



Helene Schneider
Santa Barbara Mayor

Drought Resiliency:
Diversity, Innovation, and Conservation





Drought Resiliency

Background

Drought Status

Demand Status

Water Supply Status

Looking Forward

Water Supply Strategy

Demand Management Strategy

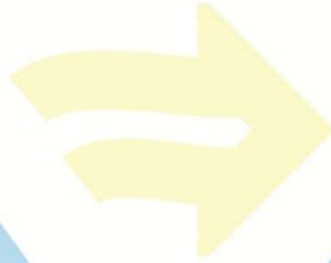
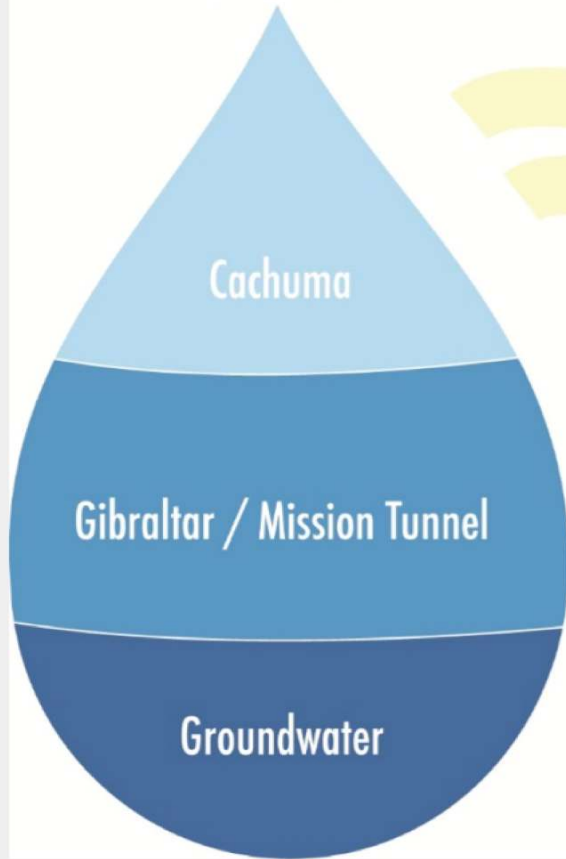




1806 Dam & Aqueduct



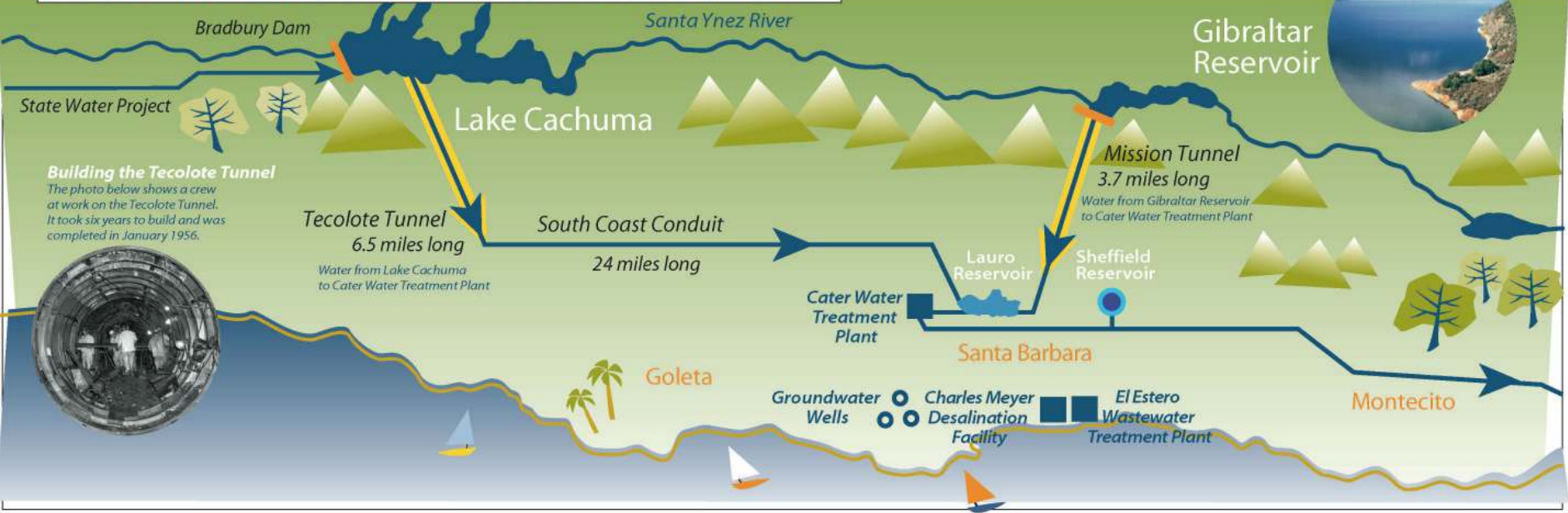
1980's



Today



WHERE YOUR DRINKING WATER COMES FROM





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U.S. Drought Monitor California

April 4, 2017

(Released Thursday, Apr. 6, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	76.54	23.46	8.24	1.06	0.00	0.00
Last Week <i>03-28-2017</i>	76.54	23.46	8.24	1.06	0.00	0.00
3 Months Ago <i>01-03-2017</i>	18.07	81.93	67.61	54.02	38.17	18.31
Start of Calendar Year <i>01-03-2017</i>	18.07	81.93	67.61	54.02	38.17	18.31
Start of Water Year <i>09-27-2016</i>	0.00	100.00	83.59	62.27	42.80	21.04
One Year Ago <i>04-05-2016</i>	3.55	96.45	90.58	74.37	55.25	31.68

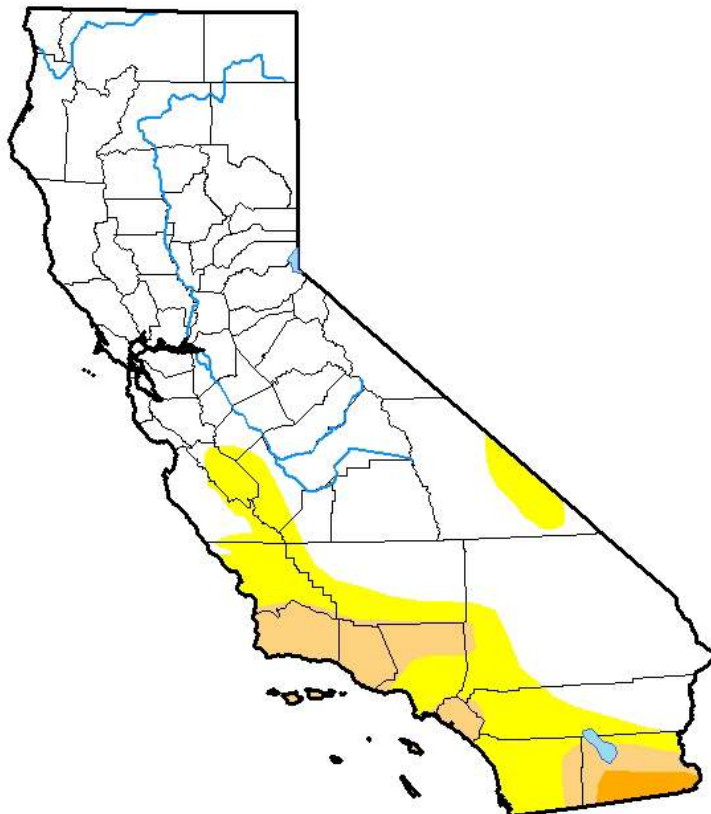
Intensity:

 D0 Abnormally Dry	 D3 Extreme Drought
 D1 Moderate Drought	 D4 Exceptional Drought
 D2 Severe Drought	

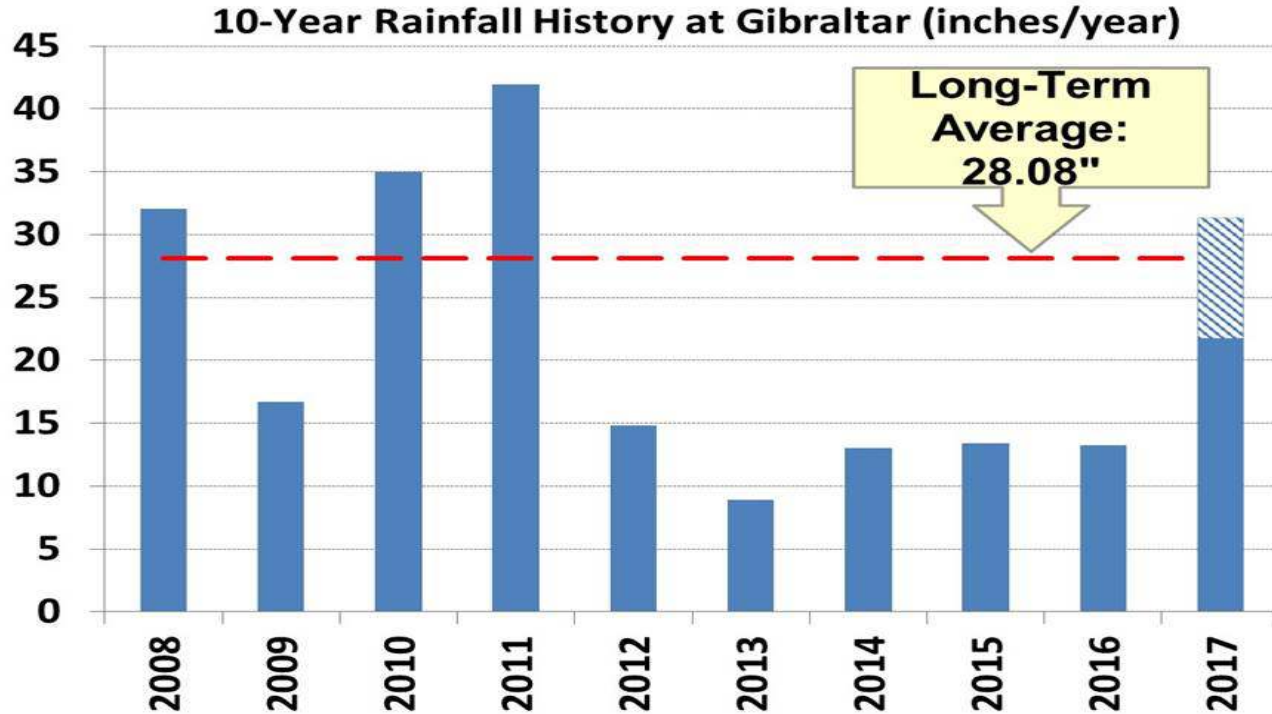
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Anthony Artusa
NOAA/NWS/NCEP/CPC



Recent Rainfall



Current Drought

- 2012 - present
- 5 driest consecutive years on record
- Even with recent rains, we are still in a drought





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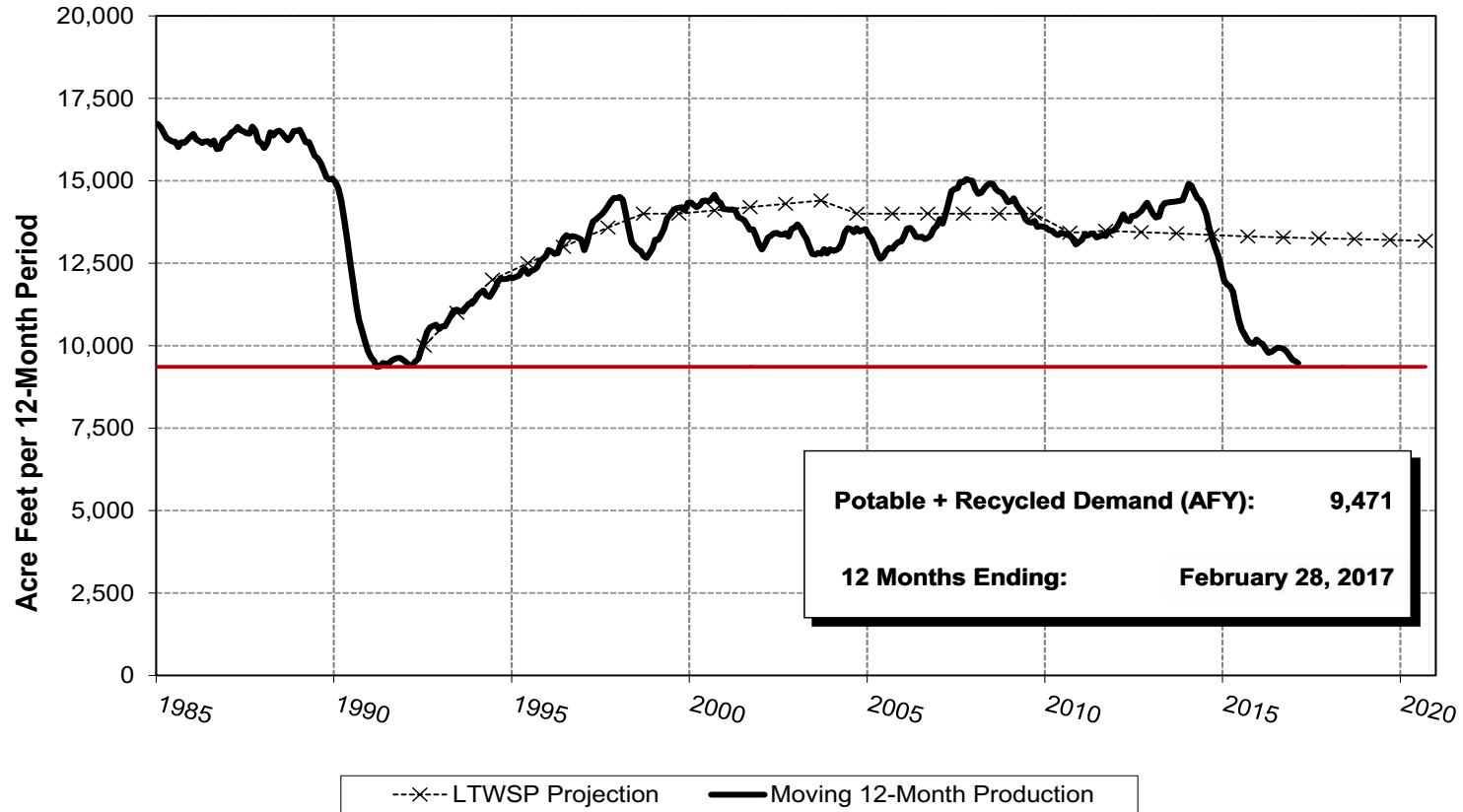
The City Has a Long, Successful History of Water Conservation

- 20% reduction in water usage since the 80s
- City helped shape conservation BMPs for the State
 - Water Budgets - Irrigation Customers
 - Free Water Check-ups
- Savings exceed statewide and regional averages and targets
- Conservation Approach
 - Short Term – To address an Emergency
 - Long Term – Ongoing Improvements in Water Use Efficiency



City of Santa Barbara Water Demand

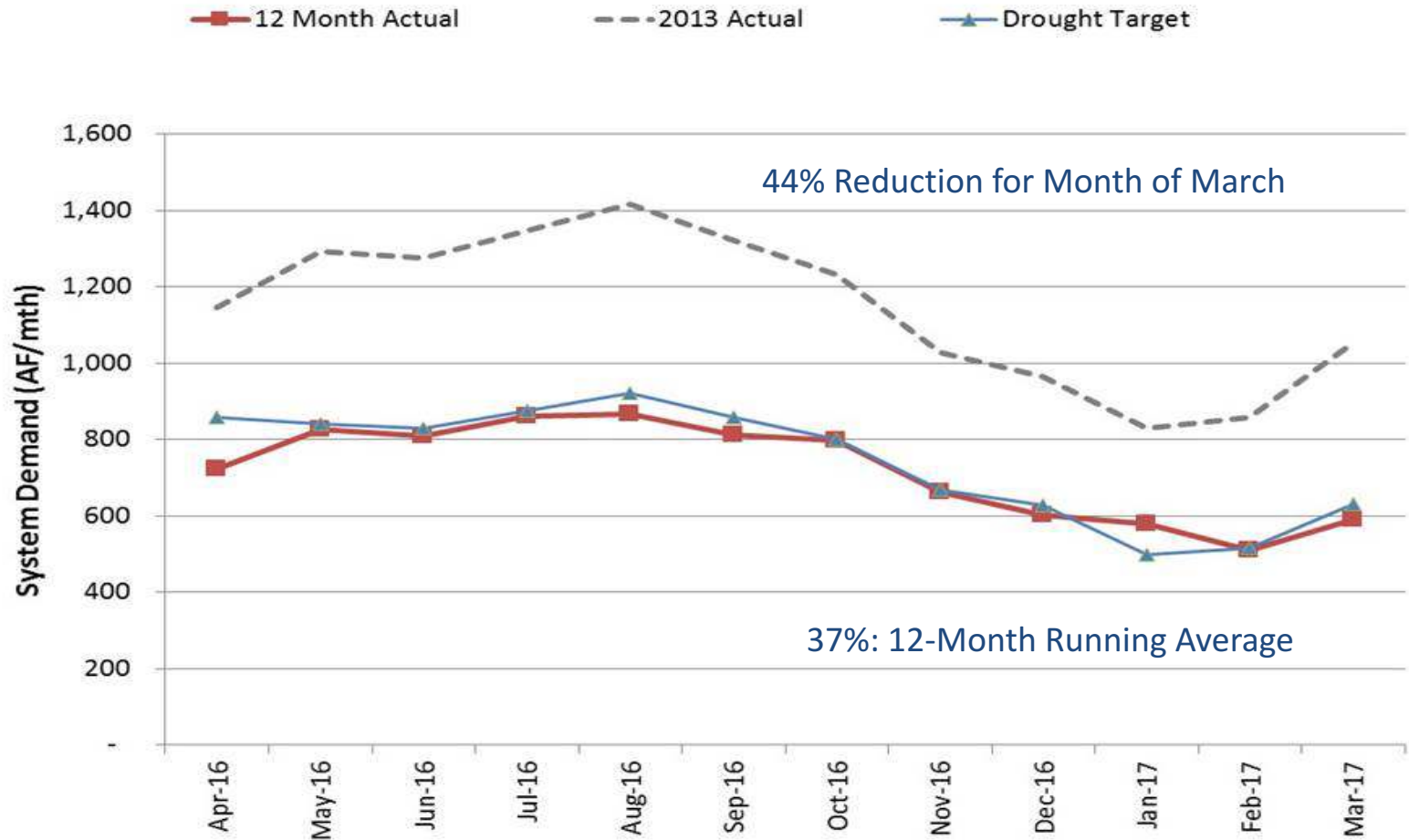
Moving 12-Month Production to Serve Potable + Recycled Systems



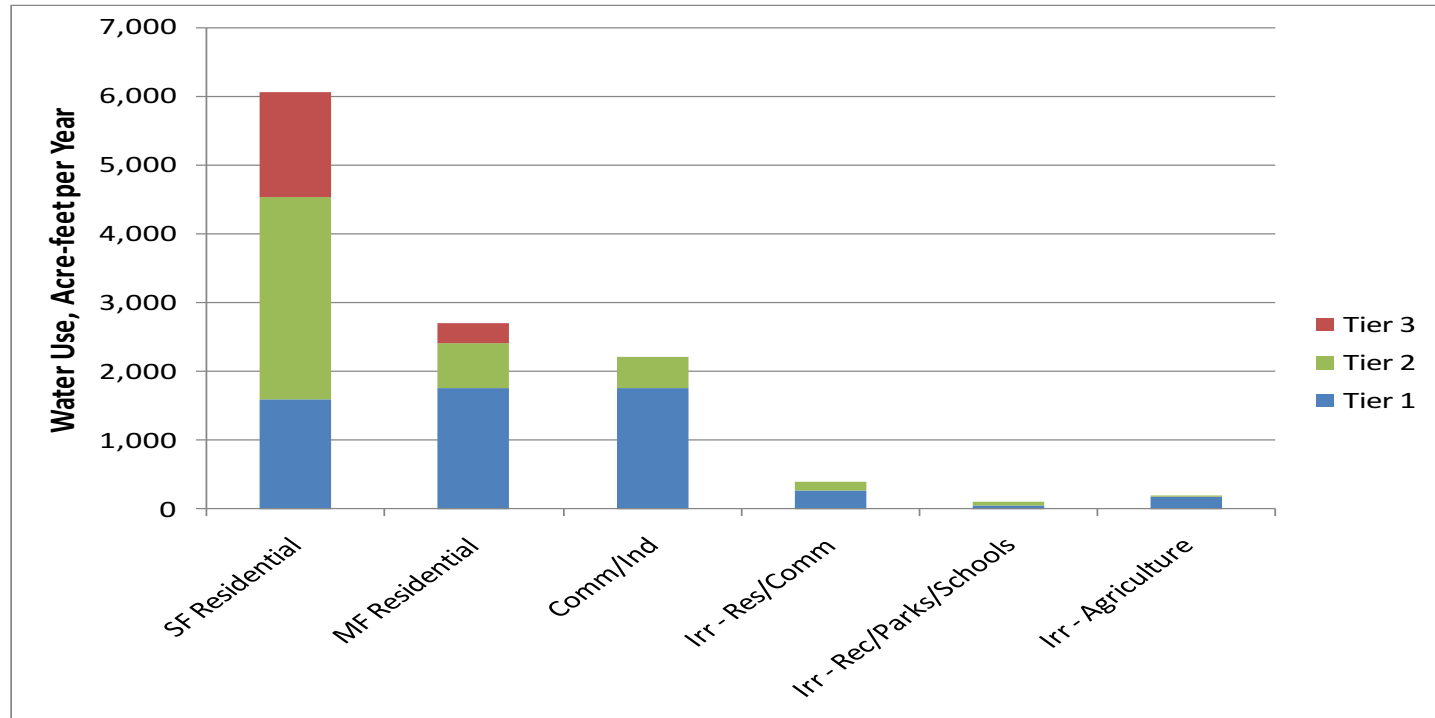
Conservation Tools - Highlights

- Free Water Checkups for homes and businesses
- Rebates
 - Lawn replacement, drip irrigation
 - Pool covers
 - Washing machines
 - Commercial appliances & fixtures
- Free mulch deliveries, rain sensors, showerheads
- Green Gardener Certification Program
- Strong presence in local schools and community groups
- Regular use of media
 - Promoting customers who have changed their water use
 - Tools for reducing water use
 - Action oriented advertising
- Water Conservation Model





Water Usage by Customer Class (Normal)



Drought Stages

Date	Drought Stage	Conservation Target
February 11, 2014	Stage One Declared	Voluntary 20%
May 20, 2014	Stage Two Declared	Mandatory 20%
May 5, 2015	Stage Three Declared	Mandatory 25%
April 26, 2016	Stage Three (continued)	Mandatory 35%
December 6, 2016	Stage Three (continued)	Mandatory 40% with lawn watering ban
March 21, 2017	Stage Three (continued)	Mandatory 30%



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Water Supply Highlights

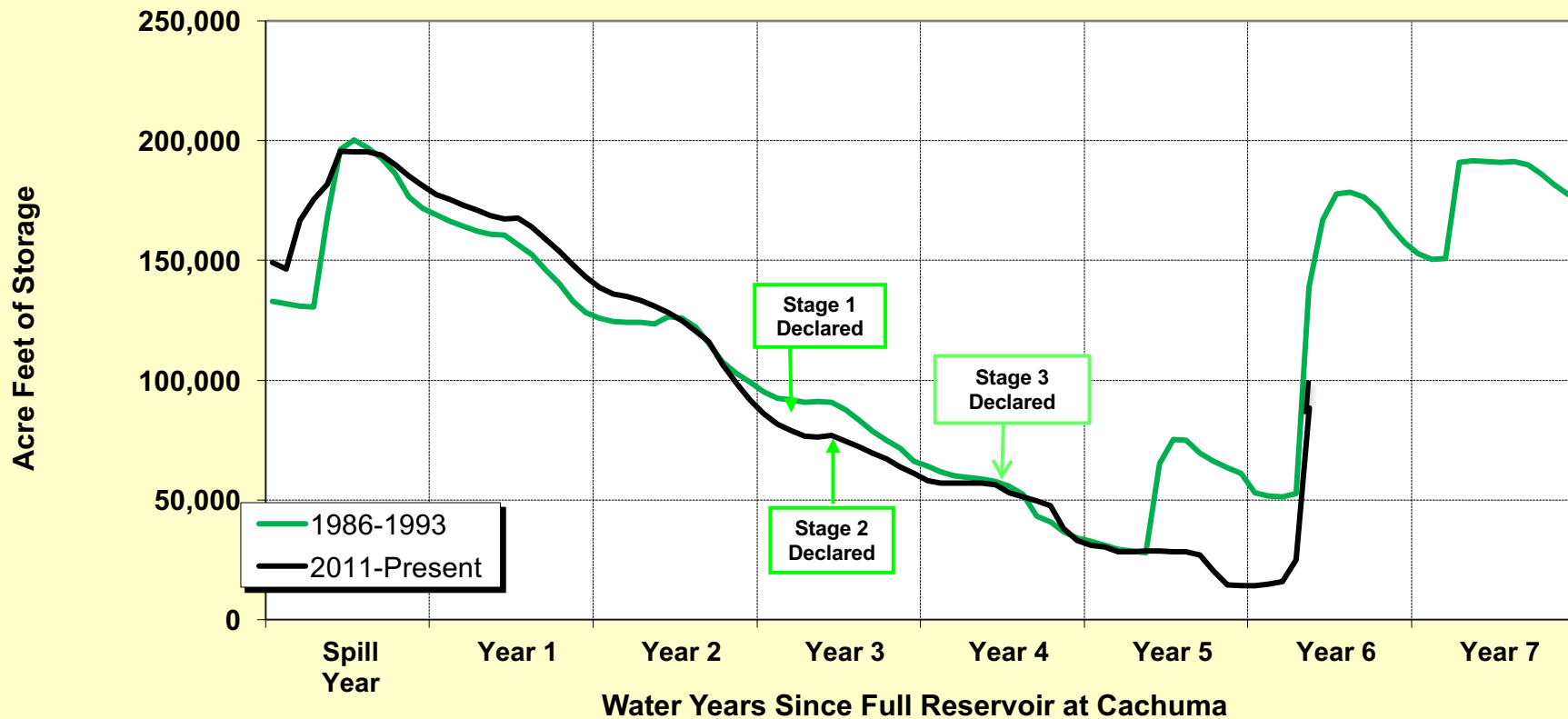
Looking Forward

Water Supply Strategy

Demand Management Strategy

Cachuma Storage: Current Drought & 1986-93 Period

Data Shown Through February 27, 2017

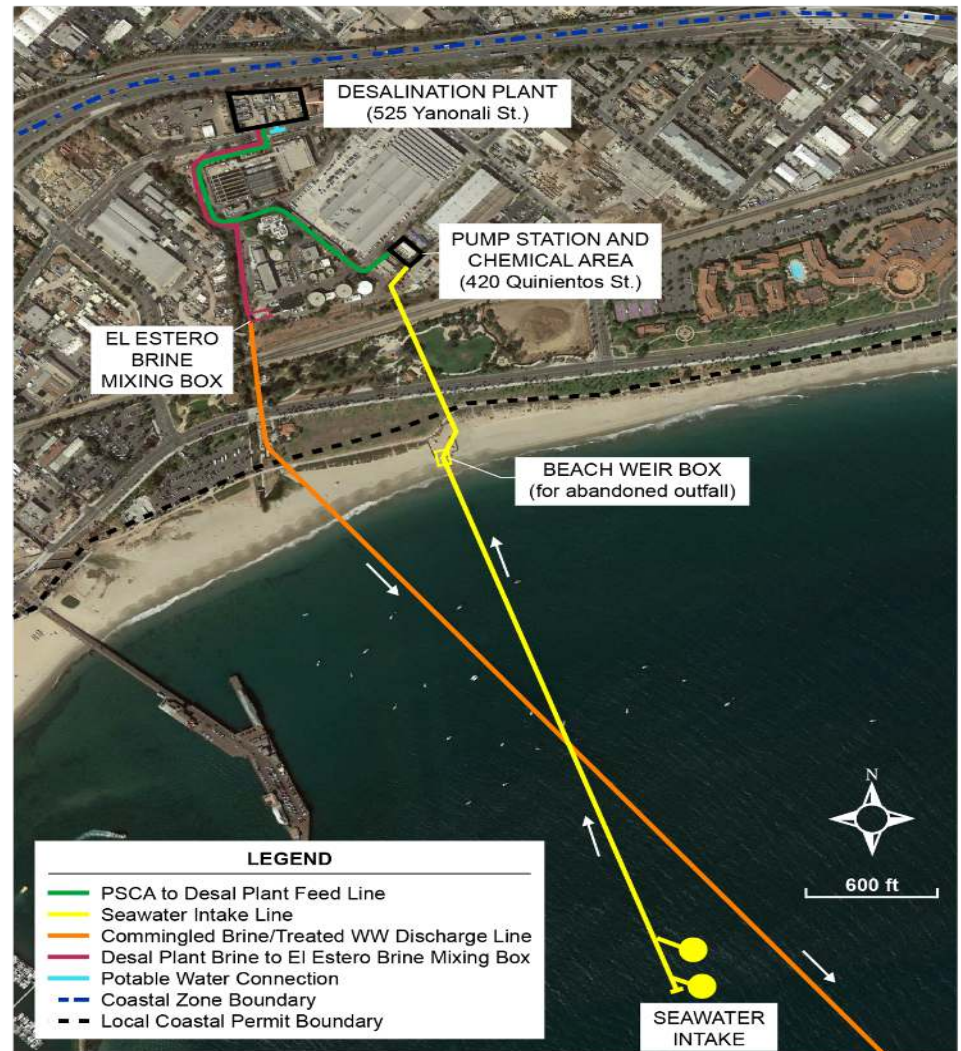


Imported Water

- Central Coast Aqueduct sufficient to deliver about a third of the City's demands per year
- Delivered over a year's supply of water in the last 3 years
- State Water Project infrastructure:
 - State Water delivery
 - Supplemental purchased water
 - Banked water



Desal Plant Tour



Drone Video



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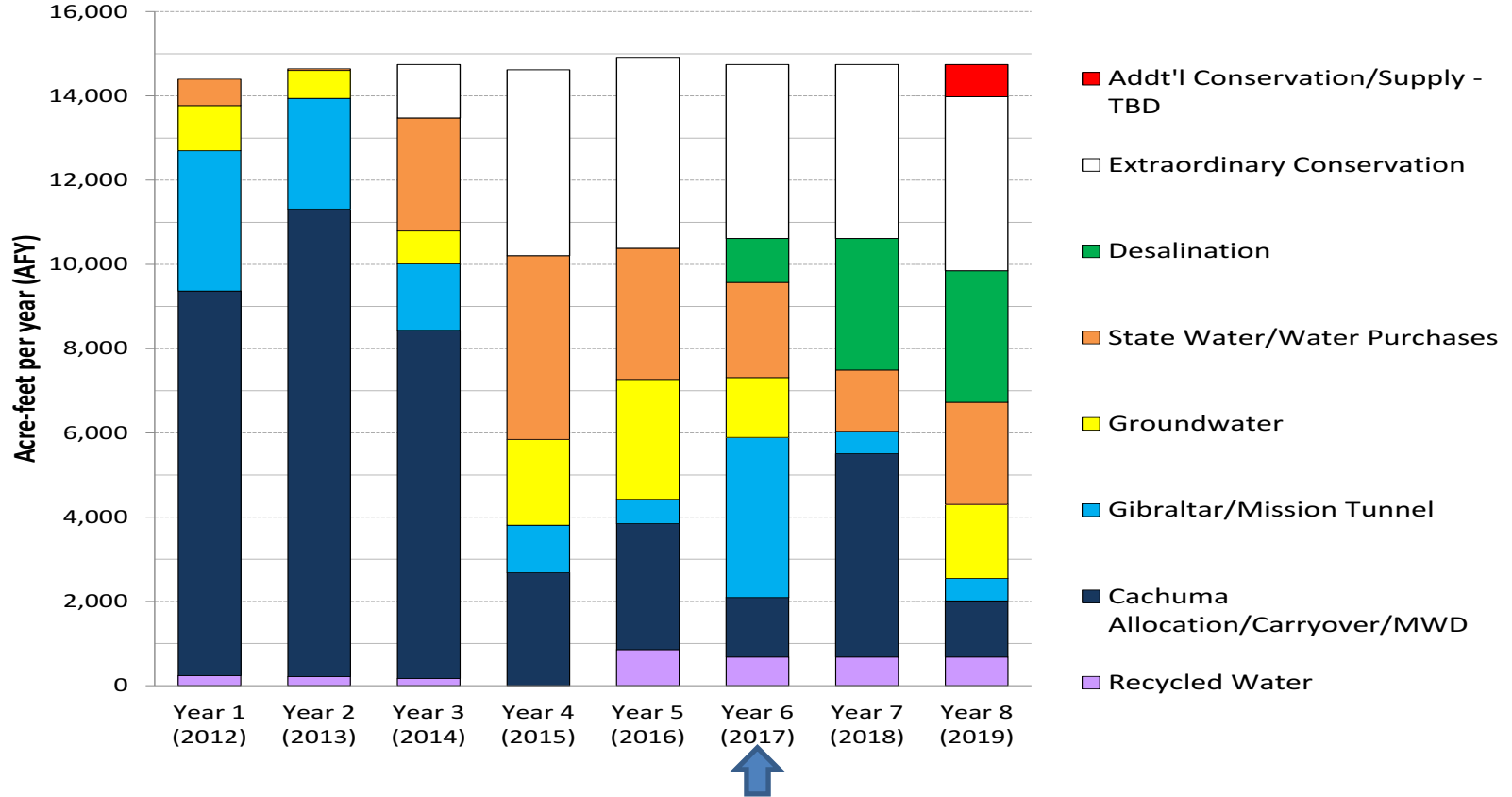
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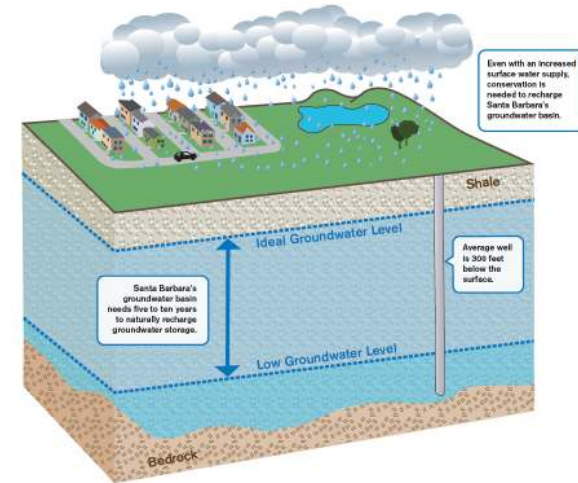
Demand Management Strategy

Water Supply Strategy



Water Supply Strategy – Stress Test

- Recent rains are a positive improvement in our water supply outlook
- However, celebration is premature:
 - Groundwater basin at historic low levels
 - Surface water reservoirs back to 2014 levels
- *Stress Test*: Continue to plan for drought conditions
 - 3 Year Water Supply Strategy
 - Assuming drought conditions continue
 - Operation of desal
 - Rest groundwater basins
 - Return Borrowed Water
 - Maintain/build state water storage at Cachuma



Let's Save Together

waterwise

City of Santa Barbara

