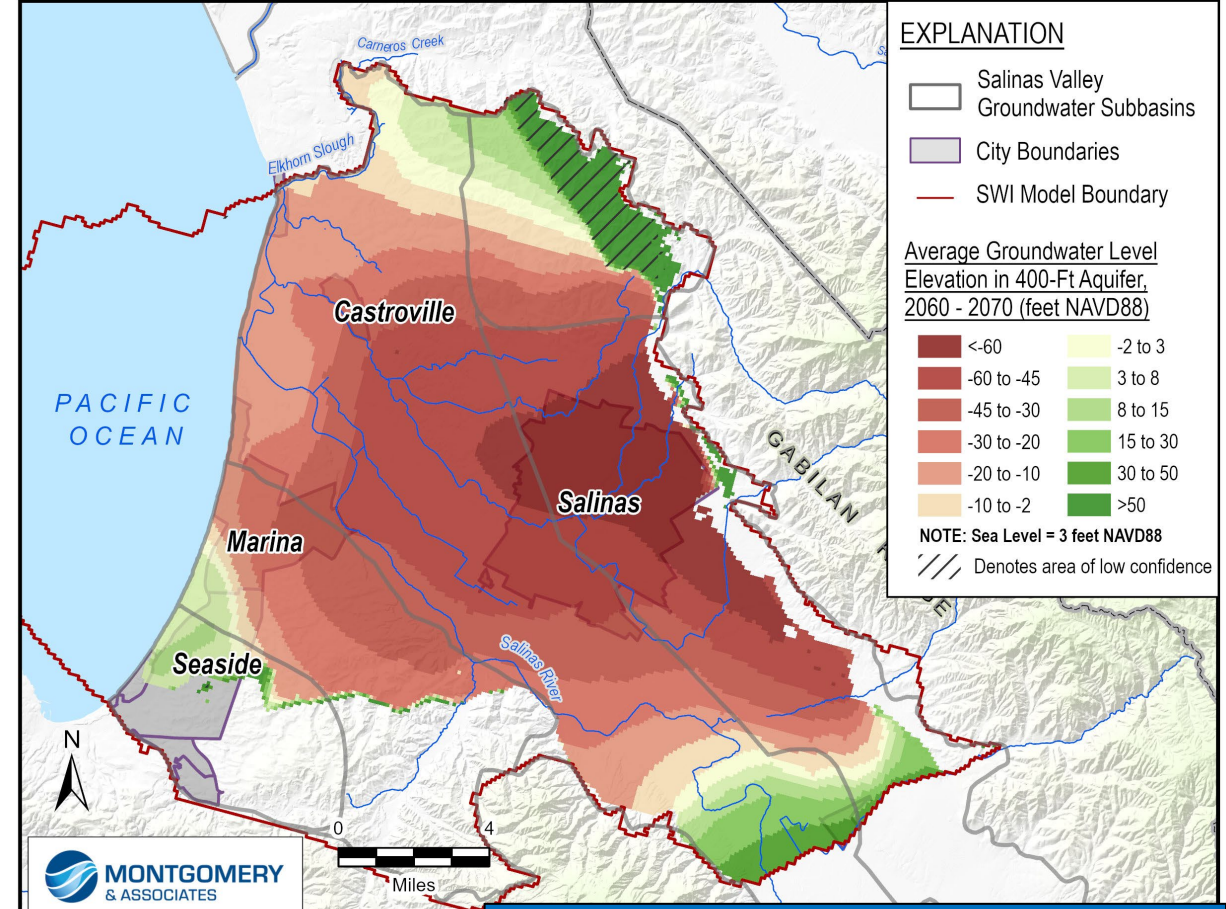
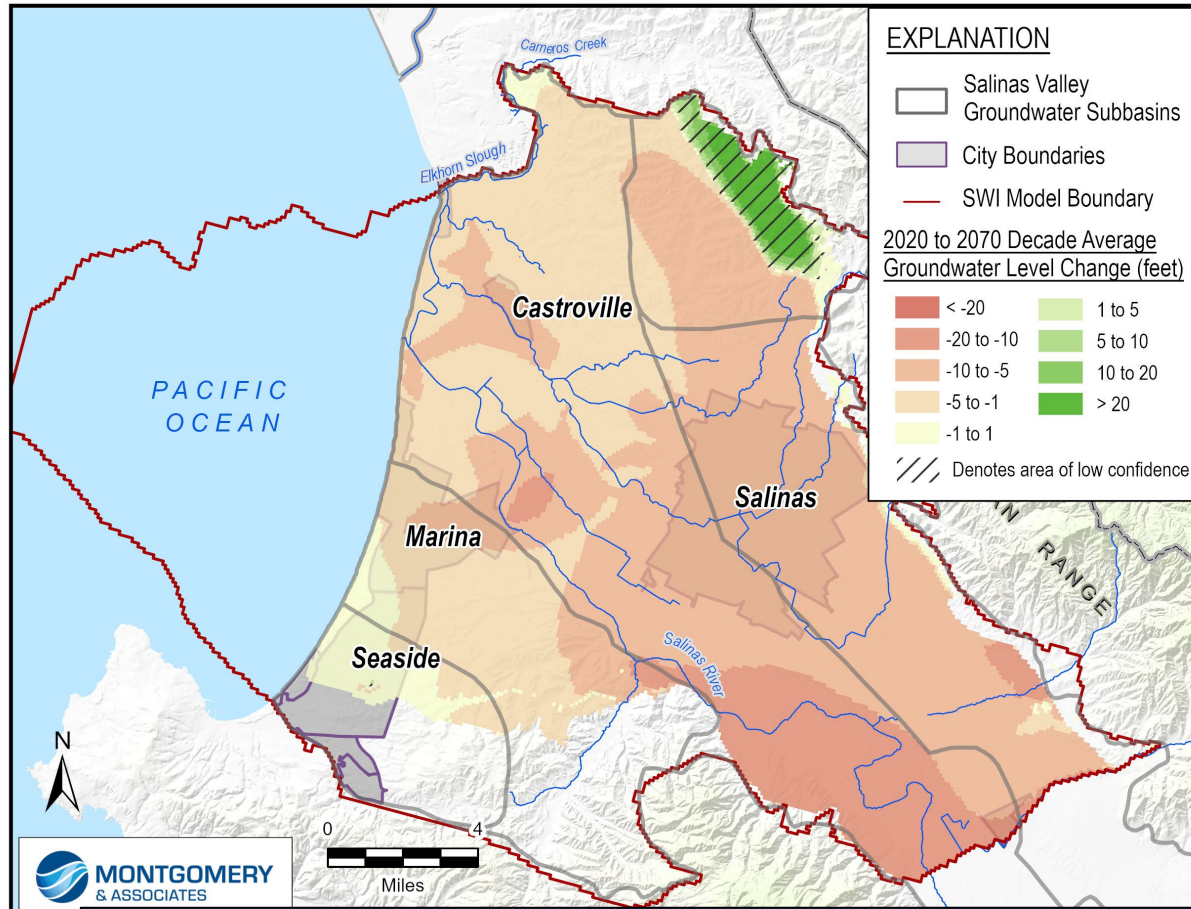


Seawater
inflow

Inflow/outflow
from adjacent
subbasins



Groundwater Levels 2070 No Project Scenario 400-Foot Aquifer

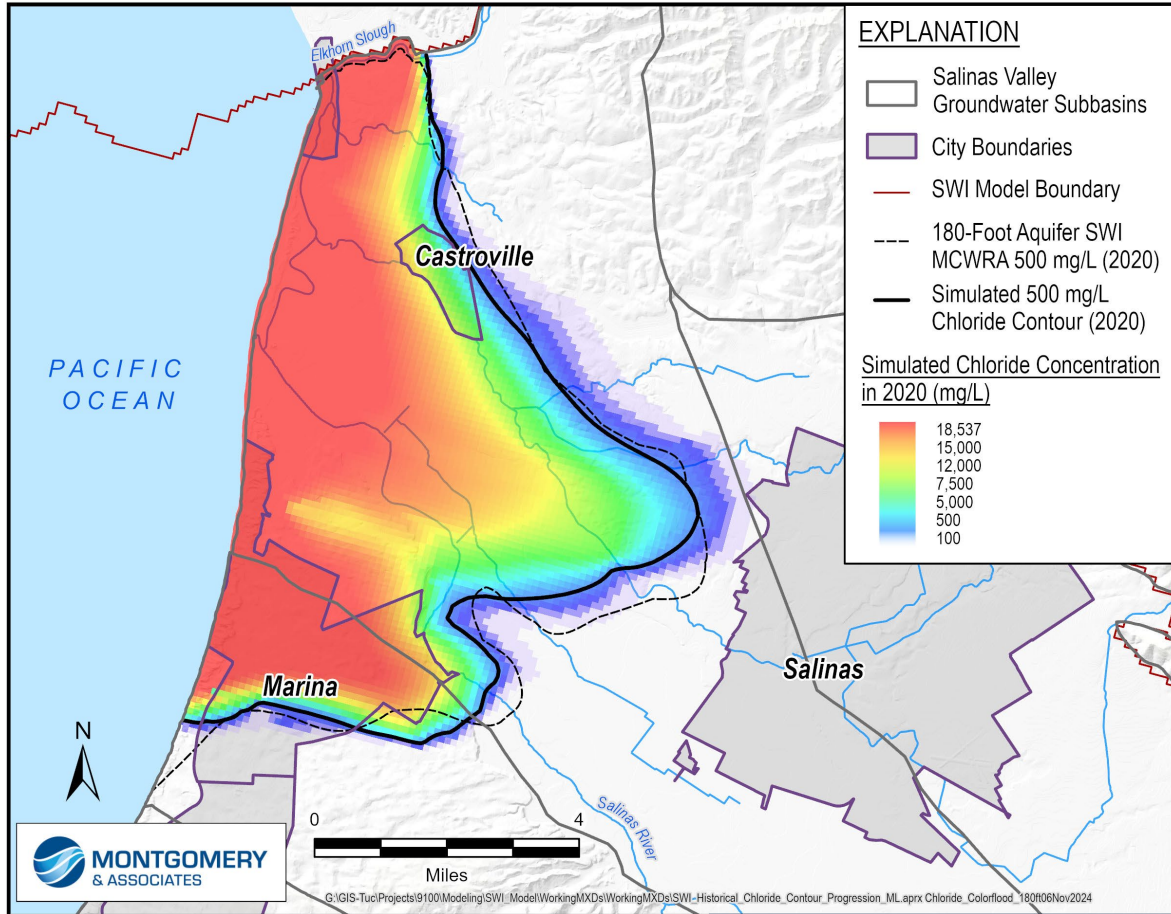


2020-2070 Groundwater Level

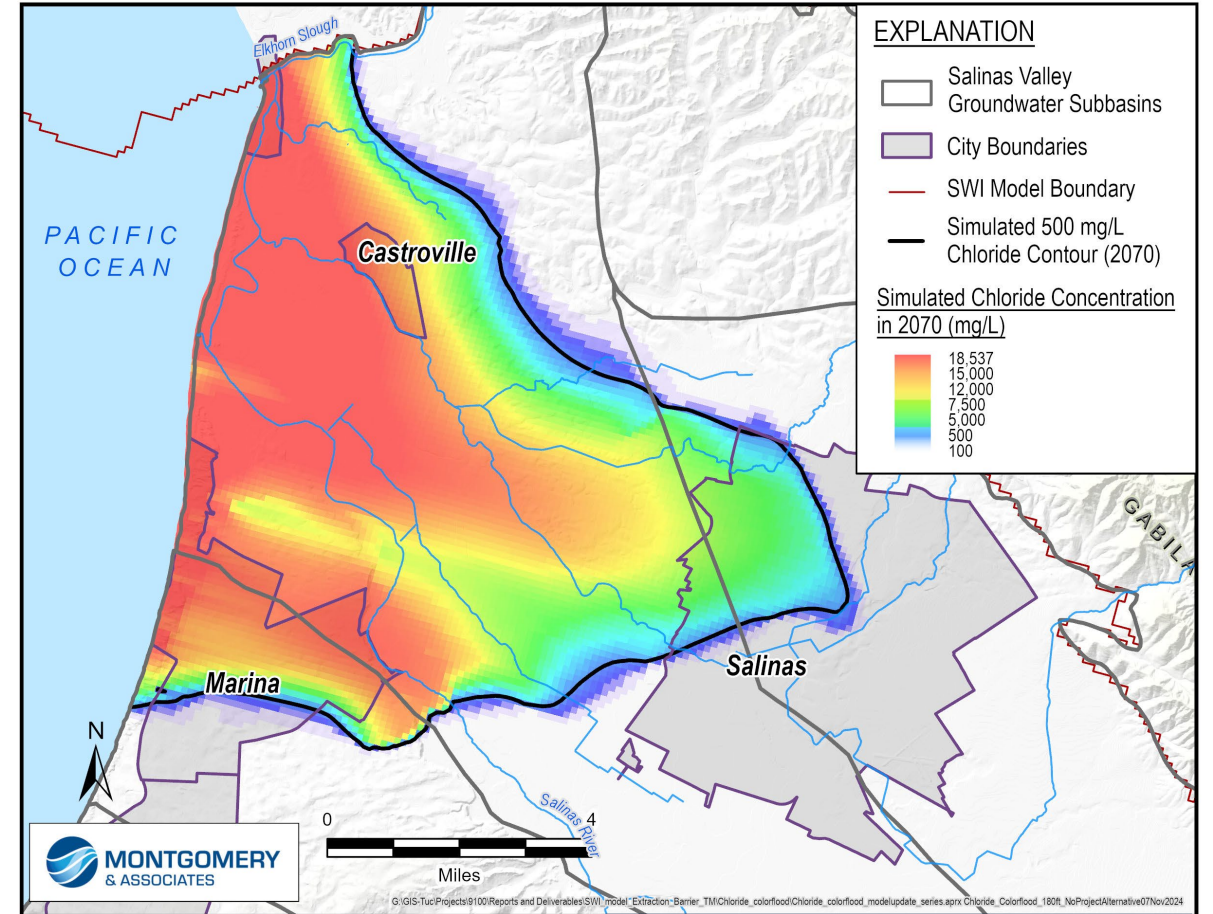
2070 Groundwater

2070 No Project Scenario

Chloride Concentrations: 180-Ft Aquifer

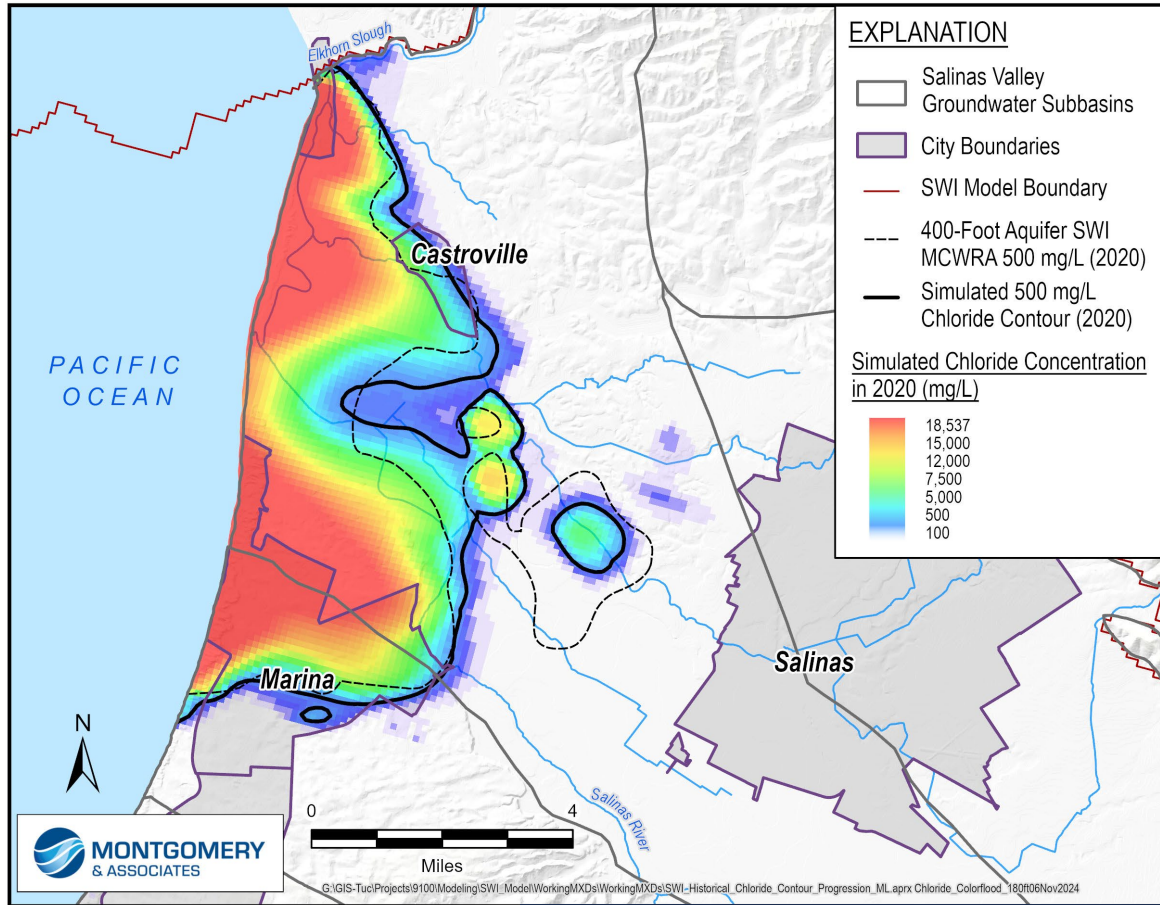


2020 Historical Model

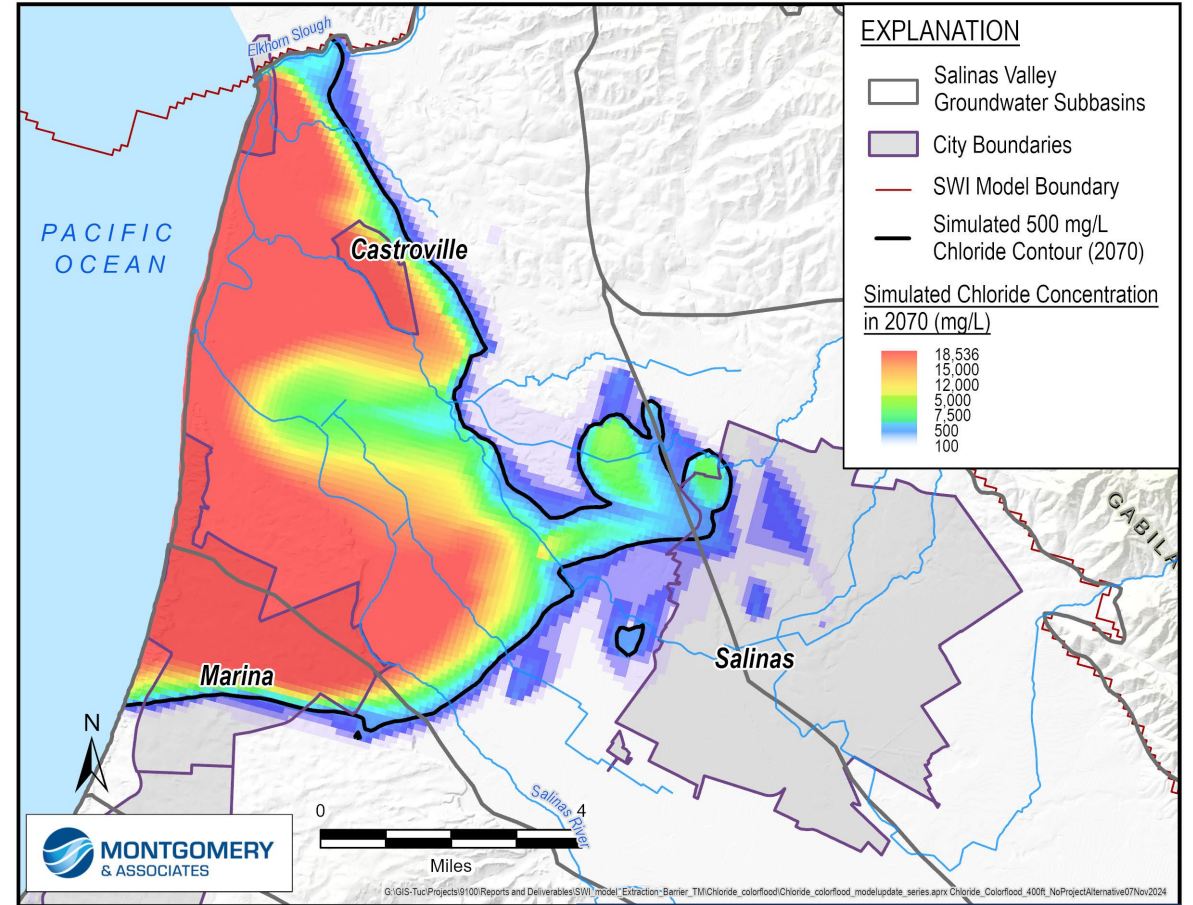


2070 No Project Alternative

2070 No Project Scenario Chloride Concentrations: 400-Ft Aquifer

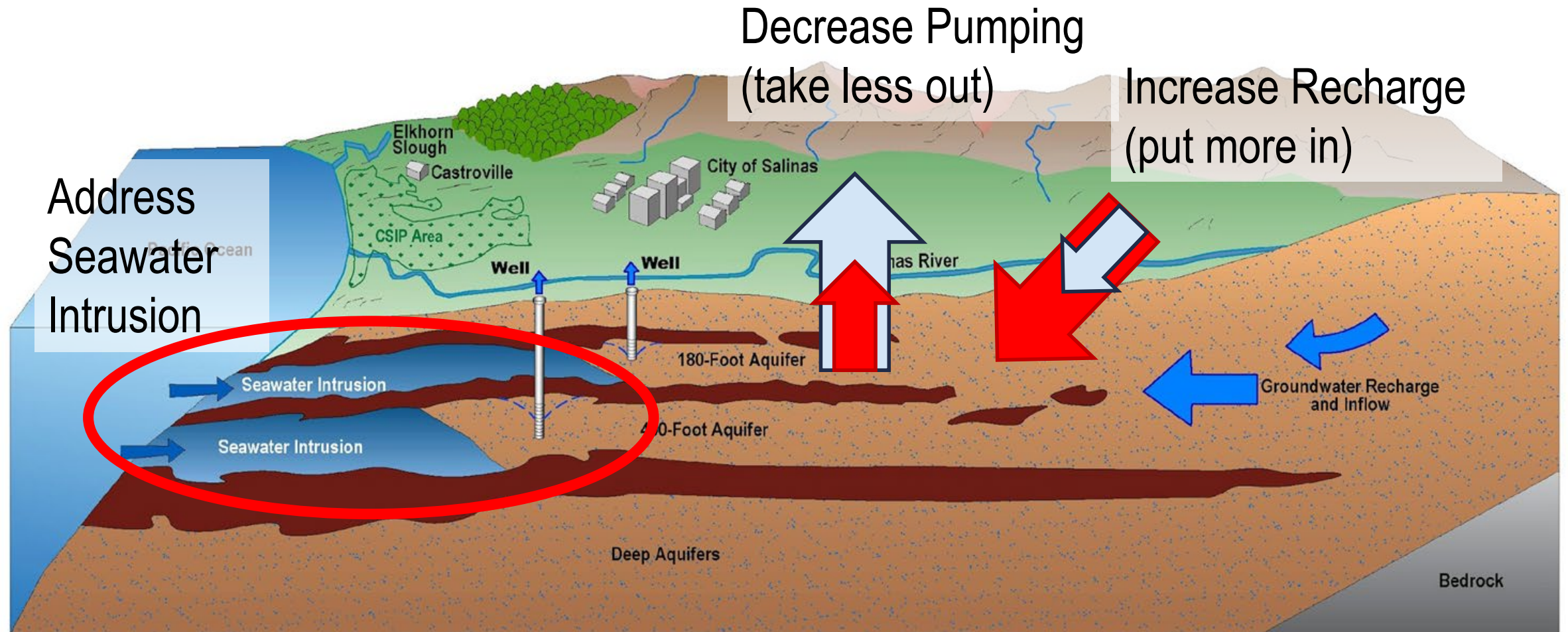


2020 Updated Historical Model



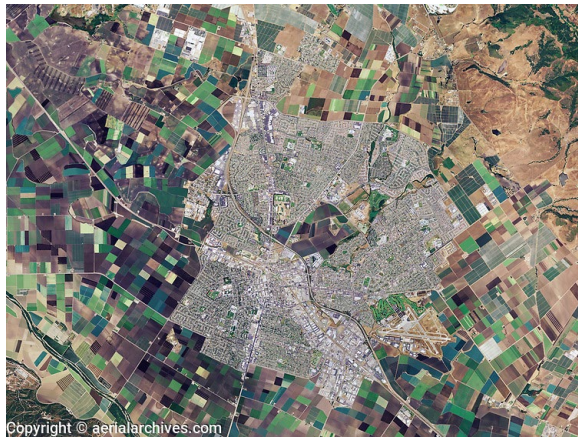
2070 No Project Alternative

Achieve Groundwater Sustainability



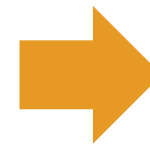
Focusing on How to Address Uncertainty and Scarcity

Existing Water System



Uncertainty and Unavoidable Challenges

Drought
Growth
Change in Demand Pattern
Infrastructure Failure



What Actions Can We Take as a Community?



All Actions are Not Equal

Temporary vs. Permanent

- Temporary actions addresses short term problems such as drought
- Permanent actions support other projects attaining long-term sustainability

Reliance of Benefits

- Some actions have the same benefit every year
- Some actions have variable annual benefits, depending on rainfall, public participation, etc.

All Actions are Not Equal

Voluntary vs. Obligatory

- Voluntary actions might be implemented by some people. Success relies on how many people implement the action.
- Obligatory actions requires all people to participate

Variable Cost

- Cost to implement
- Cost to maintain
- Cost to the local economy vs. cost to individuals

Promote Best Agricultural Practices

Water savings come from individuals investing in new practices or technologies

- Permanent
- Voluntary
- Low cost
- Recurring, but low benefit every year

LOW-COST ACTIONS



Questions and Comments

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