



SANTA CRUZ COUNTY  
ENVIRONMENTAL HEALTH

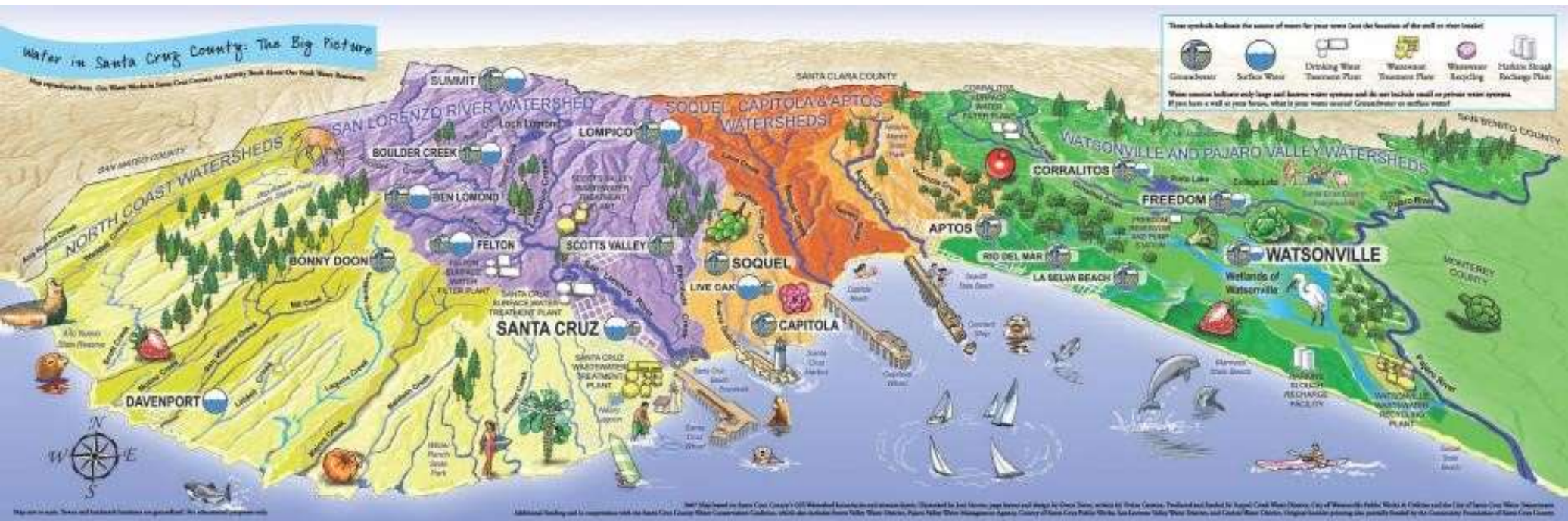


# Water Resources 101

Sierra Ryan, County of Santa Cruz Water Resources Manager

# Water Supply

# Water Sources in Santa Cruz



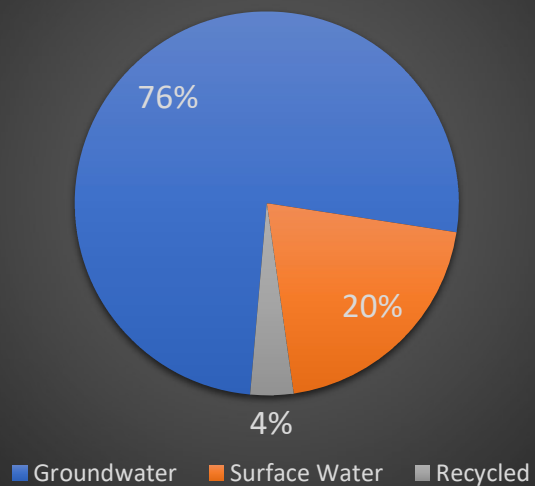
- Santa Cruz is not on any of the state water projects, we must solve our problems locally

# Current Water Supplies in Santa Cruz County

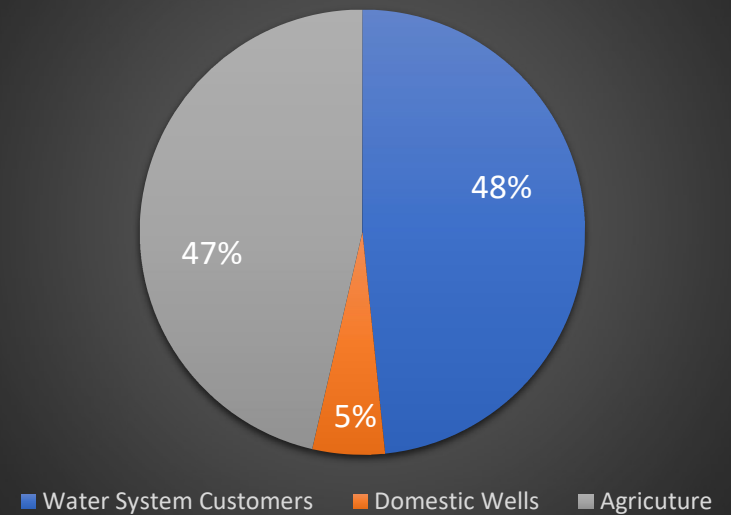
- Local surface water and groundwater basins
- Limited recycled water (currently irrigation only)



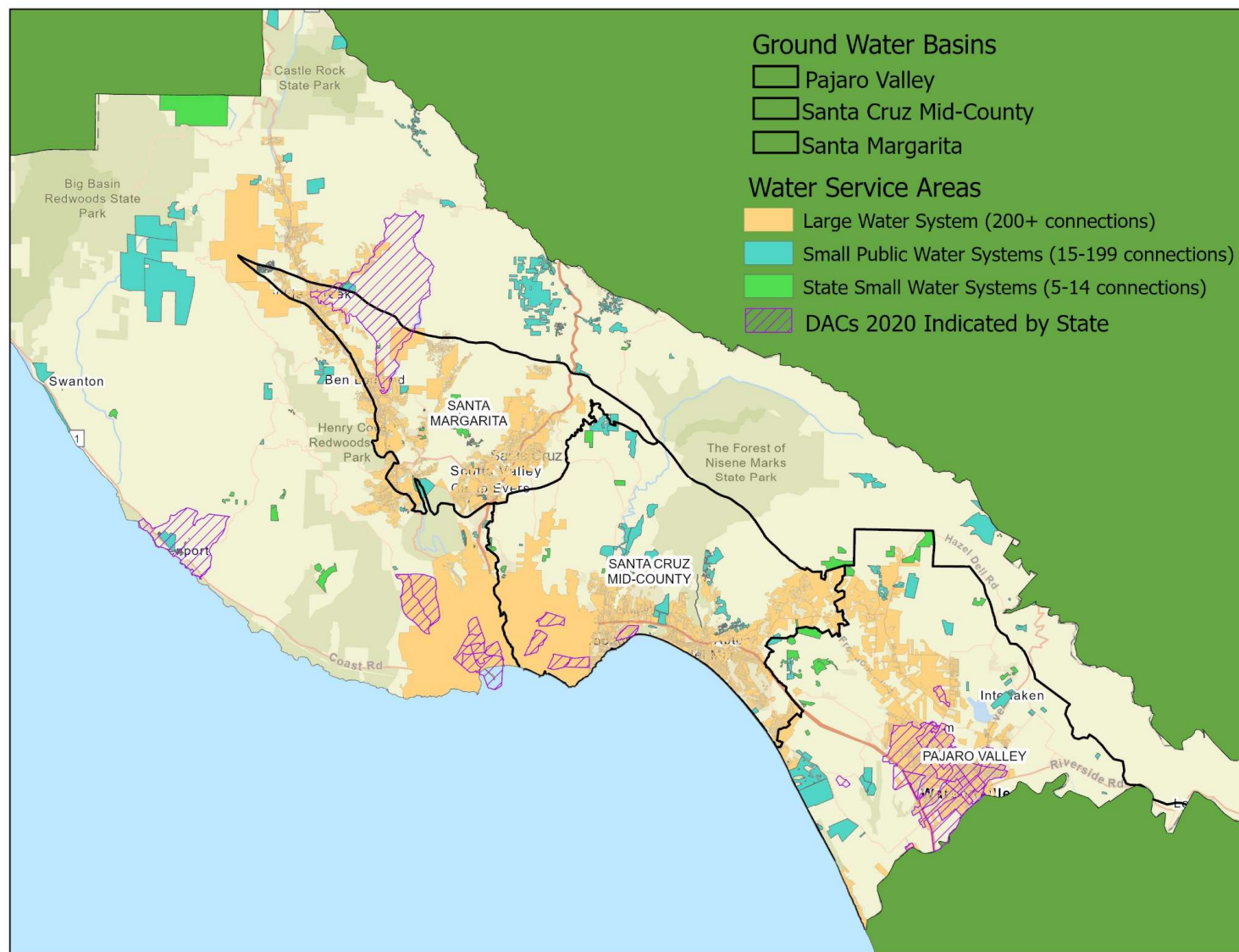
## Water Source

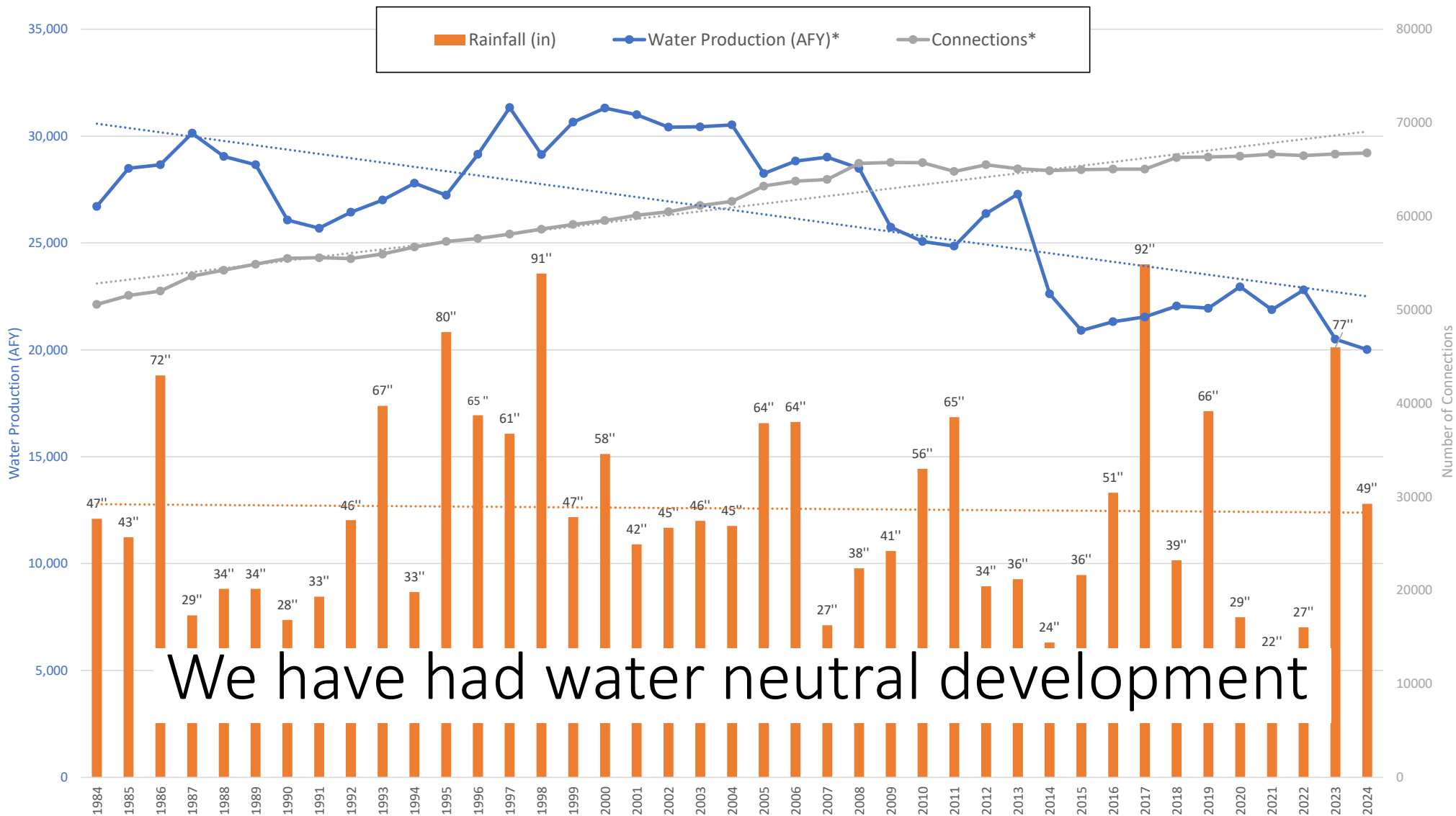


## Water Use



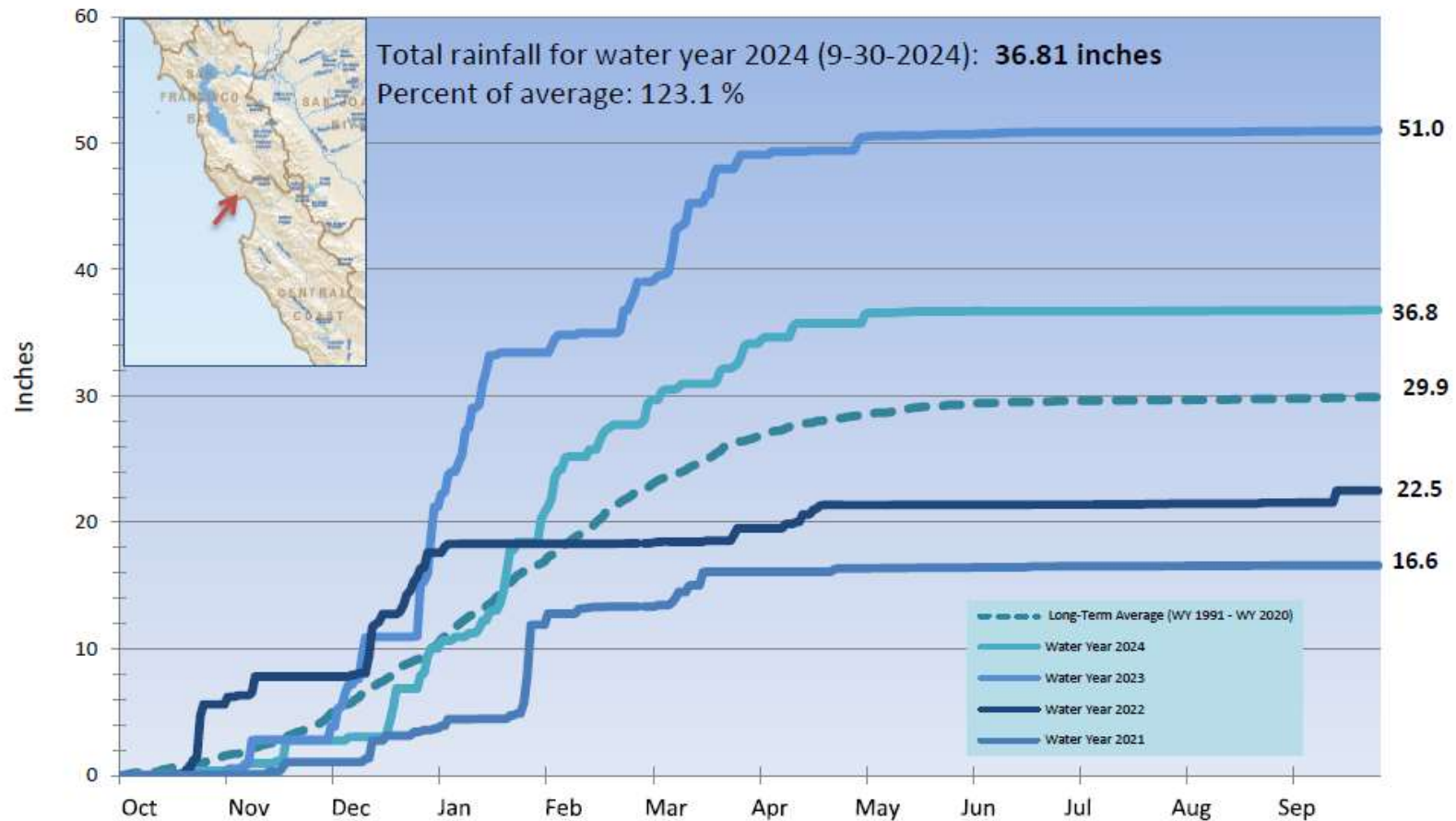






# Surface Water Variability

## Cumulative Precipitation, Santa Cruz, CA Water Year 2024



<https://www.cityofsantacruz.com/government/city-departments/water/weekly-water-conditions>

# Regional Supply Deficiencies



Overdraft and seawater intrusion in Pajaro Valley



Overdraft and seawater intrusion in Santa Cruz Mid-County



Overdraft in Scotts Valley likely impacting habitat



Drought deficiency and more water reserved for fish for Santa Cruz



Individual wells: salt water and nitrate in Pajaro and Seascapes, declining water tables in Bonny Doon, Summit



# Anticipated Climate Impacts



- Droughts become more frequent and more severe
- Rain comes in big events leading to more runoff
- Increased evapotranspiration increase agricultural, riparian habitat, and landscape water demands.
- Extended growing season and increase water demand
- Reduction in fog leads to warmer days

# Strategies Being Pursued



Expanded monitoring and modeling



Ensure maximum efficiency of water usage



Expand conjunctive use to optimize surface and groundwater supplies



Develop recycled water for potable and non-potable uses



Transfers and Recharge of Surface Water



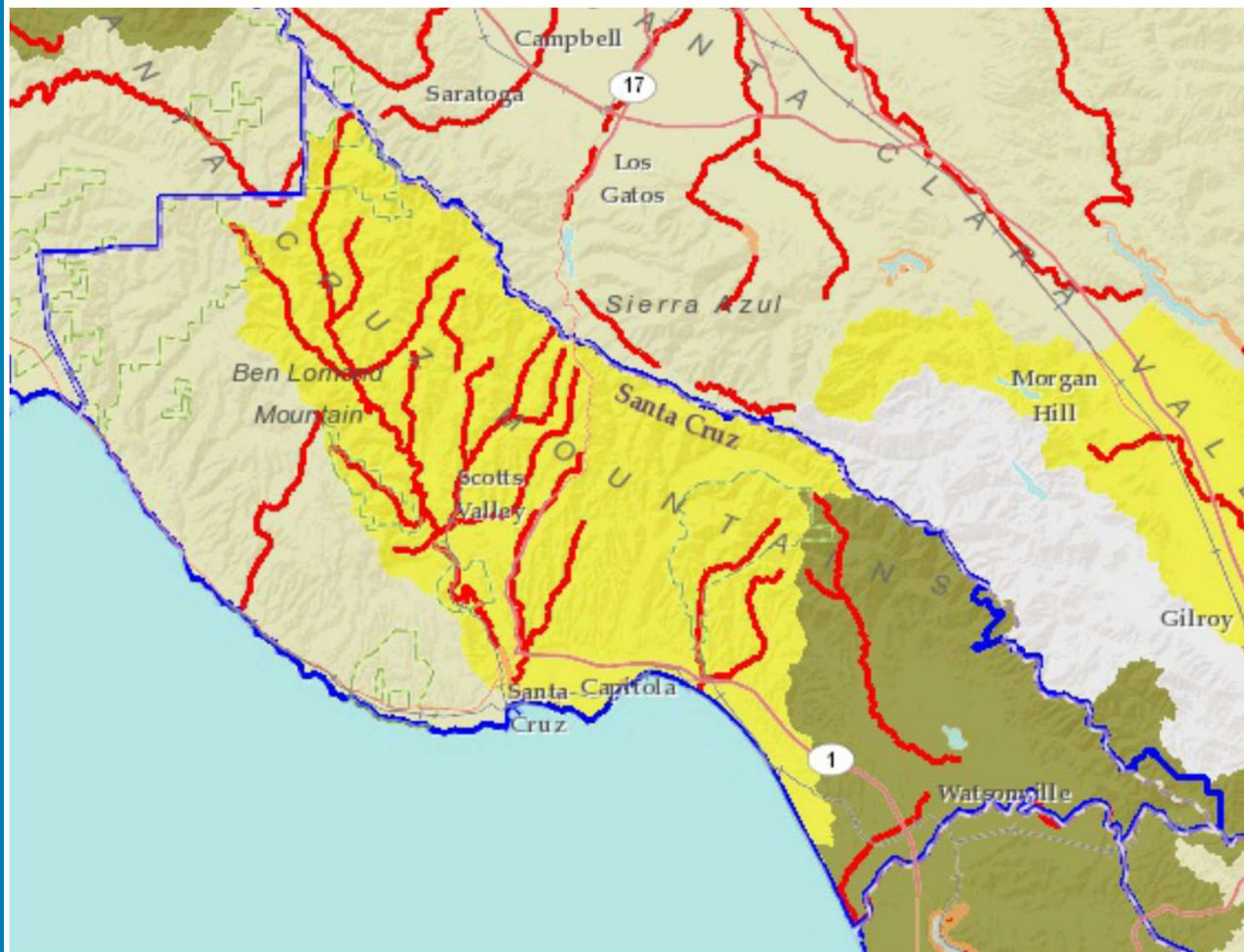
Direct Potable Reuse and Desalination are still on the table



LID/ Slow it, Spread it, Sink it; Nature Based Solutions;

Is Our Water Clean?

# Impaired Surface Water

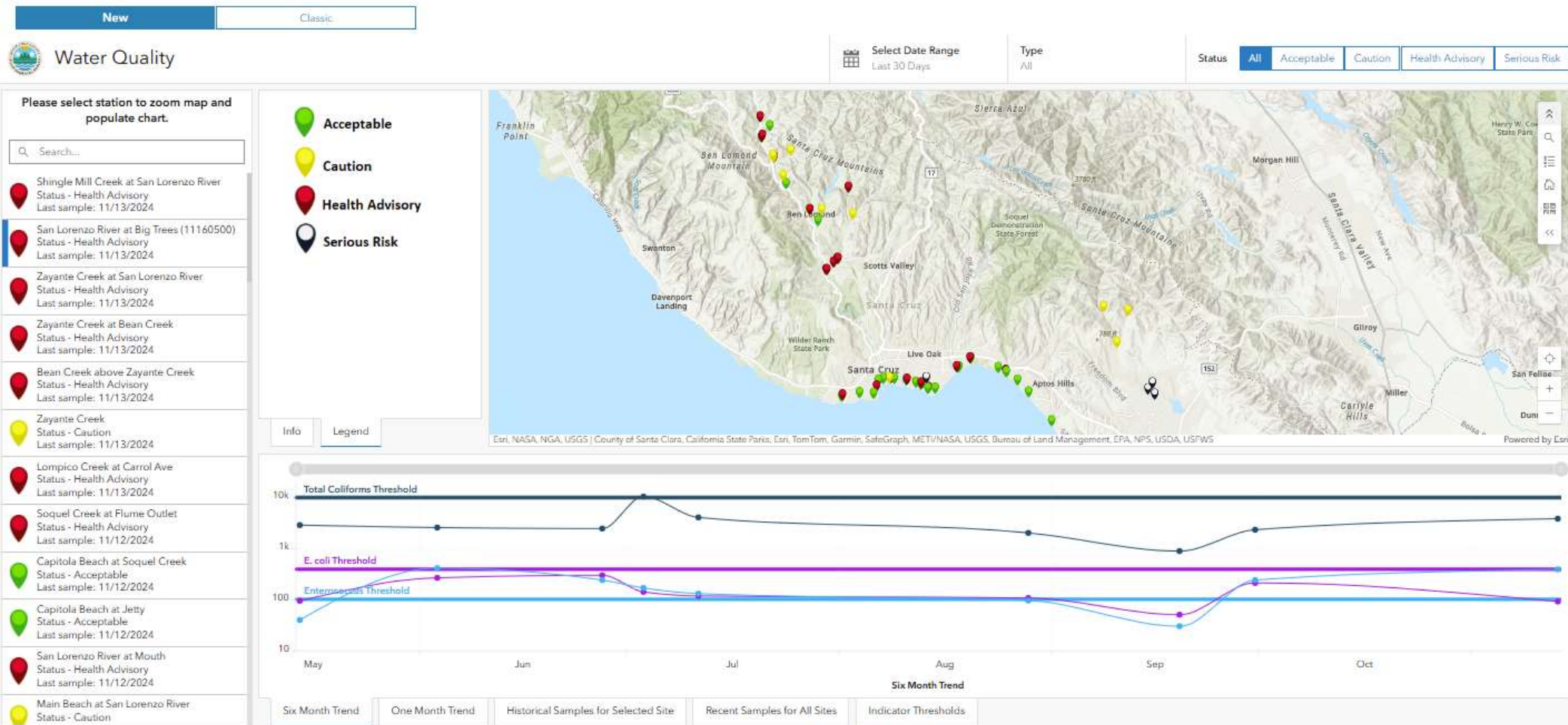


## Legend

- California Counties (as of 2019)
- All 303d listed waterways in California (linear)
- All 303d listed water bodies in California (polygon)

**CAUSES for listing a waterbody on the US EPA's 303d list by HUC 10 watershed**

- 0
- 1 (low threat, 1 - 4 CAUSES for pollutants)
- 2 (medium threat, 5- 8 CAUSES for pollutants)
- 3 (high threat, 9 - 14 CAUSES for pollutants)



<https://scceh.com/NewHome/Programs/WaterResources/SurfaceWaterStewardship/WaterQualityMonitoring/SurfaceWaterQuality.aspx>



# Impaired Groundwater

## Water Quality Risk

- High risk (water quality above MCL)
- Medium risk (water quality 80-100% of MCL)
- Low risk (water quality <80% of MCL)
- No Data

# Harmful Algae Blooms

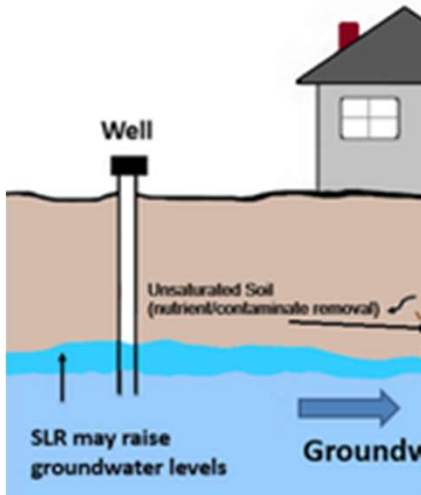
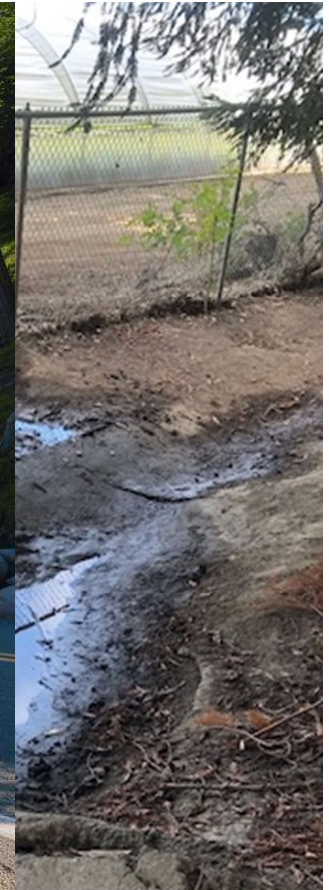
*Cyanobacterial blooms at Corcoran Lagoon, summer 2024*



*Cyanobacterial blooms at Pinto Lake (right), summer 2024*



# Sources



# Who Lives in Our Water



Ste



Legend

- Unknown
- Human
- Natural
- Steep
- stream
- Barrier/Human
- Barrier/Natural
- Steelhead/Coho and
- SC County
- and Limited Coho
- and Coho
- High Flow
- inbow







**Common:** 76 - 100% of all sampled years

**Frequently present:** 51 - 75% of all sampled years

**Occasionally present:** 26 - 50% of all sampled years

**Rare:** >0 - 25% of all sampled years

No fill: Absent



Select a species:

Pacific giant salamander

Select year ranges to plot:

1981

2021



# Questions?

Thank You

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