



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: March 18, 2014

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Stage I Drought Update

RECOMMENDATION:

That Council receive an update on the status of the current drought.

DISCUSSION:

On February 11, 2014, Council declared a Stage I Drought and asked customers to reduce water use by 20%. Council requested that staff keep them informed and report back monthly with a status update on the City's water supplies, conservation efforts, and current work efforts.

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SUBMITTED BY: Rebecca Bjork, Acting Public Works Director

APPROVED BY: City Administrator's Office



Stage One Drought Update No. 1

March 18, 2014



Overview

- ◆ Current Drought Situation
- ◆ Water Supply Outlook
- ◆ Water Purchases
- ◆ Drought Response Capital Projects
- ◆ Drought Financial Impacts
- ◆ Conservation Efforts



California Drought Recap

- ◆ Last Year - Driest year on record (94 years of records) at Gibraltar Reservoir
- ◆ February 11, 2014 – Santa Barbara City Council declared Stage One Drought
- ◆ Current year is on track to be the 3rd driest year on record at Gibraltar Reservoir



Recent Rain Impacts

◆ Last Rain Event

■ Gibraltar Reservoir

- 8.3 inches of rain at Gibraltar
- 1,500 Acre-feet of Inflow w/ a heavy silt load

■ Lake Cachuma

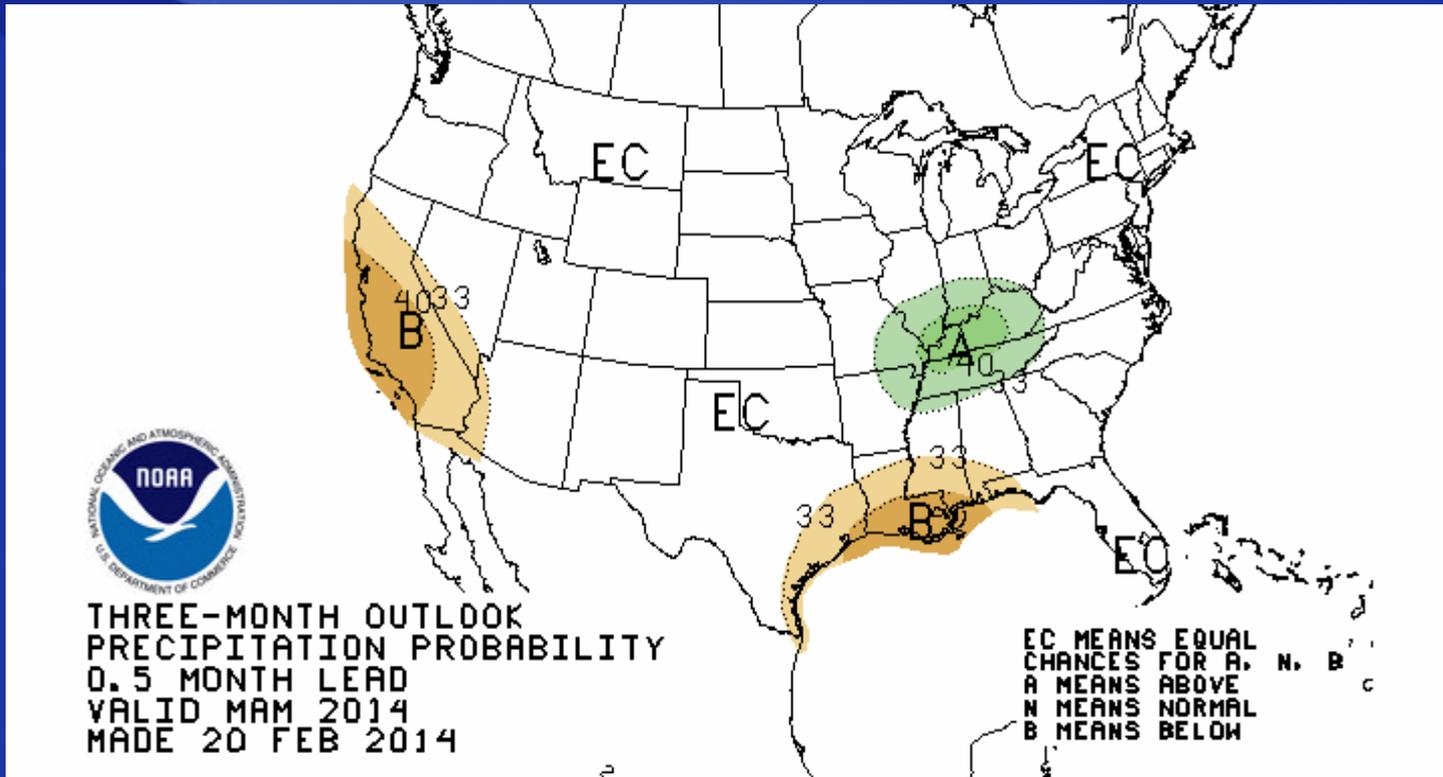
- 1,500 Acre-feet of Inflow

■ Santa Barbara

- 5.6 inches of Rain

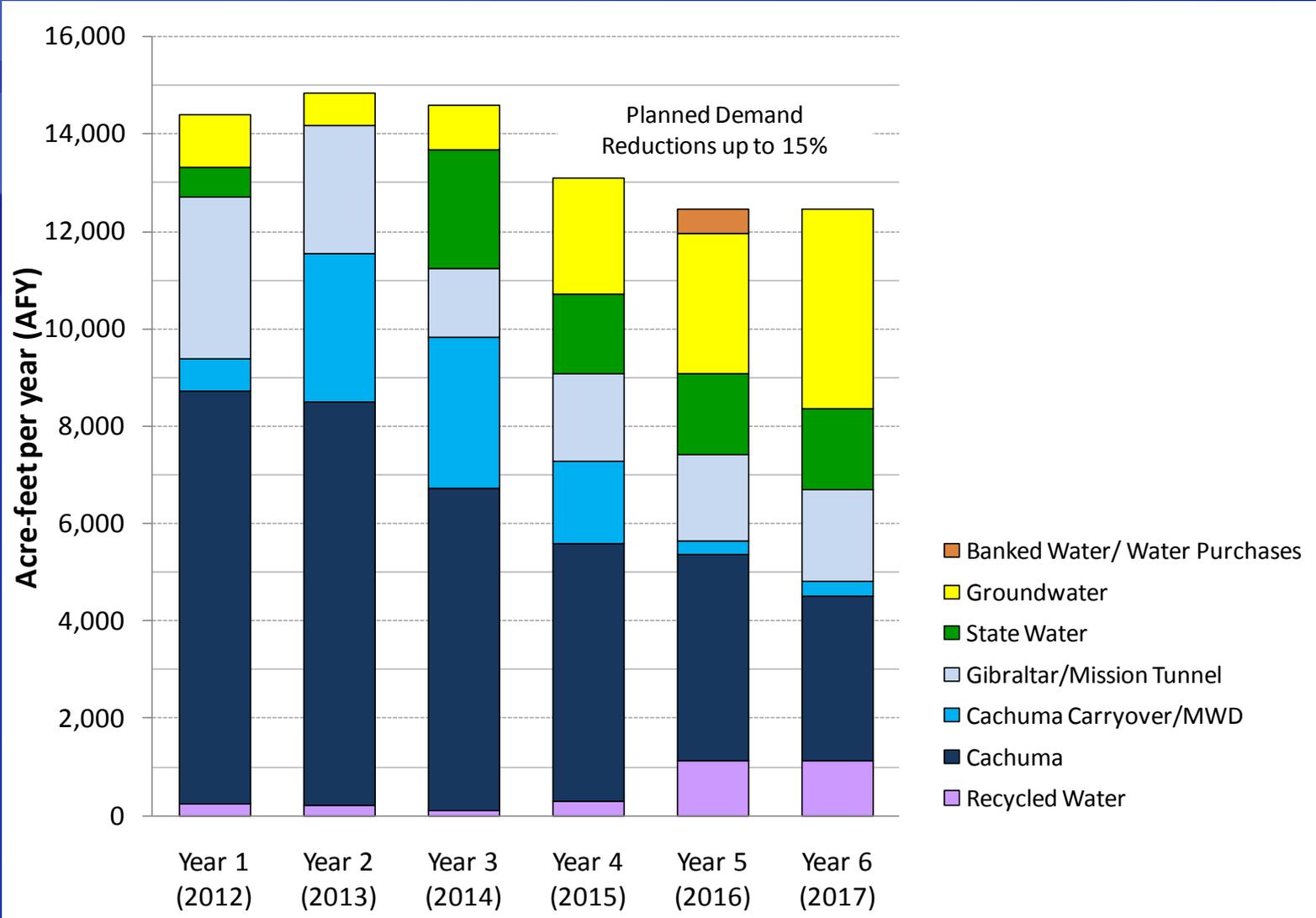
Weather Projections

- ◆ NOAA 3-month rainfall projection: Drier than normal



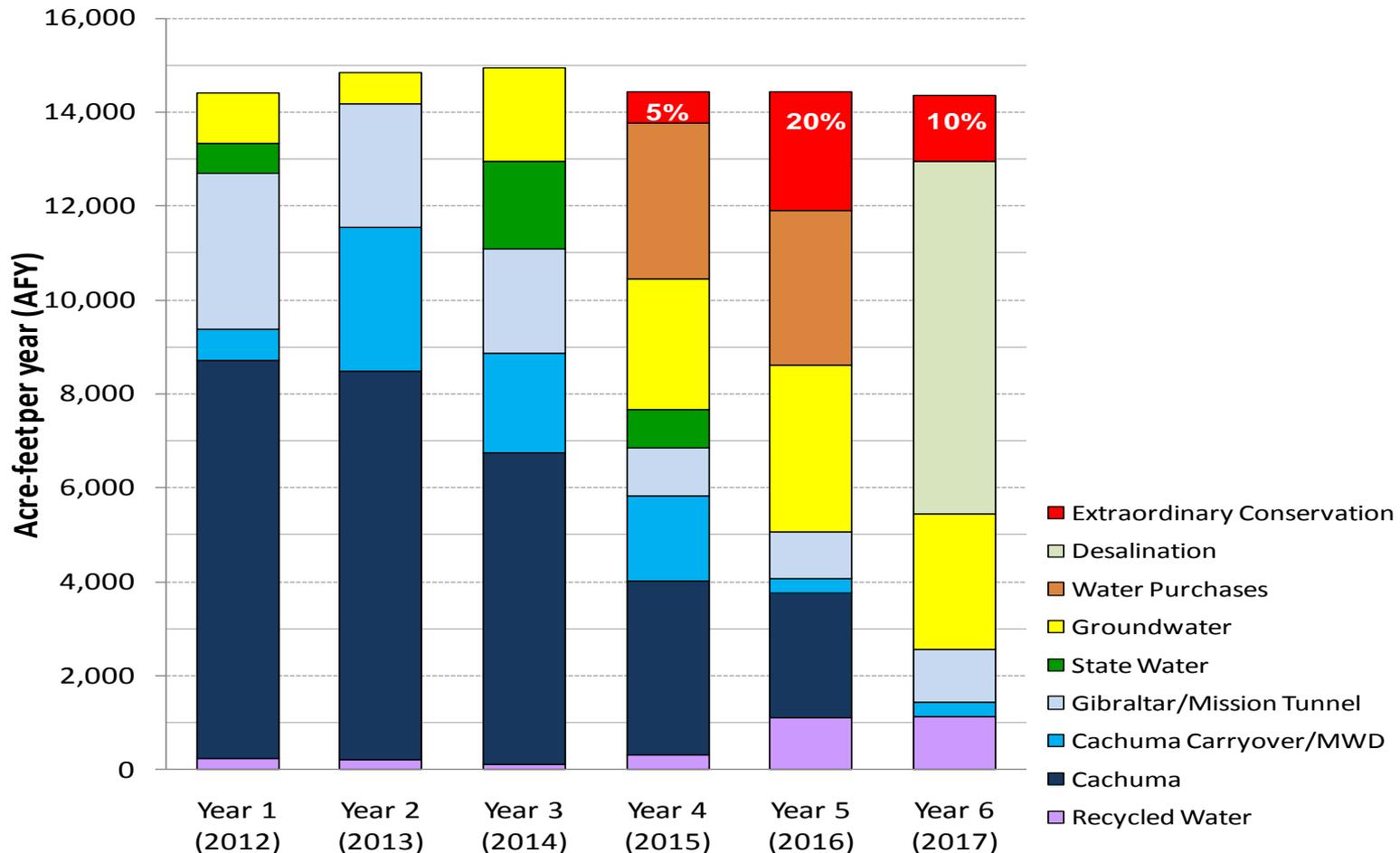
Previous Drought Supply Strategy

(based on historical hydrology 1947-1952)

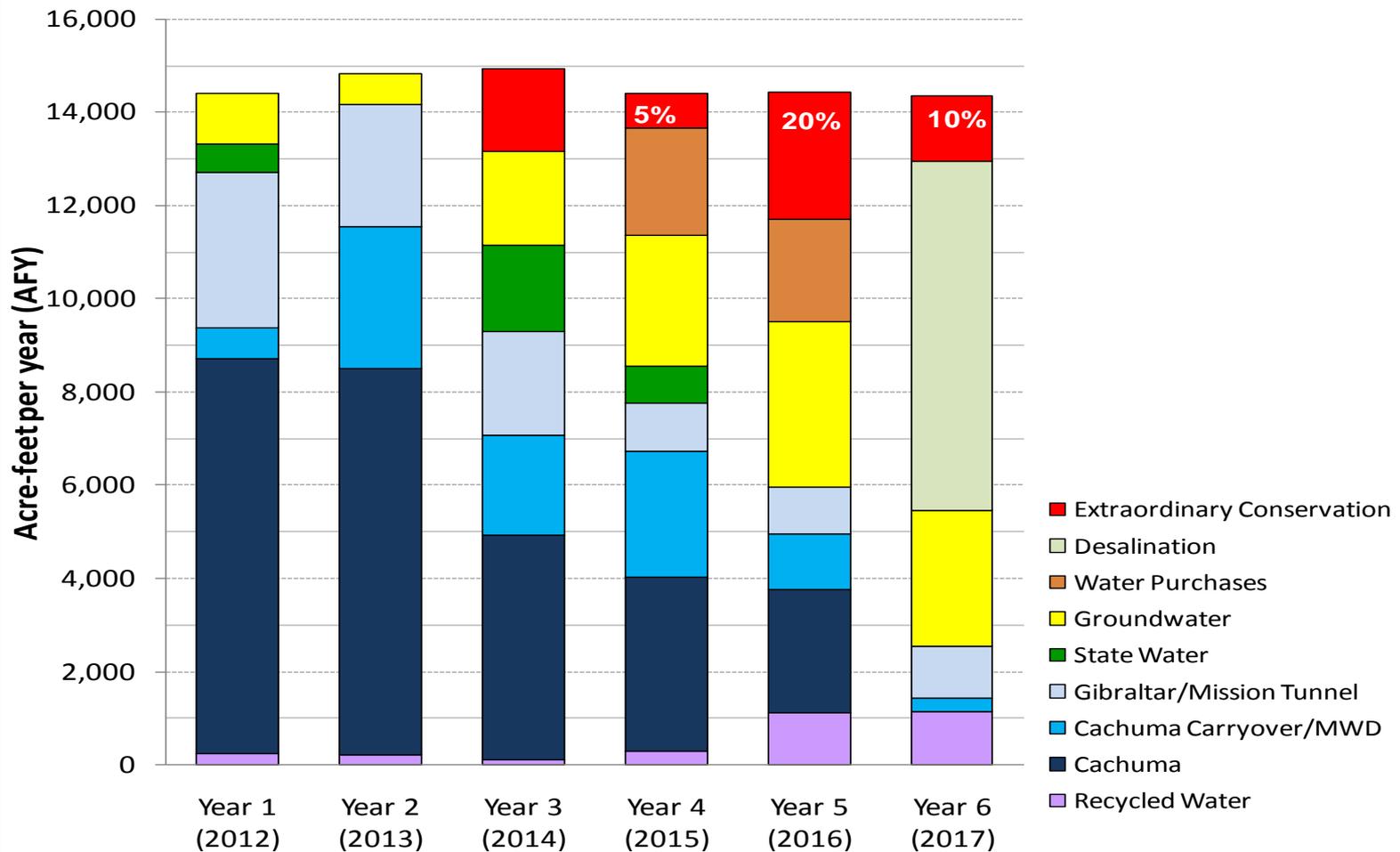


Current Supply Strategy

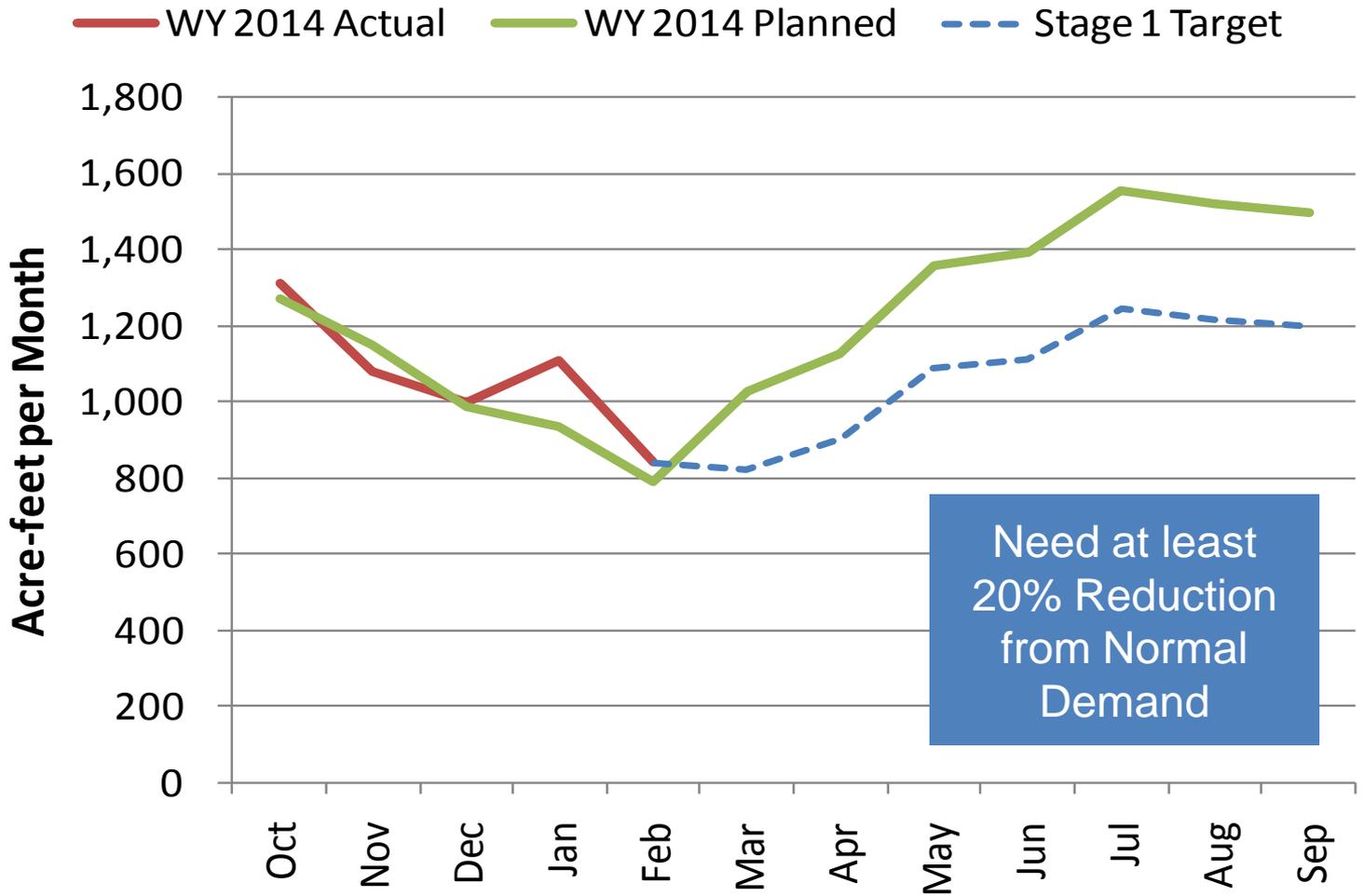
(based on no reservoir inflows, no State Water)



Benefits of Conserving Now



Monthly Demands





Value of Treated Water

- ◆ Surface Water from Cachuma and Gibraltar - \$300/AF
- ◆ Well Water - \$150-\$800/AF
- ◆ Recycled Water - \$1,100/AF
- ◆ Desal Water - \$1,500+/AF

Operational Costs Only

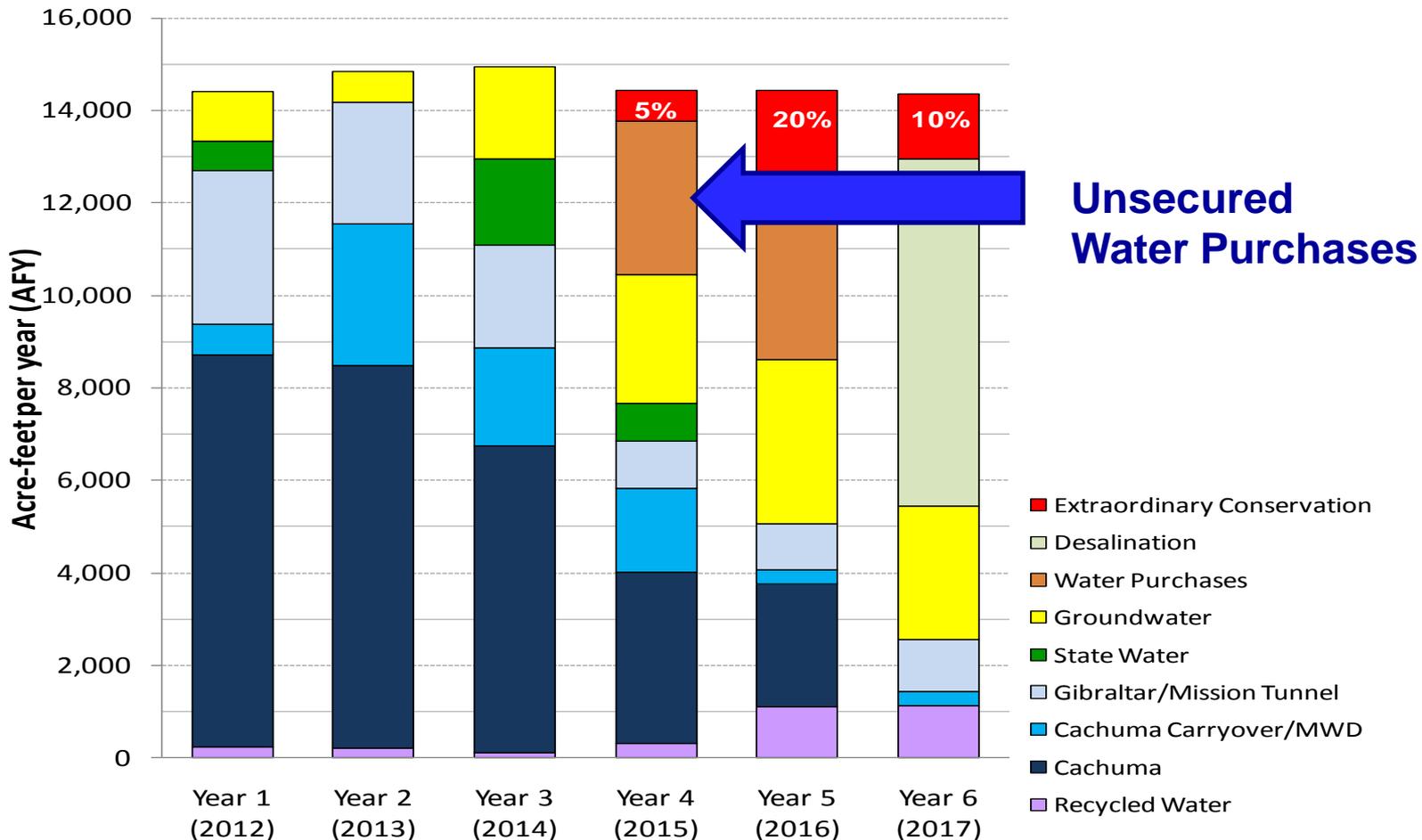
Water Purchases

- ◆ State Water Allocation reduced to 0%
- ◆ Make up loss through water purchases
- ◆ CCWA/ Water Broker Services
- ◆ Looking to purchase up to 4,500 AF
- ◆ Historic costs for Delivery and Treatment of State/Purchased Water - \$500/AF



Current Supply Strategy

(no reservoir inflows, no State Water)



Water Purchases

- ◆ South Delta Water
- ◆ Buena Vista (February 6, 2014)
 - High Bid - \$1,350/AF
- ◆ Madera Irrigation District (March 7, 2014)
 - High Bid \$2,200/AF



Water Purchases

- ◆ North Delta Water
 - Sacramento Valley “Rice Water”
 - Timeline – Late April 2014
 - Losses through the Delta
 - Cost ~\$500-\$600





Drought Response Capital Projects

- ◆ Recycled Water System
- ◆ Groundwater Projects
- ◆ Desalination Plant
- ◆ COMB Pumping Project



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Recycled Water System

- ◆ Recycled Water Filtration Plant
 - Current Facility is 20 year old
 - Project has been in the works for 4 years
 - \$9M Capital Microfiltration Tertiary Treatment Plant
 - Completion - Summer 2015
 - Capacity will be 1,400 AFY
 - Current Demand is 1,100 AFY



Recycled Water System

- ◆ Valle Verde Well
 - Groundwater Basin with poor water quality
 - Supplement Recycled Water System



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Professional Groundwater Support Services

- ◆ Advise on management of groundwater basins
- ◆ Well Condition Assessment and Rehabilitation

Silt Wells at Gibraltar Reservoir





Groundwater Projects

- ◆ Corporation Yard Well – Coming online in October 2014.



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Drought Response Capital Projects

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- ◆ Groundwater Projects
- ◆ **Desalination Plant**
- ◆ COMB Pumping Project

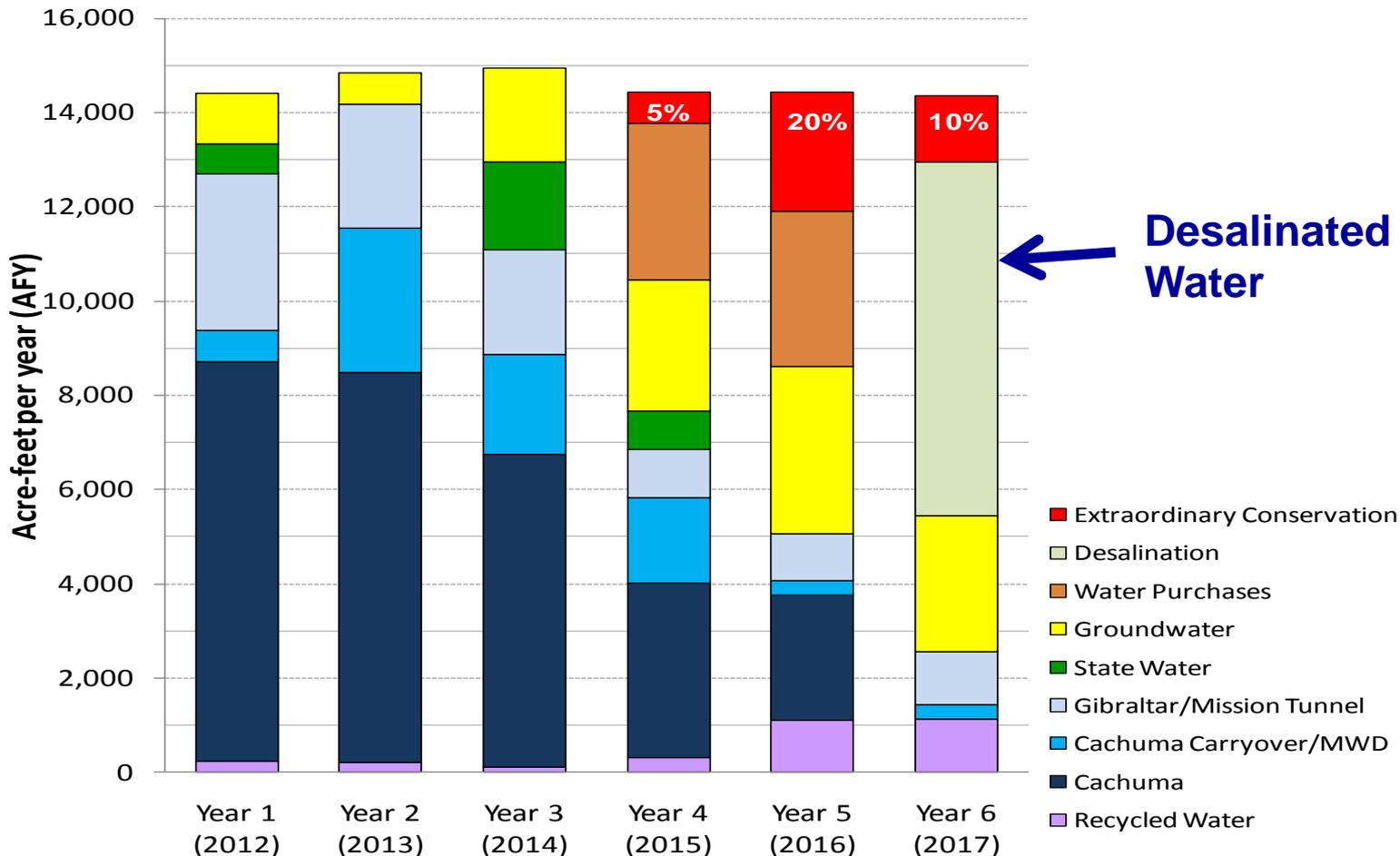
Desalination Plant

- ◆ RFP for Preliminary Design Services
- ◆ Proposals due March 24th
- ◆ Scope:
 - Capacity
 - Permitting
 - Technology
 - Funding
 - Cost Estimate
 - Construction Schedule



Estimated Desal Timeline

(no reservoir inflows, no State Water)



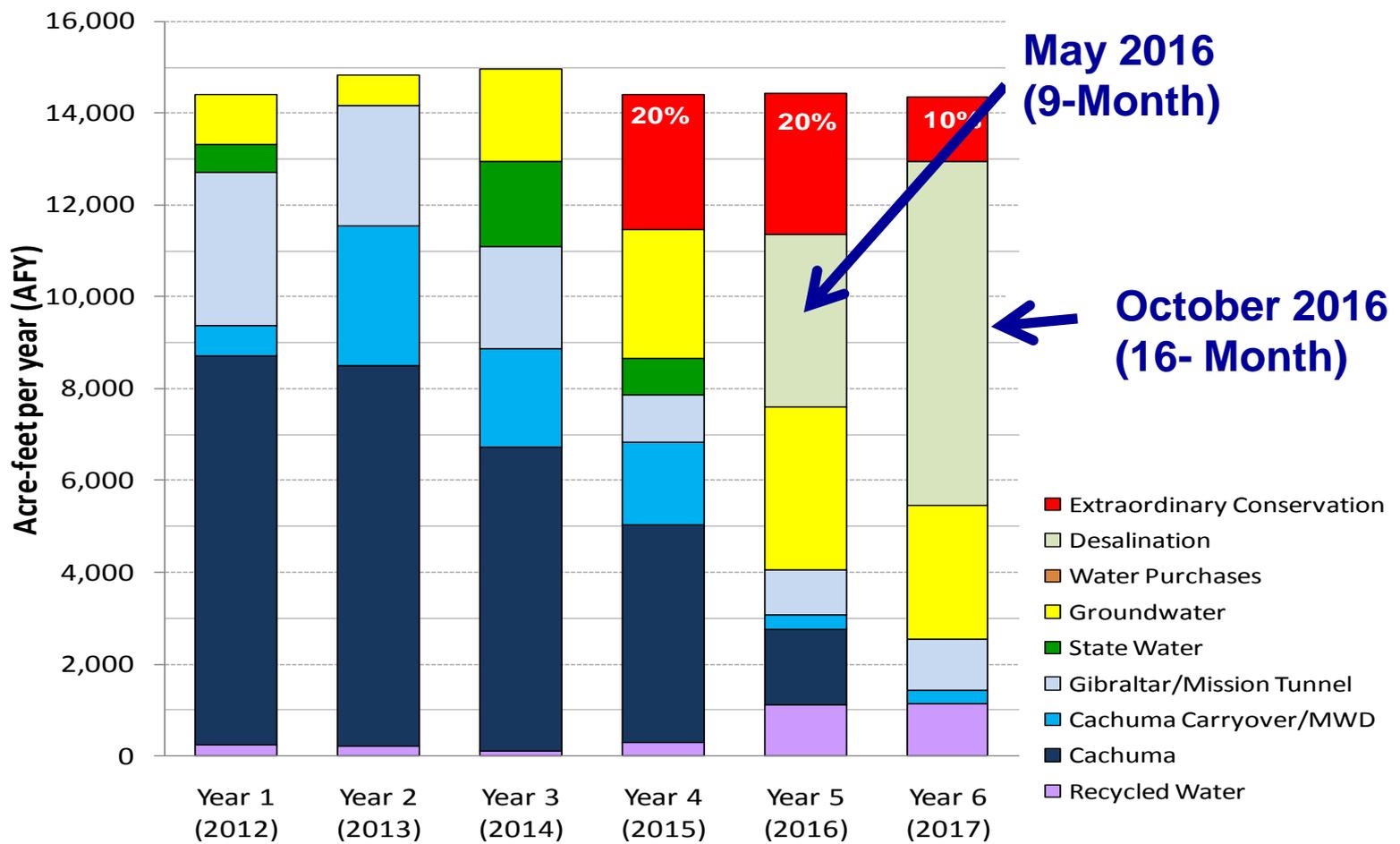


Desalination Timeline

- ◆ Release RFP for Design/Build/Operate in October 2014
- ◆ Award Contract as early as February 2015
- ◆ Construction Duration
 - Between 9 and 16 months

Estimated Desal Timeline

(no reservoir inflows, no State Water)





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Drought Response Capital Projects

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- ◆ Groundwater Projects
- ◆ Desalination Plant
- ◆ **COMB Pumping Project**

COMB Pumping Project

- ◆ Proposals from Design/Build Contractors due Friday April 4, 2014
- ◆ Project anticipated to be online September 1, 2014
- ◆ 36 or 45 MGD Pumping Capacity
- ◆ Current Cost Estimate
 - Capital ~\$3.5 Million
 - Operation ~\$200k/month
- ◆ Costs Shared Amongst COMB members





Drought Financial Impacts

- ◆ Working on Costs associated with
 - Capital Projects
 - Water Purchases.
 - Operations
- ◆ Drought Water Rates
 - Incentivize conservation
 - Ensure Water Fund is revenue neutral
 - Prop 218
 - Cost of Service
 - Public Noticing Requirements



Stage Two Drought Triggers

- ◆ Worsening of Water Supply Projections
- ◆ Need Customers to achieve 20% Reduction
- ◆ Water Expenses exceeding Revenue
 - Rate Stabilization Fund



Stage Two Drought Timeline

- ◆ Preparing for a Stage Two in late May
 - Received Feedback from Water Commission on March 10
 - Recommendations for Drought Rates in April.
- ◆ Rates could become effective in July bills for usage of water in June

Stage Two Drought Highlights

- ◆ Serious water shortage is expected in the impending year
- ◆ Drought-based Water Rates
- ◆ Continue message for **EXTRAORDINARY** conservation
- ◆ Mandatory restrictions on water use



Conservation Workload Update

- ◆ Increased Drought Focused Marketing & Public Outreach
- ◆ Increased demand for Water Check-ups
- ◆ Updating Water Conservation Model



Conservation Opportunities

- ◆ Current Message:
“Drought On - Sprinklers Off”
 - Soil still saturated from recent rains
 - Keep all sprinklers & drip off until soil dried out
 - Mulch at least 3” deep to retain moisture and reduce evaporation



Intra-City Extraordinary Water Conservation Efforts

- ◆ Parks & Downtown Parking are reducing and in some areas eliminating irrigation
 - Prioritizing irrigated spaces
- ◆ Reducing Water System Flushing Program
- ◆ Postponing Reservoir Cleaning Program





**For information & assistance on
water conservation:**

www.SantaBarbaraCA.gov/WaterWise

Call: 564-5460



An aerial photograph of a vast mountain range. In the foreground, a large, winding reservoir is visible, surrounded by rolling hills and valleys. The middle ground shows a series of ridges and valleys, some with patches of green vegetation. In the background, a prominent mountain range is covered in snow, with a clear blue sky above. The text "Vision for a Wetter Tomorrow" is overlaid in the center of the image.

Vision for a Wetter Tomorrow