

Statewide Drought Update

Julie Saare-Edmonds

California Department of Water Resources

2012



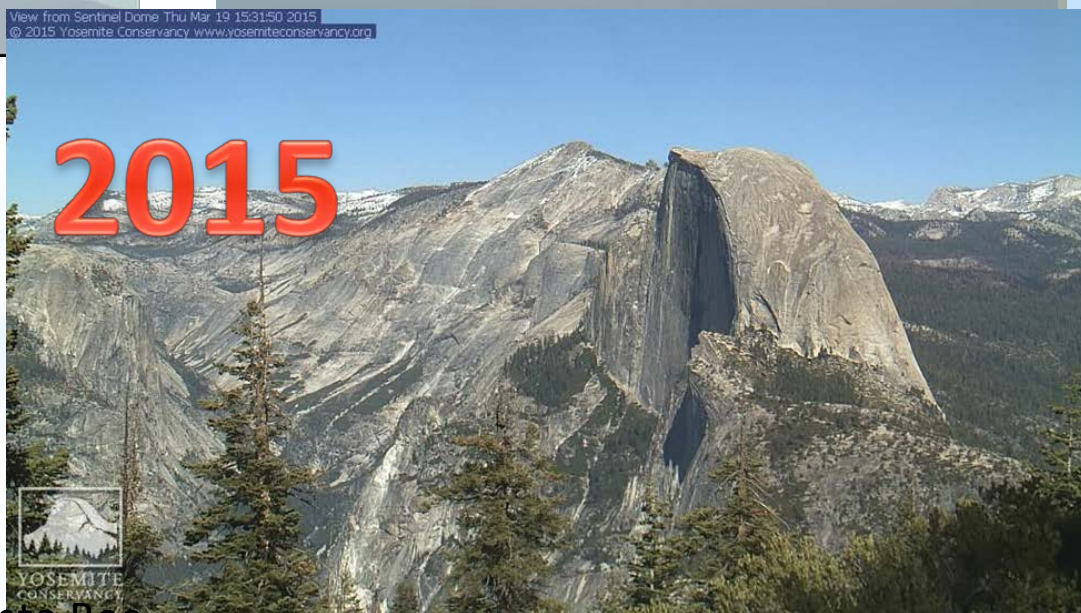
2013



2014



2015



SERIOUS DROUGHT
HELP SAVE WATER

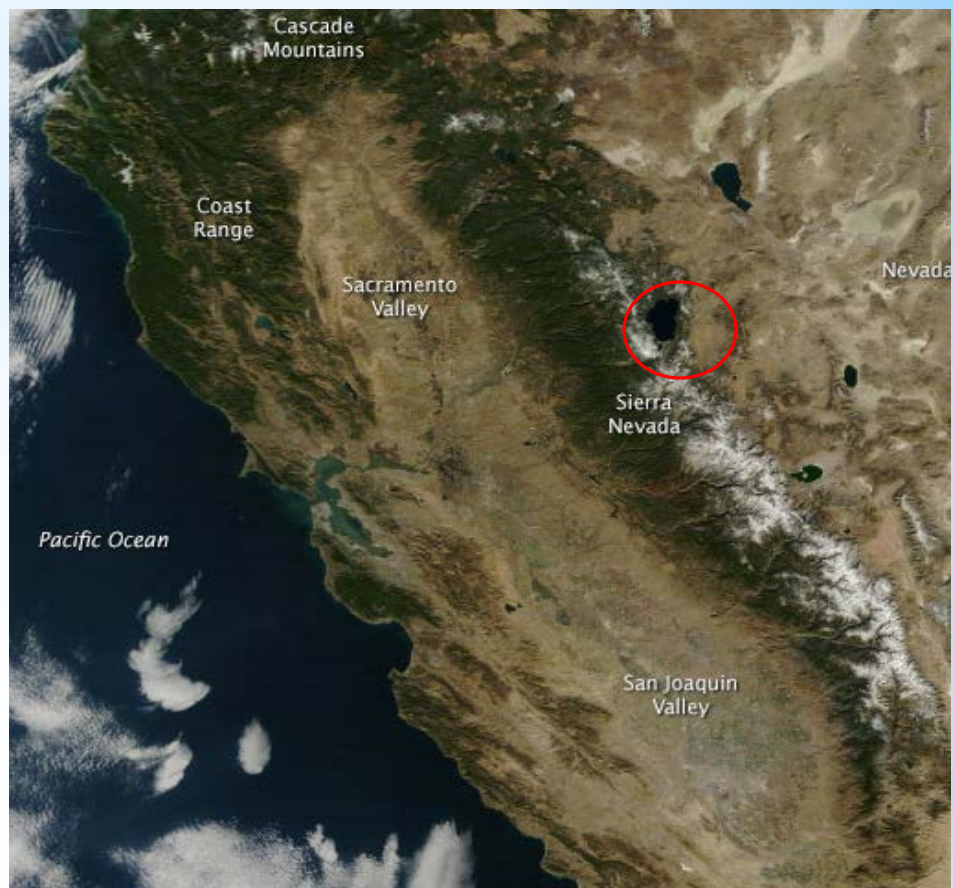




January 2014 Snow Survey Echo Summit



January 2013



January 2014

Even though the winter of 2012-2013 was a dry year, the snowpack in January 2013 was significantly higher than January 2014. A few spring storms improved snow conditions somewhat. Lake Tahoe is circled for reference.



Feb 2014 (after a few storms)



January 31, 2015



April 1- Snow Survey-No Snow



Lake Oroville - July 20, 2011



Lake Oroville - September 5, 2014



Lake Oroville - July 20, 2011



Lake Oroville - September 5, 2014



Lake Oroville - July 20, 2011



Lake Oroville - September 5, 2014



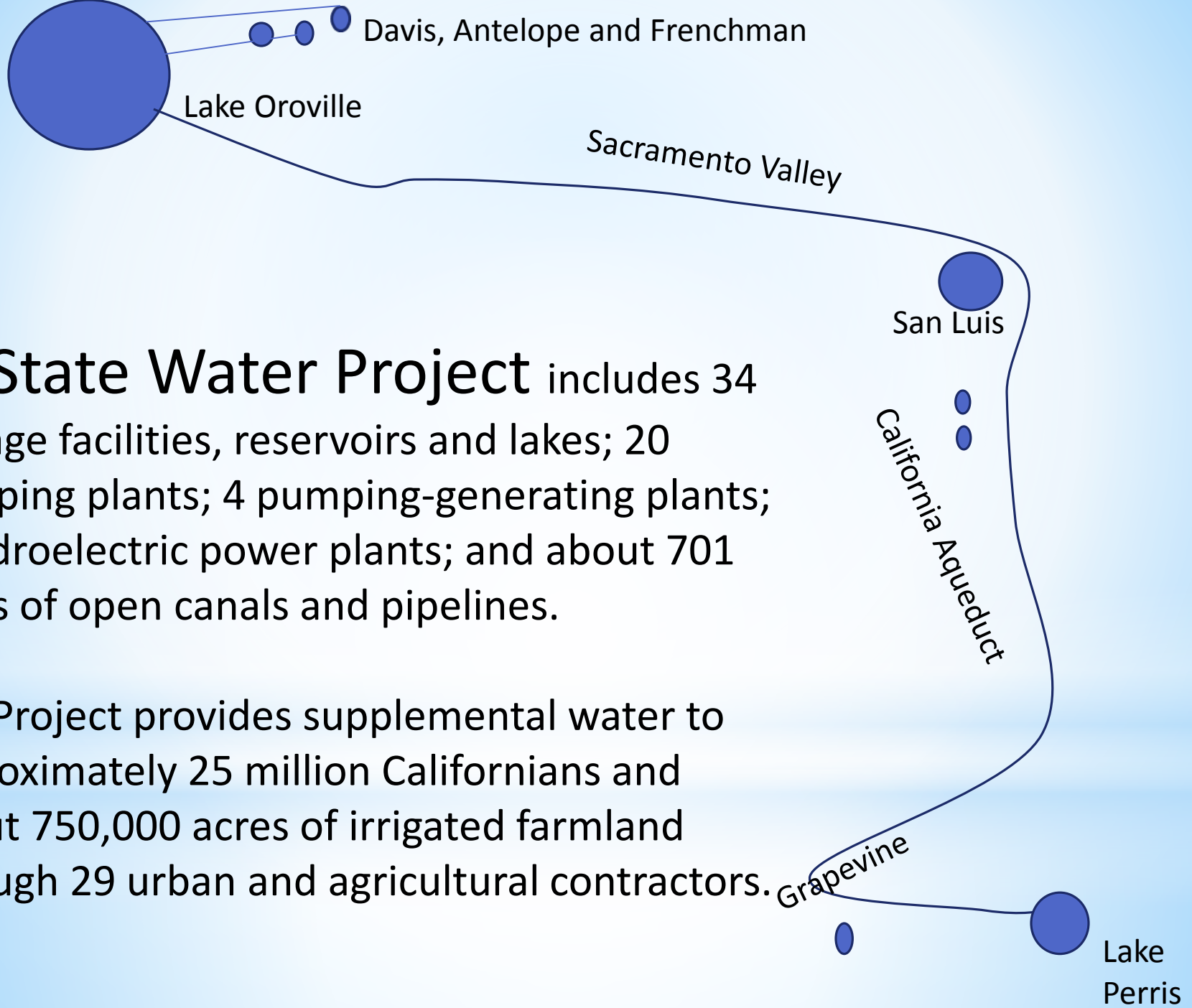
Lake Oroville - July 20, 2011



Lake Oroville - September 5, 2014



San Luis Reservoir –off stream storage



The **State Water Project** includes 34 storage facilities, reservoirs and lakes; 20 pumping plants; 4 pumping-generating plants; 5 hydroelectric power plants; and about 701 miles of open canals and pipelines.

The Project provides supplemental water to approximately 25 million Californians and about 750,000 acres of irrigated farmland through 29 urban and agricultural contractors.

- * Federal
 - * USBR -Shasta, Folsom
 - * USACOE-Englebright, Mendocino, Sonoma
- * Energy Utilities
 - * PG&E-Spaulding, Almanor
 - * SMUD- Union valley, Ice House
- * Water and Electrical Utilities
 - * EBMUD-Pardee

- * Local lakes, rivers and creeks
- * Groundwater

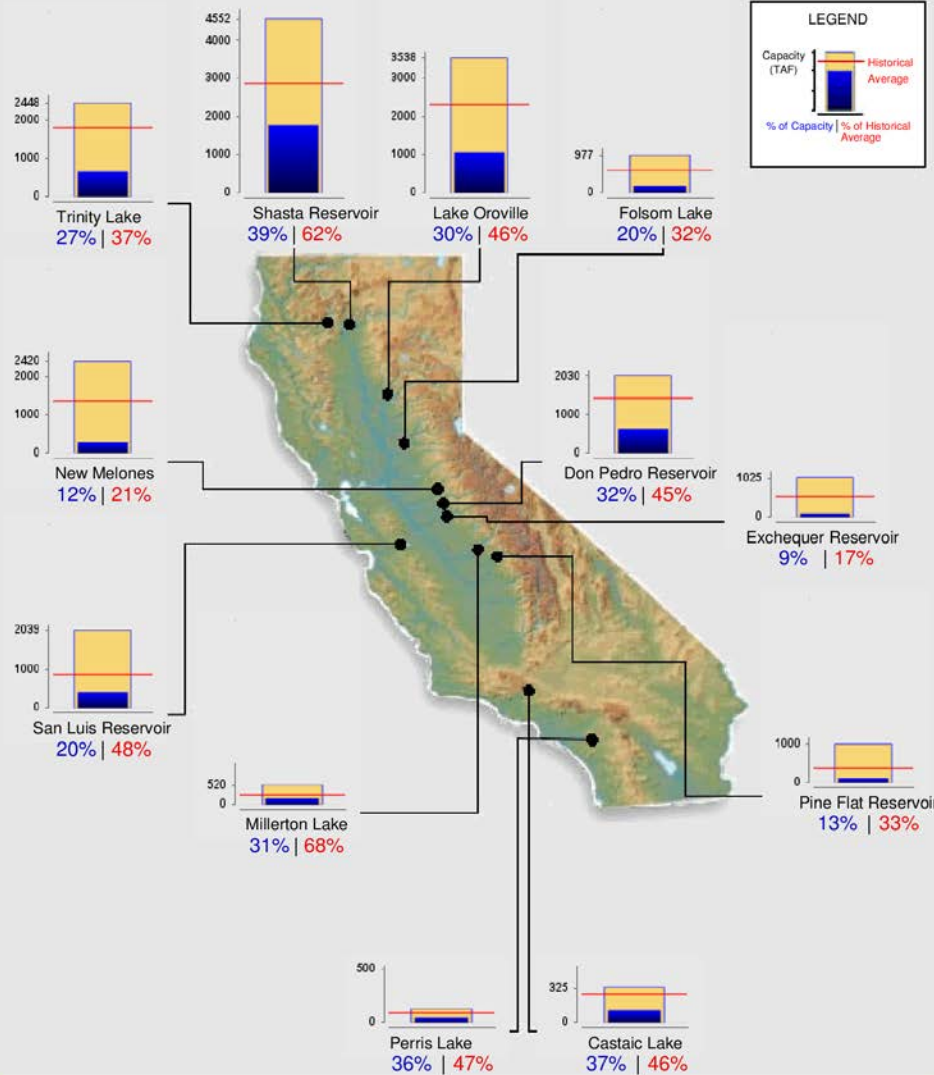
*** Other sources make
up the rest.**



Reservoir Conditions

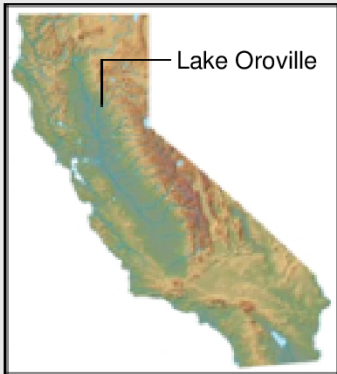
Ending At Midnight - September 2, 2015

CURRENT RESERVOIR CONDITIONS



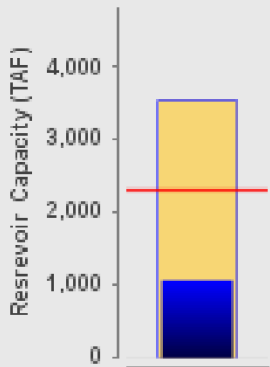


Reservoir Conditions - Lake Oroville



Lake Oroville Conditions

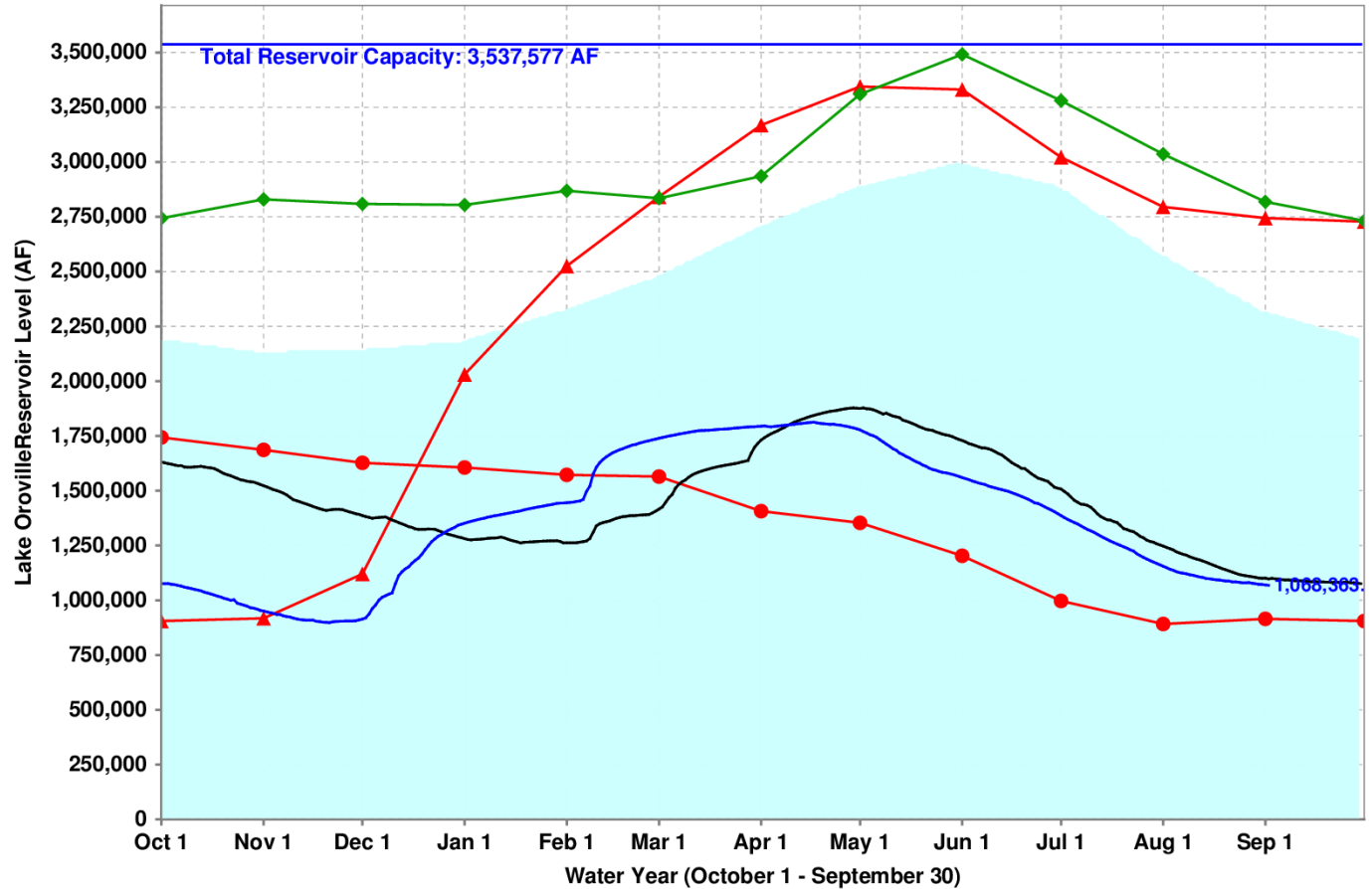
(as of Midnight - September 2, 2015)



Current Level: 1,068,363.8 AF

30% (Total Capacity) | 46% (Historical Avg.)

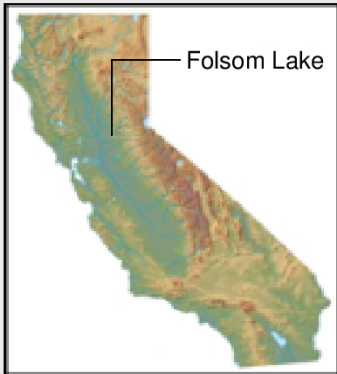
Lake Oroville Levels: Various Past Water Years and Current Water Year, Ending At Midnight September 2, 2015



■ Historical Average
 — Total Reservoir Capacity
 ● 1976-1977 (Driest)
 ▲ 1977-1978
 ◆ 1982-1983 (Wettest)
 — 2013-2014
 — Current: 2014-2015

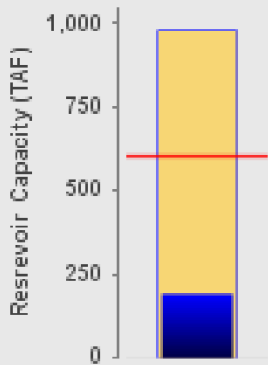


Reservoir Conditions - Folsom Lake



Folsom Lake Conditions

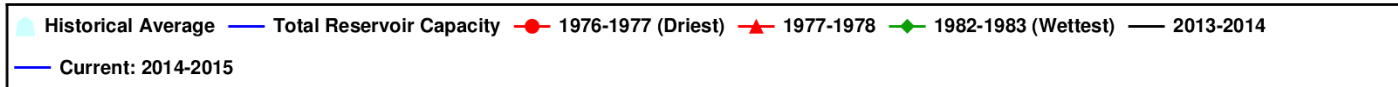
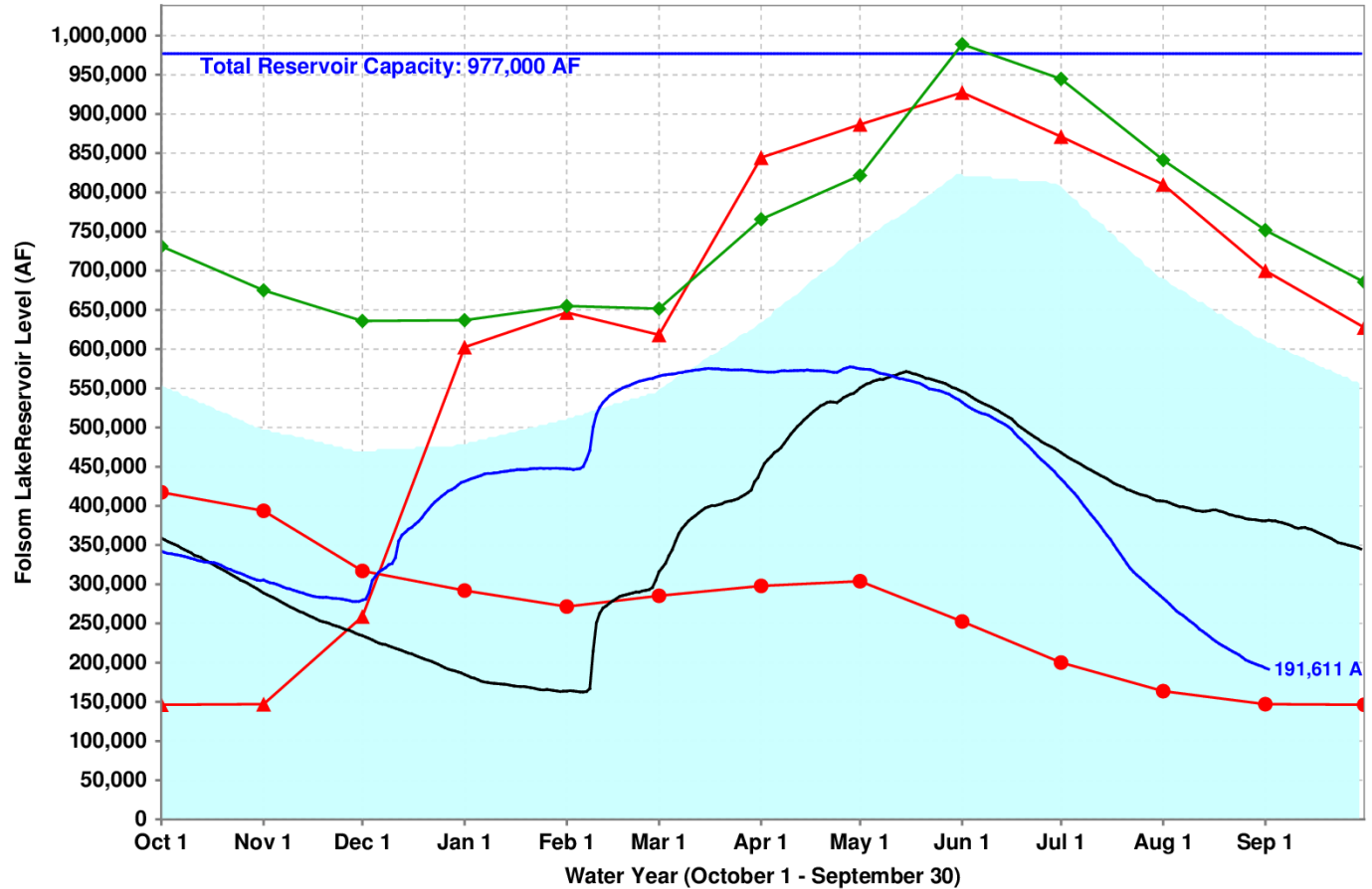
(as of Midnight - September 2, 2015)



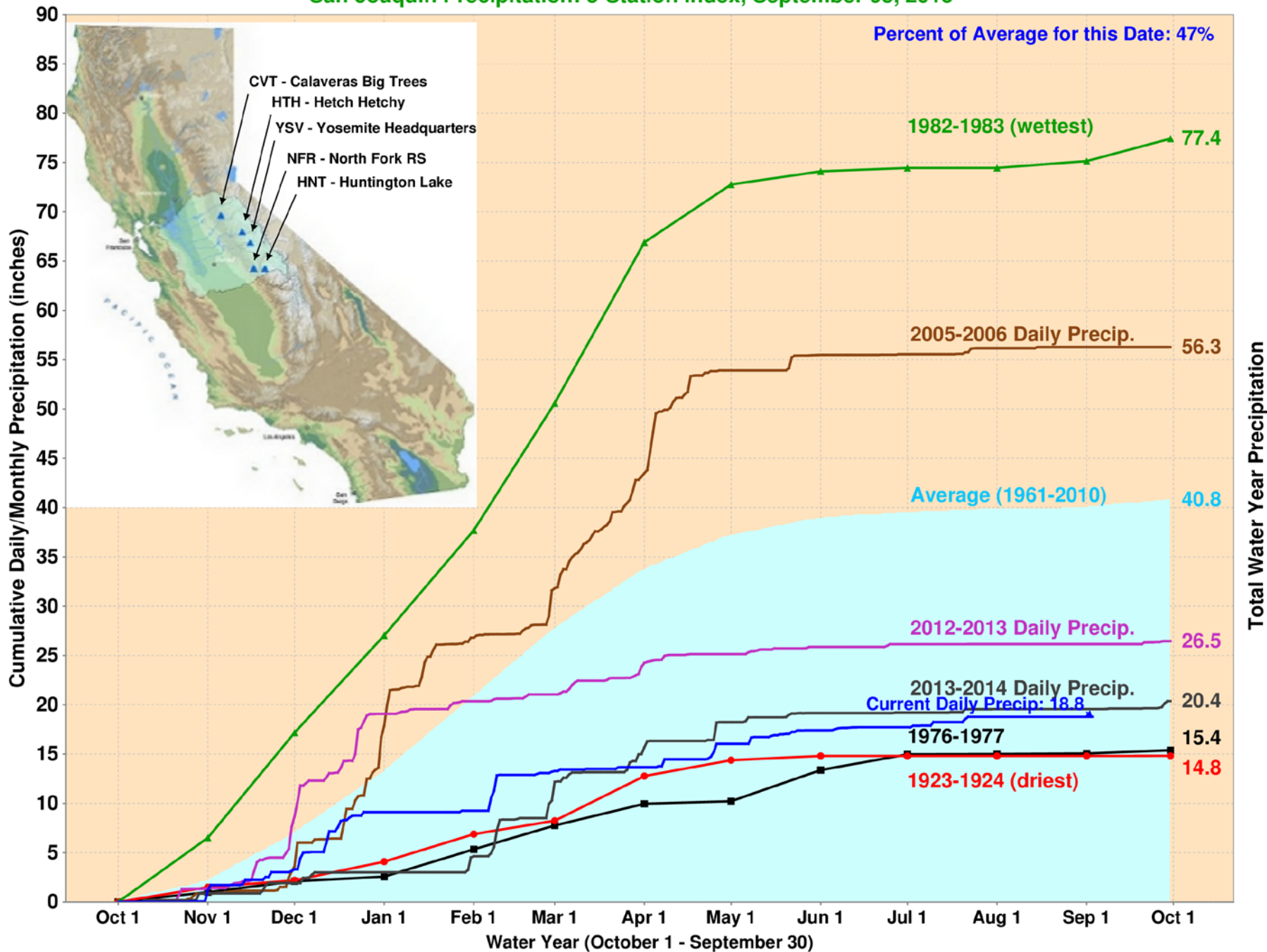
Current Level: 191,611 AF

20% (Total Capacity) | 32% (Historical Avg.)

Folsom Lake Levels: Various Past Water Years and Current Water Year, Ending At Midnight September 2, 2015



San Joaquin Precipitation: 5-Station Index, September 03, 2015



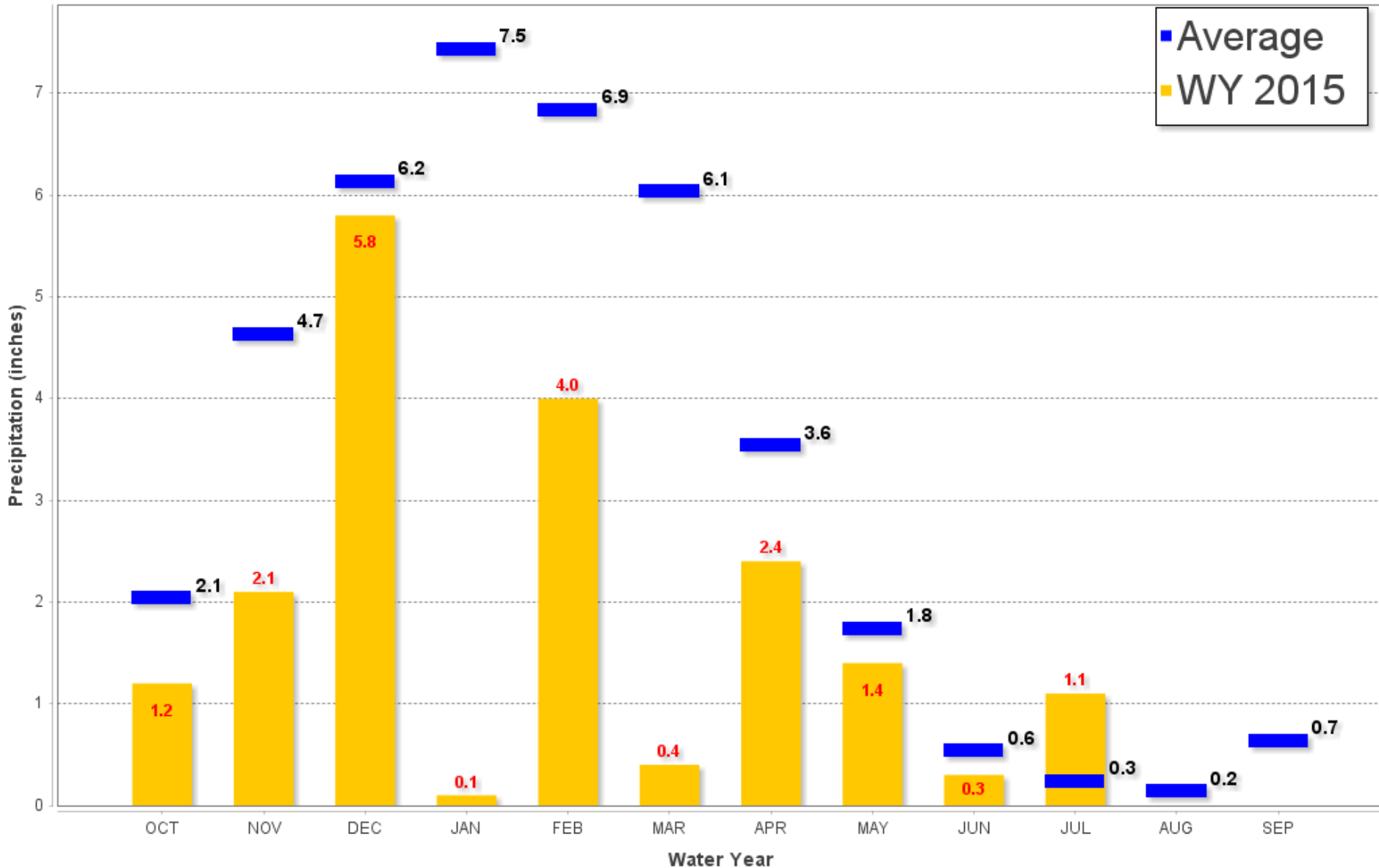


San Joaquin 5-Station

Precipitation Index for Water Year 2015 - Updated on September 3, 2015 08:30 AM

Note: Monthly totals may not add up to seasonal total because of rounding

Water Year Monthly totals are calculated based on Daily precipitation data from 12am to 12am PST



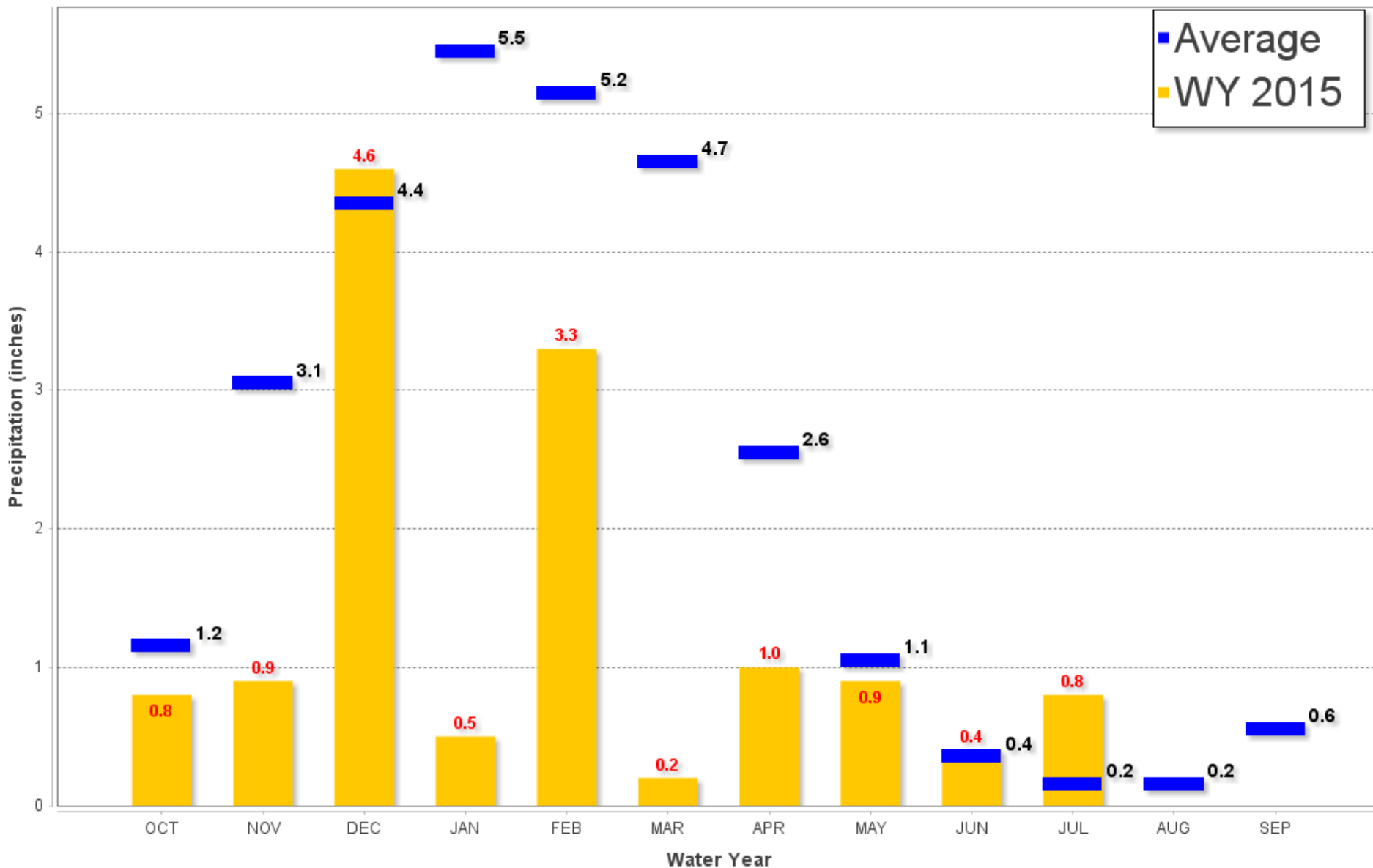


Tulare Basin 6-Station

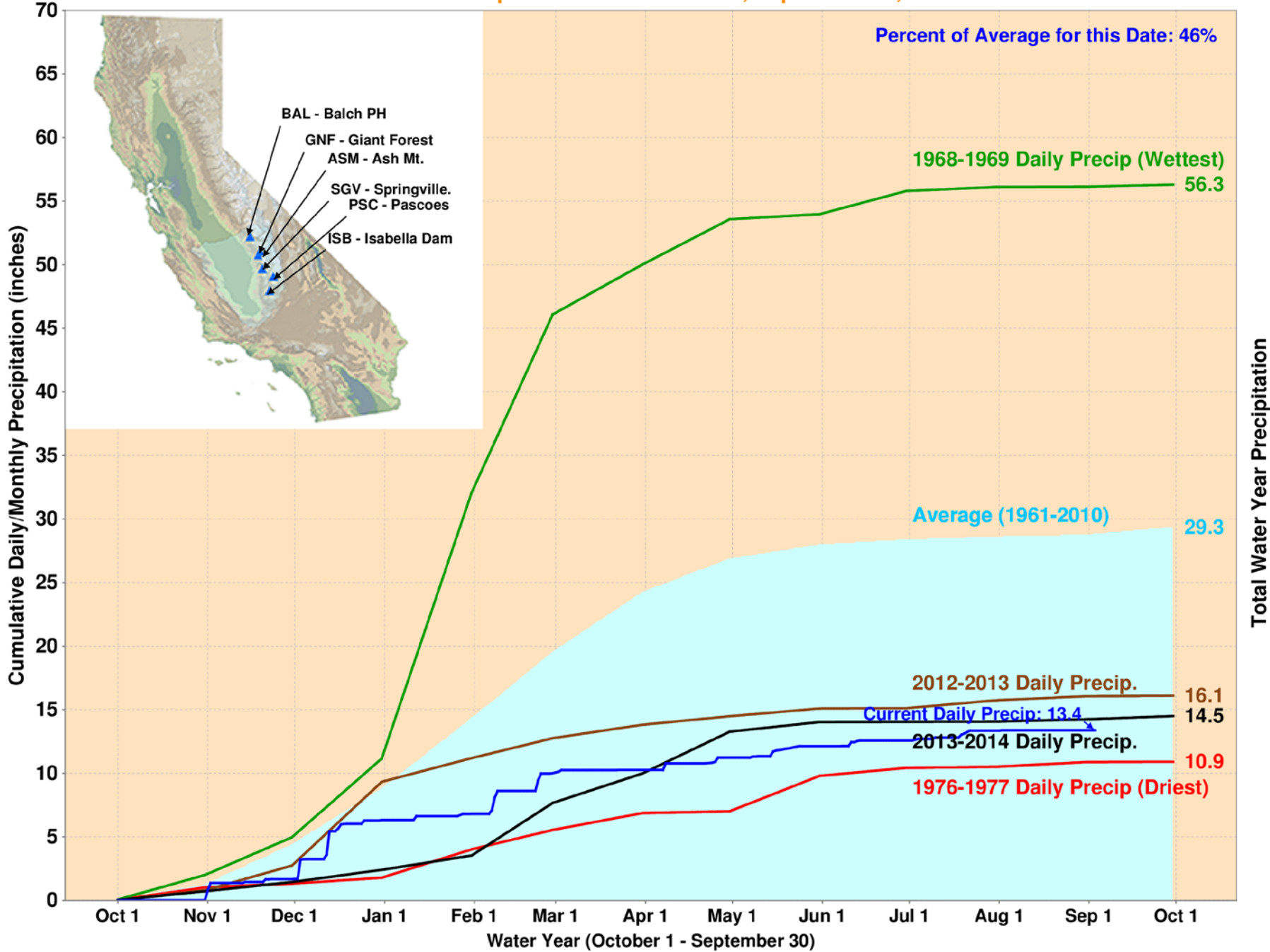
Precipitation Index for Water Year 2015 - Updated on September 3, 2015 08:30 AM

Note: Monthly totals may not add up to seasonal total because of rounding

Water Year Monthly totals are calculated based on Daily precipitation data from 12am to 12am PST



Tulare Basin Precipitation: 6-Station Index, September 03, 2015





* Landscapes are Important.







2014

After the Governor's drought declaration the Department of General Services cut back on lawn irrigation and stopped irrigating in areas without trees.

*HOA's can't prohibit drought response

*Prohibits an HOA from imposing a fine or assessment against a member (homeowner) for reducing or eliminating irrigation during a drought emergency declared by the Governor or local government.

* **AB 2100**
2014)

* HOA's can't prohibit Cash for Grass

* An HOA's landscaping guidelines or policies are void and unenforceable if it prohibits the use of low water plants as a replacement for existing turfgrass.

* **AB 2104** (2014)

- * Lead an initiative to remove 50 million sq. ft. of turf
 - * Residential and CII
- * Prohibit potable water on medians
- * Reduce water on campuses, golf courses
- * No spray on new landscapes
- * Water rate changes
- * Update the MWELO
- * Expedite graywater systems and stormwater capture
- * CalFire- urban forest fire prevention

* Executive Order to state agencies

- * 50 Million Square feet (1100 acres)
- * Underserved and disadvantaged communities
- * Complement existing programs

Executive Order B-29-15

* **Directive # 3**
Turf Replacement

- update the State Model Water Efficient Landscape Ordinance
 - more efficient irrigation systems,
 - greywater usage,
 - onsite storm water capture,
 - and by limiting the portion of landscapes that can be covered in turf...

*** Directive # 11**
State Model Water Efficient
Landscape Ordinance

* Directive # 11, cont.

State Model Water Efficient Landscape Ordinance

- reporting on the implementation and enforcement of local ordinances
- local compliance to the Water Board, which shall consider adopting regulations or taking appropriate enforcement actions to promote compliance.
- provide technical assistance and give priority in grant funding to public agencies for actions necessary to comply with local ordinances.

* Stakeholder webinar/listening sessions

- IA/ASIC
- CLCA
- ASLA
- APLD
- BIA
- CUWCC Landscape Committee
- City, County, Water Suppliers

*What we have heard so far on Efficient Irrigation Systems :

- * Limit application rate, know infiltration rate
- * Run times (drip) and multiple runtimes, Sensors
- * Master valves
- * Pressure regulation
- * Flow Sensors
- * Hydrometers
- * Lower ETAF
- * More emphasis on soils

*What we have heard so far on Graywater Systems:

- * Don't require use of graywater
- * Research with Art Ludwig and Brad Lancaster sources
- * Appropriate products (soaps and detergents)
- * Concern over salts and pH
- * Encourage double plumbing of new buildings
- * Reinforce plumbing code requirements on local agencies

*What we have heard so far on stormwater:

- * Dry stream beds
- * Drywells
- * Living soils, compost and mulch
- * Sometimes esthetically unappealing
- * Costs
- * Favor bio-retention
- * Bioswales
- * Don't require raingardens

* Have we have heard so far on turfgrass:

- * Warm season only
- * Backyards, sports fields only
- * Avoid invasive plants in shrubs beds
- * Some supply issues for short term, contract growing for long term
- * Turf growers are hard hit by drought

- * Drought conditions + watering restrictions = tree decline and loss statewide
- * Governor's office asking for consistent messaging

*Tree Survival

Save Our Water and Save Our Trees

*Turf rebates!!!

*<http://www.water.ca.gov/turf>



California 2015 Turf Replacement Initiative

Replacing California's Lawns

Outdoor landscaping is the single largest use of water in the typical California home. In most of our yards, grass consumes the most water, so reducing or eliminating how much grass we have in our landscapes can make a significant impact on the state's water use.

The ongoing drought reinforces the importance of using water more wisely, especially our drinking water. Governor Brown issued an Executive Order on April 1, 2015 that directed the implementation of specific actions to reduce potable water use in the urban sector. Directive number three declared that 50 million square feet of turf be replaced with drought-tolerant landscapes. This is to be accomplished by local water agency programs and a complementing statewide residential turf rebate program implemented by DWR.

Residential Turf Rebate Update

The on-line applications for residential turf removal (and toilet replacement) rebates are available. To submit the application click on the Rebate Application tool bar located on the right side menu. Rebates will be accepted on a first-come, first-served basis. It is recommended that interested applicants submit their application as soon as possible.

The application will require a measurement of the turf area to be removed, 5 current pictures, and a copy of your most recent water bill or electrical bill, if you have private water well.

July Public Workshop Materials

- » [Home](#)
- » [Rebate Application](#)
- » [Upcoming Events](#)
- » [Removing Your Lawn](#)
- » [Landscape and Plant Guidance](#)
- » [Frequently Asked Questions](#)
- » [Save Our Water](#)
- » [DWR Drought Homepage](#)
- » [Model Water Efficient Landscape Ordinance](#)
- » [Water Use Efficiency Homepage](#)
- » [April 1, 2015 Executive Order](#)
- » [Proposition 1 Overview](#)

Contact

For questions regarding the Residential Turf Rebate Program please send an email to

* Questions?



<http://www.saveourh2o.org/>

Contact Information:

Julie.Saare-Edmonds@water.ca.gov

(916) 651 9676