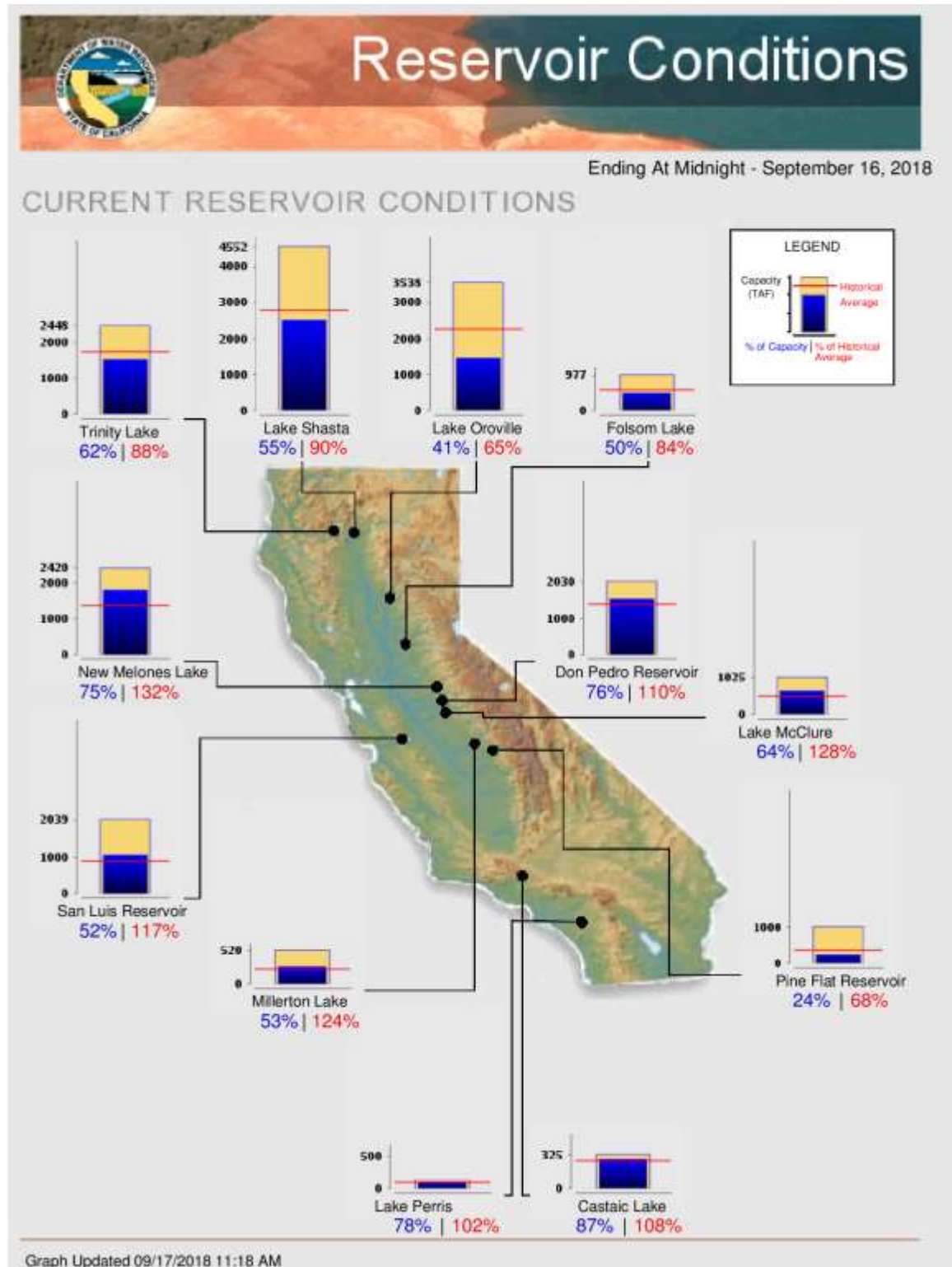


## Reservoir Conditions

As of September 16, 2018, Northern California reservoirs are between 65-90% of historical average and 41-62% of capacity. The central ones are between 68-132% of historical average and 24-76% of capacity. In the last week, San Luis increased by 2%; Shasta and Oroville decreased by 2%; Trinity and Folsom decreased by 1%; and New Melones and Millerton remained unchanged in percentage of capacity.



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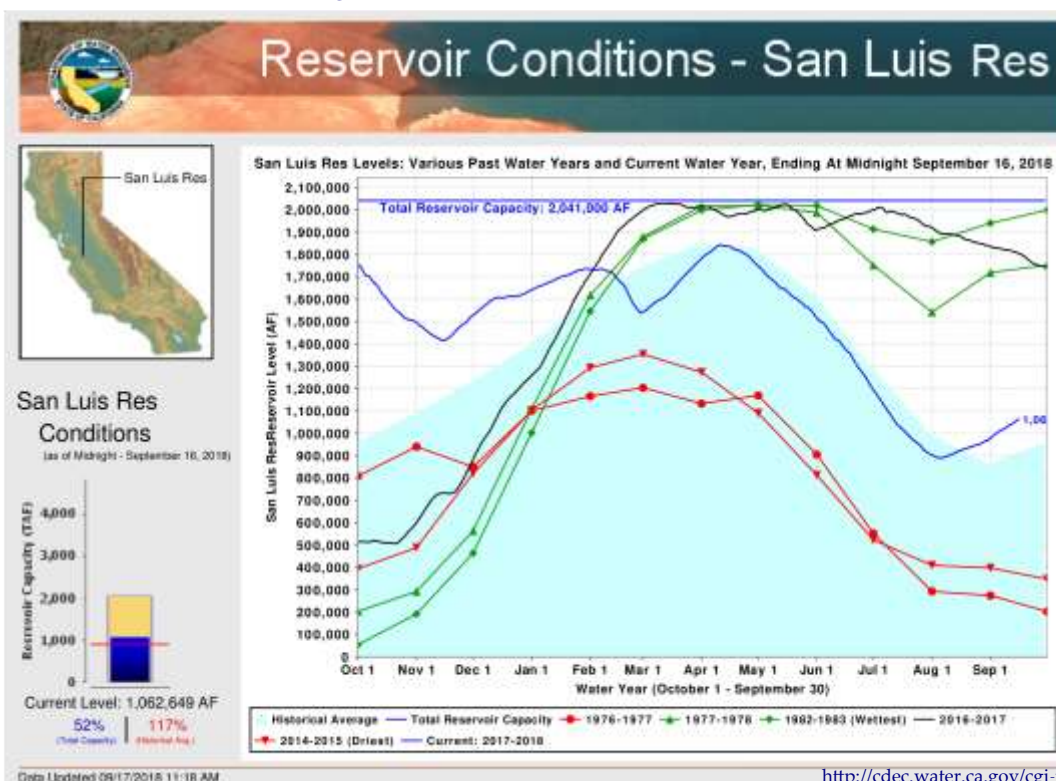
## Water Supply Update



### San Luis Reservoir

As of September 16, 2018, San Luis is at 117% of the historical average. San Luis total (CVP + SWP) storage is at 1,062,649 AF and is at 52% of the 2,041,000 AF of capacity (up 38,469 AF

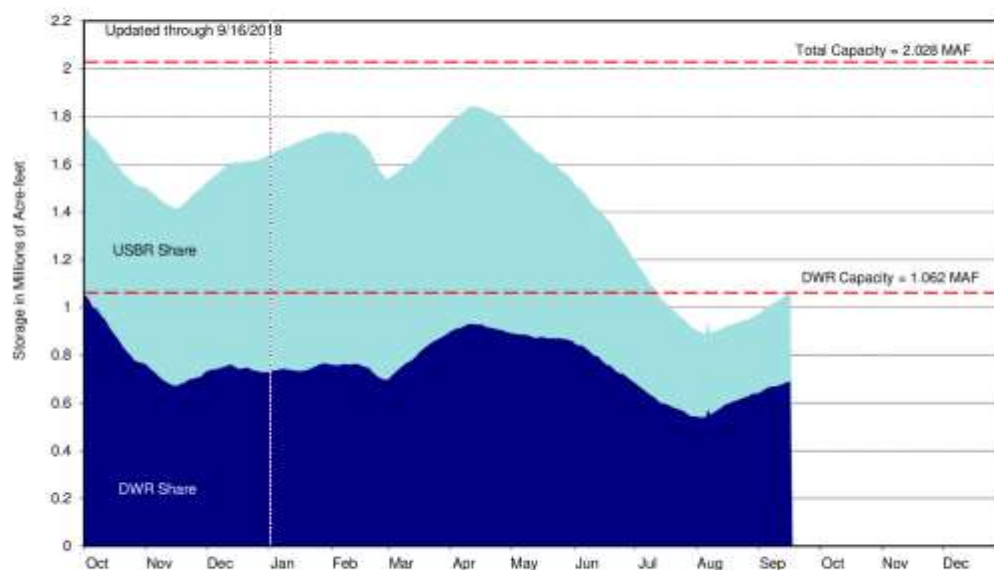
and up 2% of capacity percentage in one week). The CVP share is 369,738 AF (at 38.3% of capacity) and increased by 15,895 AF in one week.



<http://cdec.water.ca.gov/cgi-progs/products/snlres.pdf>

### San Luis Reservoir Storage Shares

Combination Water/Calendar Year 2018

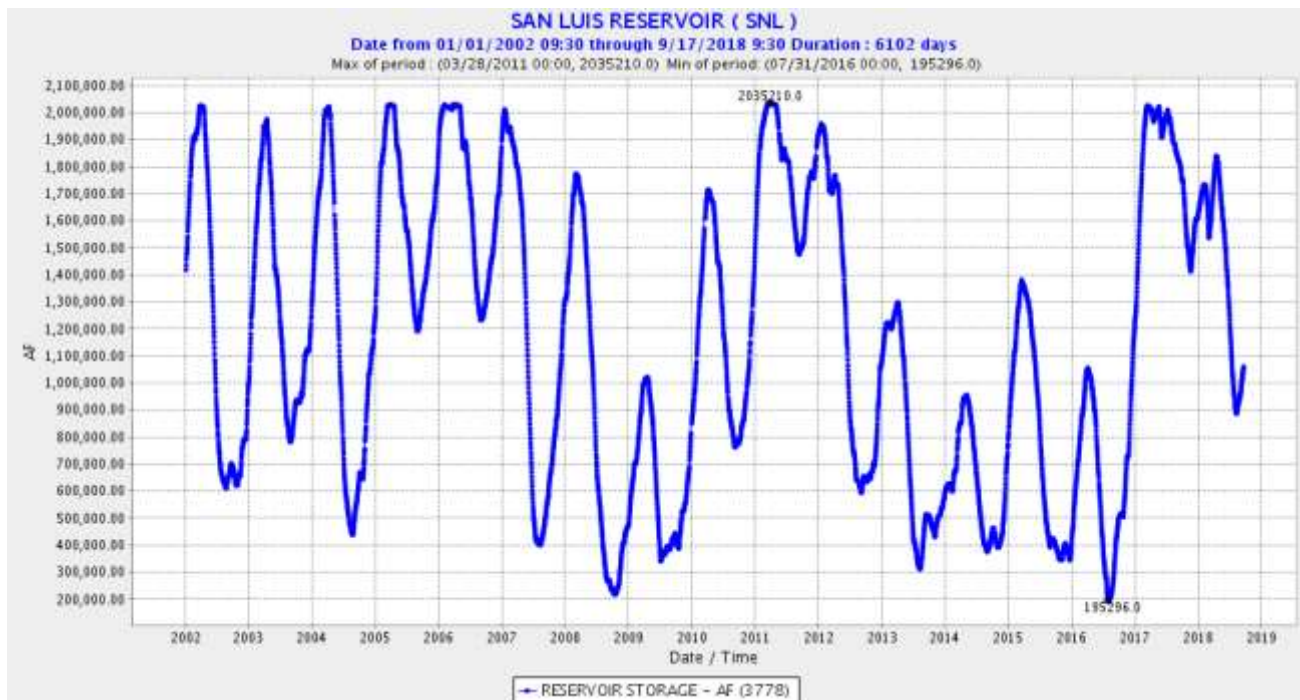


<https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Operations-And-Maintenance/Files/Operations-Control-Office/Project-Wide-Operations/San-Luis-Weekly-Reservoir-Storage-Chart.pdf?la=en&hash=8D8540CC235C213FD1DA5371CFECCD0B30BC310B>

As of September 16, federal storage was at 369,738AF (up 15,895AF in one week). Total federal storage capacity is 965,655AF.

As of September 16, state storage was at 692,911AF (up 22,574AF in one week, now at 65.2% capacity). The total state storage capacity in SLR is 1,062,180AF.

[https://www.usbr.gov/mp/cvo/vungvari/scca0\\_snldop.pdf](https://www.usbr.gov/mp/cvo/vungvari/scca0_snldop.pdf)



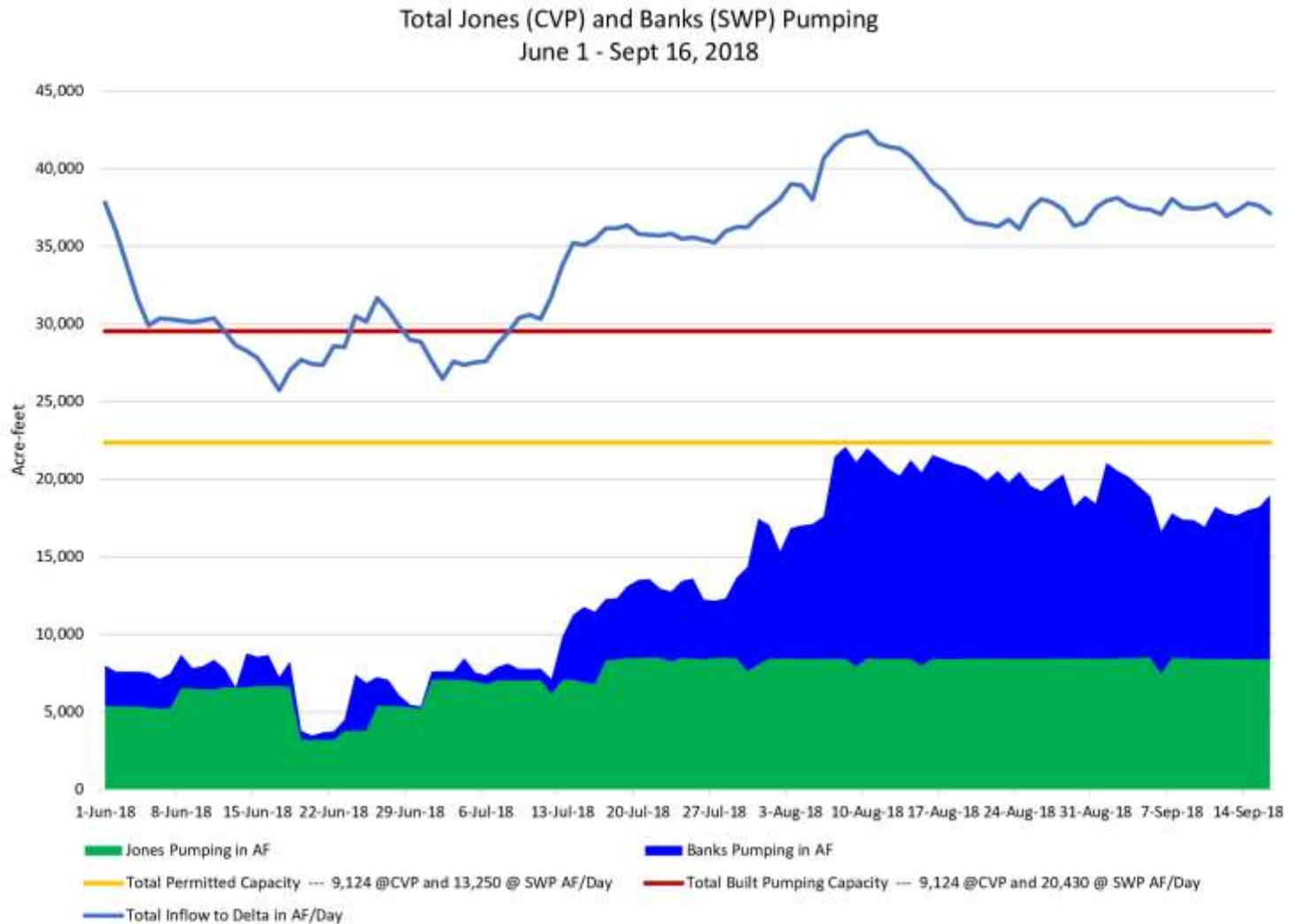


# THE WATER AGENCY, INC.

## Water Supply Update

### Overall Pumping Still Up

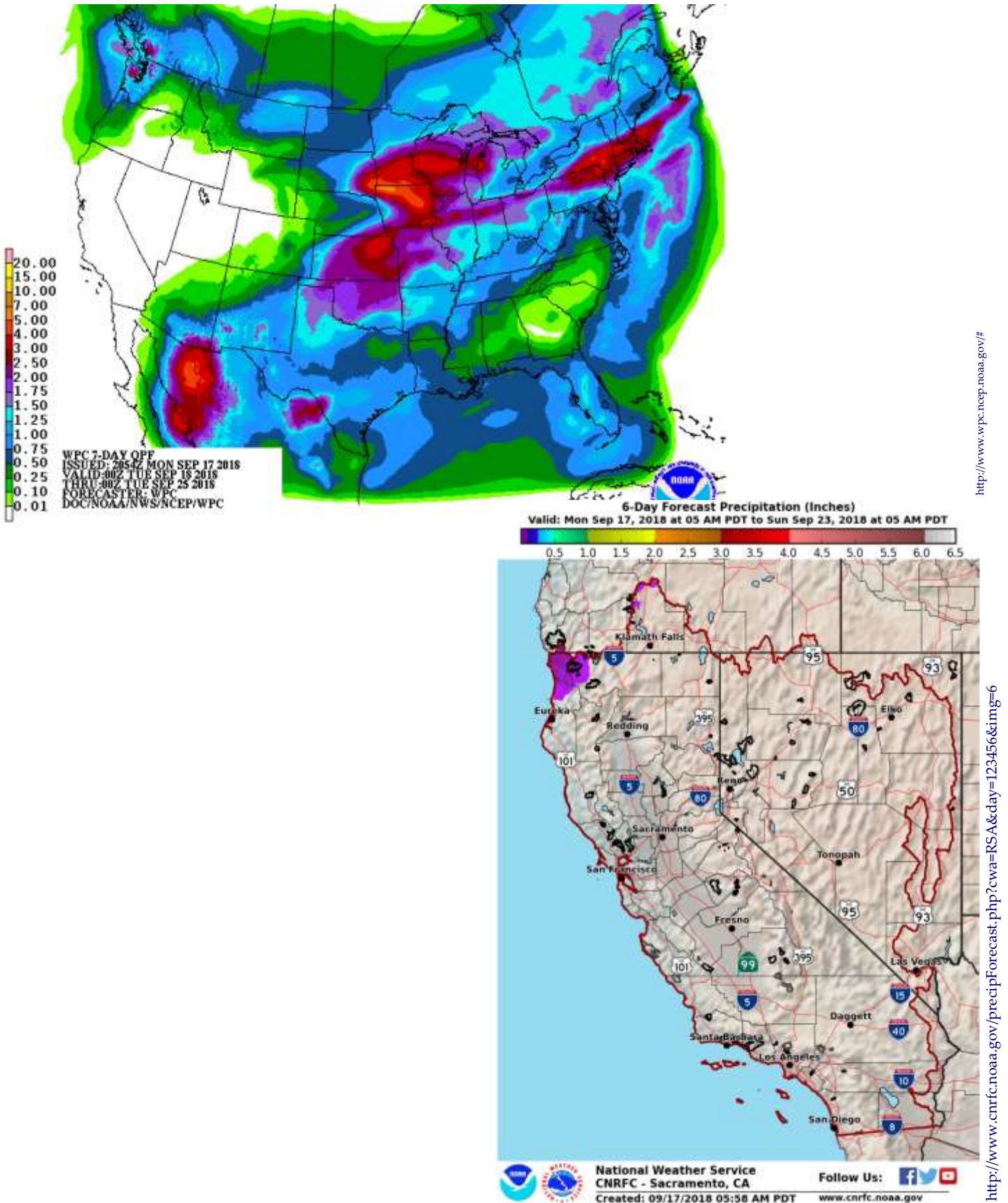
Pumping at the Banks (State) Pumping Plant shown by the solid blue area has increased slightly, and federal and Cross Valley Canal pumping is still up at Banks. Pumping at the Jones (Federal) Pumping Plant shown by the solid green area remains steady.



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## Water Supply Update

### 7-Day and 6-Day Forecasts



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## Water Supply Update

### Long Range Forecast—

The Climate Prediction Center/NCEP issued its new Update on September 17, 2018:

#### ENSO Alert System Status: **El Niño Watch**

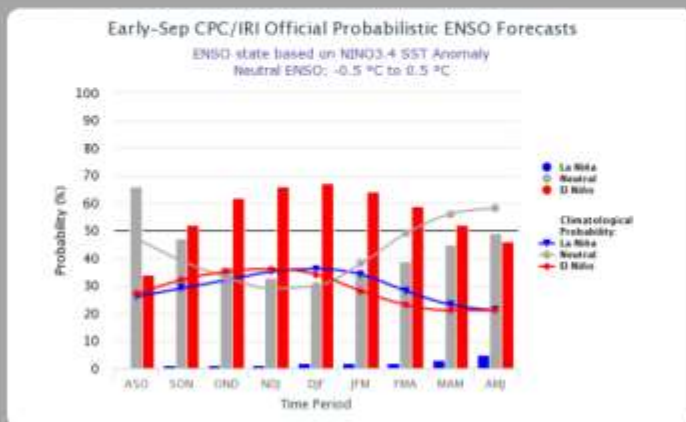
- **ENSO-neutral conditions are present.\***
- **Equatorial sea surface temperatures (SSTs) are near-to-above average across most of the Pacific Ocean.**
- **There is 50-55% chance of El Niño in the Northern Hemisphere fall 2018 (September-November), increasing to 65-70% during winter 2018-19.\***

\* Note: These statements (and the following charts) are updated at least once a month (2nd Thursday of each month) in association with the ENSO Diagnostics Discussion: [http://www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/enso\\_advisory/](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/)

#### CPC/IRI Probabilistic ENSO Outlook

Updated: 13 September 2018

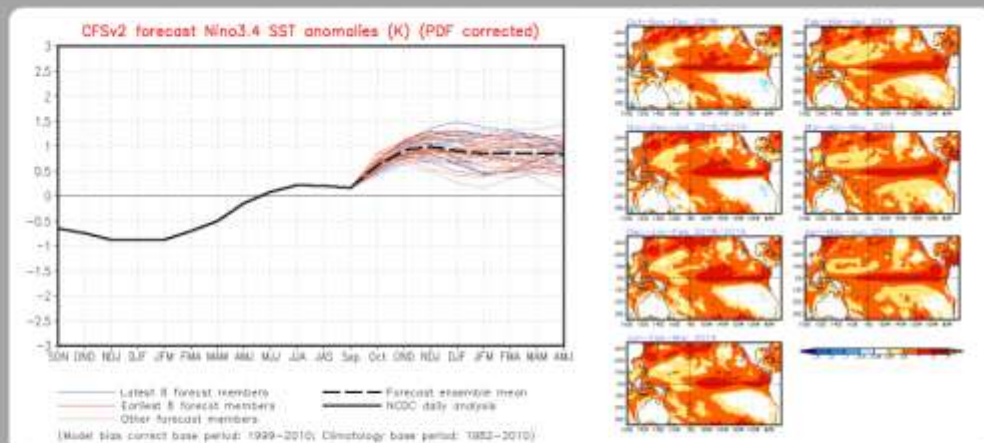
ENSO-neutral is favored through August-October 2018, with El Niño favored thereafter. Chances for El Niño are 65-70% during Northern Hemisphere winter 2018-19.



#### SST Outlook: NCEP CFS.v2 Forecast (PDF corrected)

Issued: 16 September 2018

The CFS.v2 ensemble mean (black dashed line) favors El Niño forming in the next month and continuing through winter 2018-19.

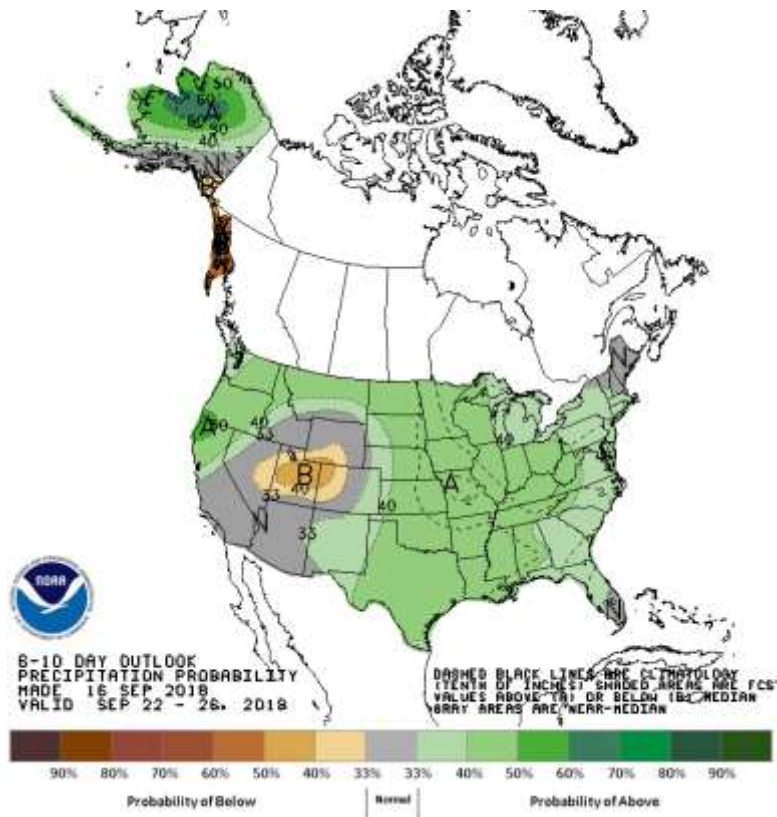




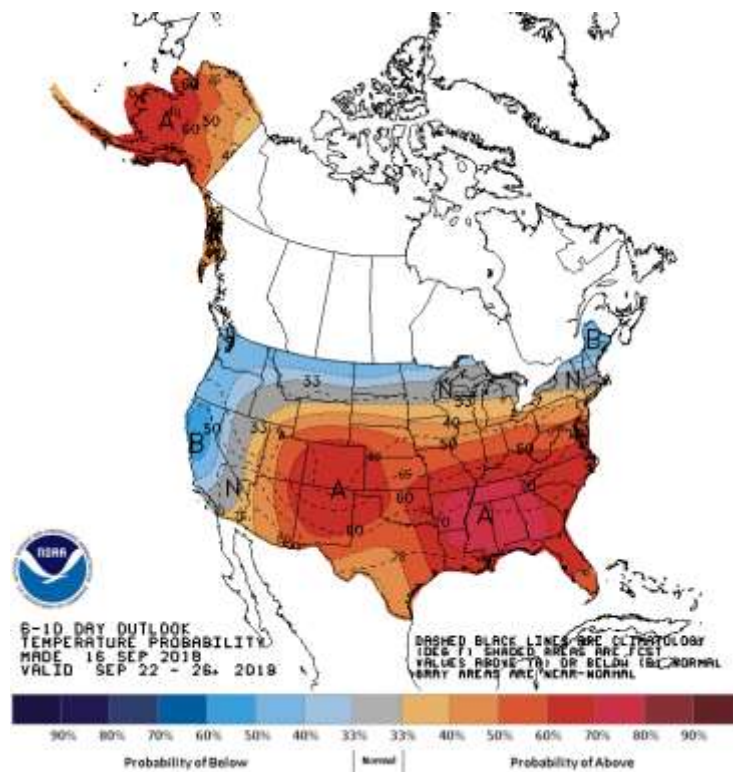
# THE WATER AGENCY, INC.

## Water Supply Update

### 6-10 day Precipitation Forecast:



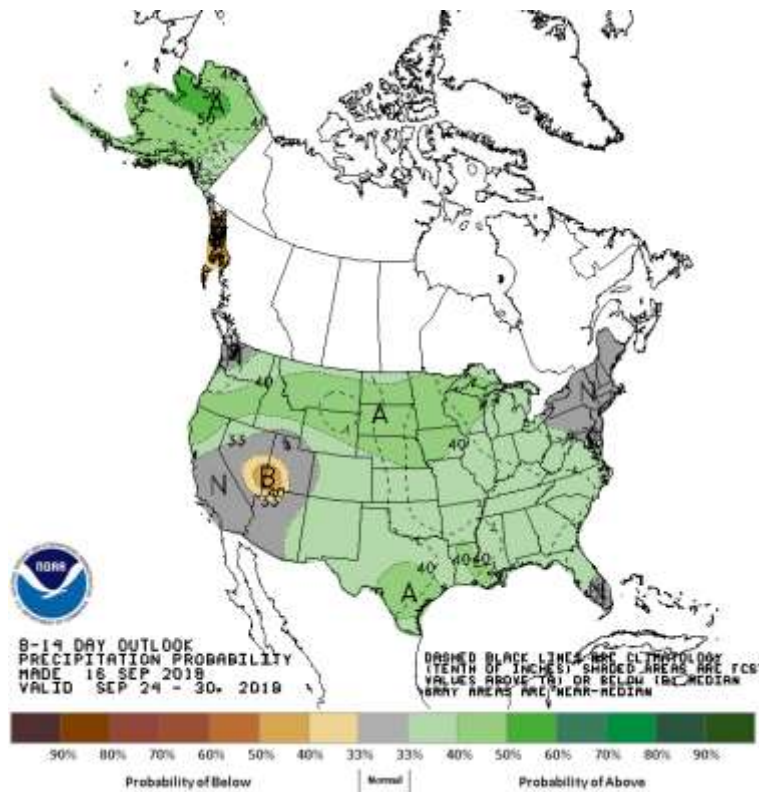
### 6-10 day Temperature Forecast:



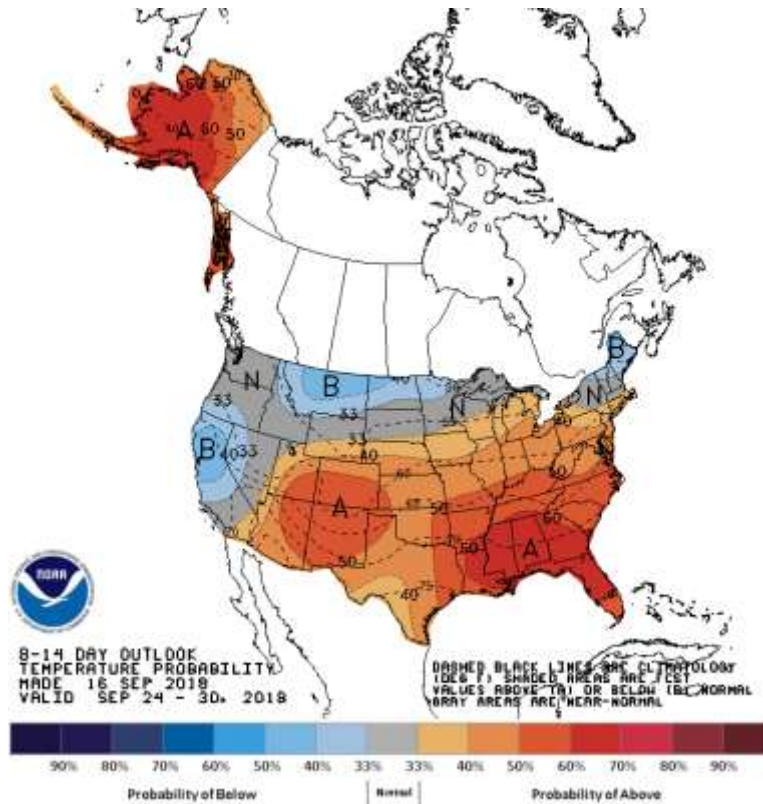
# THE WATER AGENCY, INC.

## Water Supply Update

### 8-14 day Precipitation Forecast:



### 8-14 day Temperature Forecast:

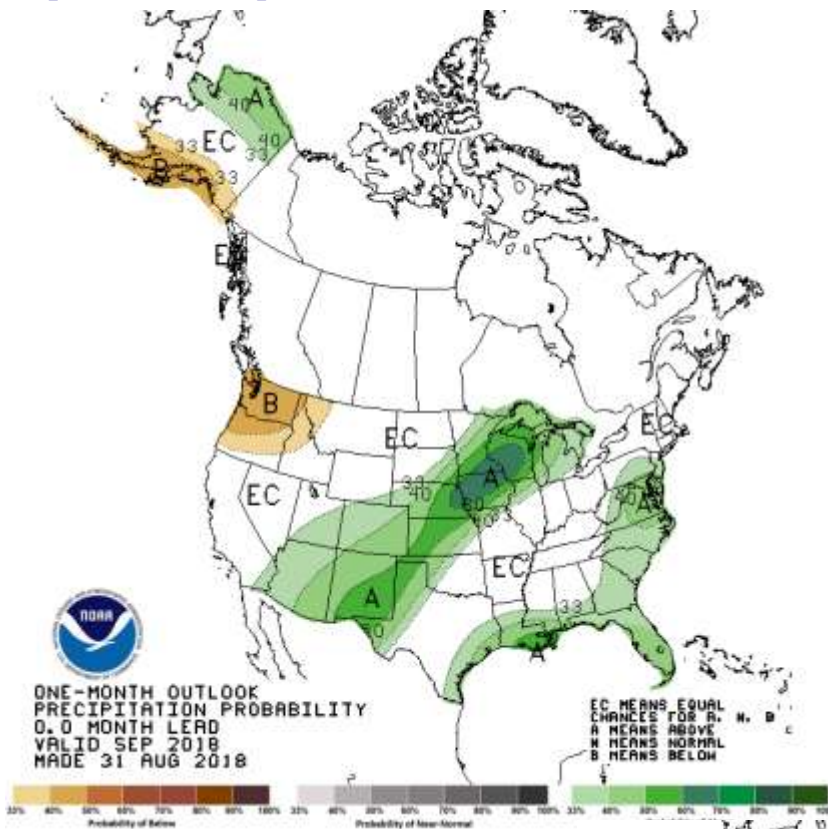




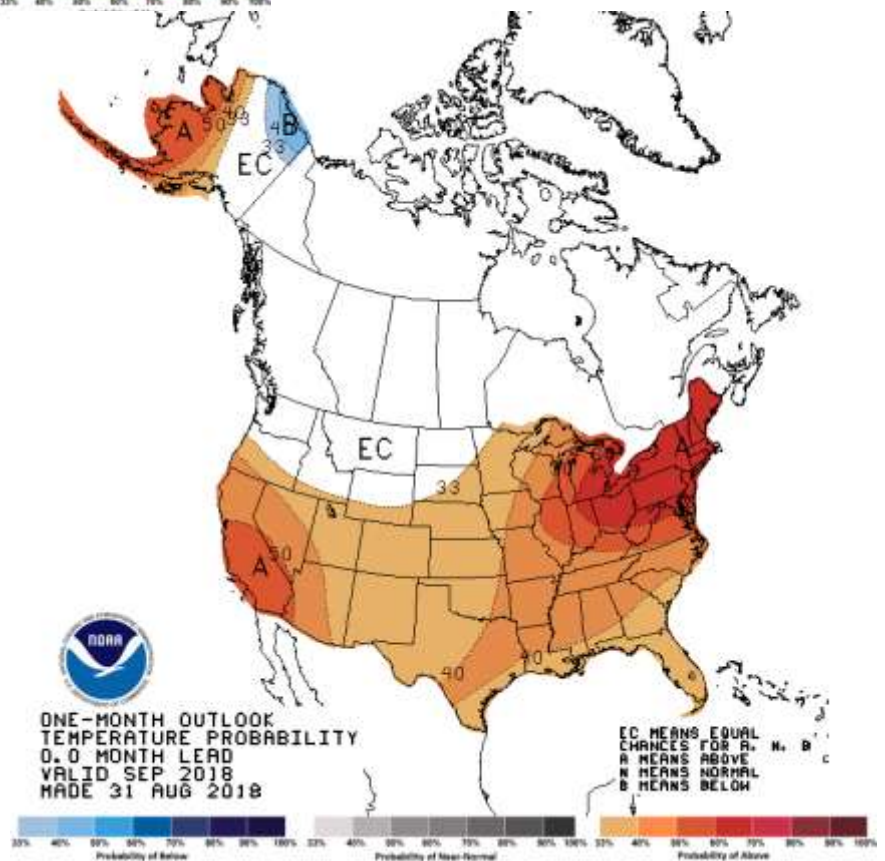
# THE WATER AGENCY, INC.

## Water Supply Update

### September Precipitation Forecast:



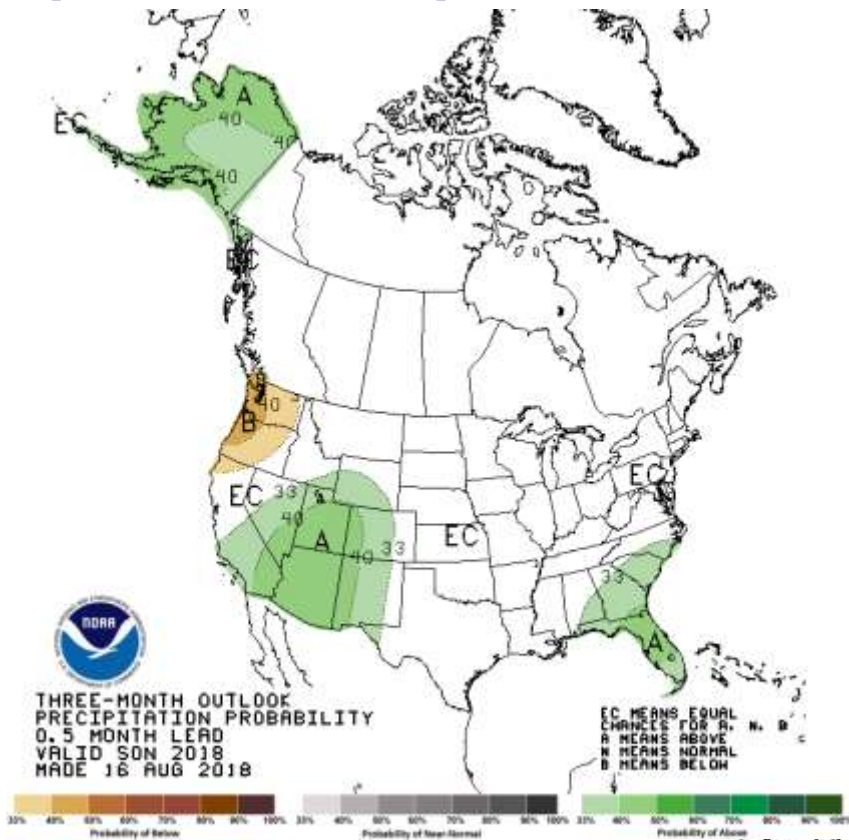
### September Temperature Forecast:



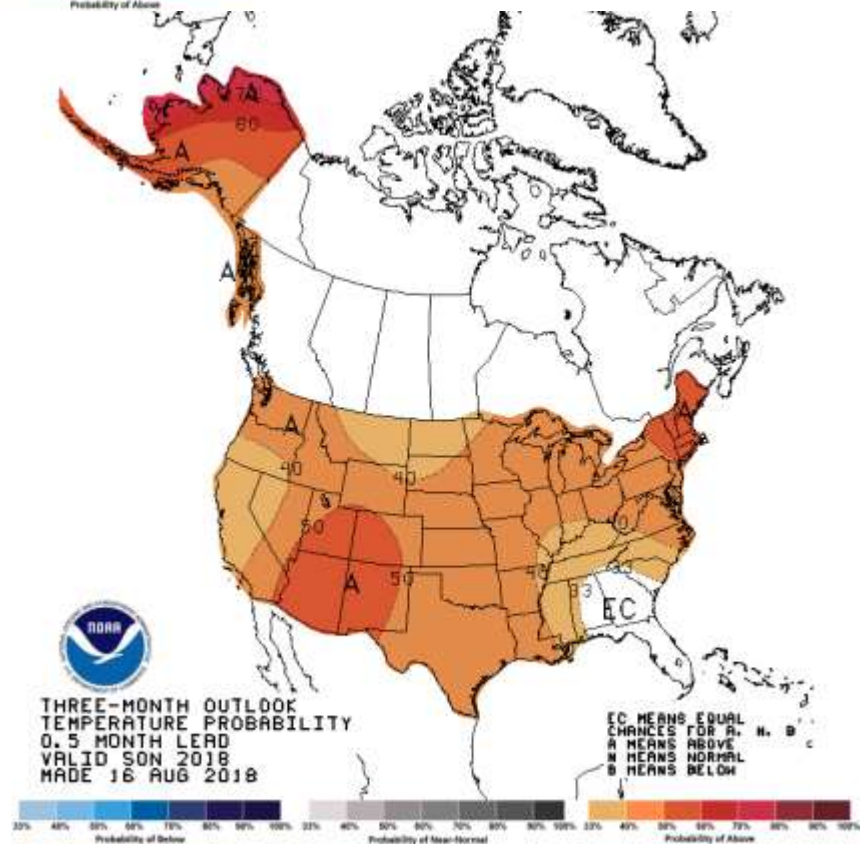
# THE WATER AGENCY, INC.

## Water Supply Update

### September–November Precipitation Forecast:



### September–November Temperature Forecast:



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## Water Supply Update

### U.S. Drought Monitor California

**September 11, 2018**

(Released Thursday, Sep. 13, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	12.18	87.82	47.97	22.82	4.94	0.00
<b>Last Week</b> 09-04-2018	13.78	86.22	47.58	22.89	2.77	0.00
<b>3 Months Ago</b> 06-12-2018	30.39	69.61	37.07	20.75	2.77	0.00
<b>Start of Calendar Year</b> 01-02-2018	55.70	44.30	12.69	0.00	0.00	0.00
<b>Start of Water Year</b> 09-26-2017	77.88	22.12	8.24	0.00	0.00	0.00
<b>One Year Ago</b> 09-12-2017	77.88	22.12	8.24	0.04	0.00	0.00

#### Intensity:

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

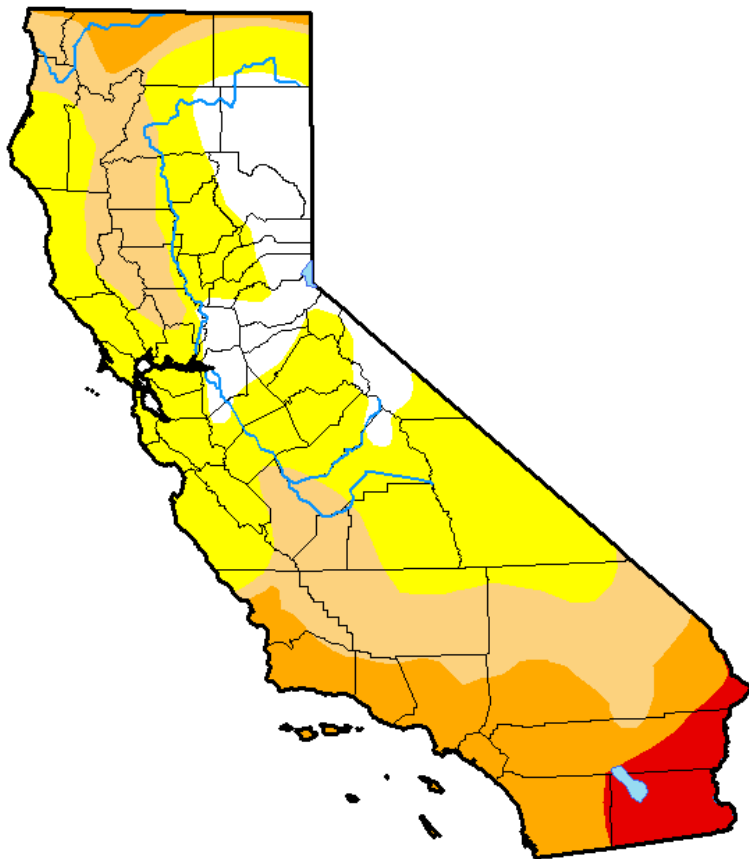
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

#### Author:

David Miskus  
NOAA/NWS/NCEP/CPC



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





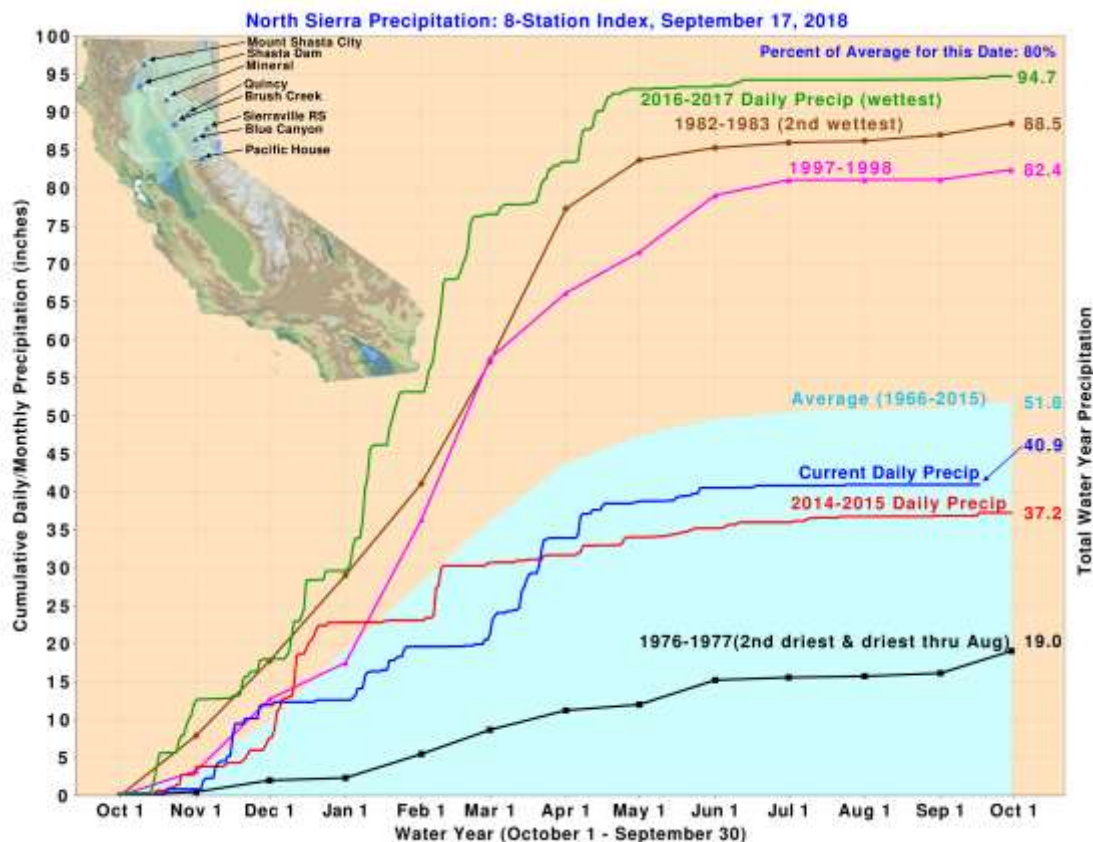
# THE WATER AGENCY, INC.

## Water Supply Update

### North Sierra Precipitation

As of September 17, 2018, the 8-station North Sierra index has recorded 40.9 inches of precipitation

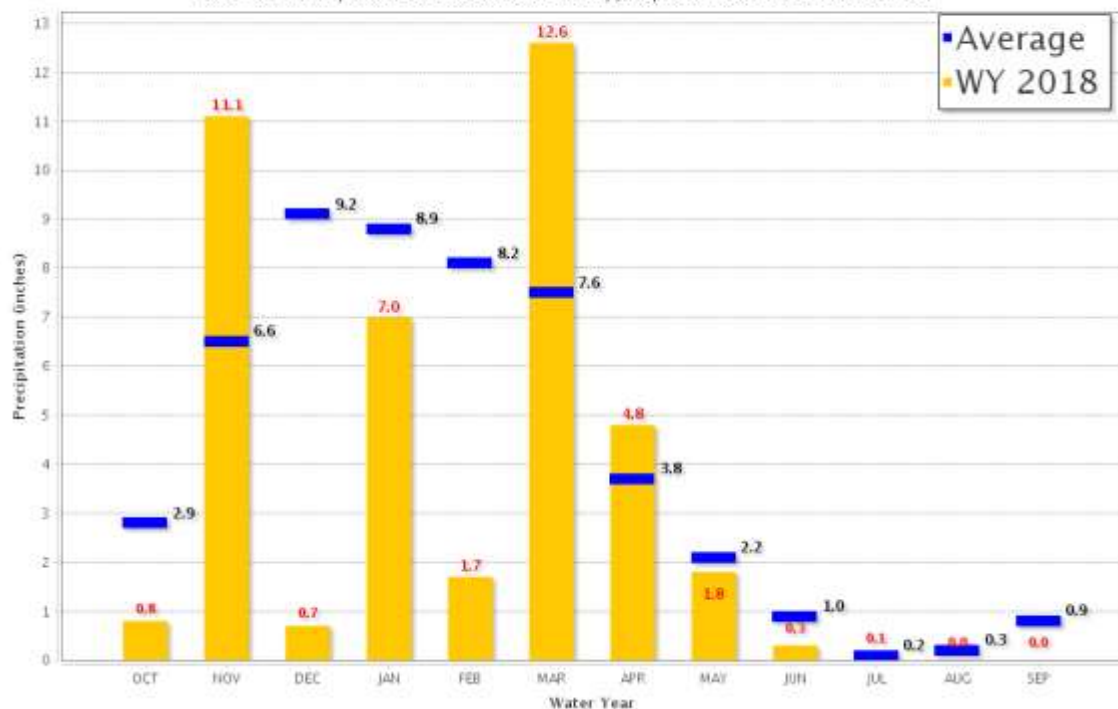
for this 2018 Water Year (unchanged in the last week ). This represents 80% of the typical average rainfall to date. The average total for the normal season is 51.8 inches. (This reading of 40.9 inches is 79.0% of the yearly total.)



### Northern Sierra 8-Station

**Precipitation Index for Water Year 2018 – Updated on September 17, 2018 12:48 PM**

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



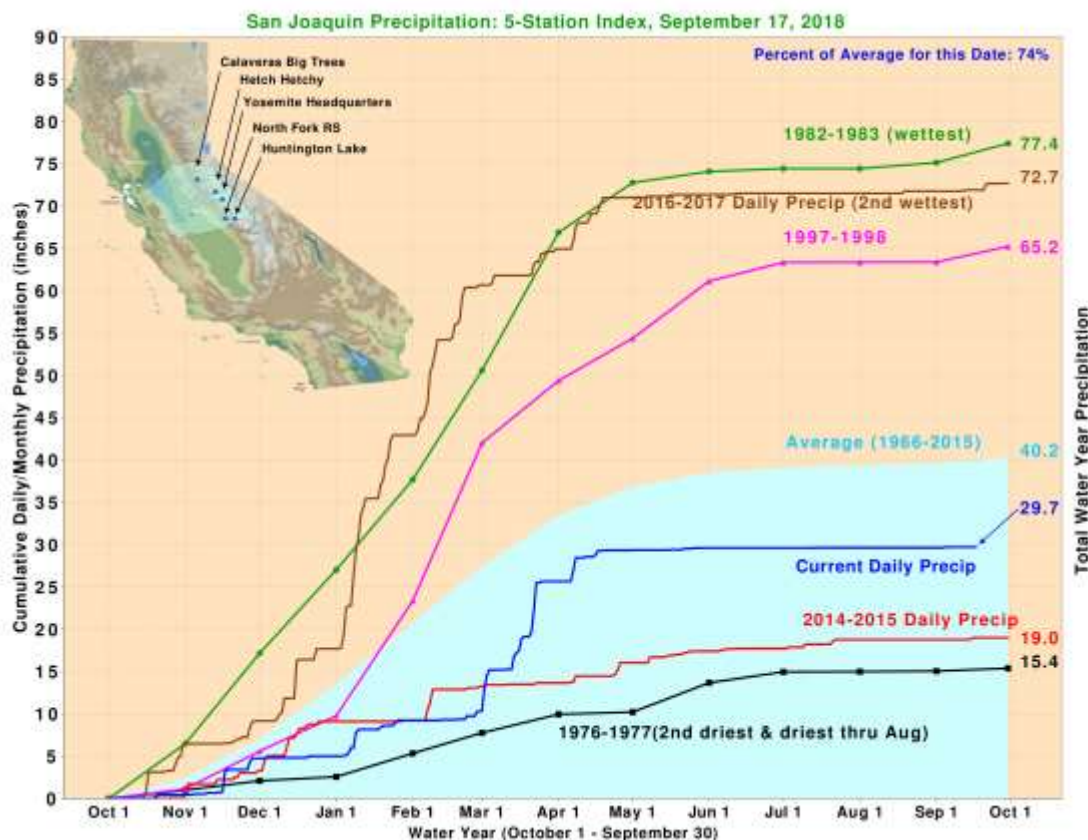
# THE WATER AGENCY, INC.

## Water Supply Update

### San Joaquin Precipitation

As of September 17, 2018, the 5-station San Joaquin index has recorded 29.7 inches of precipitation

for this 2018 Water Year (unchanged in the last week). This represents 74% of the typical average rainfall to date. The average total for the normal season is 40.2 inches. (This reading of 29.7 inches is 73.8% of the yearly total.)

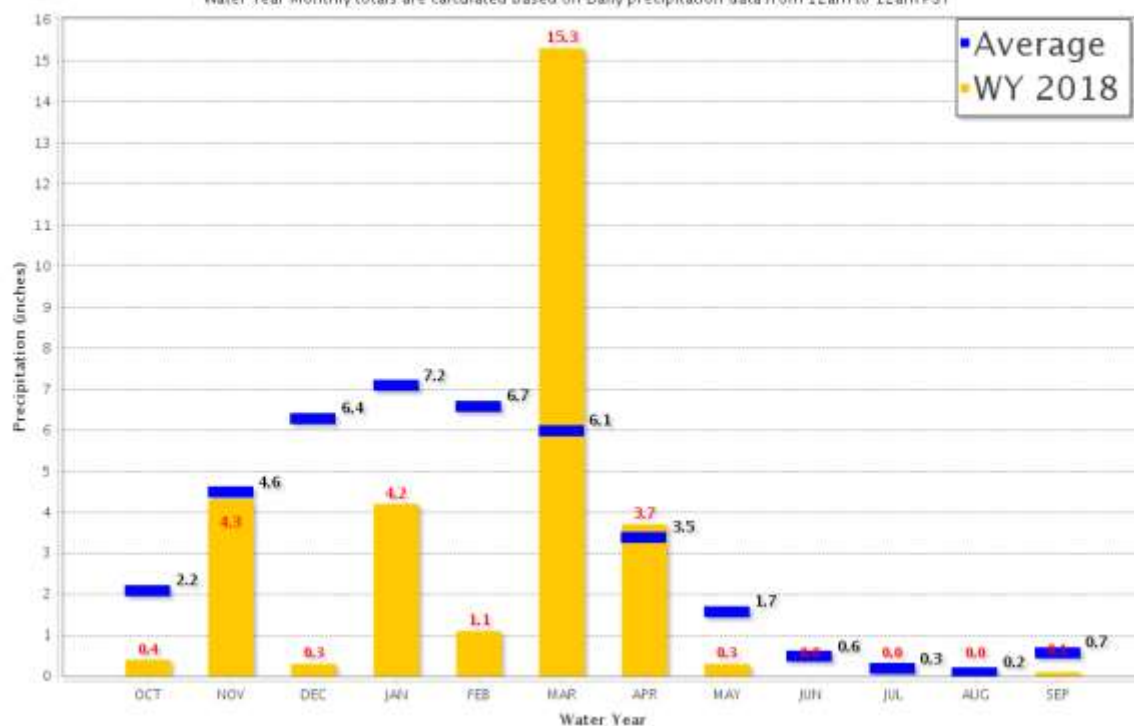


### San Joaquin 5-Station

#### Precipitation Index for Water Year 2018 - Updated on September 17, 2018 12:48 PM

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



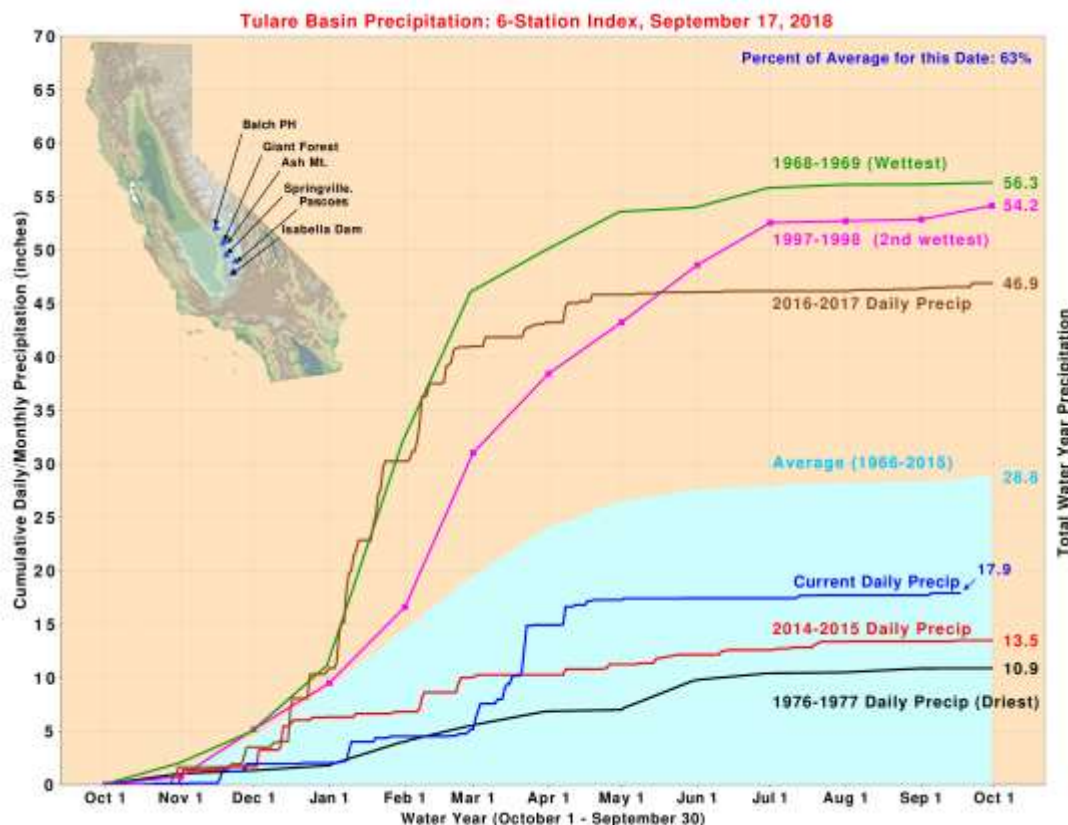
# THE WATER AGENCY, INC.

## Water Supply Update

### Tulare Lake Basin Precipitation

As of September 17, 2018, the 6-station Tulare Basin index has recorded 17.9 inches of precipitation

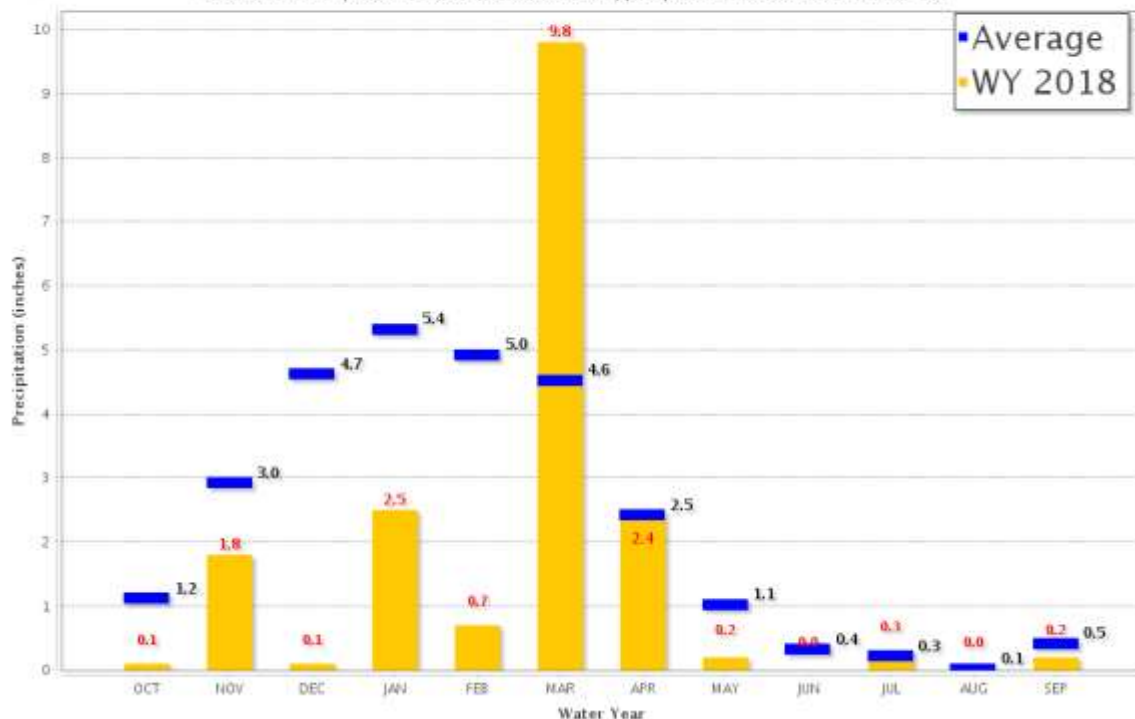
for this 2018 Water Year (unchanged from last week). This represents 63% of the typical average rainfall to date. The average total for the normal season is 28.8 inches. (This reading of 17.9 inches is 62.2% of the yearly total.)



### Tulare Basin 6-Station

Precipitation Index for Water Year 2018 - Updated on September 17, 2018 12:48 PM

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





# THE WATER AGENCY, INC.

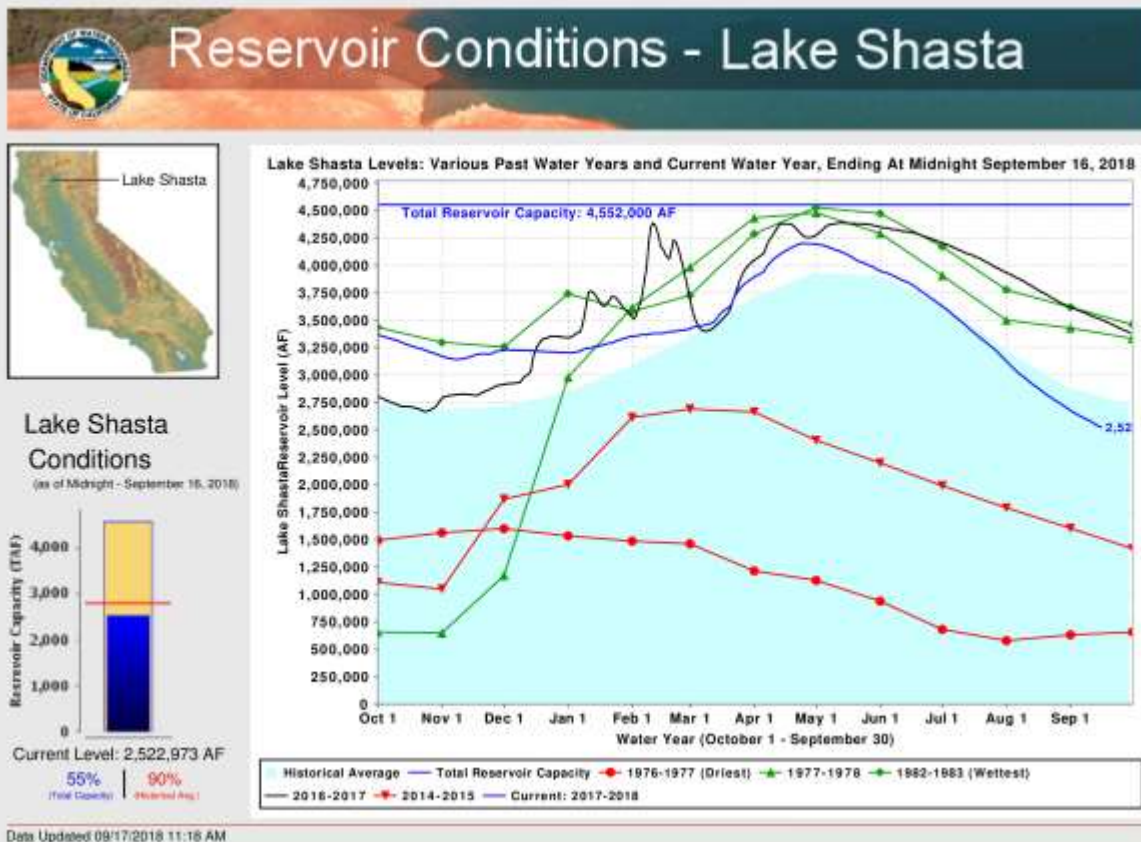
## Water Supply Update



### Shasta Storage —

As of September 16, 2018, storage was approximately 2,522,973AF (down 71,041 AF and at 55% of capacity, down 2% in capacity in the last week).

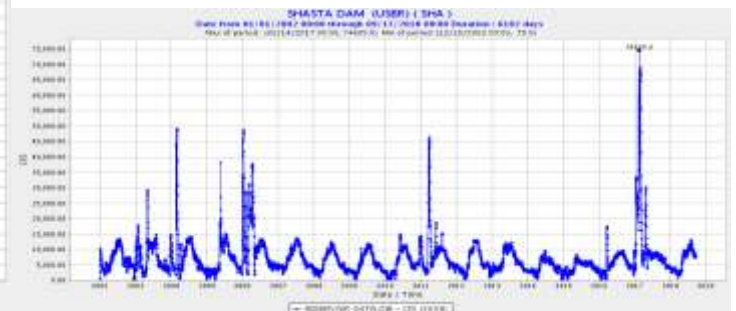
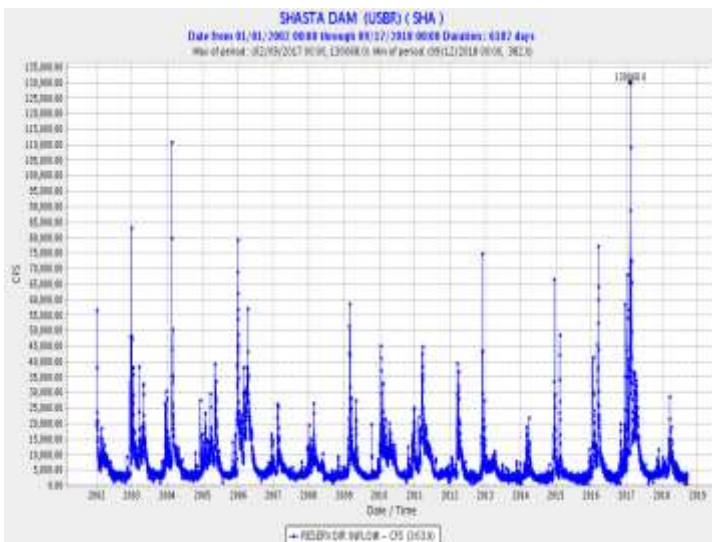
The current level is 90% of the historical average. Total capacity of Shasta is about 4,552,000AF. Shasta's weekly average inflows are about 5,469AF/day, and outflows are about 15,200AF/day as of Sunday.



Reservoir graphs from: [http://cdec.water.ca.gov/reservoir\\_map.html](http://cdec.water.ca.gov/reservoir_map.html)

### Inflows

### Outflows



# THE WATER AGENCY, INC.

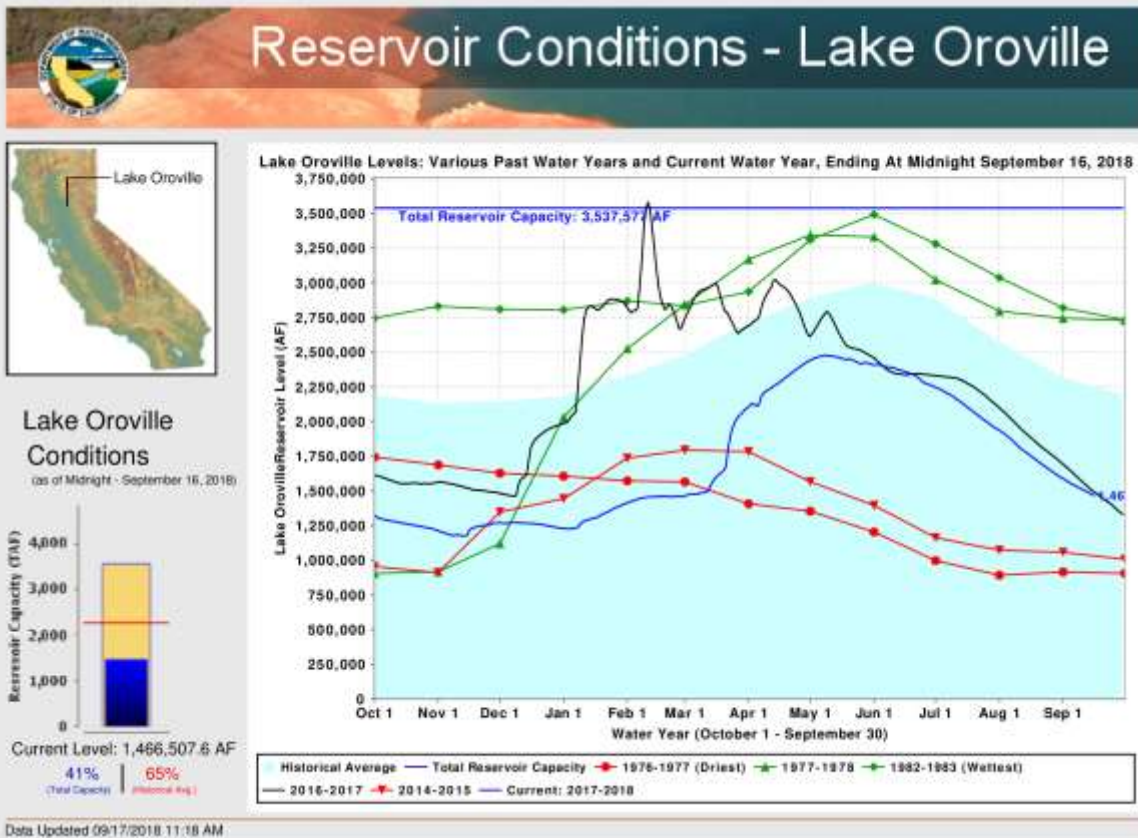
## Water Supply Update



### Oroville Storage

As of September 16, 2018, storage was approximately 1,466,508AF (down 54,538AF and at **41% capacity**,

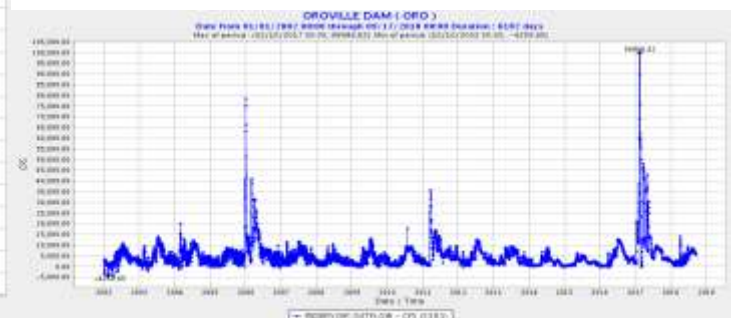
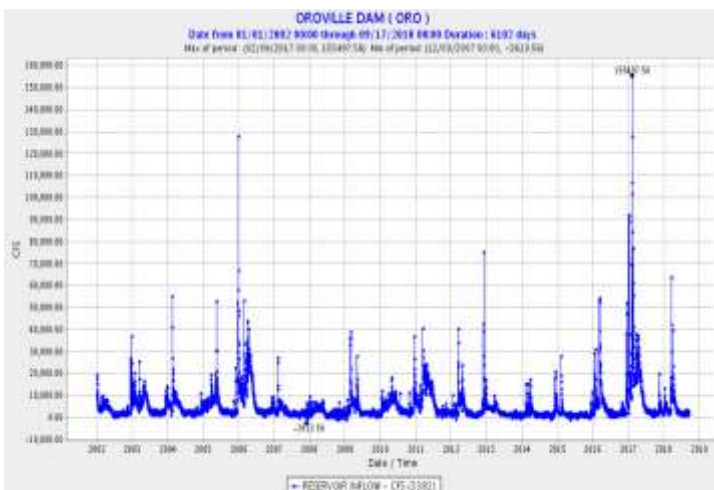
down 2% in capacity in one week). The current level is 65% of the historical average.



Inflows for the past week averaged **4,413AF/day**. Total capacity of Oroville is 3,538,000AF. Current releases into the Feather River as of Sunday have gone to 11,635AF/day.

### Inflows

### Outflows





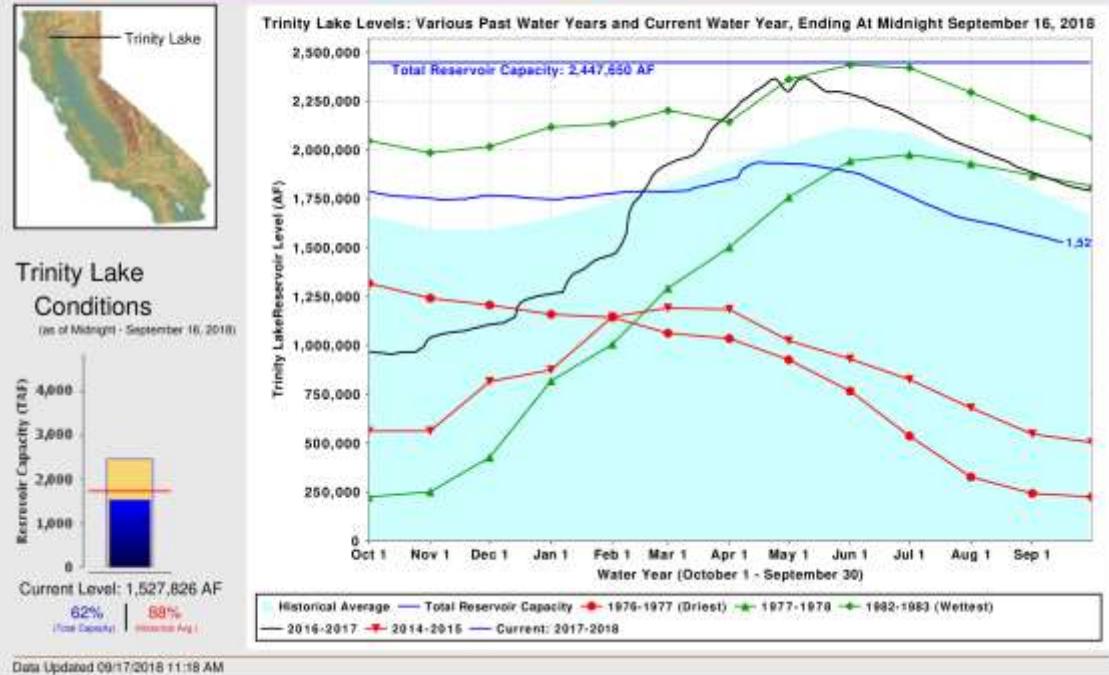
# THE WATER AGENCY, INC.

## Water Supply Update



### Trinity Lake Storage

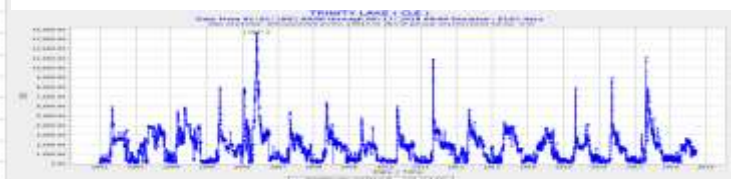
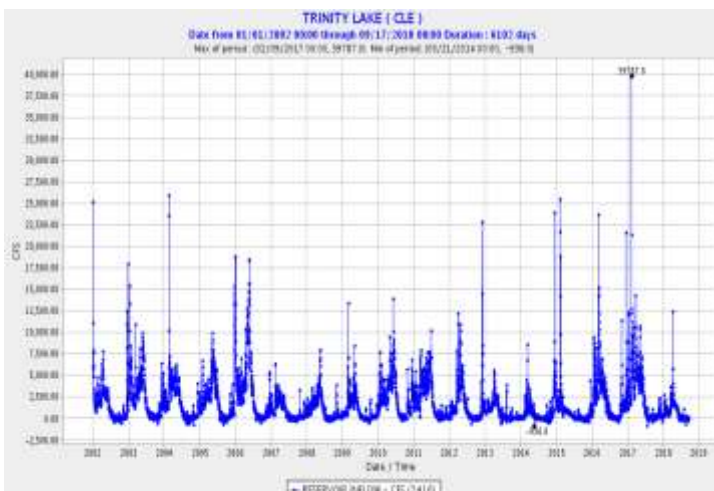
As of September 16, 2018, storage was approximately 1,527,826AF with capacity being at 62% (down 19,545AF and down 1% in capacity in one week). The current level is 88% of the historical average.



Net inflows for the past week averaged -35AF/day. Total capacity of the Trinity is about 2,448,000AF. On Sunday, releases to the Trinity River were about 2,630AF/day.

### Inflows

### Outflows





# THE WATER AGENCY, INC.

## Water Supply Update

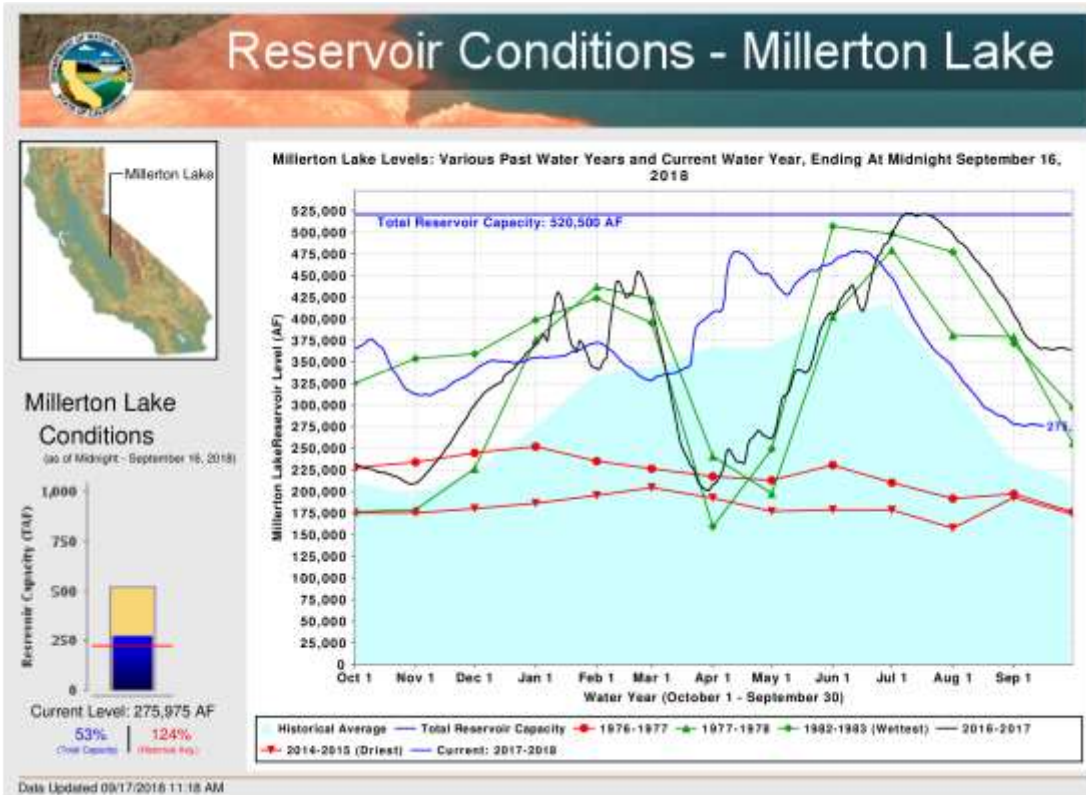


### Friant Storage

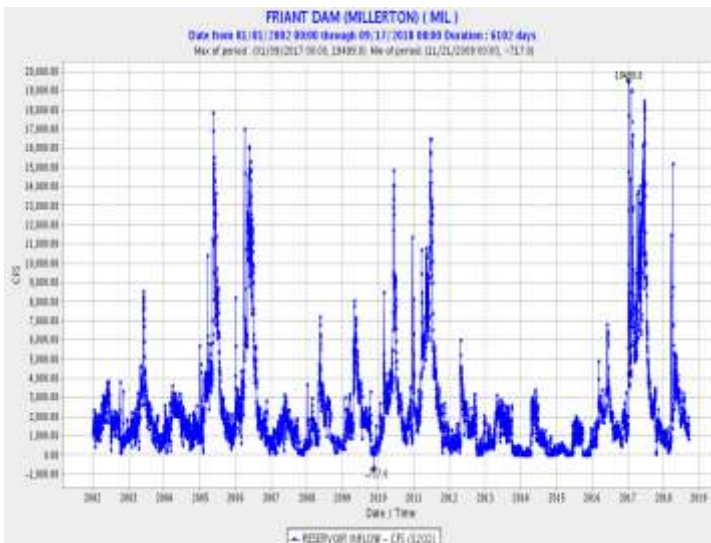
As of September 16, 2018, storage was about 275,975AF (down 1,575AF and at **53% capacity**, unchanged

in percentage capacity in one week). The current level is 124% of the historical average. Inflows for the last week averaged about 2,668AF/day. Total capacity of Friant is 520,500AF.

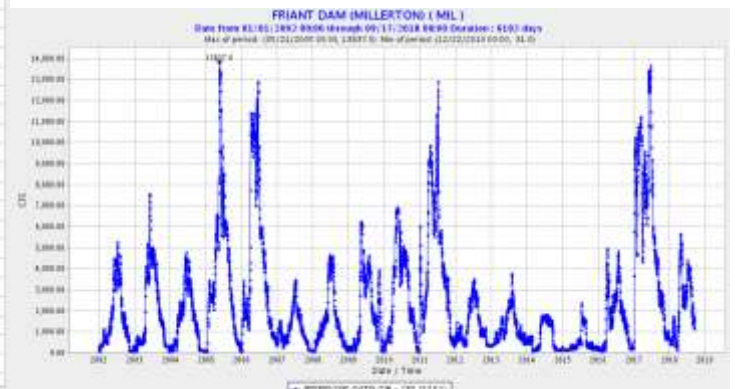
On Sunday, 749 CFS was released into the Friant/Kern Canal, 0 CFS was released into the Madera Canal, and 430 CFS was released into the San Joaquin River. The eight upstream San Joaquin River reservoirs are about 61% full, holding 371,983AF of their 610,288AF capacity.



### Inflows



### Outflows



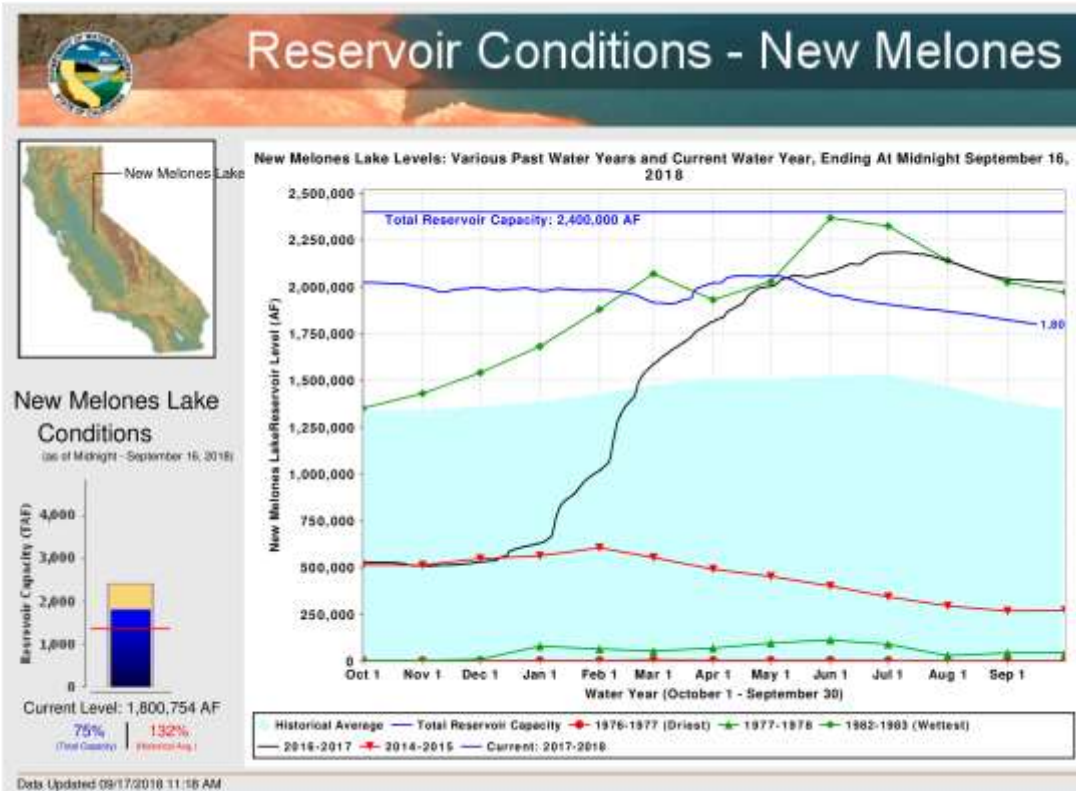
# THE WATER AGENCY, INC.

## Water Supply Update



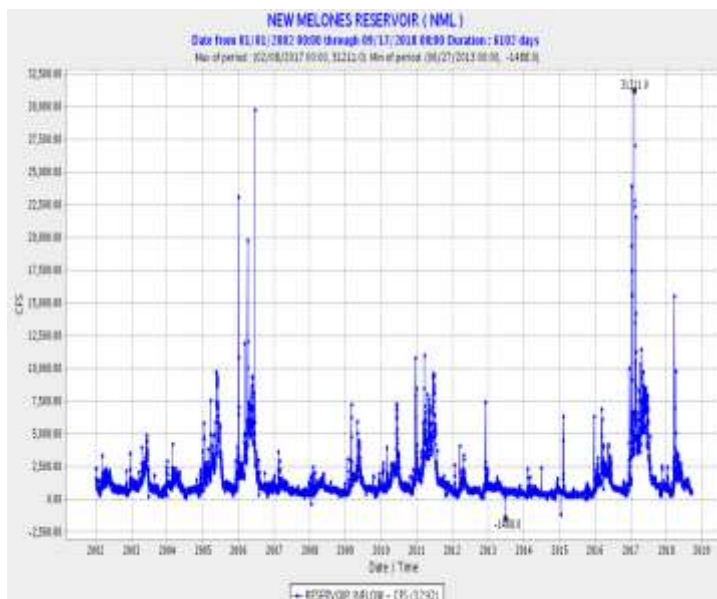
### New Melones Storage

As of September 16, 2018, storage was approximately 1,800,754 AF (down 10,718AF and at 75% capacity, unchanged in percentage capacity in one week). The current level is 132% of the historical average.

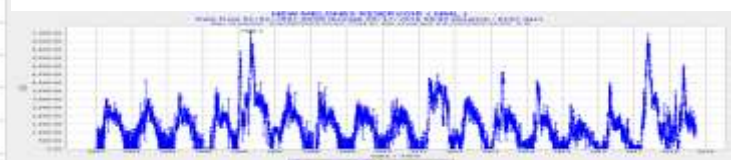


Inflows for the past week averaged 1,031AF/day. Total capacity of New Melones is 2,400,000AF. Current releases to the Stanislaus River have been adjusted to 2,646 AF/day.

### Inflows



### Outflows





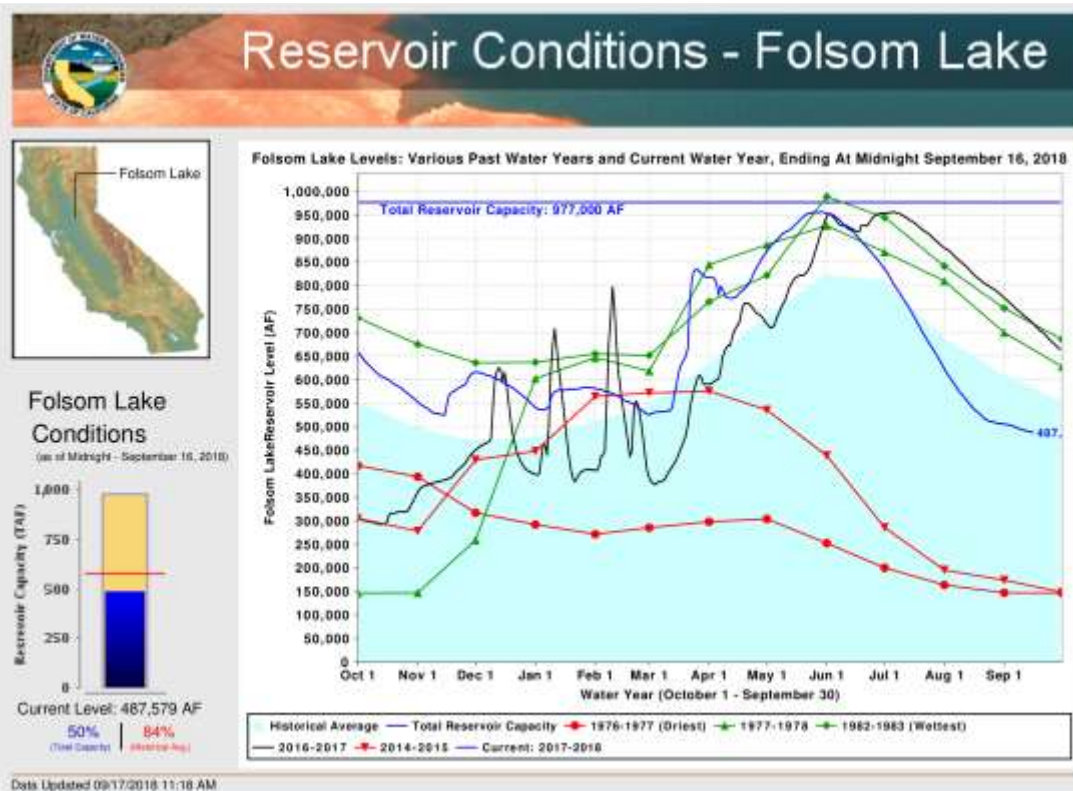
# THE WATER AGENCY, INC.

## Water Supply Update



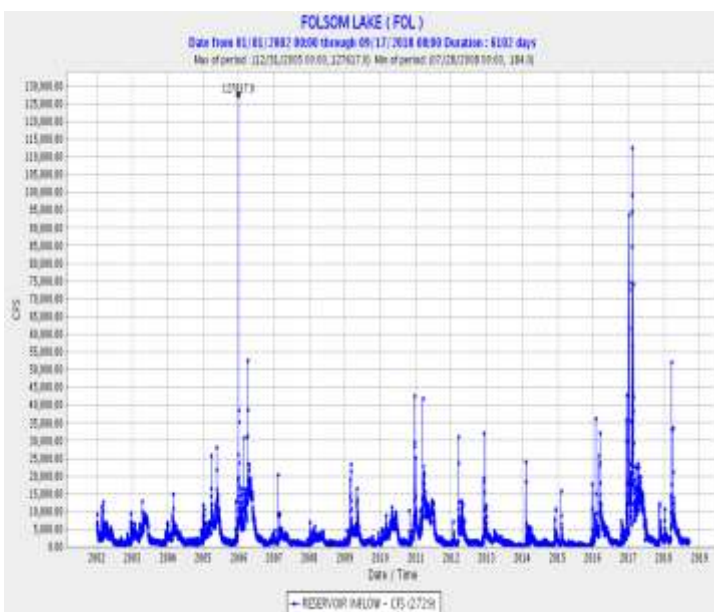
### Folsom Storage

As of September 16, 2018, storage was approximately 487,579AF (down 8,007AF and at 50% capacity, down 1% in one week). The current level is **84%** of the historical average.

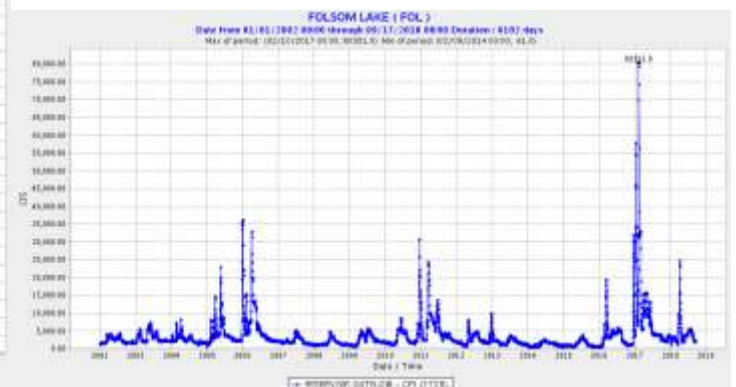


Inflows for the past week averaged 3,182AF/day. Total capacity of Folsom is 977,000AF. As of Sunday, releases were about 4,330AF/day.

### Inflows



### Outflows

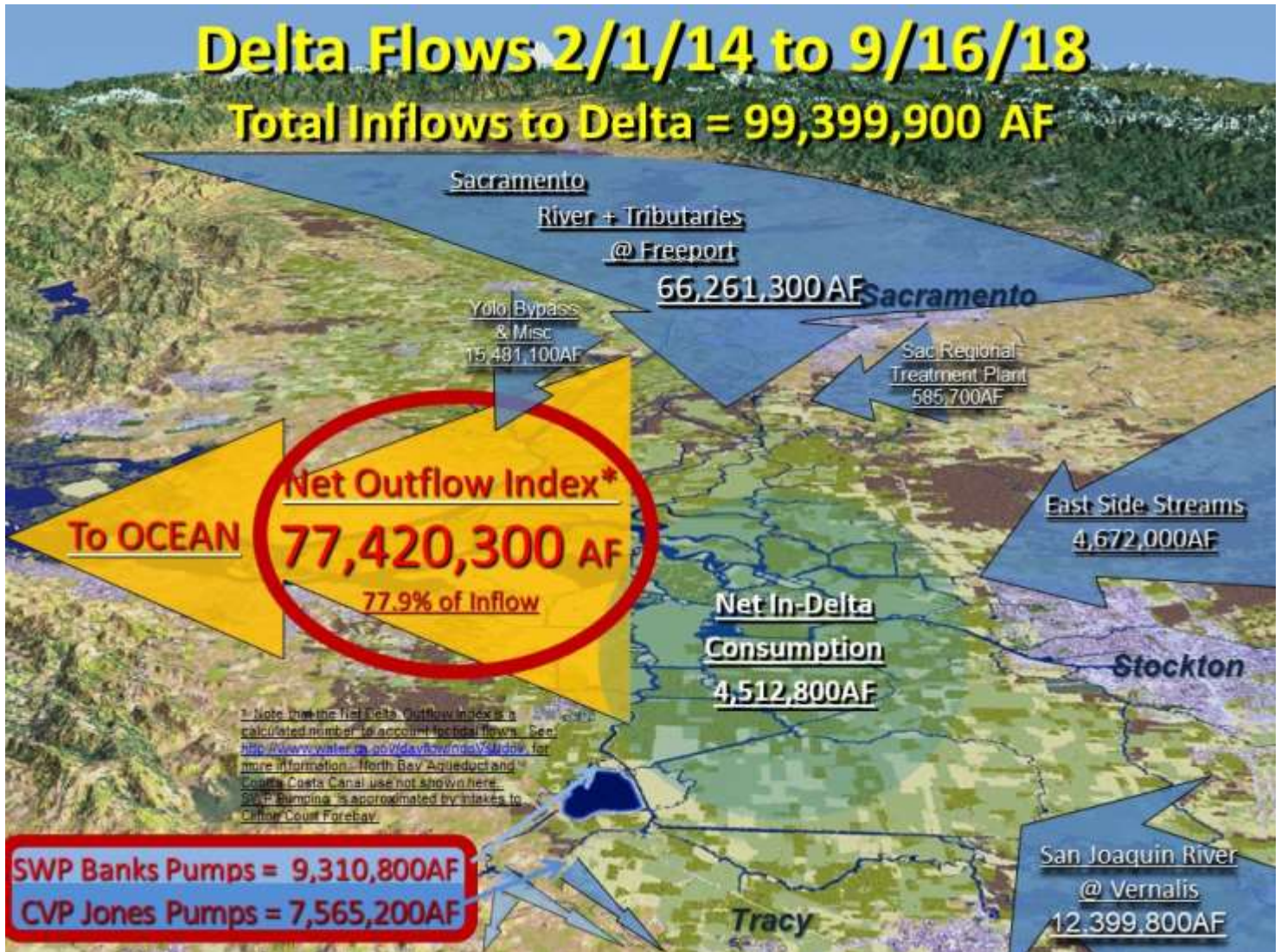




# THE WATER AGENCY, INC.

## Water Supply Update

Plenty of water has been flowing through the delta. Since February of 2014, almost 99.4 million acre-feet of water have poured into the delta. Of that water, 77.9 percent, or over 77.4 million acre-feet, has gone out to the ocean, but only 16.8 million acre-feet have been pumped into the California Aqueduct and Delta Mendota Canal for cities and farms. Since October 1, 2016, the losses are worse with 82.5 percent wasted to the ocean.

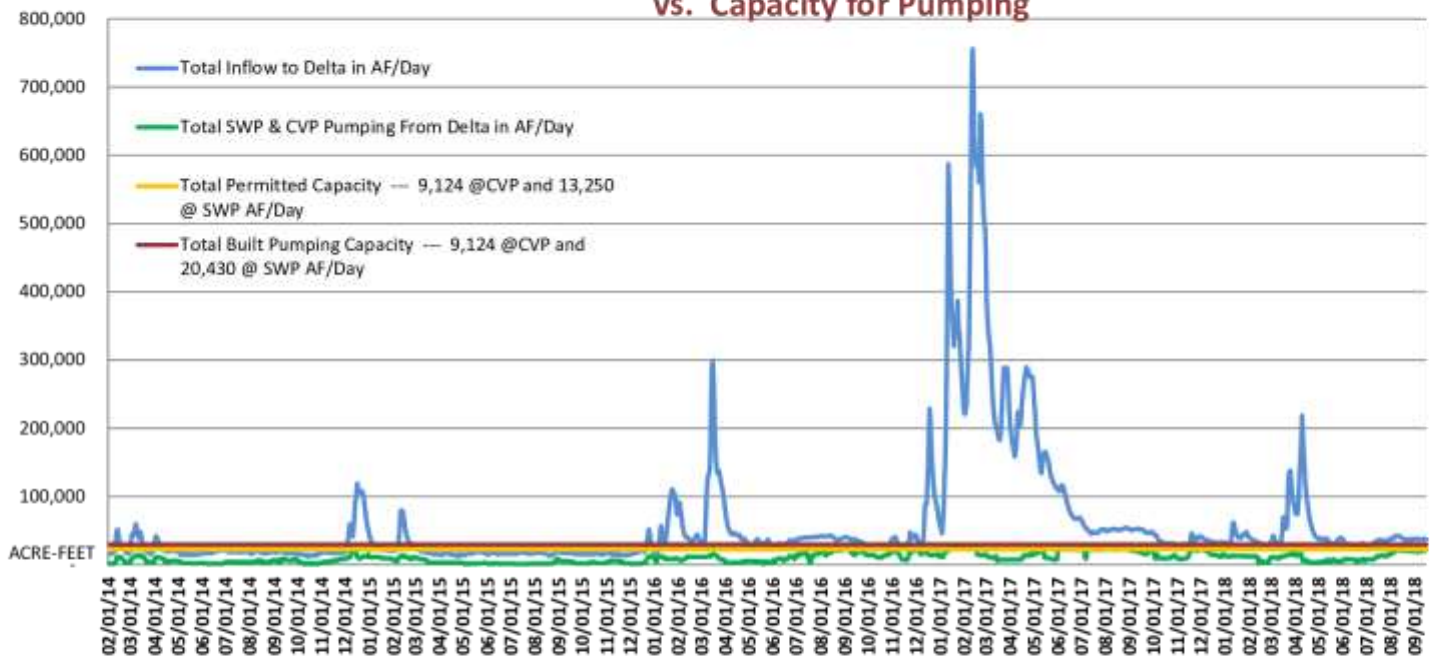


# THE WATER AGENCY, INC.

## Water Supply Update

### February 1, 2014 to September 16, 2018

San Joaquin/Sacramento Delta Inflows  
and Actual Central Valley Project + State Water Project Pumping  
vs. Capacity for Pumping



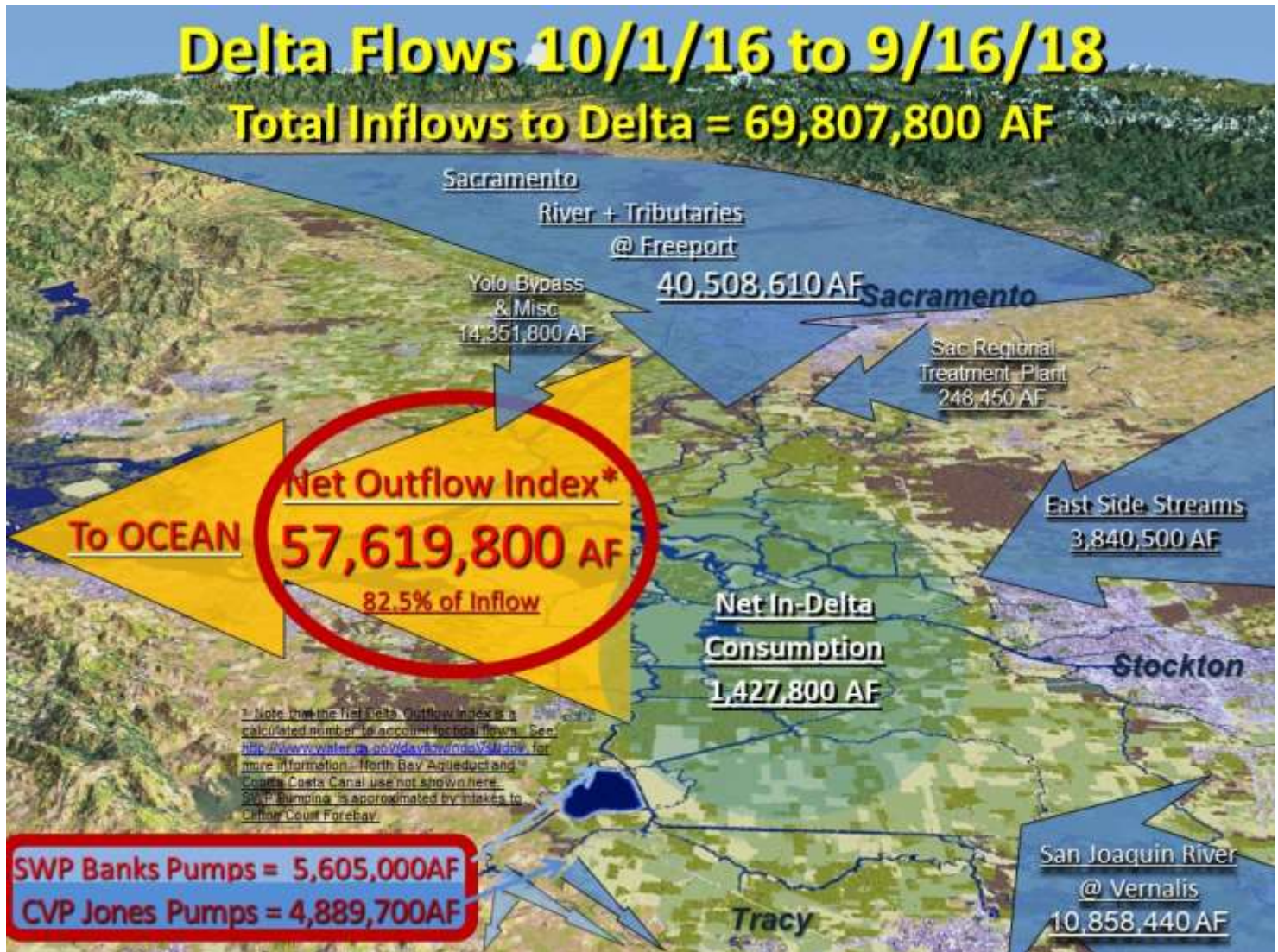


# THE WATER AGENCY, INC.

## Water Supply Update

### Delta Flows from October 1, 2016, through September 16, 2018

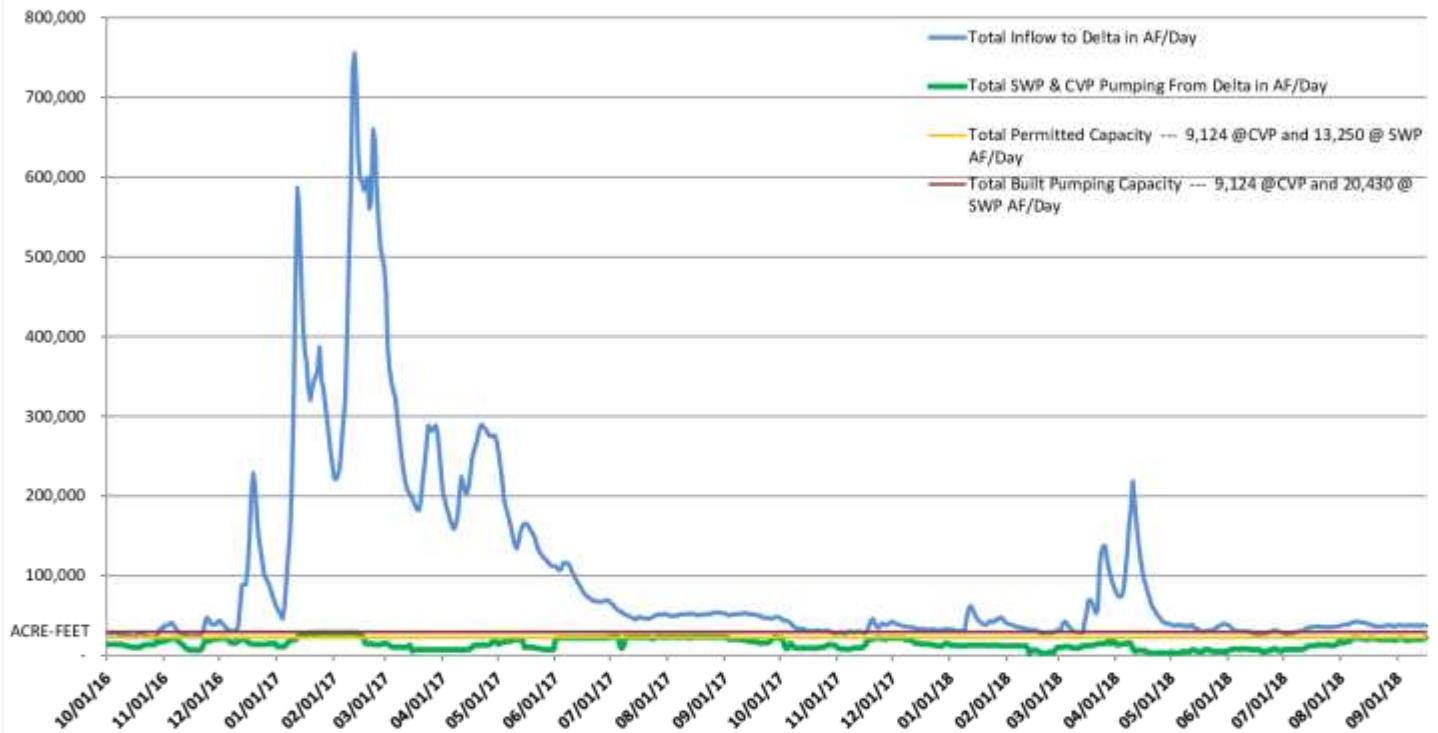
*In twenty-three months, 69,807,800AF of water flowed into the Delta. The Net In-Delta Consumption was 1,427,800AF (2%). The Banks and Jones Pumps captured 10,494,700AF (15%), and 57,619,800AF (82.5%) flowed out to the ocean.*





## October 1, 2016 to September 16, 2018

San Joaquin/Sacramento Delta Inflows  
and Actual Central Valley Project + State Water Project Pumping  
vs. Capacity for Pumping



## 2018 Agricultural Water Allocations—

### SWP:

**As of May 21, 2018, the 2018 allocation is set at 35%.**

<https://www.water.ca.gov/News/News-Releases/All-News-Articles/Water-Supply-Allocation-Increases-Slightly-for-State-Water-Contractors>

**As of April 24, 2018, the 2018 SWP allocation is set at 30%.**

<https://www.water.ca.gov/News/News-Releases/All-News-Articles/DWR-Increases-Water-Supply-Allocation-to-State-Water-Contractors>

**As of January 29, 2018, the 2018 SWP allocation is set at 20%.**

<http://www.water.ca.gov/swpao/docs/notices/18-02.pdf>

**As of November 30, 2017, the 2018 SWP allocation is set at 15%.**

<http://www.water.ca.gov/news/newsreleases/2017/113017allocation.pdf>

### CVP:

**As of June 15, 2018, the South-of-the-Delta CVP Ag Allocation increases from 45% to 50%.**

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=62507>

**As of May 25, 2018, the South-of-the-Delta CVP Ag Allocation increases from 40% to 45%.** The Friant Division's uncontrolled season, which allowed Reclamation to make Class 2 deliveries, was terminated May 10. On May 11, Reclamation confirmed with the Friant Division contractors that the remaining residual Class 1 water supply available was 85 percent. Conditions will continue to be monitored and allocations will be adjusted and updated as appropriate.

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=62300>

**As of April 20, 2018, the South-of-the-Delta CVP Ag Allocation increases from 20% to 40%.**

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=62110>

**As of April 11, 2018, the Friant Division contractors allocation increased from 60% to 100% of Class 1 supplies, and Class 2 is set at 7%. (Uncontrolled season was declared on April 10 with a target to move 100 TAF of Class 2 water by April 30.)**

<https://www.usbr.gov/mp/cvp-water/docs/cvp-water-allocations-quantities-table.pdf>

**As of March 22, 2018, the South-of-the-Delta CVP Ag Allocation remains at 20%. The Friant Division contractors allocation increased from 30% to 60% of Class 1 supplies.**

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=61841>

**As of February 20, 2018, the South-of-the-Delta CVP Ag Allocation is set at 20%. The Friant Division contractors are allocated 30% of Class 1 supplies.**

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=61677>

## Final 2017 Agricultural Water Allocations—

### SWP:

**As of April 14, 2017, the 2017 SWP allocation is set at 85%.**

<http://www.water.ca.gov/swpao/docs/notices/17-05.pdf>

### CVP:

**As of April 11, 2017, the South-of-the-Delta CVP Allocation is set at 100%.**

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=59000>



# THE WATER AGENCY, INC.

## Water Supply Update

***Disclaimer:*** *The information contained herein is compiled from a number of sources. Some of what we report is gleaned from news articles or meetings we attend. While we strive for this information to be accurate, it may be in error, and much of the information and data contained herein is provisional and subject to future revisions. If you plan on using this information to make business decisions about your water assets or needs, we strongly suggest that you do your own independent verification of the accuracy of this information. THE WATER AGENCY, INC. provides no guarantee as to the accuracy or completeness of the information. Neither THE WATER AGENCY, INC., nor any of the sources of the information contained herein are responsible for any errors or omissions, or for the use or results obtained from the use of this information. Please feel free to send us information or opinions, which are contrary to what we write, so we can try to integrate them into future updates.*

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