

2023 Santa Barbara County Water Supply Update



October 3, 2023

Matt Young
Santa Barbara County Water Agency



Historical Rainfall Record

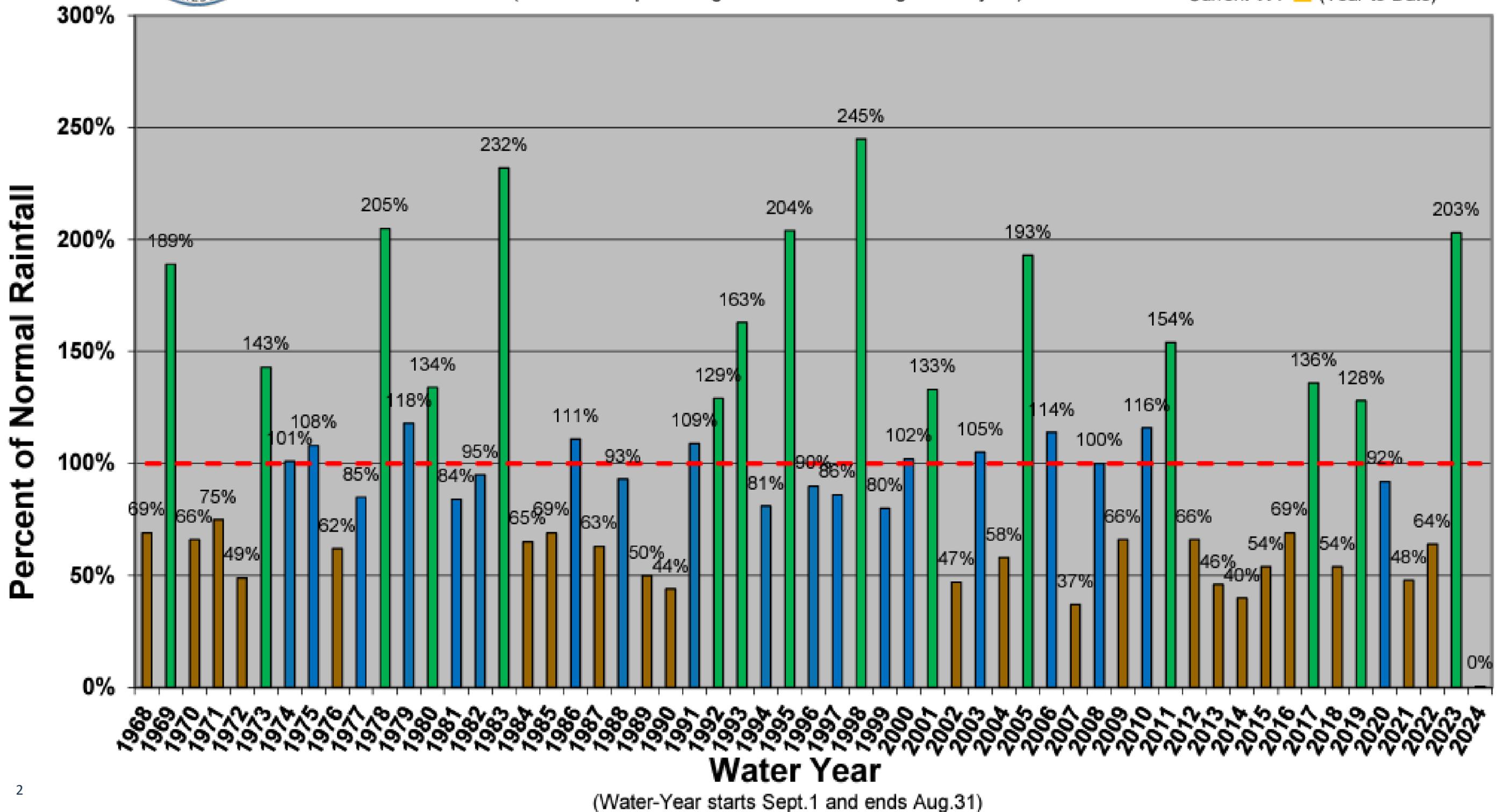


Countywide Percent-of-Normal Water-Year Rainfall

Updated through September 12, 2023

(Rainfall as a percentage of an entire average water-year)

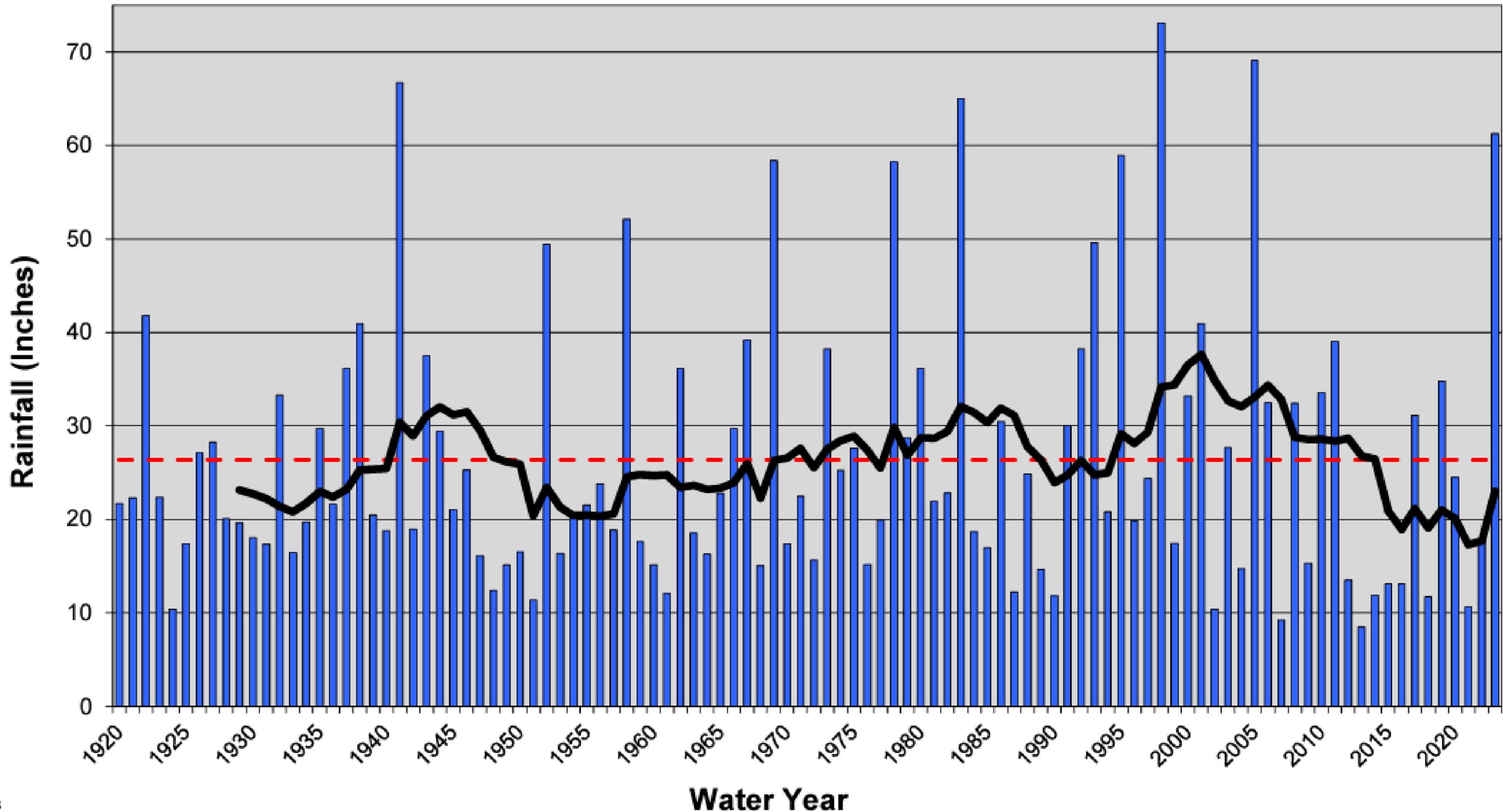
- Wet Years ■ (>120% Normal Rain)
- Dry Years ■ (< 80% Normal Rain)
- Avg Years ■ (within $\pm 20\%$ Normal)
- Current WY ■ (Year-to-Date)



Historical Rainfall Record



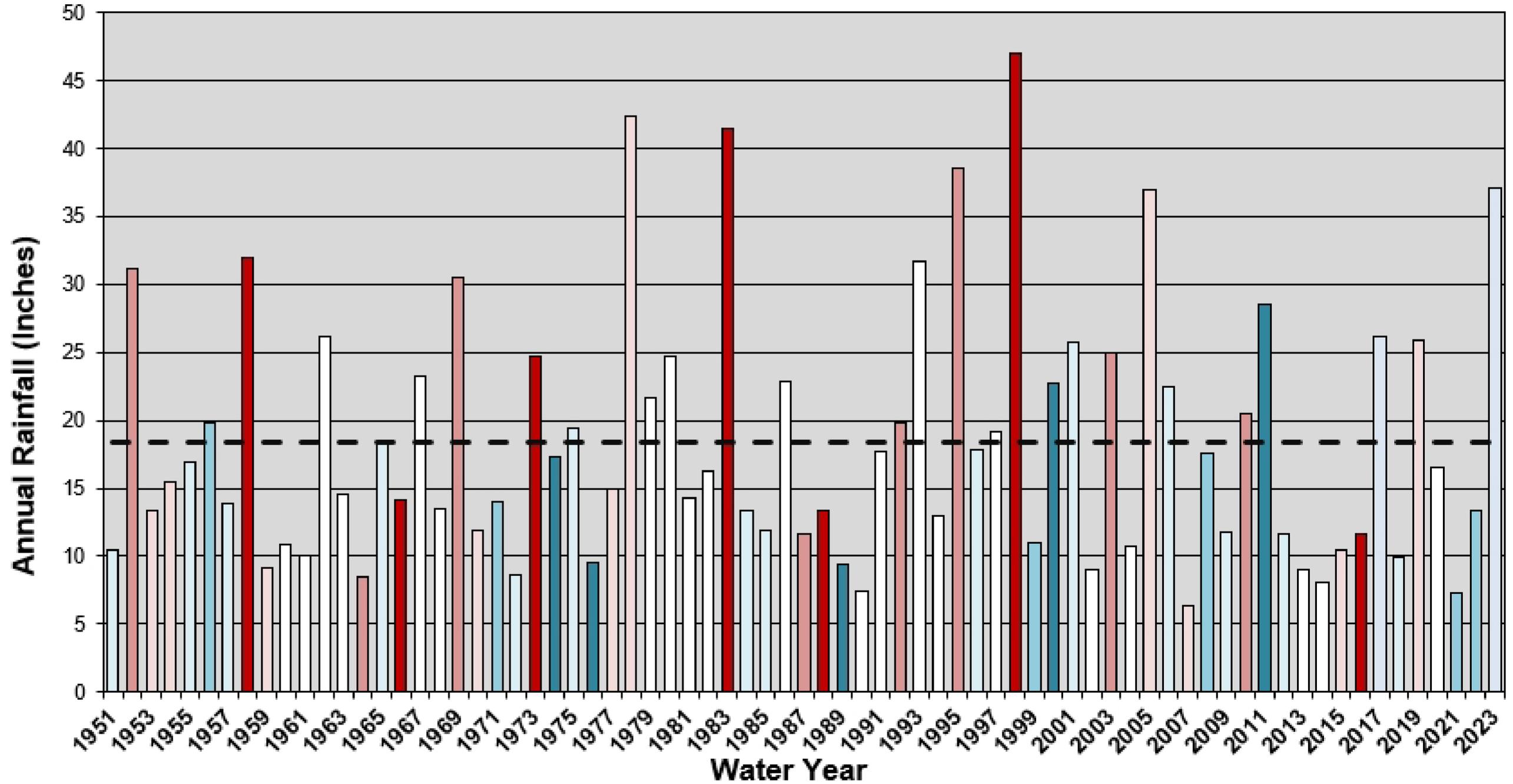
Gibraltar Dam - Rainfall 1920 - 2023 (104 years) Annual, Mean, and 10 Year Moving Average (Mean = 26.38", through Sept 12, 2023)



Water Year 2024, What will El Niño Bring



Santa Barbara - Annual Rainfall El Niño & La Niña Years 1951 - 2023 (Mean Annual Rainfall = 18.39 inches)



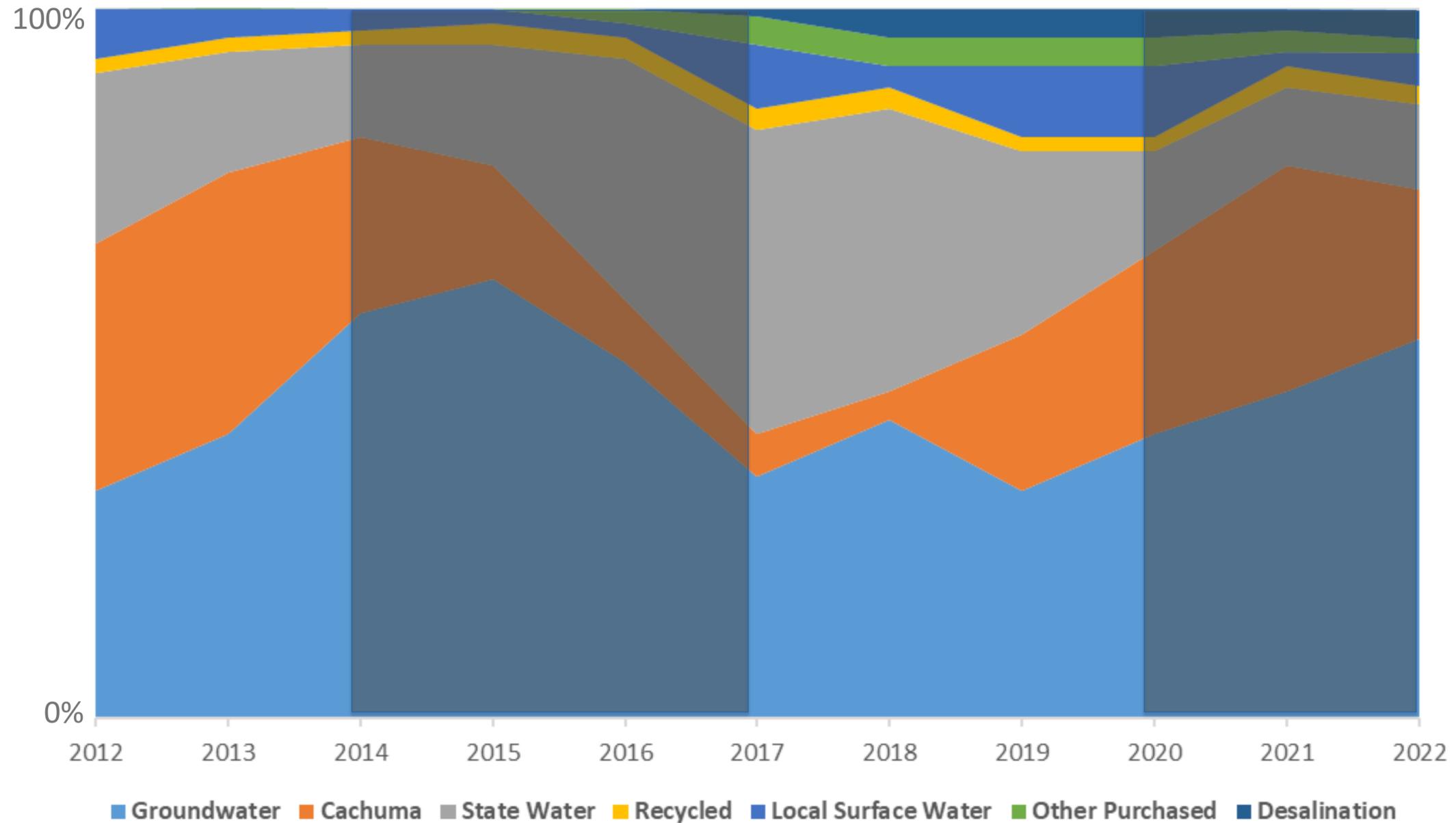
(Water Year runs from Sept 1 through Aug 31)

	El Niño			La Niña			Neutral
ENSO Condition	Strong	Moderate	Weak	Strong	Moderate	Weak	White

Source: Rainfall Data - County of Santa Barbara, El Niño/La Niña Data - NWS CPC

Countywide Public Water Systems Water Supply Portfolio 2012-2022

SANTA BARBARA COUNTY PUBLIC WATER SYSTEM 2012-2022 WATER PRODUCTION



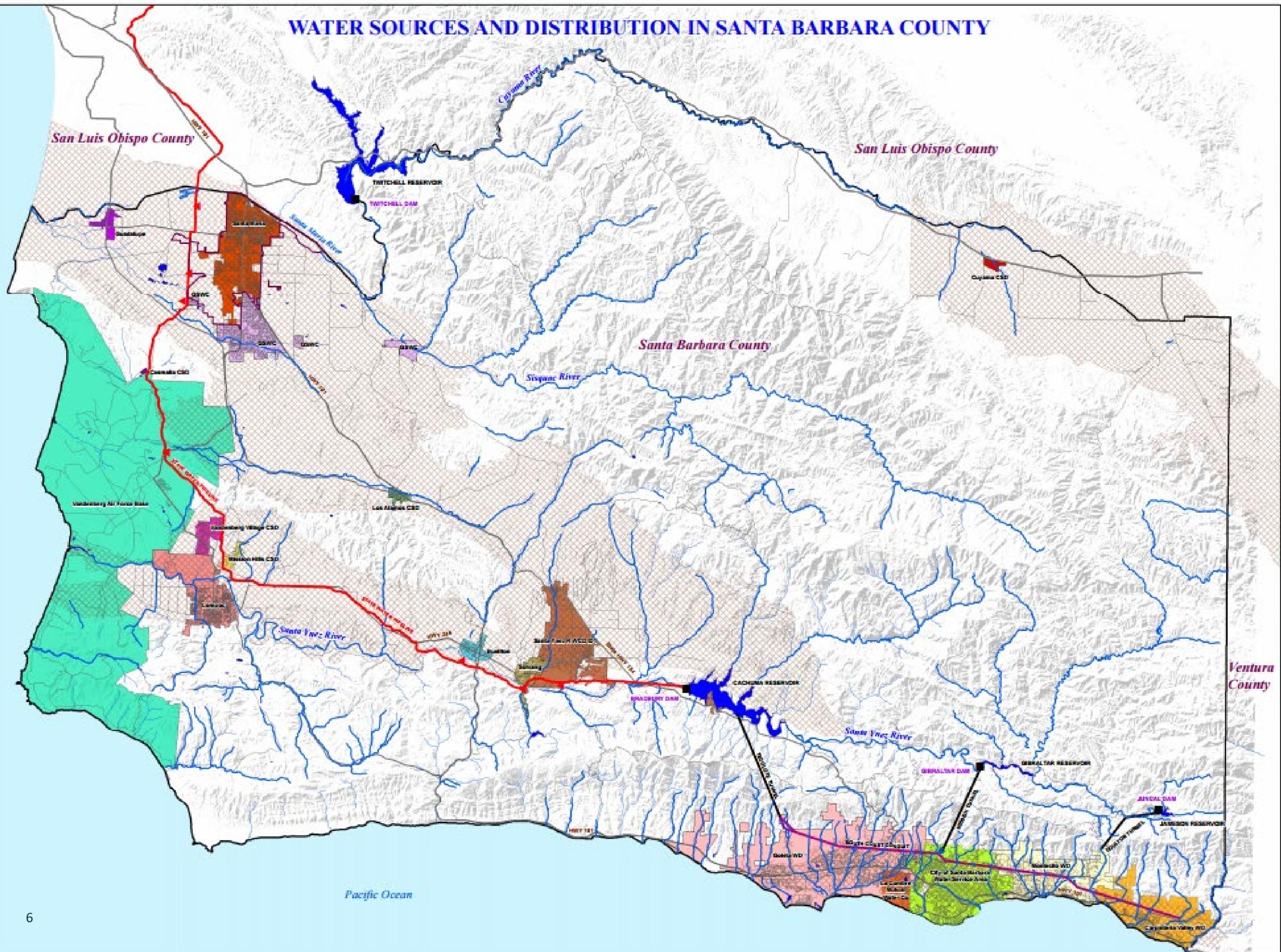
Statewide Drought Emergency Declaration:

- 2014-2017
- 2020-2023



Water Purveyors

WATER SOURCES AND DISTRIBUTION IN SANTA BARBARA COUNTY



- Legend**
- Dams
 - ◀ SWP Turnout
 - City Boundary Line
 - State Water Project Pipeline
 - Rivers
 - South Coast Conduit
 - Tunnel
 - Roads
 - Highways/Freeways
 - ▨ Groundwater Basins
 - Lakes & Reservoirs
 - Caswell CSD
 - City of Santa Barbara Water Service Area
 - County boundary
 - Santa Maria
 - Vandenberg Air Force Base
 - La Cumbre Mutual Water Co
 - Goleta WD
 - Buellton
 - Carpinteria Valley WD
 - Cayama CSD
 - Guadalupe
 - Lompoc
 - Los Alamos CSD
 - Mission Hills CSD
 - Montecito WD
 - Vandenberg Village CSD
 - Golden State Water Co (GSWC)
 - Solvang
 - Santa Ynez R. WCD IDI
 - Pacific Ocean

This map is for reference only. Although every effort has been made to ensure the accuracy of information shown and conditions engineering from physical sources used in deriving the data, the map is not intended to be used as a legal document. Any use of the map for any purpose other than that intended by the Department of Public Works, County of Santa Barbara, shall be at the user's own risk. The Department of Public Works, County of Santa Barbara, shall not be held liable for any errors or omissions that result from the use of this map. The Department of Public Works, County of Santa Barbara, shall not be held liable for any errors or omissions that result from the use of this map. The Department of Public Works, County of Santa Barbara, shall not be held liable for any errors or omissions that result from the use of this map.

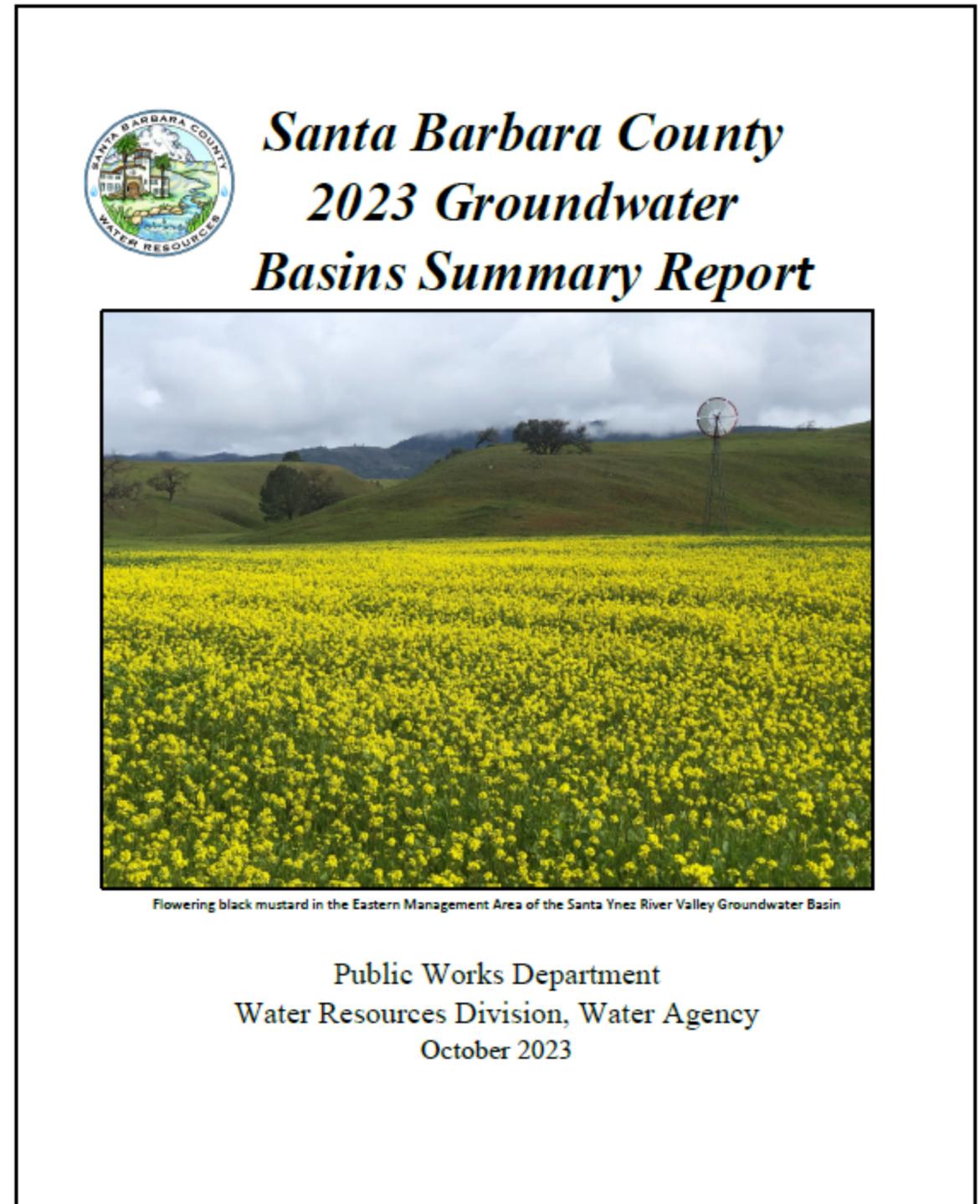
WATER SOURCES AND DISTRIBUTION IN SANTA BARBARA COUNTY

 Santa Barbara County, California

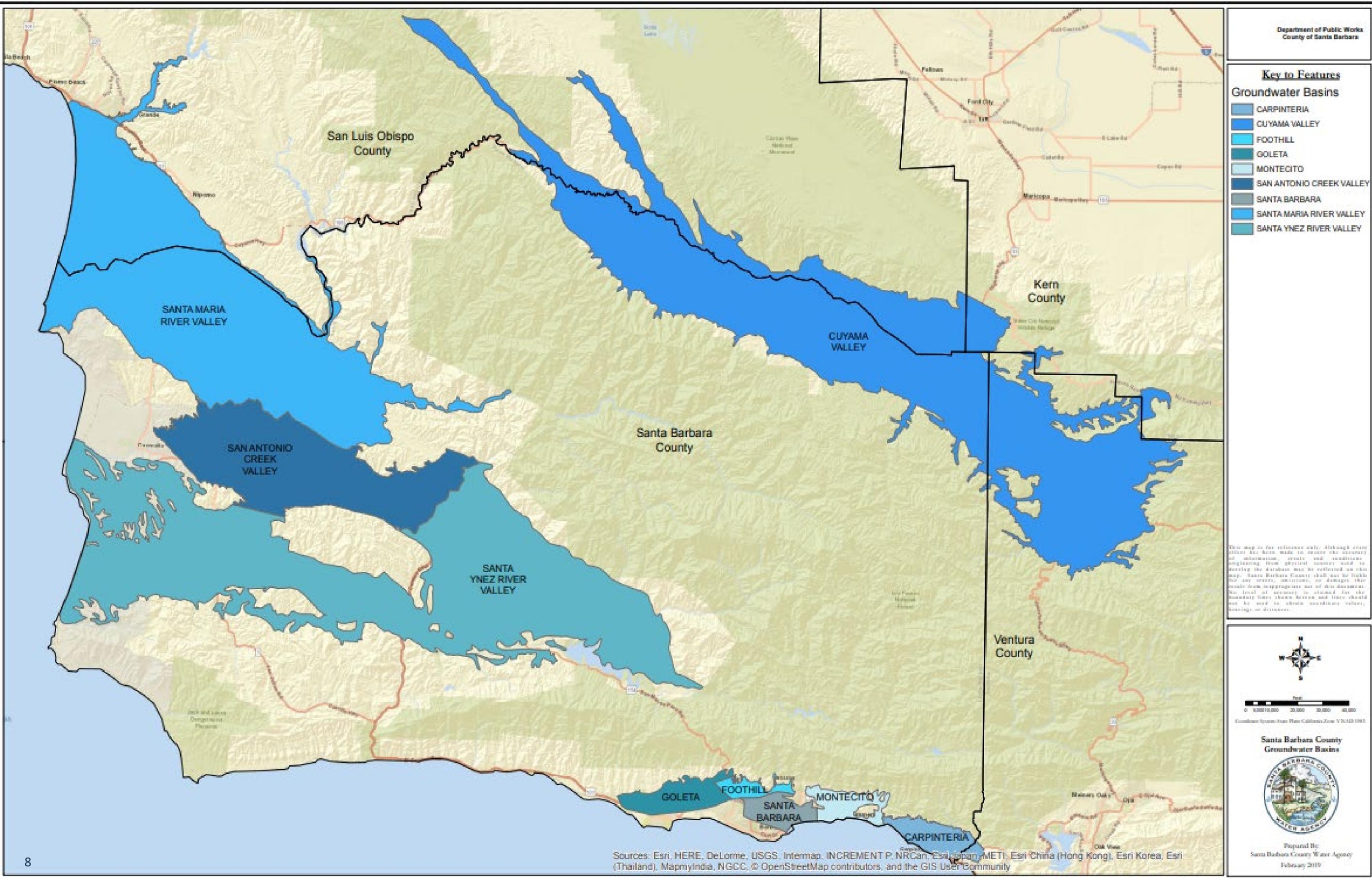
Copyright © Public Works Department of Santa Barbara 2011

Groundwater

- Largest water source in the County
~80% including agriculture
- Sustainable Groundwater Management Act (SGMA)
 - GSAs beginning to actively manage groundwater
- Portions of most basins were at or near historical lows prior to 2023
- Some starting to show signs of recovery, especially near rivers and streams
- Details by basin in *2023 Groundwater Basins Summary Report*



Groundwater



Santa Ynez River Reservoirs

WATER DISTRIBUTION FROM SANTA YNEZ RIVER RESERVOIRS

This map is for reference only. Although every effort has been made to ensure the accuracy of all data, errors and omissions notwithstanding, users should not rely on this map for any legal, regulatory, or planning purposes. The County of Santa Barbara is not responsible for any errors or omissions that may appear in this map. The County of Santa Barbara is not responsible for any errors or omissions that may appear in this map. The County of Santa Barbara is not responsible for any errors or omissions that may appear in this map.

Legend

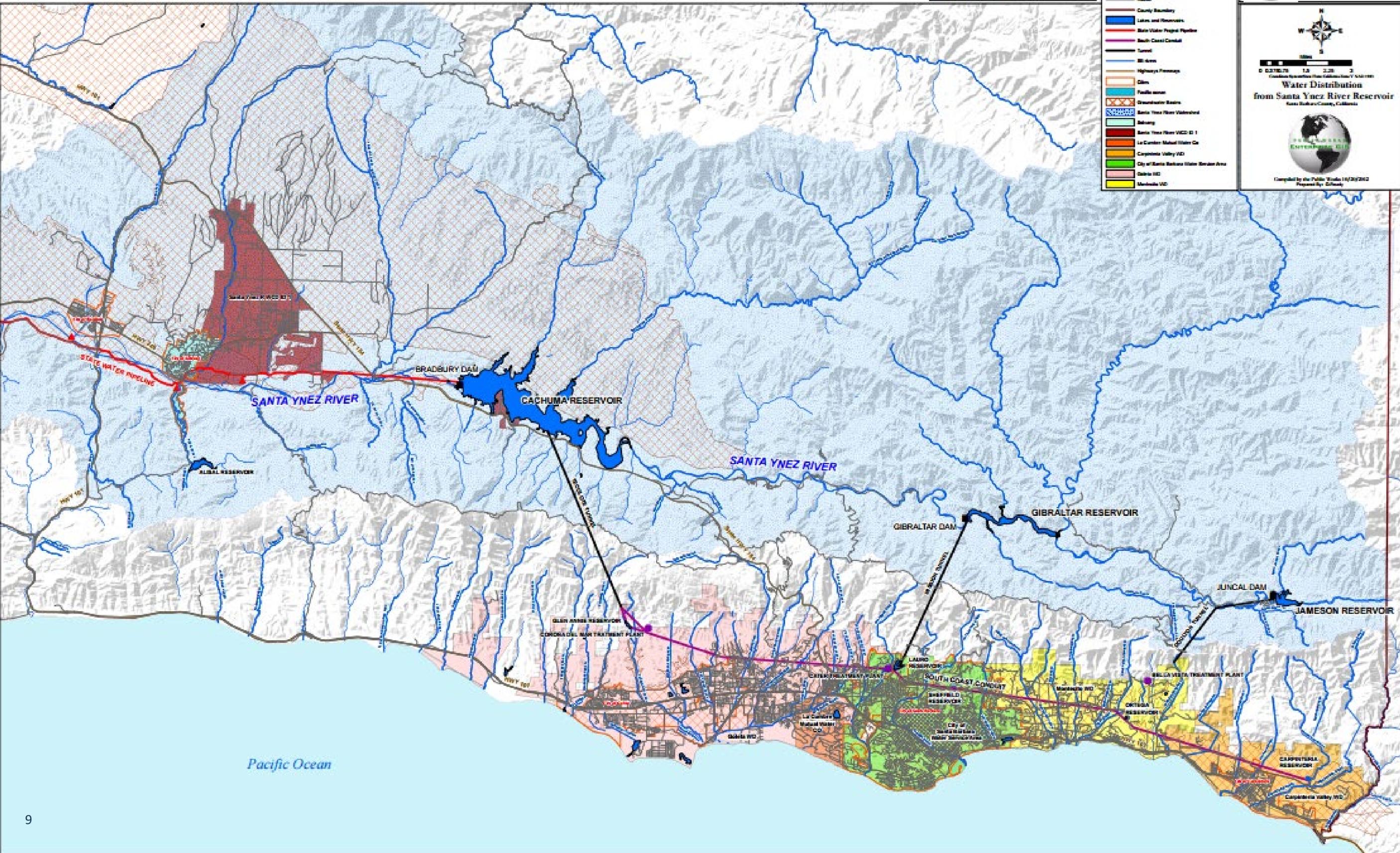
- ▲ BWP Tunnel
- Dam
- Water Treatment Plant
- Road
- County Boundary
- Lake and Reservoir
- State Water Project Pipeline
- South Coast Conduit
- Tunnel
- All Area
- Highway Rightway
- Dike
- Pipeline
- Groundwater Basin
- Santa Ynez River Watershed
- Salinity
- Santa Ynez River VAD: 0-1
- La Cumbre Mutual Water Co
- Carpinteria Valley VAD
- City of Santa Barbara Water Service Area
- Solvang VAD
- Mendota VAD

Department of Public Works
County of Santa Barbara

0 0.25 0.5 1.0 2.0 Miles

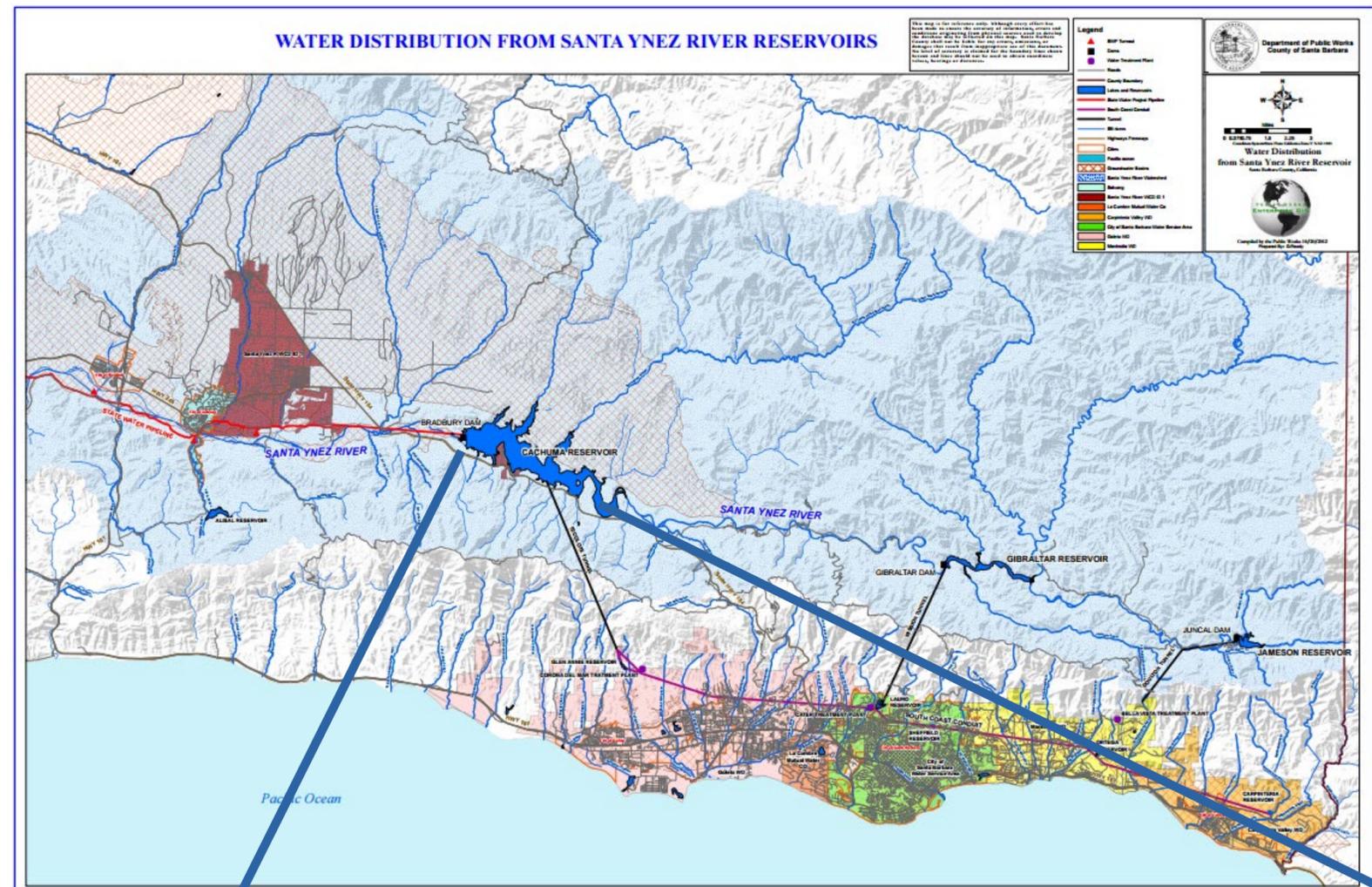
Water Distribution
from Santa Ynez River Reservoir
Santa Barbara County, California

Compiled by the Public Works Department
Prepared by: City of Santa Barbara



Cachuma Reservoir

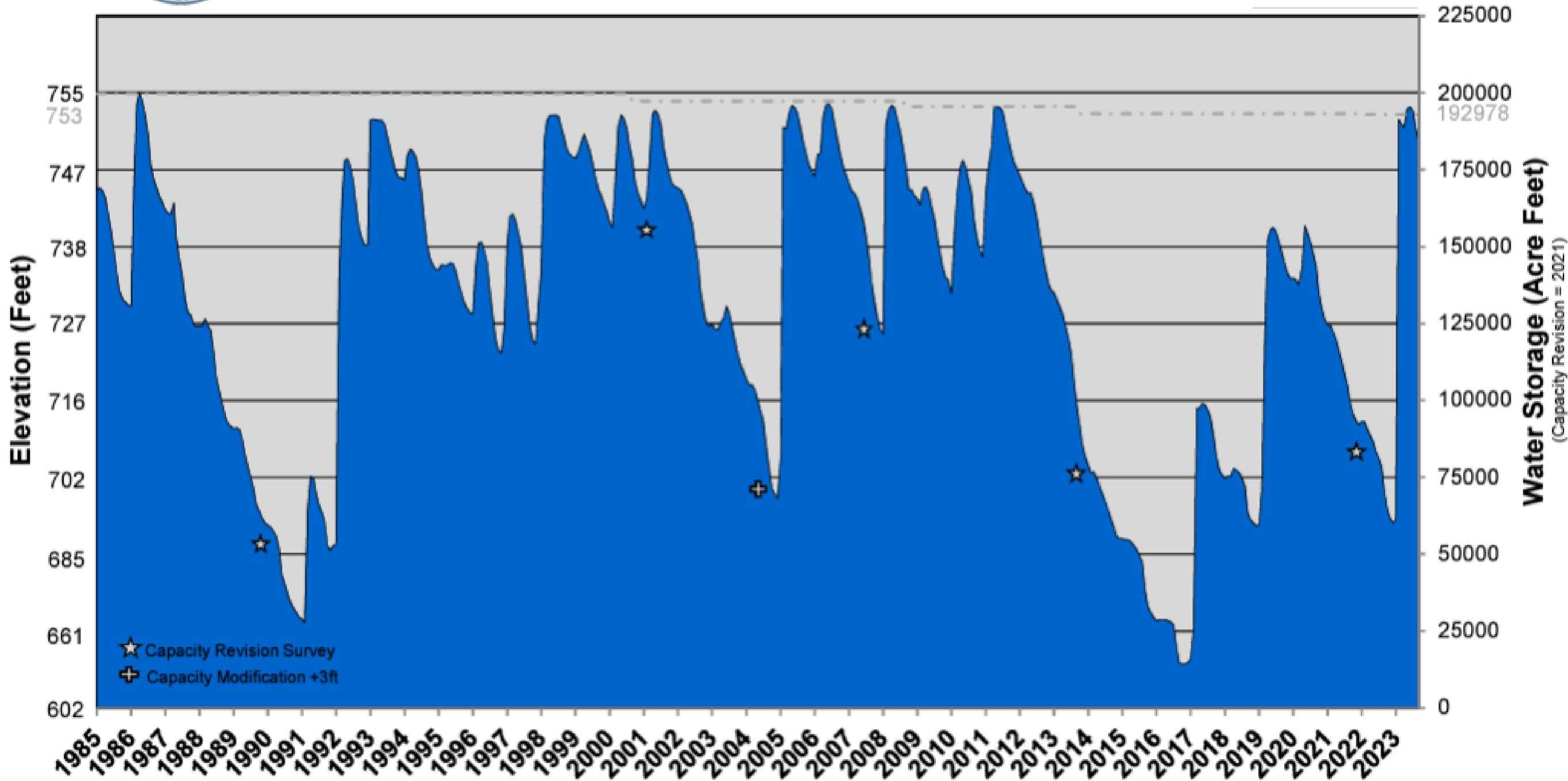
- Built by US Bureau of Reclamation in 1954
- Originally intended to supply 32,000 AF/yr, since reduced to 25,714 AF/yr because of sedimentation and fisheries constraints
- No reserved flood control space
- Modified storm operations protocol implemented last winter
 - Allows for some downstream flood protection while maximizing water supply
- 3-year contract extension signed last week through September 2026



Cachuma Reservoir

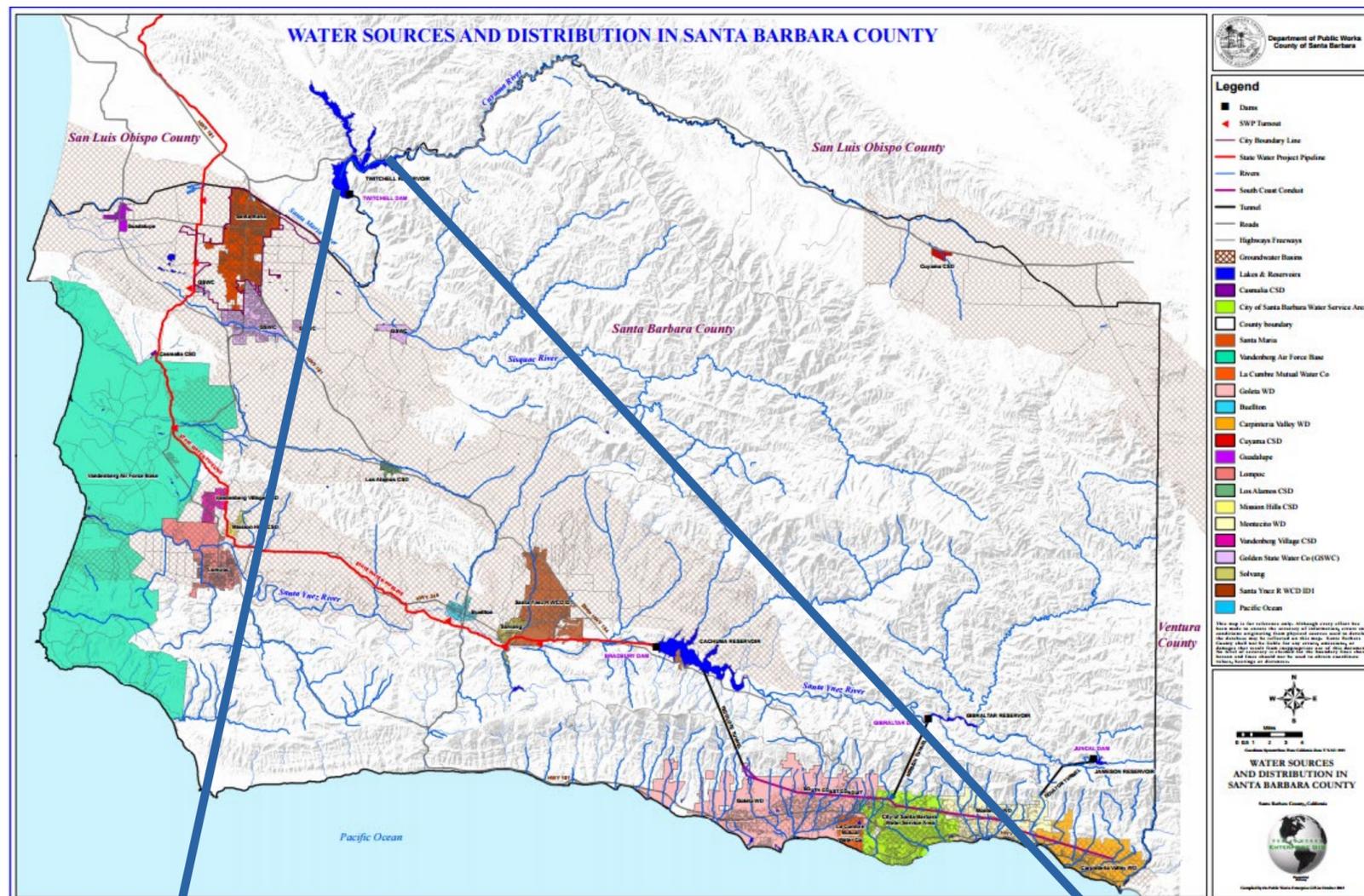


Cachuma Reservoir - Historical Water Storage Levels 38 Years - 1985 to 2023 (through August 31, 2023)



Twitchell Reservoir

- Constructed in late 1950's by US Bureau of Reclamation.
- Water conservation releases recharge SM Groundwater Basin.
- Operated and maintained by Santa Maria Valley Water Conservation District
- Roughly half of reservoir storage reserved for flood control, with releases managed per US Army Corps of Engineers Water Control Plan
- Water Agency would like to work with Army Corps and local partners to update Water Control Plan to enhance storage and better manage releases.

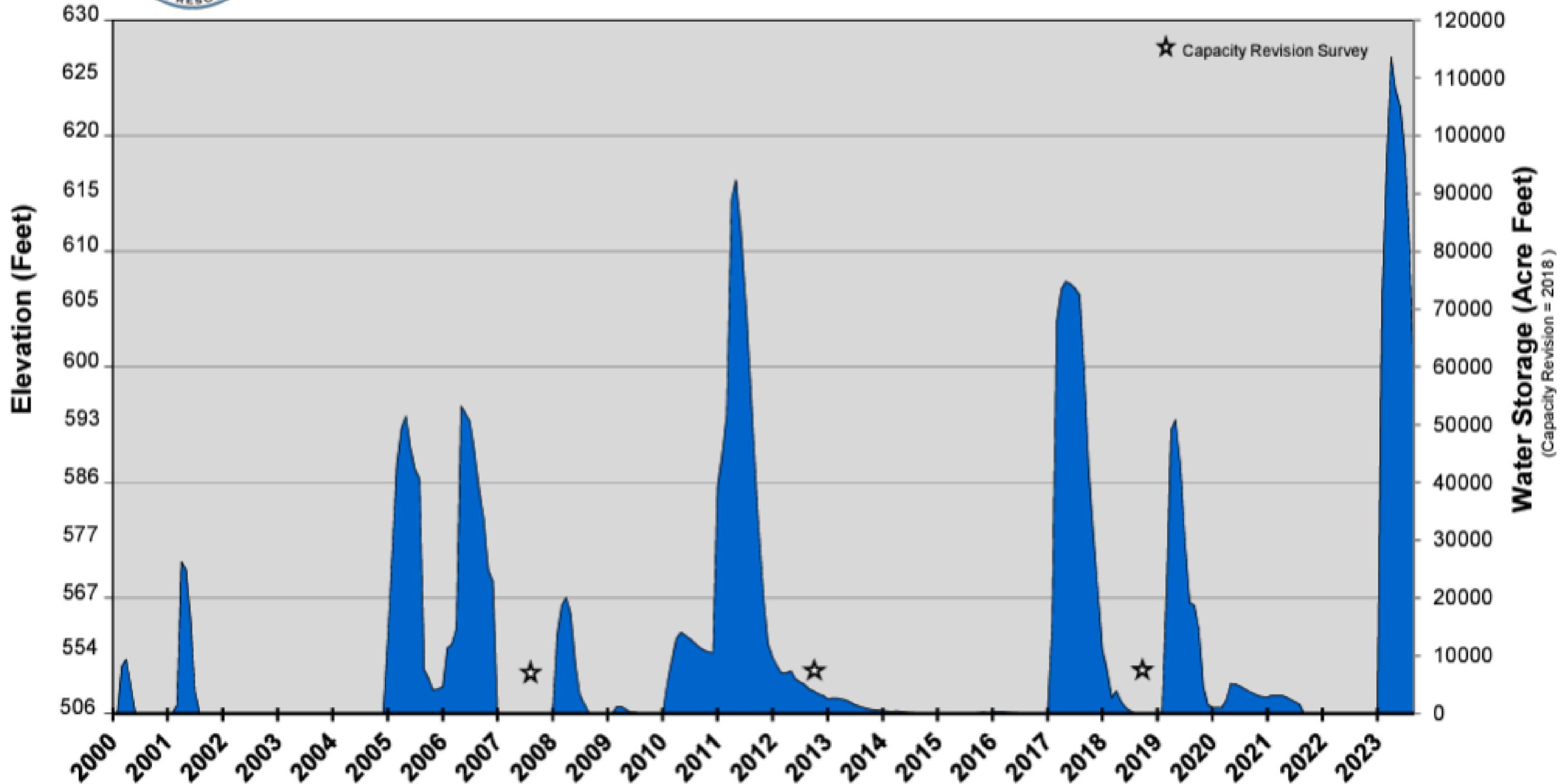


Twitchell Reservoir



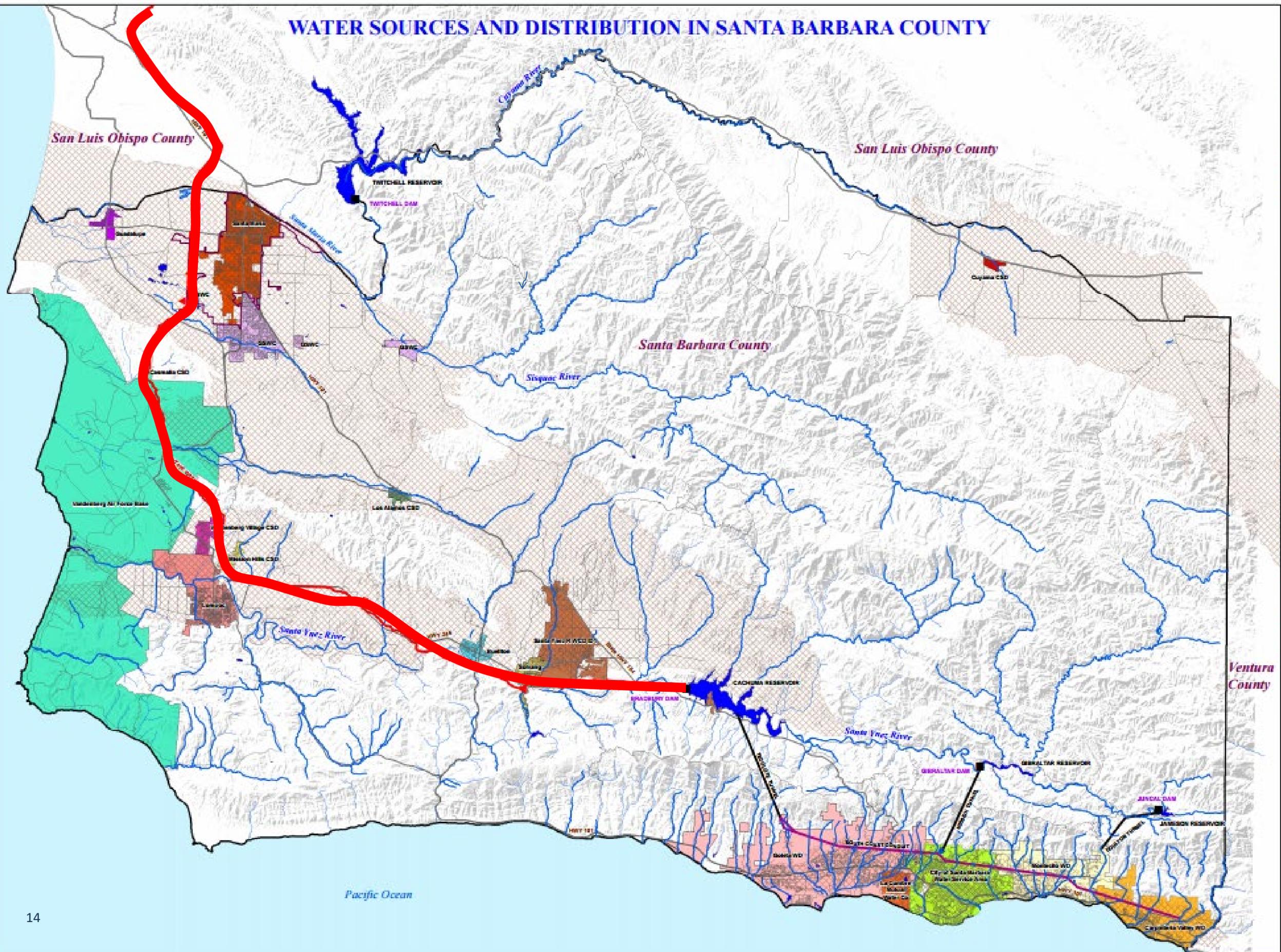
Twitchell Reservoir - Historical Water Storage Levels

23 Years - 2000 to 2023
(through September 1, 2023)



State Water Project

WATER SOURCES AND DISTRIBUTION IN SANTA BARBARA COUNTY



- Legend**
- Dams
 - ◀ SWP Turnout
 - City Boundary Line
 - State Water Project Pipeline
 - Rivers
 - South Coast Conduit
 - Tunnel
 - Roads
 - Highways/Freeways
 - ▨ Groundwater Basins
 - Lakes & Reservoirs
 - Cayama CSD
 - City of Santa Barbara Water Service Area
 - County boundary
 - Santa Maria
 - Vandenberg Air Force Base
 - La Cumbre Mutual Water Co
 - Goleta WD
 - Buellton
 - Carpinteria Valley WD
 - Cayama CSD
 - Guadalupe
 - Lompoc
 - Los Alamos CSD
 - Mission Hills CSD
 - Montecito WD
 - Vandenberg Village CSD
 - Golden State Water Co (GSWC)
 - Solvang
 - Santa Ynez R. WCD IDI
 - Pacific Ocean

This map is for reference only. Although every effort has been made to ensure the accuracy of information shown and conditions engineering from physical sources used in deriving the data, the County may be held liable for any errors, omissions, or damages that result from inappropriate use of this document. The actual accuracy of the data shown on this map is the responsibility of the user. The County does not warrant the accuracy of the data shown on this map.



WATER SOURCES AND DISTRIBUTION IN SANTA BARBARA COUNTY

Santa Barbara County, California

Copyright © Public Works Department of Santa Barbara, 2011

State Water Project

- Coastal Branch authorized by vote 1991
- 45,486 acre-feet per year, but variable allocations
- Allocations have ranged from 5% to 100% in recent years
- Operated by Central Coast Water Authority (CCWA)
- Valuable supplement in 2011-2018 drought



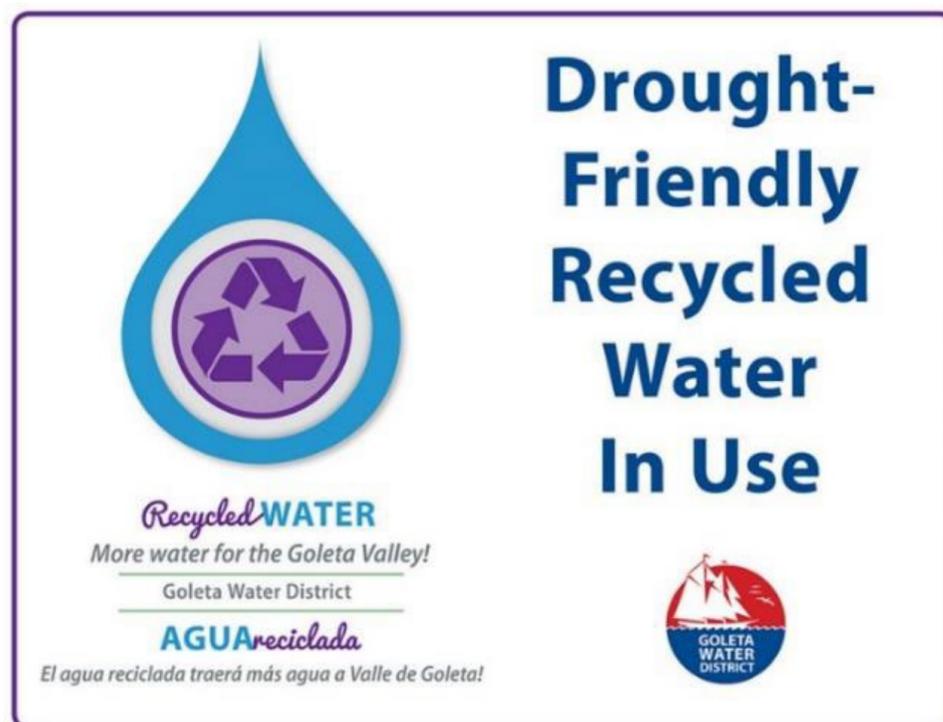
Desalination

- City of Santa Barbara's Desal Plant opened in 1991, subsequently decommissioned
- Reactivated October 2016
- Drought-resistant, local supply of 3,125 AFY
- 50-year agreement to supply Montecito Water District
- Permitted for up to 10,000 AFY
- SLO and SB County exploring possible regional plant
- VSFB evaluating desal options



Recycled Water

- Recycled water forms
 - Direct non-potable (landscape / parks)
 - Indirect potable (Injection to groundwater basins as potable)
 - Direct Potable (direct delivery of treated wastewater through potable system)
- Direct non-potable currently produced by purveyors
- Carpinteria Advanced Purification Project in progress (Indirect reuse)
- Water Agency/Laguna Sanitation District Indirect Reuse evaluation completed August 2023
 - Follow on study in progress
- Countywide Indirect Potable Reuse study to be finalized later this fall



Water Agency: Partnership and Collaboration



- Coordinate regional programs
 - Integrated Regional Water Management Planning (IRWMP)
 - Regional Water Efficiency Partnership (RWEF)
 - Sustainable Groundwater Management
- Research and planning
 - Groundwater monitoring and studies (Cuyama, San Antonio, Santa Ynez)
 - Stormwater and water supply planning
 - Reuse studies
- Water Supply Enhancement
 - Precipitation enhancement
 - Potential SLO County desalination project
- Drought Task Force



Regional Water Efficiency Program

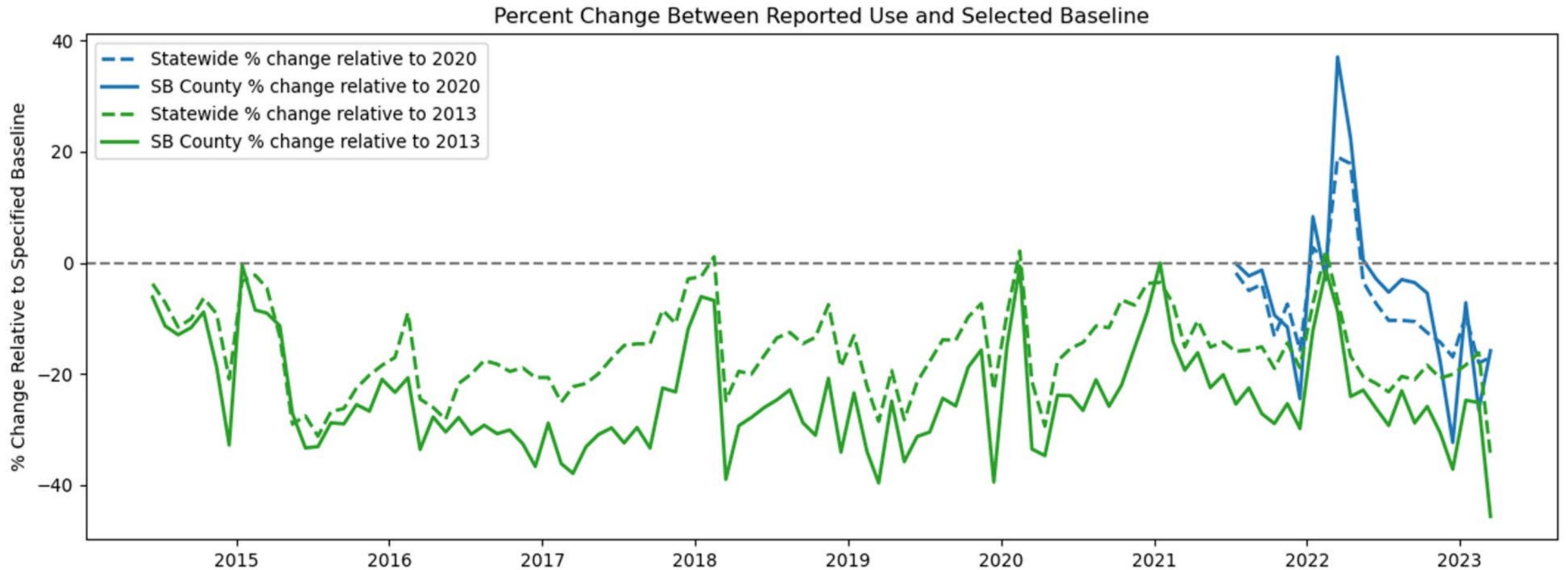
- Water Agency coordinates regional conservation and drought planning in partnership with **15 water purveyors**
- Public information:
 - WaterWiseSB website and social media, media campaigns, and Garden Wise TV Show
- Landscape:
 - Green Gardener classes, guidebooks for greywater and sustainable landscape maintenance, etc.
 - USBR Landscape Rebate Grant
 - Mobile Irrigation Lab
- Youth education:
 - High School Video Contest, teacher grants, school assemblies, and Science Fair awards
- Commercial/institutional programs:
 - Water audits for Green Business Certification



For countywide water conservation information and resources: WaterWiseSB.org



Conservation is a California Way of Life



- Since Statewide voluntary 15% conservation goal was set in July 2021, Santa Barbara County residents saved 1.5 billion gals (4691 AF) of potable water
- Santa Barbara County residents continue to conserve at a 12-month moving average rate of 25% compared to pre-drought 2013 demands



Recommended Actions

That the Board of Directors:

- Receive and file an update on water resources throughout the County of Santa Barbara;
- Receive and file the Santa Barbara County 2023 Groundwater Basins Summary Report; and
- Determine that these actions are not subject to California Environmental Quality Act (CEQA) pursuant to State CEQA Guidelines Section 15378(b) (5), as it is an administrative action that will not result in direct or indirect changes to the environment, and 15306 as information collection which does not result in serious or major disturbance to an environmental resource.





Questions?

Local Water Conservation Resources & Information:
www.WaterWiseSB.org

Santa Barbara County Water Agency Information:
www.countyofsb.org/189/water-resources

