



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: June 16, 2015

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Stage Three Drought Update

RECOMMENDATION: That Council:

- A. Receive an update on the status of the current drought and related efforts; and
- B. Approve extending three Water Resources Specialist positions that were authorized only through June 30, 2015, and temporarily increasing hours for two regular part-time Water Resources Specialist positions, through June 30, 2016.

DISCUSSION:

On February 11, 2014, Council declared a Stage One Drought Condition, and set a goal to reduce customer water use by 20 percent. Council requested that staff provide a monthly status update on the City's water supplies, conservation efforts, and current work efforts. On May 20, 2014, Council declared a Stage Two Drought Condition in response to a third consecutive year of below average rainfall and water conservation, falling short of the 20 percent target. On May 5, 2015, in response to what has now become the driest four-year period on record, Council declared a Stage Three Drought Emergency, increased the community's water conservation target to 25 percent, and provided direction to staff on final wording of a resolution to adopt Stage Three regulations, which was adopted on May 12, 2015, as Resolution No. 15-036.

This report will cover the following items:

- Water Supply Outlook/Weather Forecast
- Drought Response Capital Projects
- Conservation Efforts

Water Supply Outlook

Rainfall for the last four years has averaged less than half of the long-term average and, supply projections must recognize the potential for the current dry pattern to continue.

Accordingly, staff's supply projections assume no significant deliveries from Gibraltar Reservoir, no additional Cachuma entitlement, and no significant rainfall in Northern California to allow for dependable supplemental water purchases or State water deliveries. Consistent with the City's Long-Term Water Supply Plan (LTWSP), there is a shift to increased groundwater production and purchases of supplemental water, when available. This strategy has been successful in providing secured supplies sufficient to meet demand for the current 2015 and 2016 water years, assuming there is a 25 percent reduction in customer water use. Beyond 2016, the ability to purchase and receive supplemental water is uncertain. The primary remaining potable supply would be our groundwater, which has a limited production capacity, and by 2017, the groundwater basins will have been significantly depleted. Consistent with the LTWSP, the remaining supply option is reactivation of the City's Charles Meyer Desalination Plant (Plant).

There have been recent media reports about an increased potential for strong El Niño conditions in water year 2016. Such conditions are often associated with significant rainfall. However, there have also been years with strong El Niño conditions that have produced drier than average years. Given the unpredictable nature of El Niño events, this phenomenon cannot be counted on to improve the water supply situation.

Drought Response Capital Projects

Staff continues to work on drought-related capital projects, including completion of the new Alameda Park Well, which is anticipated to be online in fall 2015. Preliminary test results suggest the well will have a greater production rate than what was originally predicted. Efforts are also continuing to put the High School Well into service before spring 2016.

The rehabilitation of the City's Recycled Water Treatment Plant has suffered delays associated with the membrane design. Completion of this project is now anticipated for fall 2015. Conservative estimates were used for water supply planning related to the Plant coming online, so the delayed start should not cause a significant impact to the City's water supplies. Recycled water customers will continue to be asked to reduce their water usage by the targeted 25 percent until the plant is in service. Engineering staff is working closely with the project's contractor and design firm to resolve the design issues.

Most important, staff has completed a year-long process of preliminary design and solicitation of proposals to reactivate and operate the Charles E. Meyer Desalination Plant (Plant). In March 2015, staff conducted interviews with potential design/build/operate contractors. Staff has just completed negotiations with the top firm, IDE/Kiewit. This matter is discussed in detail in a companion Council report. If

Council decides to move forward with reactivating the Plant, it could be made operational by fall 2016.

Position Changes

Workload for the Water Conservation Program has increased significantly during the drought. To support program needs, staff wishes to extend authorization of three full-time Water Resources Specialist positions that were initially approved only through June 30, 2015, and to temporarily increase authorized hours for two regular part-time Water Resources Specialist positions from 0.5 of full time to 0.75 of full time. These position changes will be authorized through June 30, 2016. Depending on drought conditions, extension of the positions will be reevaluated in Spring 2016 for Fiscal Year 2017.

Staff notified Council of the need for these position extensions during the April 14, 2015 Drought Update, but it was too late to include the position authorization in the proposed budget. With Council's approval today, the final Fiscal Year 2016 Budget and Position and Salary Control Resolution will include the position authorization. The necessary funding was already included in the proposed budget, under hourly staffing, so no additional funds need to be allocated.

Conservation Efforts

The City's most recent water conservation numbers for May 2015, show a 37 percent reduction in water use based on 2013 water demands. The 2013 reference is the State's baseline for comparison and reporting on statewide water conservation efforts. Since June 2014, following Council's Stage Two Drought declaration, City water customers have achieved a cumulative reduction of over 20 percent. Santa Barbara has been one of the few water agencies statewide that has consistently met the State's water use reduction targets.

Under the State's current regulations, adopted in May 2015, mandated water use reductions for each water agency range from 4 to 36 percent, based on residential per capita water use. For Santa Barbara, the state-mandated water use reduction is 12 percent, which is a result of the low per capita residential water use of 79.6 gallons per day. In earlier drought updates, the City's state-mandated water use reduction was reported as 16 percent based on results of state reporting at that time; however, City staff recently updated the City's monthly conservation reports to the state to include potable water used as blend water in the recycled water system in response to clarified State guidelines. This adjustment reduced the City's baseline June 2014 through September 2014 residential per capita water use (since blend water use is not residential), and pushed the City into a lower conservation tier, thus reducing the City's state-mandated reduction from 16 to 12 percent. However, the severity of the drought

on local water supplies necessitates a City-wide 25 percent reduction target to ensure the City has adequate supplies for the 2016 water year.

With the Stage Three Drought declaration and the need for a 25 percent reduction, the Water Conservation Program has continued its enhanced public information campaign of targeted outreach to specific user types, including:

- Increased weekly messaging through social media, online news outlets, and industry contacts;
- Presentations to community and industry groups;
- Additional printed materials with drought messaging;
- Targeted utility bill messaging;
- Drought signage at City facilities; and
- Additional training and workshops.

Stage Three water rates will be effective July 2015, and will help meet the 25 percent water use reduction target. During the coming months, staff will monitor conservation efforts and consider possible recommendations for further water use regulations or development restrictions in fall 2015, if necessary.

PREPARED BY: Joshua Haggmark, Water Resources Manager/ng

SUBMITTED BY: Rebecca J. Bjork, Public Works Director

APPROVED BY: City Administrator's Office



Stage Three Drought Update

City Council
June 16, 2015



Outline

- ◆ Rainfall and Surface Water Supply Totals
- ◆ Water Supply Outlook & Community Conservation
- ◆ State/Supplemental Water
- ◆ Drought Response Capital Projects
- ◆ Water Conservation Program

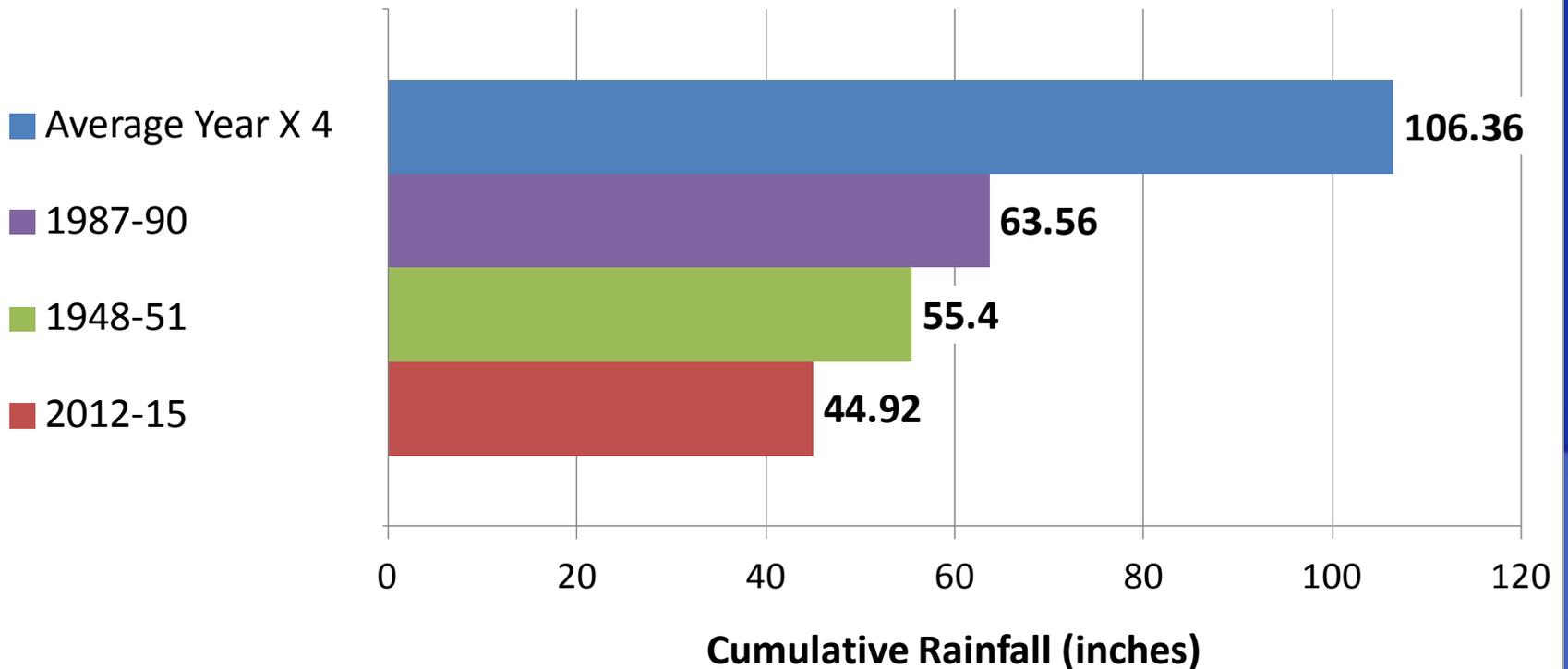


Rainfall and Surface Water Supply Totals

- ◆ Rainfall Totals for the water year as of 6/10/15:
 - Gibraltar Lake – 12.90” (49% of Normal)
 - Lake Cachuma – 9.17” (46% of Normal)
 - Santa Barbara – 10.41” (57% of Normal)
- ◆ Gibraltar Reservoir
 - 12% of Capacity
with ~ 600 AF
- ◆ Lake Cachuma
 - 26% of Capacity
with ~ 51,000 AF

Driest 4 Years on Record

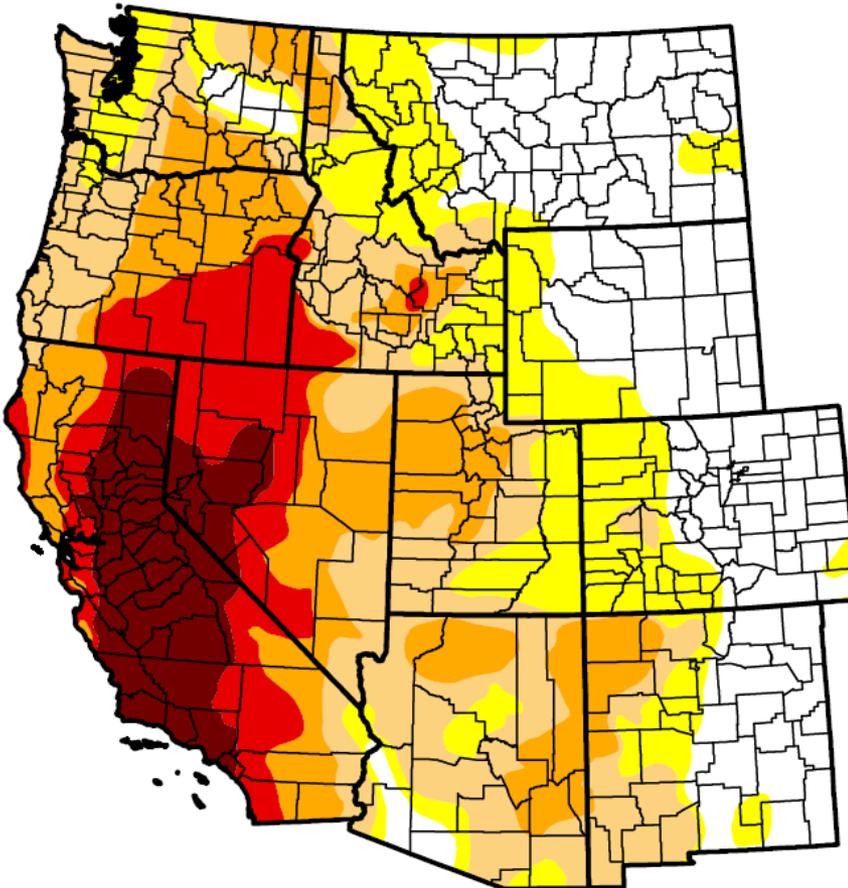
Driest Four Consecutive Years - Gibraltar
96 Years of Rainfall (1920-2015)
(WY2015 through April 1, 2015)



Drought Intensity Monitor

U.S. Drought Monitor West

June 9, 2015
(Released Thursday, Jun. 11, 2015)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	26.12	73.88	55.26	34.69	17.52	7.78
Last Week 6/2/2015	25.23	74.77	56.98	35.92	17.99	7.94
3 Months Ago 3/10/2015	29.72	70.28	59.80	29.93	16.62	7.04
Start of Calendar Year 12/30/2014	34.76	65.24	54.48	33.50	18.68	5.40
Start of Water Year 9/30/2014	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago 6/10/2014	30.93	69.07	60.11	47.10	20.35	4.28

Intensity:

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

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

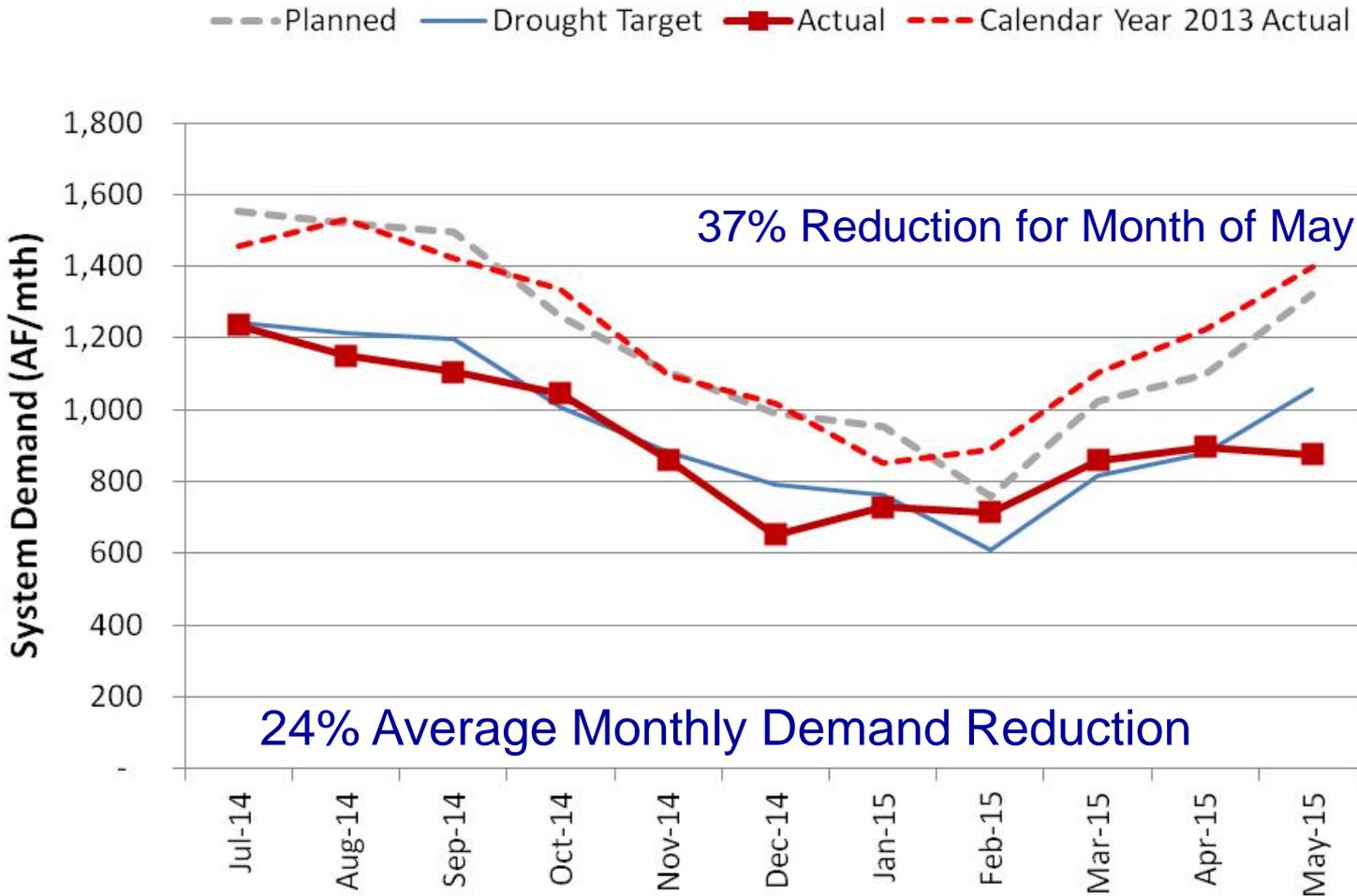
Author:
David Miskus
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

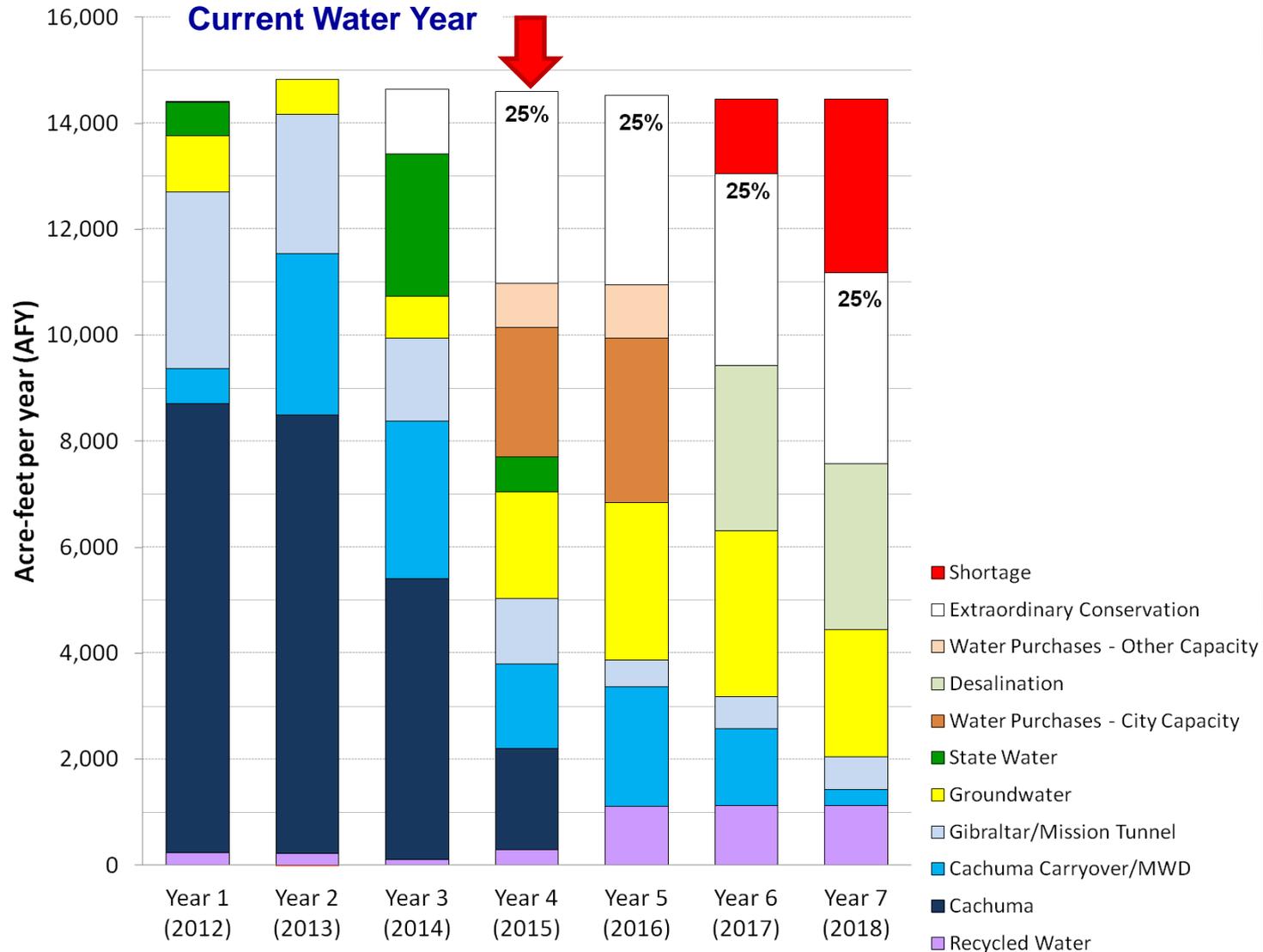
Water Conservation

Fiscal Year 2015



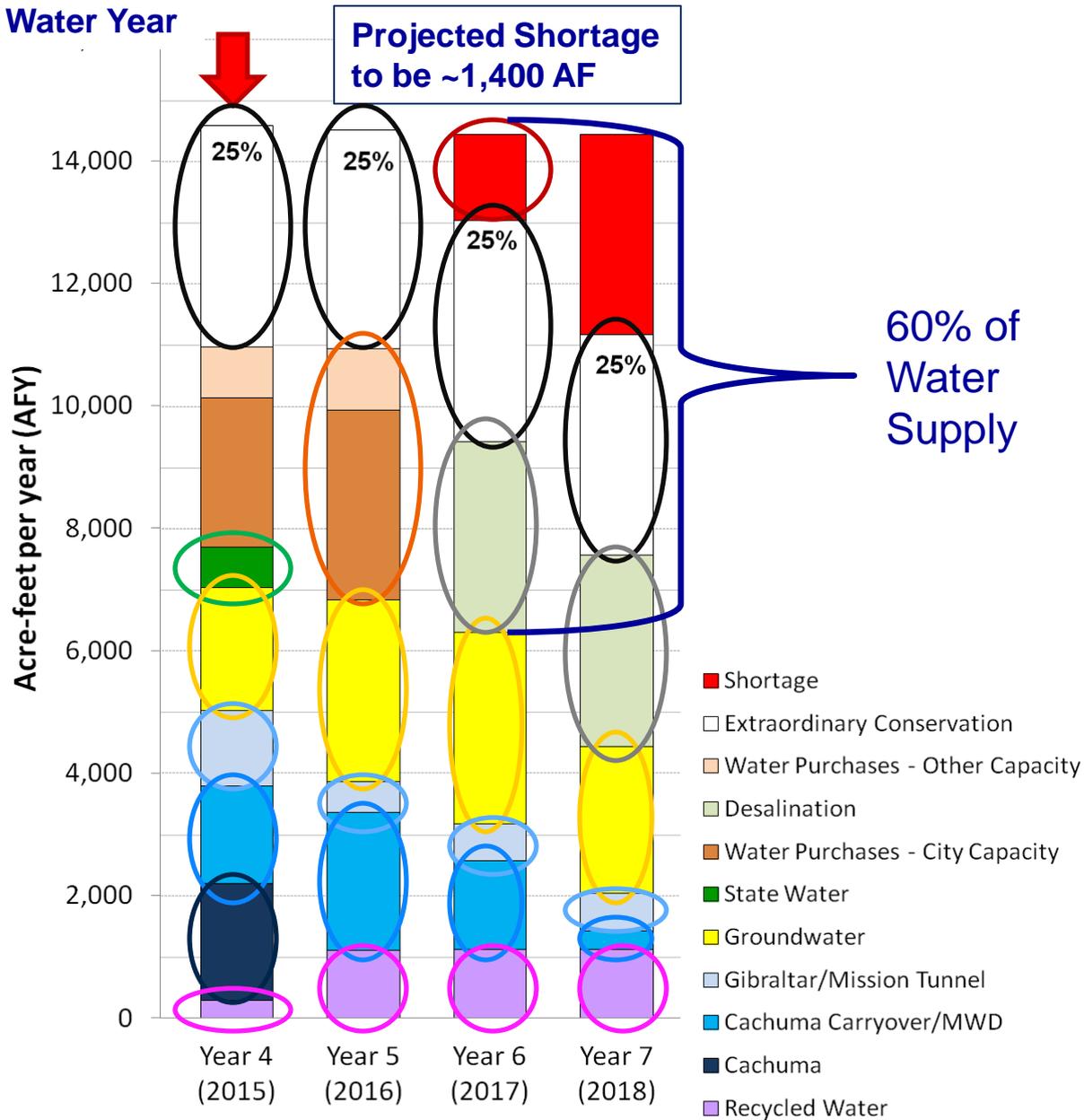
Proposed Supply Strategy

(based on no reservoir inflows, no State Water)



Proposed Supply Strategy

Current Water Year

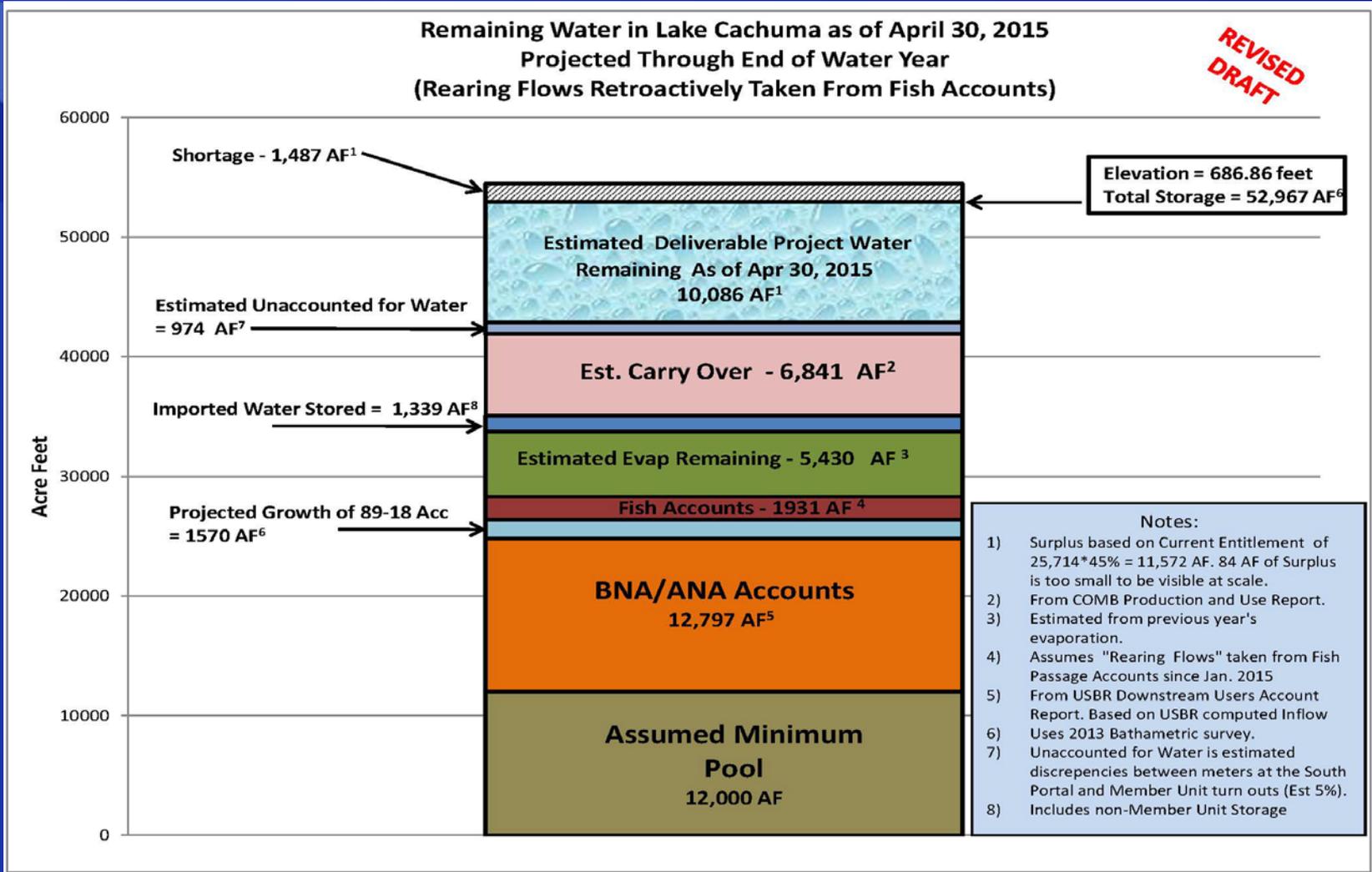


State & Supplemental Water

- ◆ 2015 State Allocation - 20% of Contract (~600 AF)
- ◆ 2015 Supplemental Water Purchases
 - Secured Goal: 4,500 AF, which included water for 2016



Remaining Water in Cachuma



Lake Cachuma Operations

- ◆ Emergency Pump Project
 - Operation anticipated to begin July 2015
- ◆ Fish Water Releases
 - USBR responding to NMFS questions regarding proposed action to:
 - Reduce Fish Water Releases
 - Utilize Fish Passage Account



Drought Response Capital Projects

- ◆ Recycled Water System
- ◆ Groundwater Projects
- ◆ Desalination Plant



Recycled Water System Projects

- ◆ Valle Verde Well (Non-Potable)
 - ~250 AFY Production
 - Supplying the recycled water system
- ◆ Recycled Water Facility
 - Contract Design Issue
 - Scheduled to go online in Fall 2015
 - Next Steps



Groundwater Well Project Highlights

◆ High School Well

- Bids received for raw water piping
- Production anticipated this Winter 2015/2016

◆ Alameda Well

- Contract work to be completed in July
- Production in September 2015



Desal Project

- ◆ Water Supply Projections
 - Water Supply Outlook
 - El Niño Prediction
 - Long Term Water Supply Impacts
- ◆ Recommend awarding a Limited Notice to Proceed Contract
 - Keeps operations on schedule for Fall 2016
- ◆ Return with full award of contract when loan is approved.



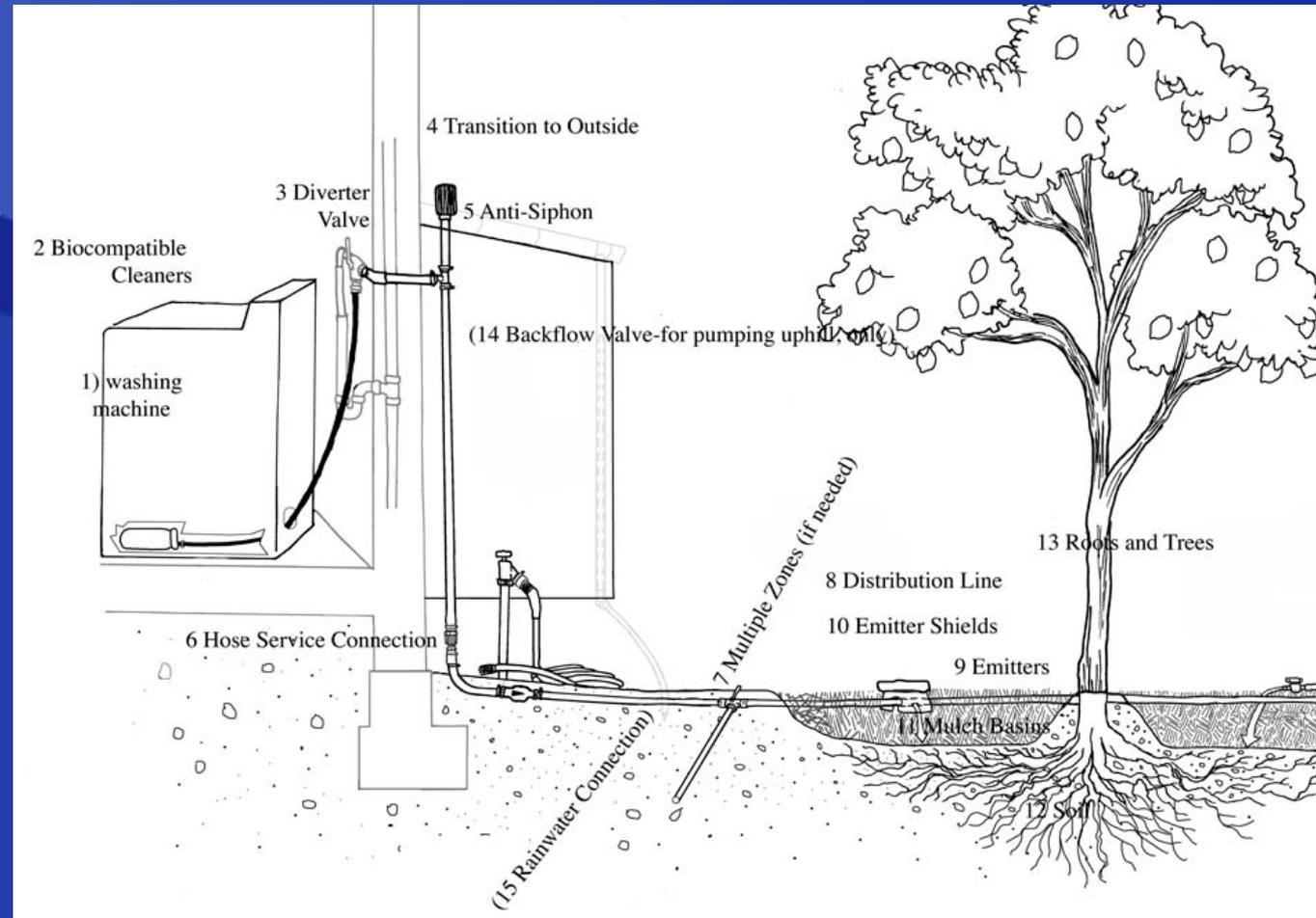
Water Conservation

- ◆ 3,267 acre feet of savings since drought was declared
- ◆ Over 1 billion gallons of water saved!
- ◆ Demand remains high for water checkups, landscape rebates, mulch, nozzles, and more



Graywater

- ◆ Laundry to landscape systems do not require a permit and are simple to install
- ◆ City is a leader in graywater policy and programs



Graywater

- ◆ Part of the Smart Landscape Rebate
- ◆ Hands-on workshops for homeowners and professional installers
- ◆ *Laundry to Landscape* Graywater DVD available at all libraries





Drought Staffing

- ◆ 3 limited term Water Resources Specialist positions created in FY15
- ◆ 2 regular half-time Water Resources Specialists have been working $\frac{3}{4}$ time
- ◆ Need for continued staffing in FY16 due to drought conditions



Recommendation:

- ◆ That Council approve extending three Water Resources Specialist positions that were authorized only through June 30, 2015, and temporarily increasing hours for two regular part-time Water Resources Specialist positions, through June 30, 2016.



For more information:

www.SantaBarbaraCA.gov/Water

Call: 564-5460

