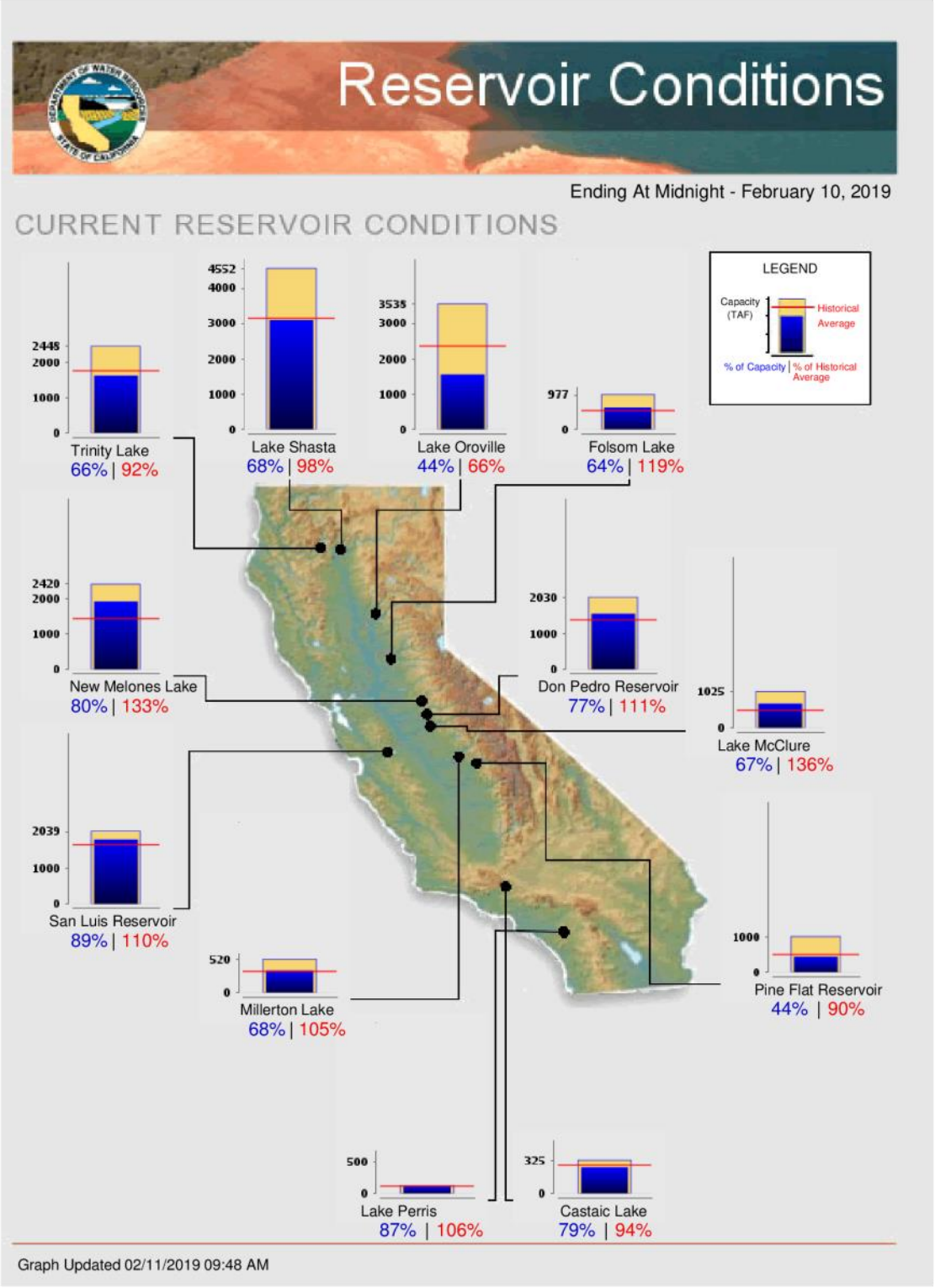
Reservoir Conditions

As of February 10, 2019, Northern California reservoirs are between 66-119% of historical average and 44-68% of capacity. The central ones are between 90-136% of historical average and 44-89% of capacity.

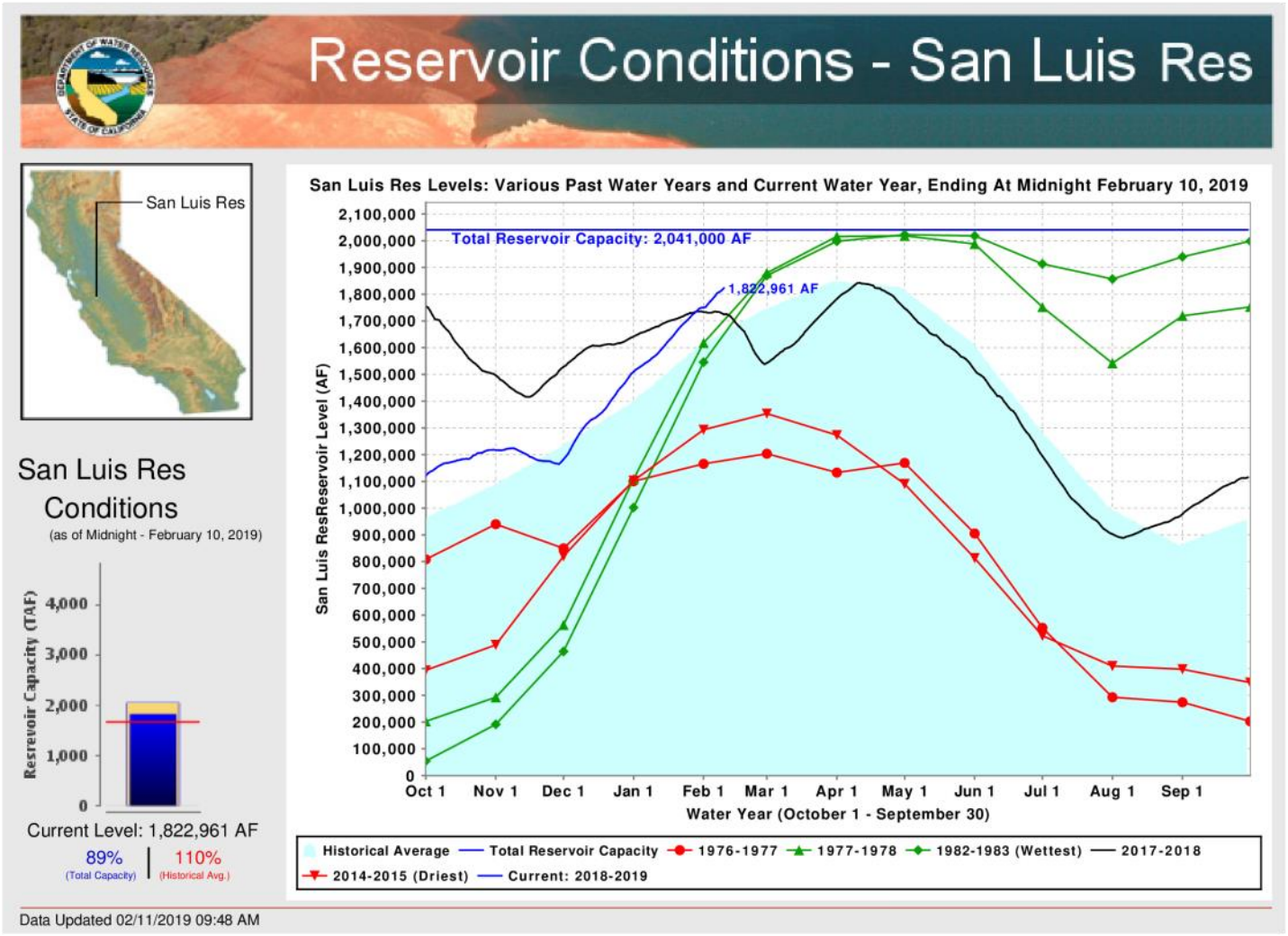


http://cdec.water.ca.gov/cgi-progs/products/rescond.pdf

San Luis Reservoir

As of February 10, 2019, San Luis is at 110% of the historical average. San Luis total (CVP + SWP) storage is at 1,822,961 AF and is at 89% of the 2,041,000AF of capacity. The CVP share is 840,783 AF (at 87.1% of capacity).

https://www.usbr.gov/mp/cvo/vungvari/sccao_snldop.pdf



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

Federal Storage within San Luis Reservoir

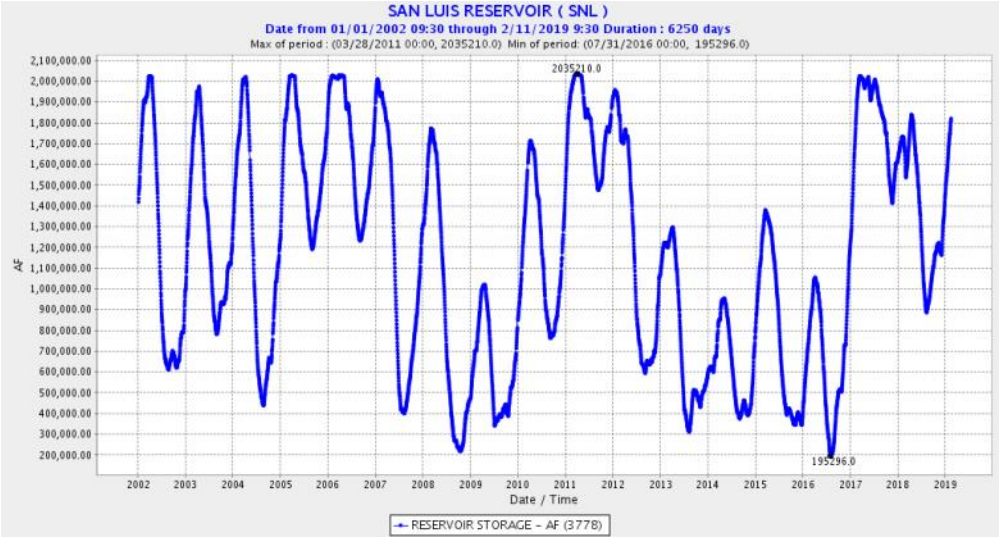
As of February 10, 2019, federal storage was at 840,783AF (at 87.1% capacity). Total federal storage capacity is 965,655AF.

State Storage within San Luis Reservoir

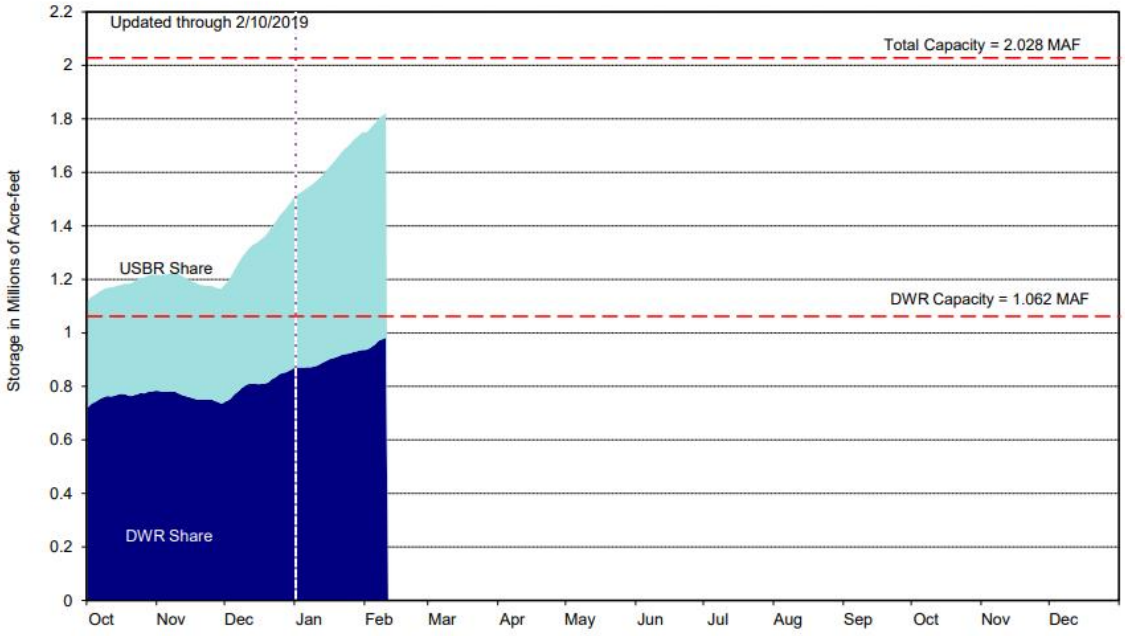
As of February 10, 2019, state storage was at 982,178AF (at 92.5% capacity). The total state storage capacity in SLR is 1,062,180AF.

Total State and Federal storage reported is 1,822,961AF. The reservoir is at 89.9% of allotted storage capacity (2,027,835 AF).

https://www.usbr.gov/mp/cvo/vungvari/sccao_snldop.pdf



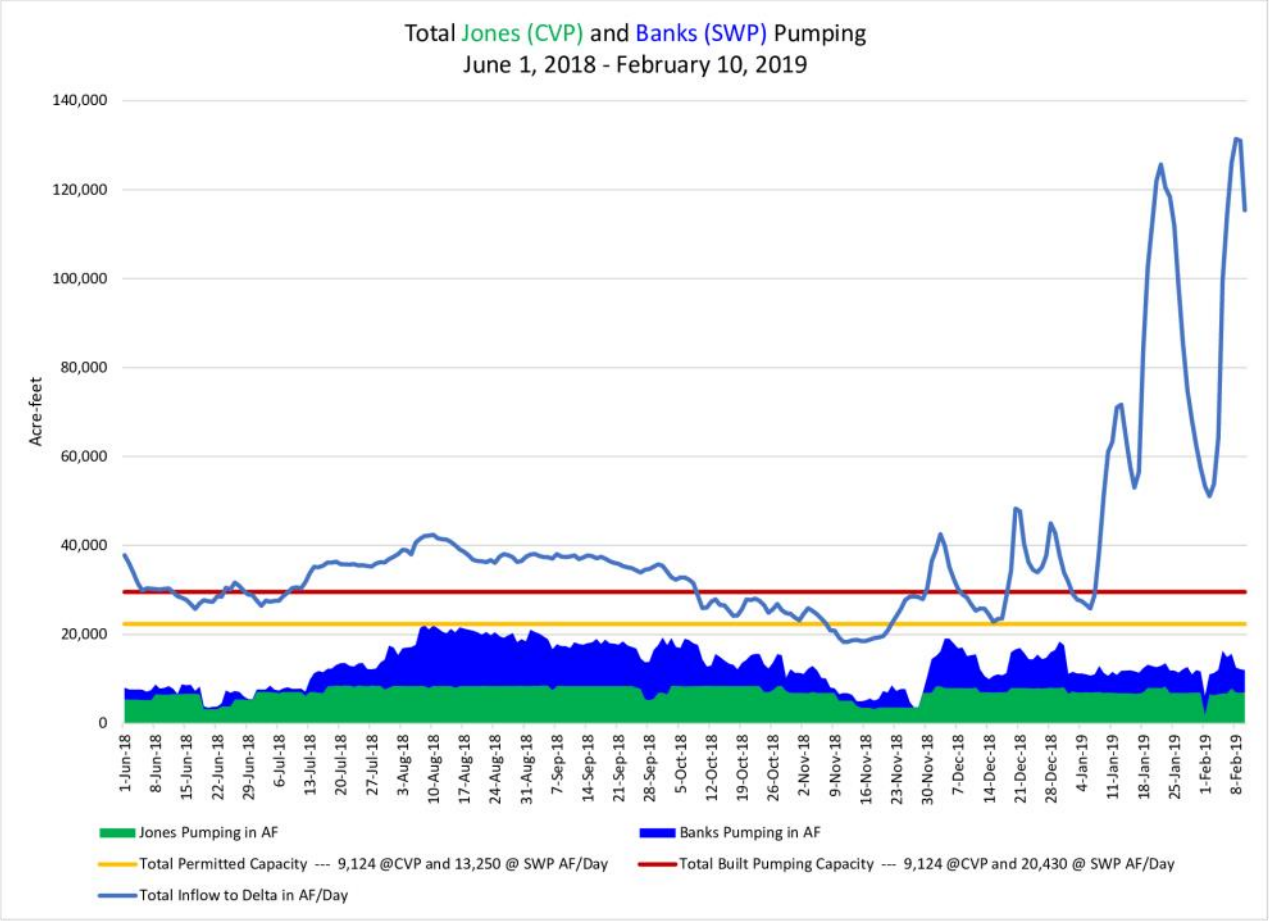
http://cdec.water.ca.gov/jspplot/jspPlotServlet.jsp?sensor_no=3778&end=2%2F11%2F2019+9%3A30&geom=huge&interval=6250&cookies=cdec01

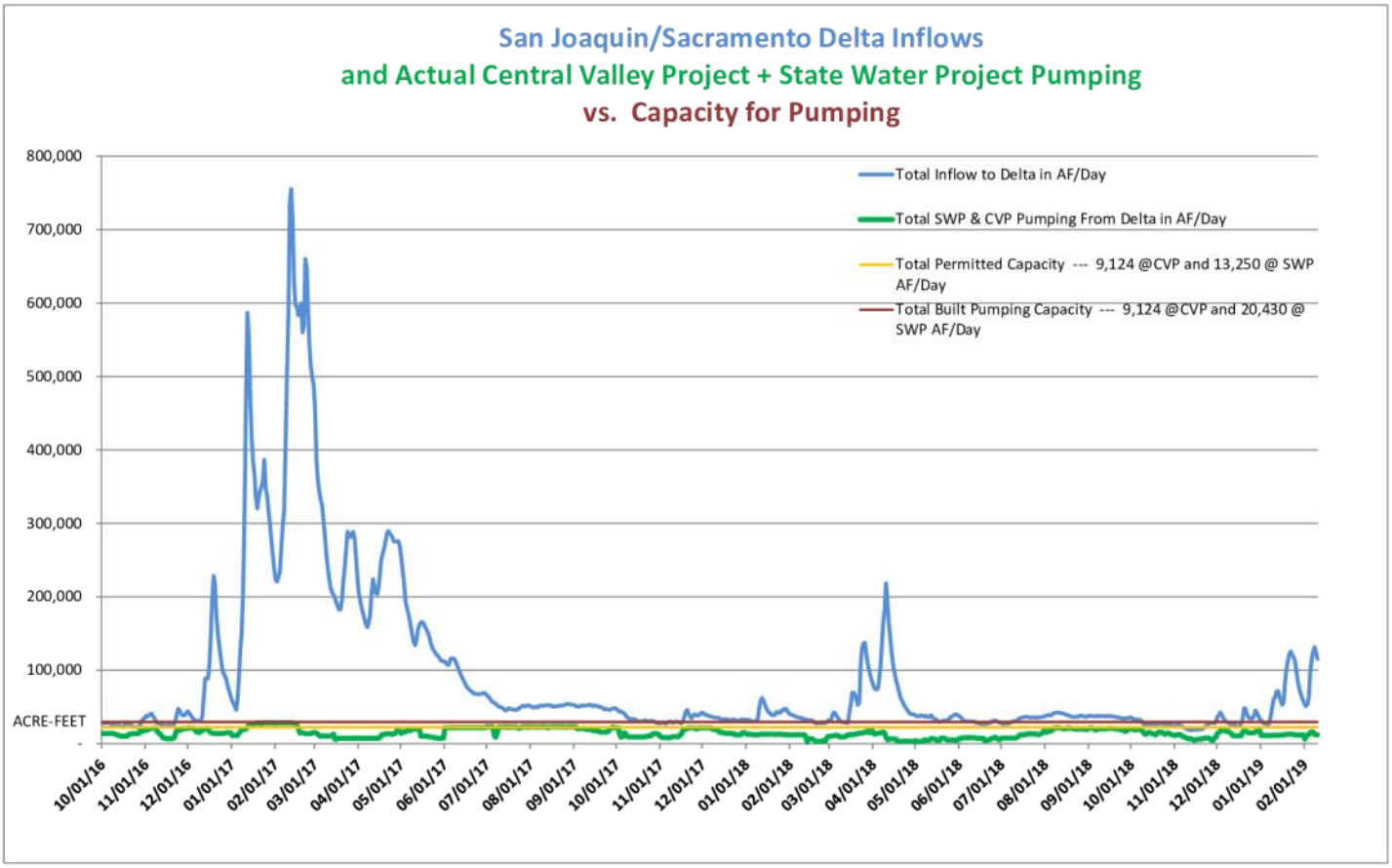


https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Operations-And-Maintenance/Files/Operations-Control-Office/Project-Wide-Operations/San-Luis-Weekly-Reservoir-Storage-Chart.pdf?la=en&hash=8D8540CC235C213FD1DA5371CFECCD0B30BC310B

State and Federal Pumping

Pumping at the Banks (State) Pumping Plant shown by the solid blue area declined to 4,162AF/day on February 1 but rose to 9,575AF/day on February 5. Pumping at the Jones (Federal) Pumping Plant shown by the solid green area had a low of 1,942AF/day on February 1 and a high of 7,925AF/day on February 7.




San Joaquin/Sacramento Delta Inflows
and Actual Central Valley Project + State Water Project Pumping
vs. Capacity for Pumping
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
ACRE-FEET
-
Total Inflow to Delta in AF/Day
Total SWP & CVP Pumping From Delta in AF/Day
Total Permitted Capacity --- 9,124 @CVP and 13,250 @ SWP AF/Day
Total Built Pumping Capacity --- 9,124 @CVP and 20,430 @ SWP AF/Day
10/01/16
11/01/16
12/01/16
01/01/17
02/01/17
03/01/17
04/01/17
05/01/17
06/01/17
07/01/17
08/01/17
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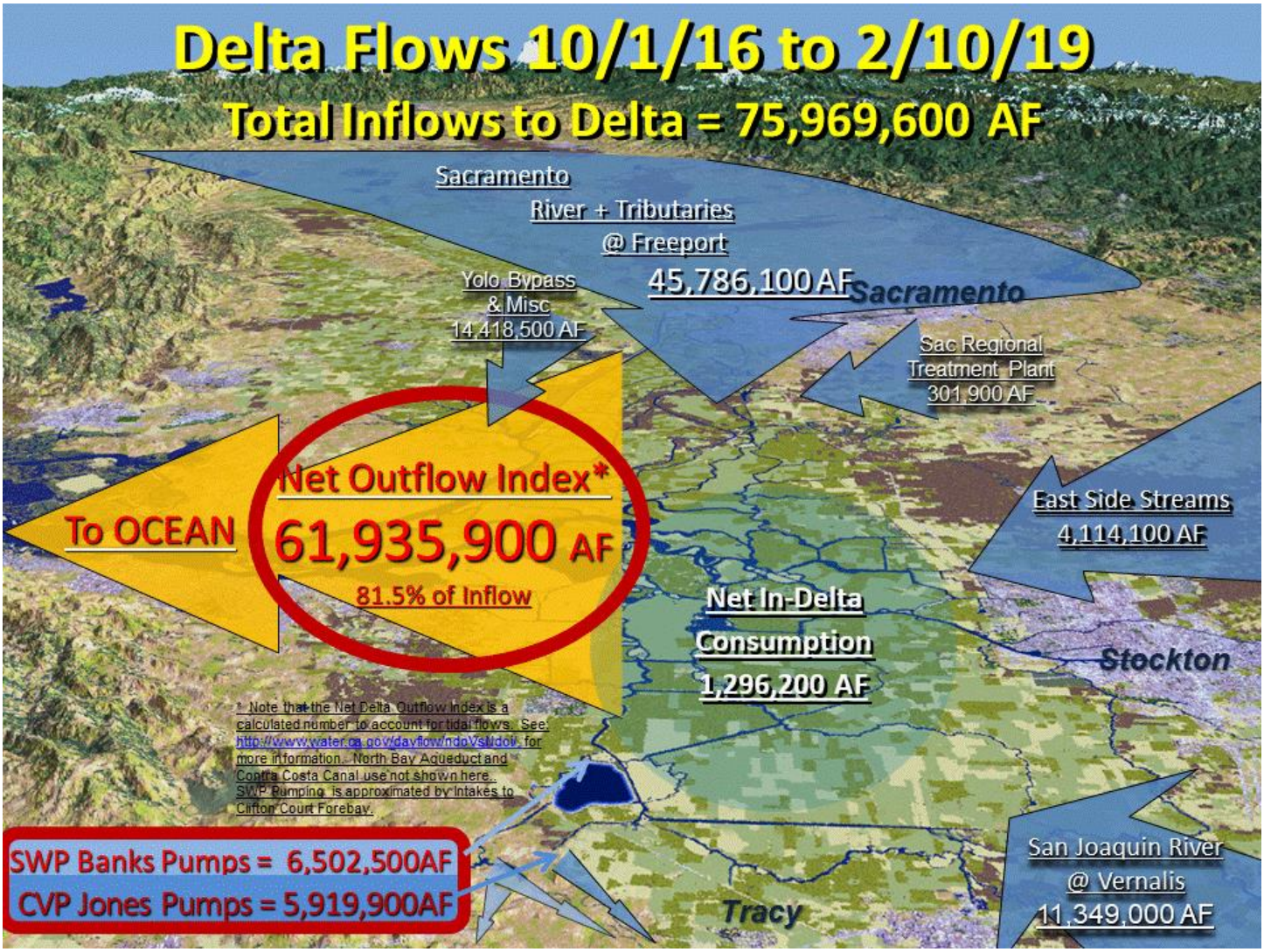
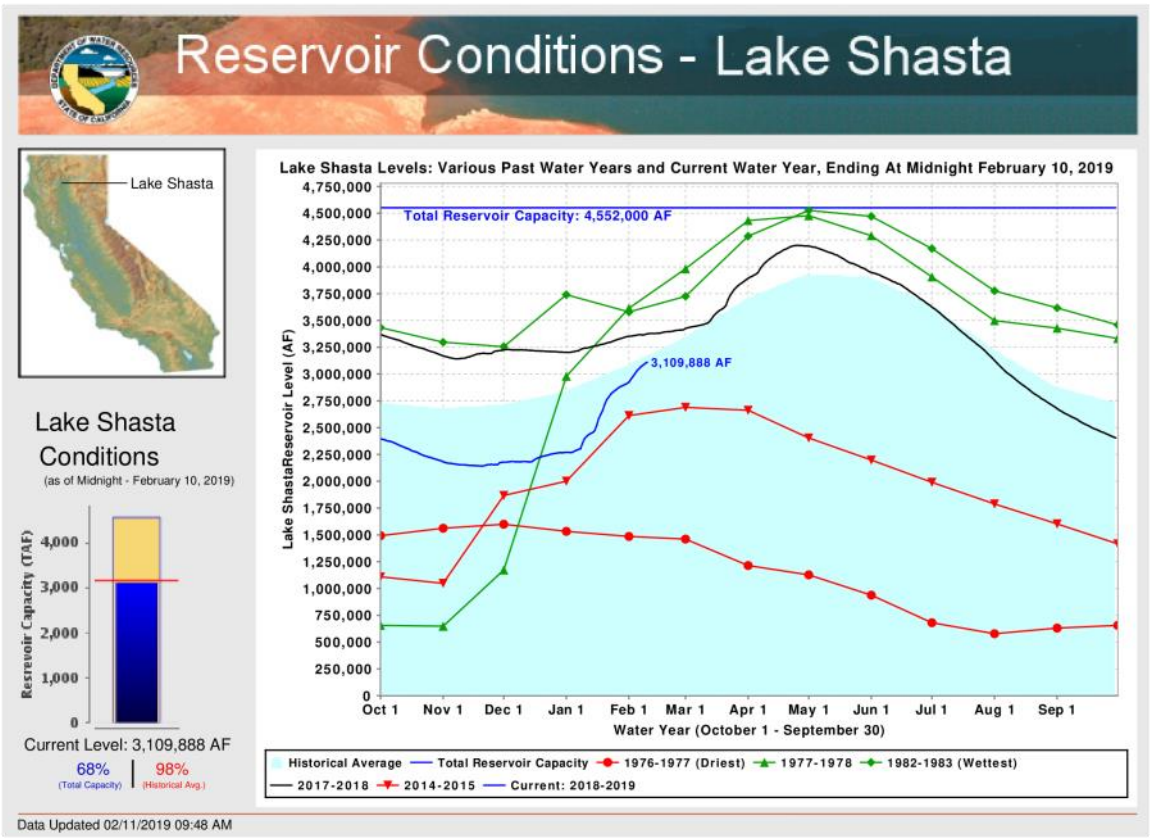
01/01/19
02/01/19


Delta Flows 10/1/16 to 2/10/19
Total Inflows to Delta = 75,969,600 AF
Sacramento River + Tributaries @ Freeport
45,786,100 AF
Sacramento
Yolo Bypass & Misc
14,418,500 AF
Sac Regional Treatment Plant
301,900 AF
Net Outflow Index*
61,935,900 AF
81.5% of Inflow
To OCEAN
East Side Streams
4,114,100 AF
Net In-Delta Consumption
1,296,200 AF
Stockton
* Note that the Net Delta Outflow Index is a calculated number to account for tidal flows. See http://www.water.ca.gov/dayflow/ndoVsNdoi for more information. North Bay Aqueduct and Contra Costa Canal use not shown here. SWP Pumping is approximated by Intakes to Clifton Court Forebay.
SWP Banks Pumps = 6,502,500AF
CVP Jones Pumps = 5,919,900AF
Tracy
San Joaquin River @ Vernalis
11,349,000 AF

Shasta Storage —

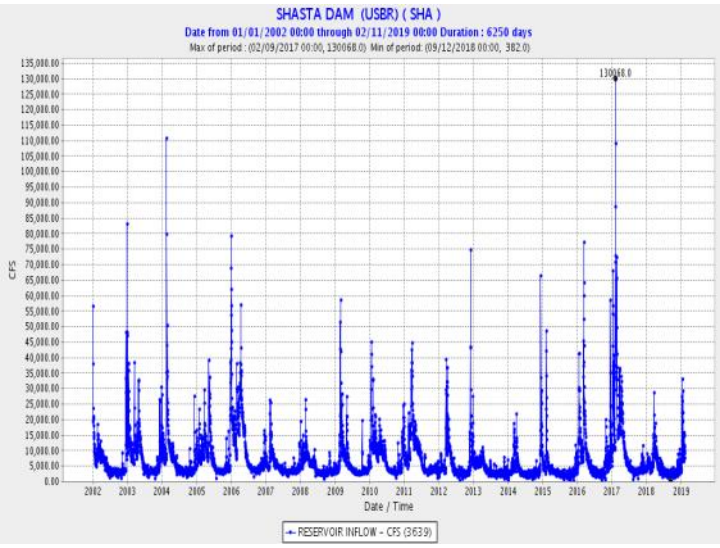
As of Sunday, 02/10/2019, storage in Shasta Lake was approximately 3,109,888 AF (68% of capacity). That's up 132,190 AF (3% of capacity) from last week. Total capacity is about 4,552,100 AF.



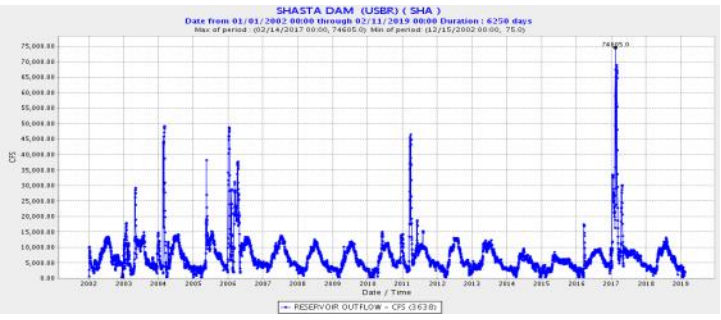
The weekly average daily inflows were calculated as 11,457 CFS, and the weekly average daily outflows were calculated as 1,899 CFS.

Reservoir graphs from: http://cdec.water.ca.gov/reservoir_map.html

Inflows

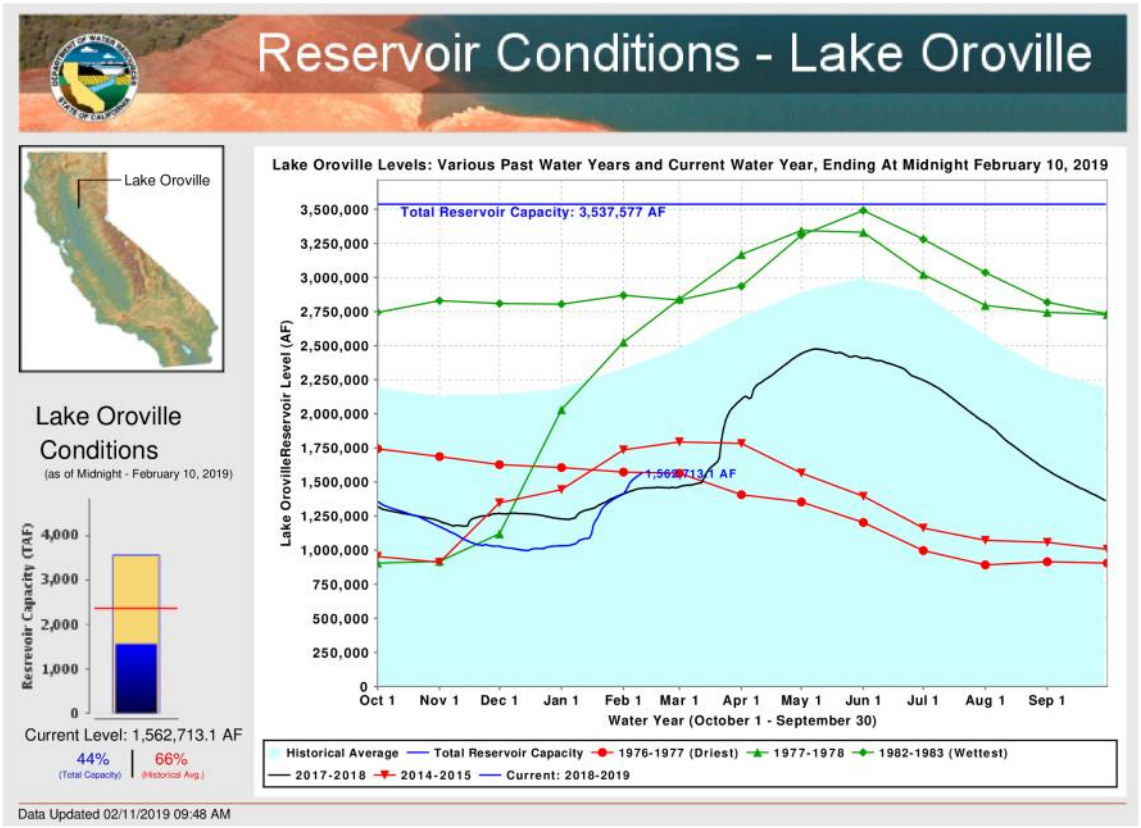


Outflows



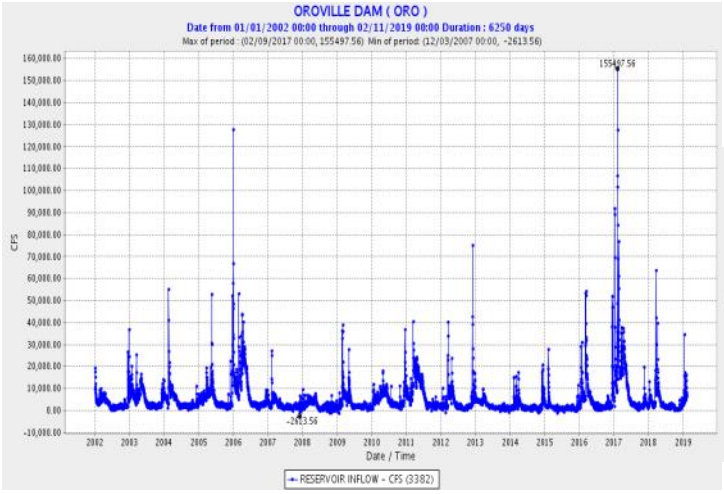
Oroville Storage

As of Sunday, 02/10/2019, storage in Lake Oroville was approximately 1,562,713 AF (44% of capacity). That's up 105,441 AF (3% of capacity) from last week. Total capacity is about 3,538,000 AF.

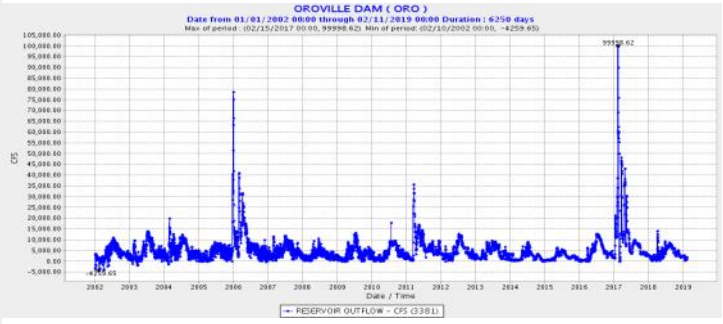


The weekly average daily inflows were calculated as 9,127 CFS, and the weekly average daily outflows were calculated as 1,521 CFS.

Inflows

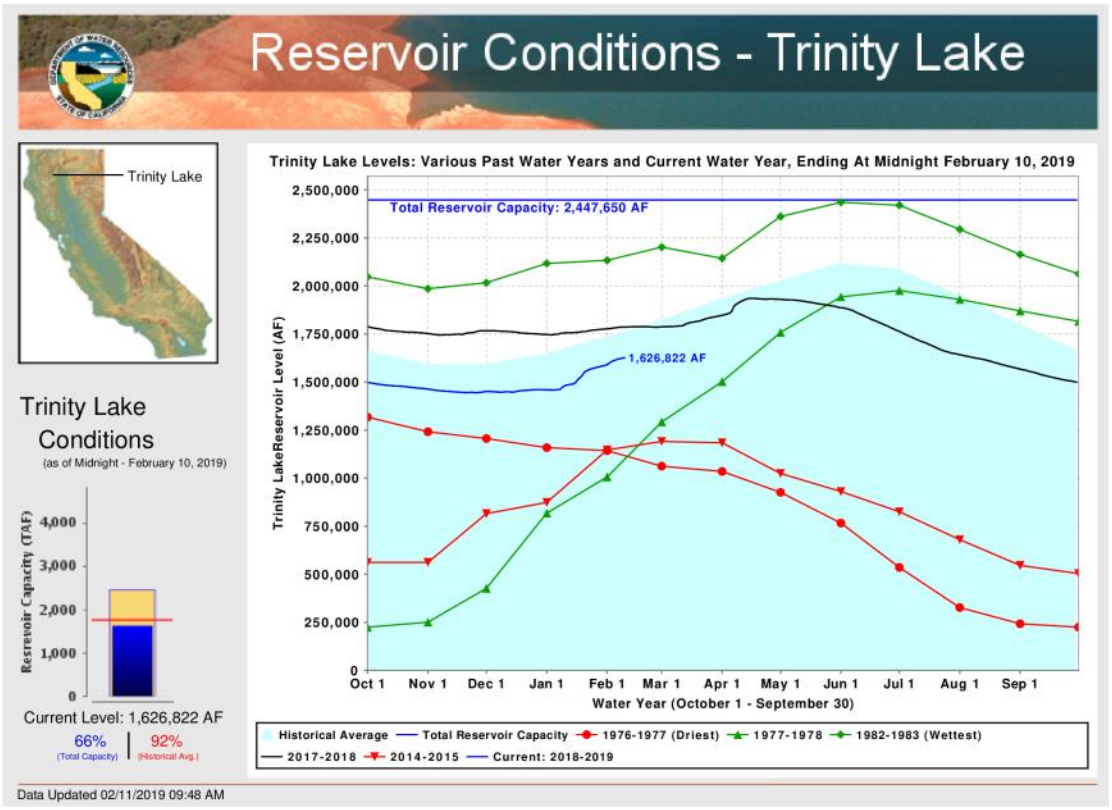


Outflows



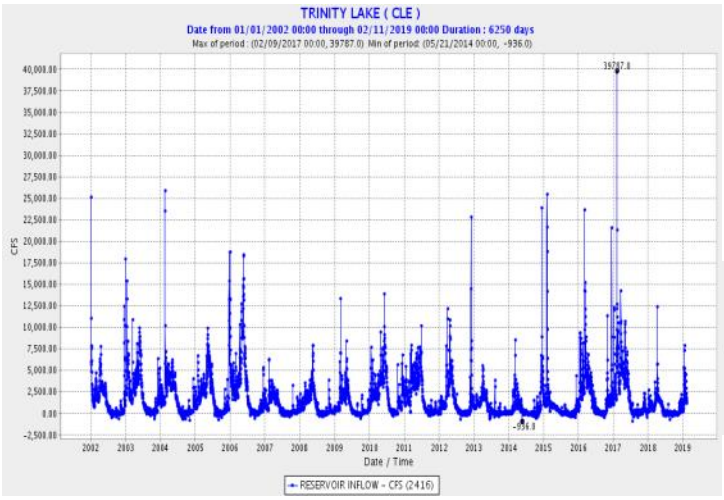
Trinity Lake Storage

As of Sunday, 02/10/2019, storage in Trinity Lake was approximately 1,626,822 AF (66% of capacity). That's up 22,090 AF (unchanged in capacity percentage) from last week. Total capacity is about 2,447,650 AF.

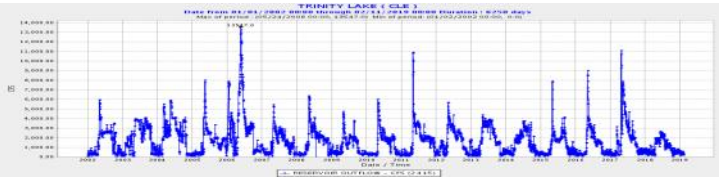


The weekly average daily inflows were calculated as 1,898 CFS, and the weekly average daily outflows were calculated as 300 CFS.

Inflows

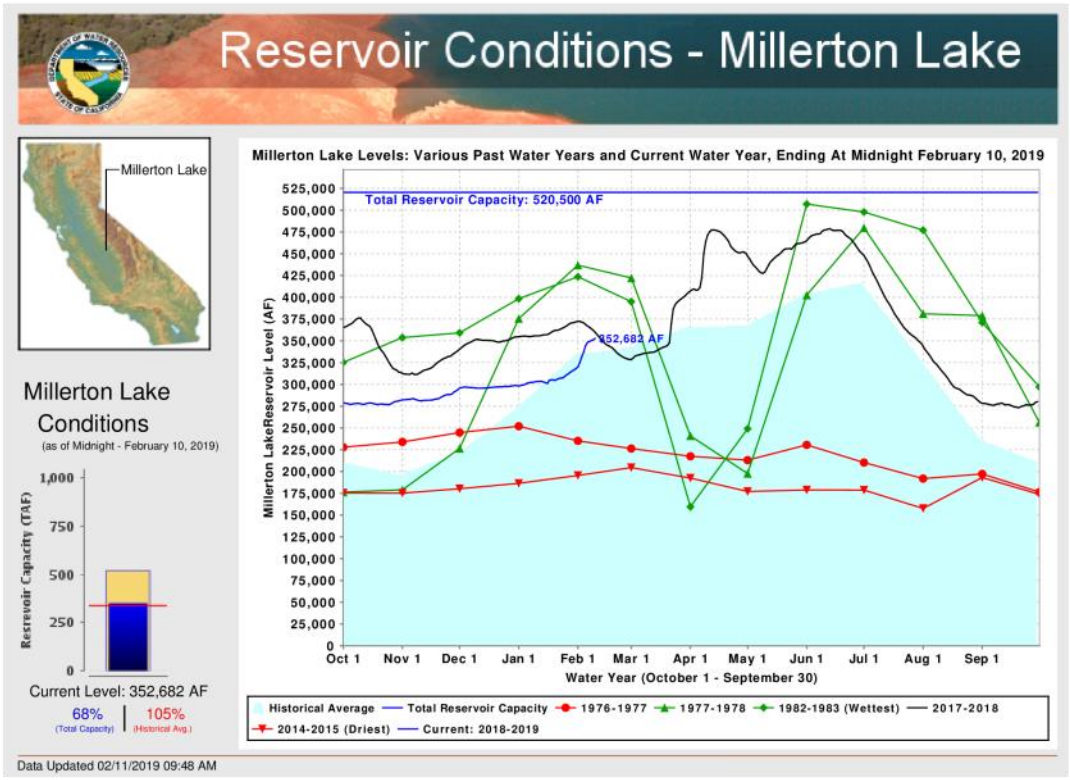


Outflows



Friant Storage

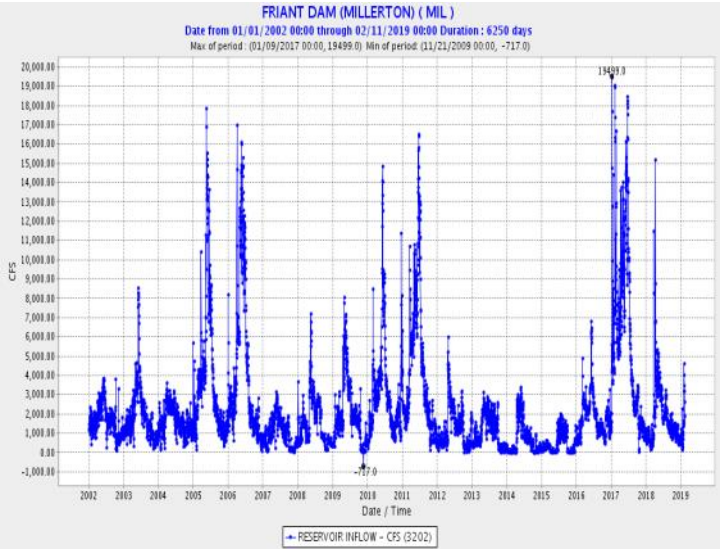
As of Sunday, 02/10/2019, storage in Millerton Lake was approximately 352,682 AF (68% of capacity). That's up 21,185 AF (4% of capacity) from last week. Total capacity is about 520,500 AF.



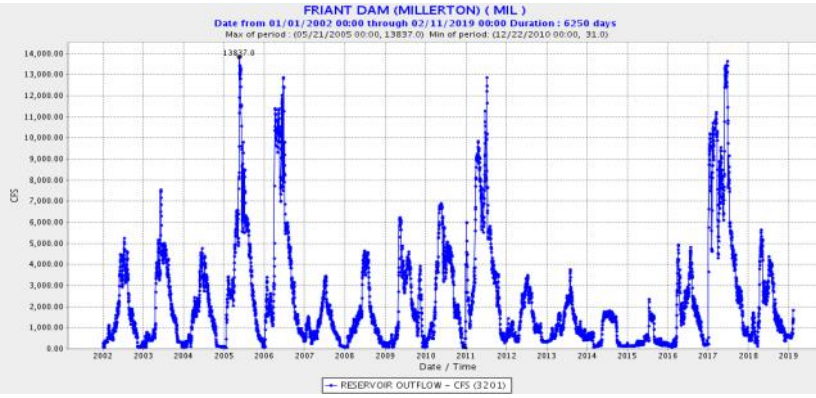
The weekly average daily inflows were calculated as 2,810 CFS.

On Sunday, February 10, 2019, 1,209 CFS was released into the Friant/ Kern Canal, 0 CFS was released into the Madera Canal, and 635 CFS was released into the San Joaquin River. The eight upstream San Joaquin River reservoirs are about 42% full, holding 258,728AF of their 610,288AF capacity.

Inflows



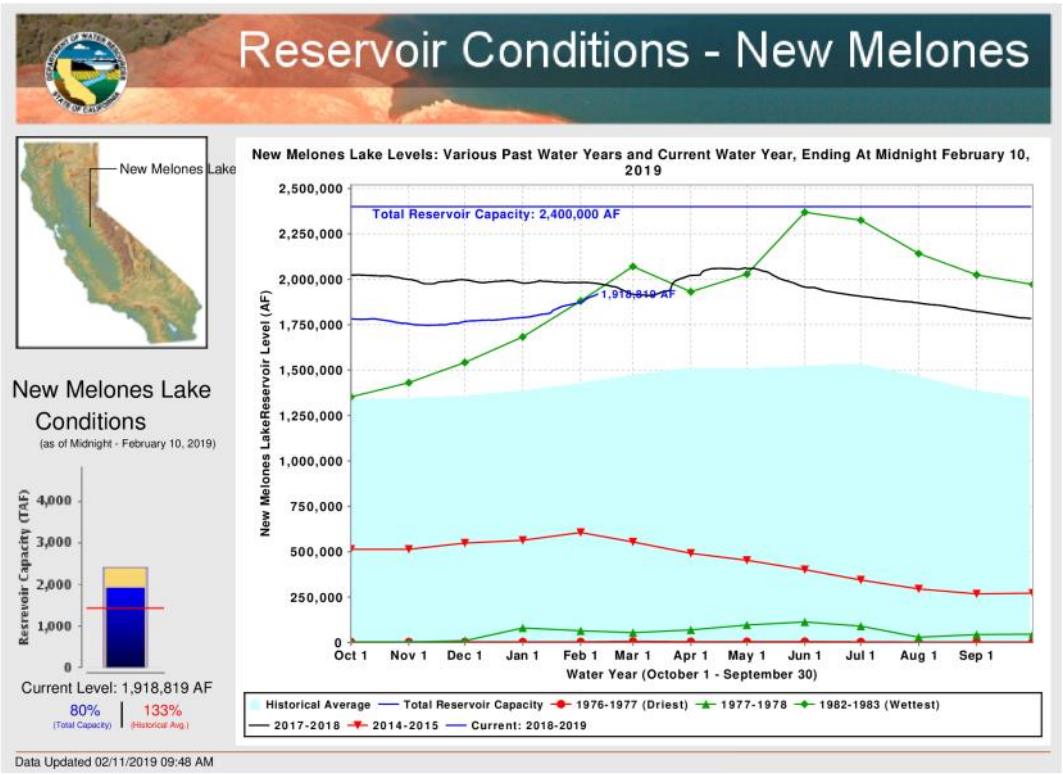
Outflows



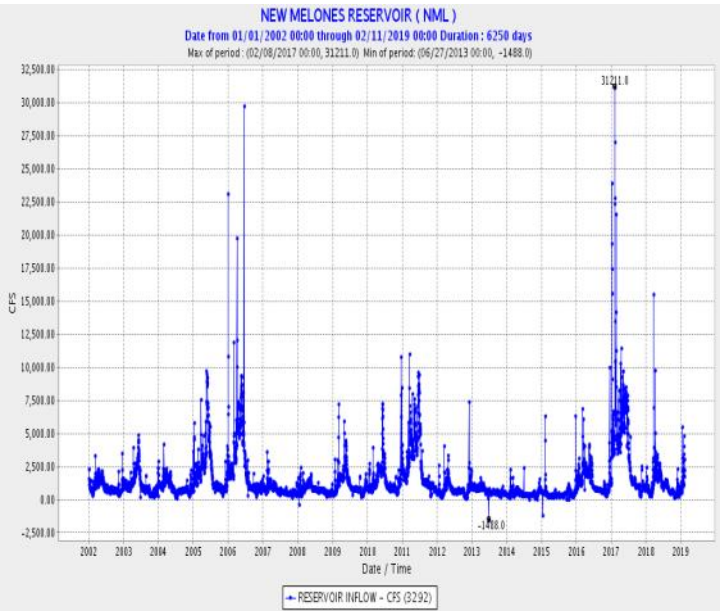
New Melones Storage

As of Sunday, 02/10/2019, storage in New Melones was approximately 1,918,819 AF (80% of capacity). That's up 35,626 AF (1% of capacity) from last week. Total capacity is about 2,420,000 AF.

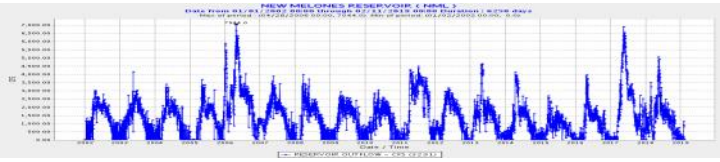
The weekly average daily inflows were calculated as 2,723 CFS, and the weekly average daily outflows were calculated as 139 CFS.



Inflows



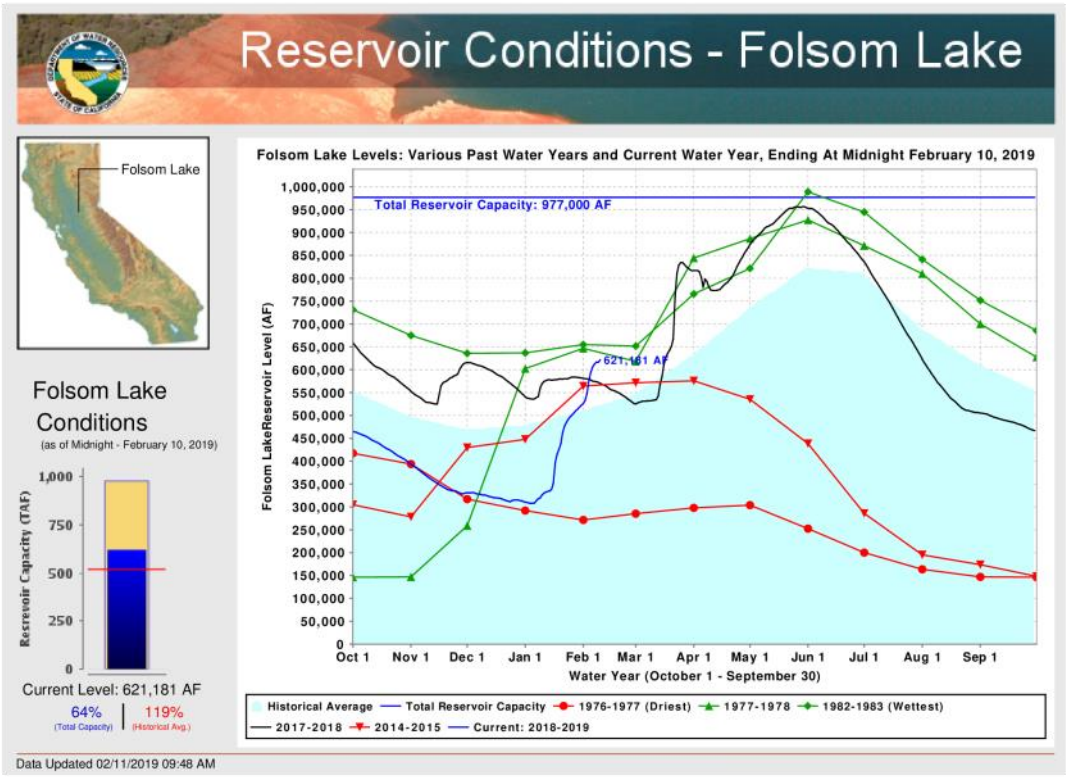
Outflows



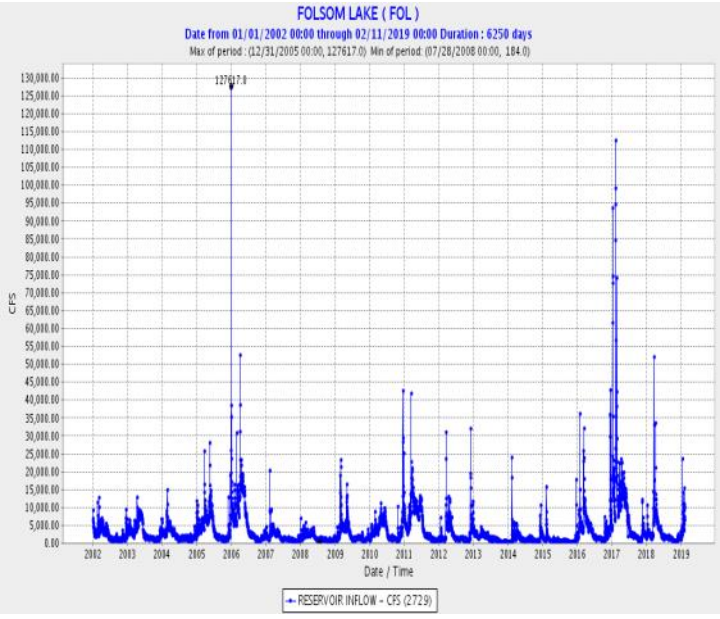
Folsom Storage

As of Sunday, 02/10/2019, storage in Folsom Lake was approximately 621,181 AF (64% of capacity). That's up 72,888 AF (8% of capacity) from last week. Total capacity is about 977,000 AF.

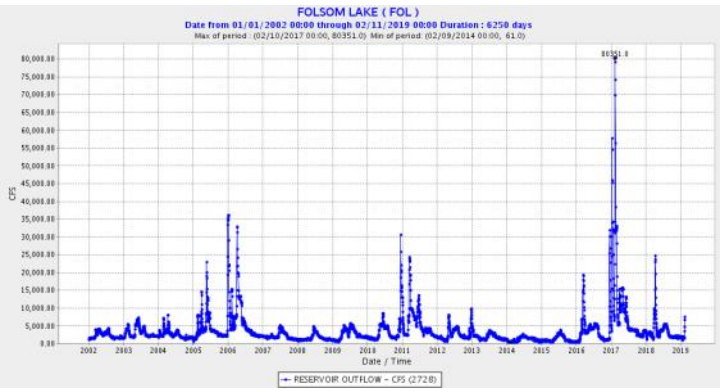
The weekly average daily inflows were calculated as 9,241 CFS, and the weekly average daily outflows were calculated as 3,990 CFS.



Inflows



Outflows



Westlands Water District

MEMORANDUM

TO: SLDMWA BOARD OF DIRECTORS

FROM: TOM BOARDMAN, WATER RESOURCES ENGINEER

SUBJECT FEBRUARY PROJECT OPERATIONS UPDATE

DATE: FEBRUARY 4, 2019

Project Operations

- Jones pumping averaged at about 3,600 cfs during January due to restrictions caused by the Old and Middle River reverse (OMR) flow limit per the salmon BiOp or because of canal capacity limitations during storm events. Current pumping is constrained to 3,500 cfs because of an OMR limit of -5,000 cfs.
- Banks is pumping at 2,600 cfs; the SWP's share of the limited export allowed under the salmon BiOp. The SWP export will remain less than the CVP for the duration of spring per the terms of the amended Coordinated Operations Agreement.
- Storms during late December increased turbidity levels in the southern delta nearly triggered a delta smelt protective action that would have required exports to reduce to near minimum levels for 14 days. The threshold for the action is an exceedance of a specified turbidity level at 3 defined stations. The attached chart titled "Turbidity Levels at Key Stations in the Southern Delta" shows that the turbidity trigger level was exceeded at two of the three stations; thus, a BiOp-related export cut was averted that would have reduced CVP exports by an estimated 75 TAF.
- High delta inflows during January fell just short of triggering a D1641 standard that would have required the Projects to hold the X2 salinity line at Port Chicago. If the costly X2 requirement had triggered, it would have reduced CVP exports by about 130 TAF plus an undetermined amount of stored water from CVP reservoirs.
- CVP exports have increased by about 35 TAF since the COA amendment last month. Based on Reclamation's latest operations forecasts, the revised COA may increase CVP exports by about 100 TAF this spring.
- Shasta storage is 2.9 MAF; an increase of 630 TAF over the past 30 days. Current releases are 3,250 cfs to conserve storage and augment the cold water pool for salmon protection this summer. With the approaching storm system, flood control releases may soon be required when Shasta storage fills its conservation pool limit of 3.2 MAF.
- Folsom storage increased by more than 200 TAF during January. The current storage of 518 TAF is about 50 TAF short of the need for flood control releases. With the snow pack upstream slightly above average, Folsom has an increased chance of filling by May.
- CVP demands were about 38 TAF during January which is about 50% below the 15-year average.

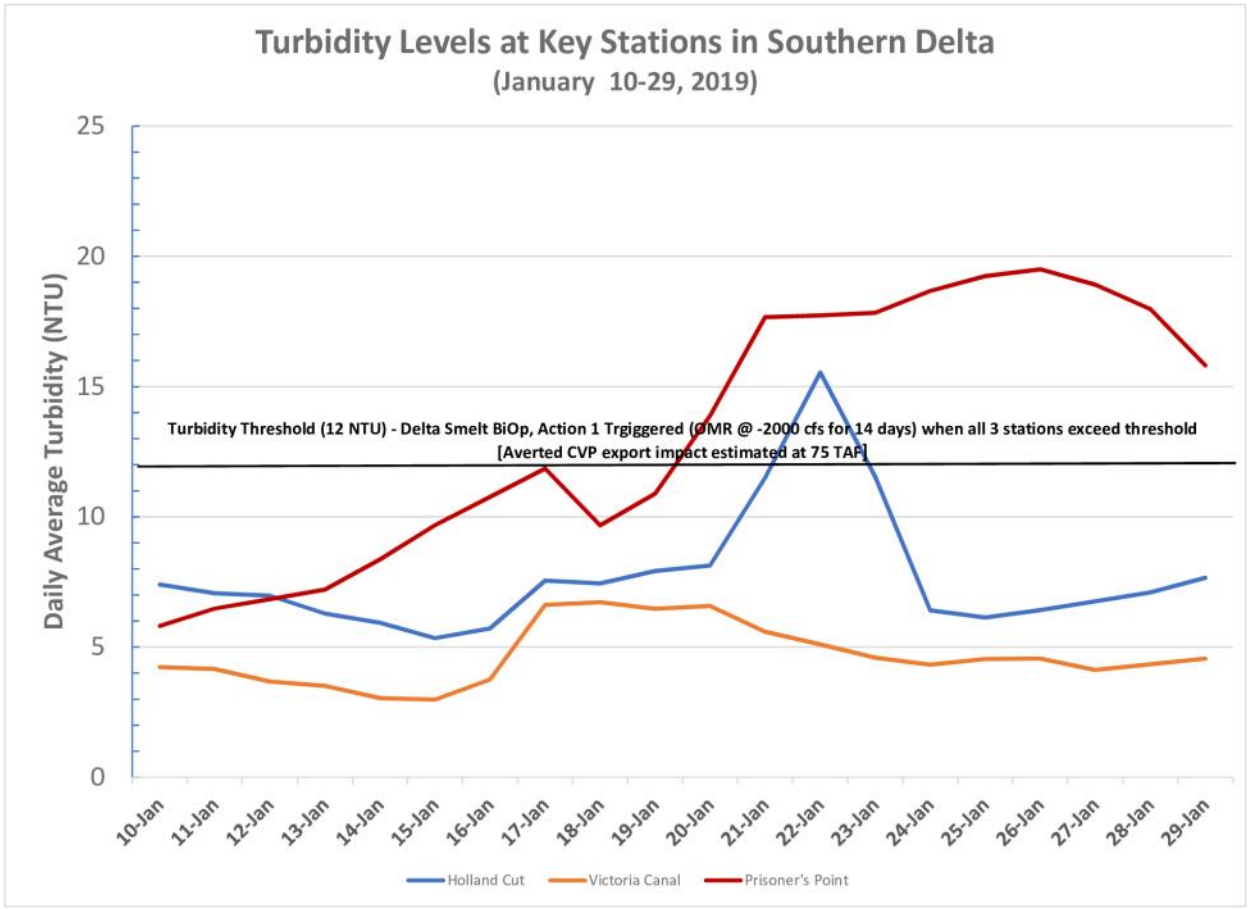
2019 San Luis Operations and Allocation Projection

CVP San Luis refilled by 200 TAF during January which is about 67% more than the 15-year average. As shown on the attached San Luis refill projection charts, the CVP share of San Luis could fill by mid-March with average hydrology; possibly sooner if demands are below average. However, with the return of sustained dry conditions, the CVP share could fall short of filling by about 150 TAF.

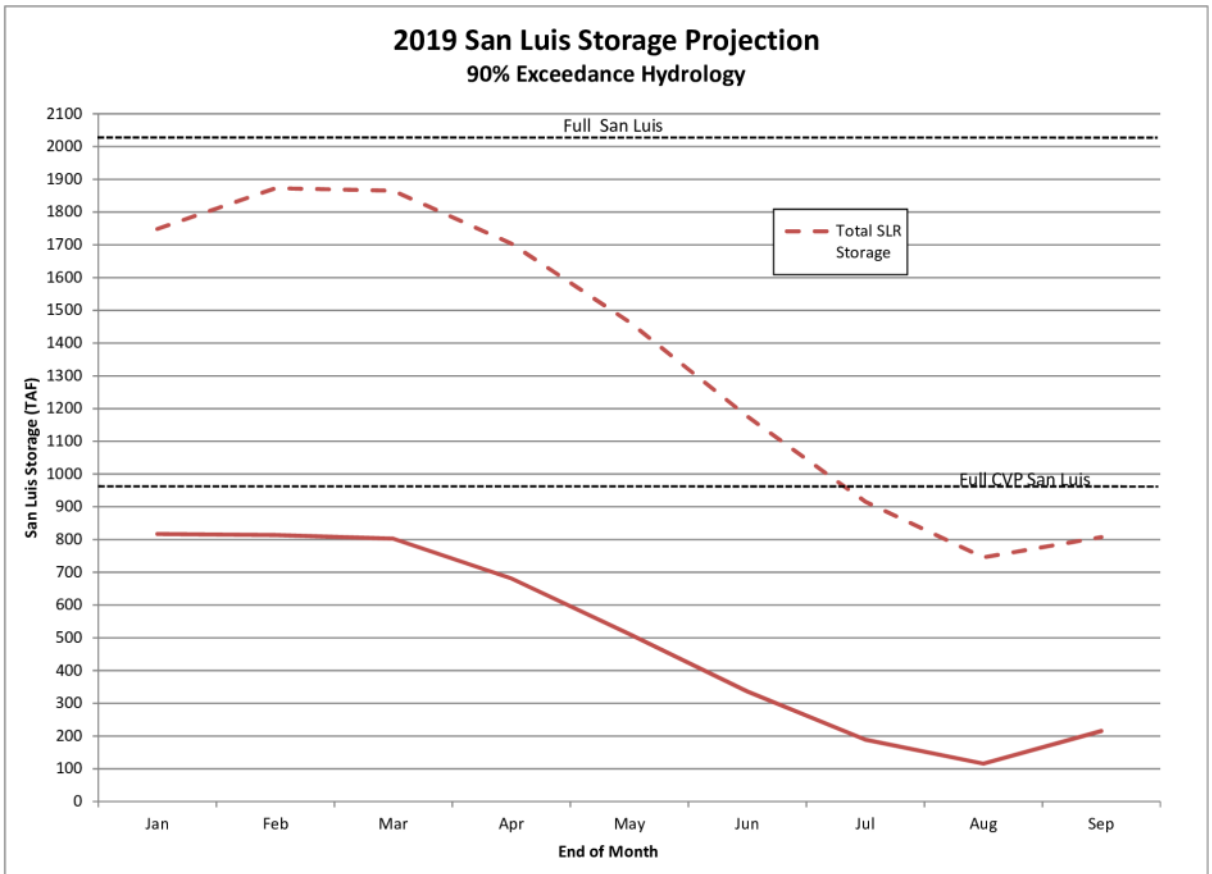
Absent significant exports cuts so far this year, above normal snowpack and reservoir storage, and increased certainty of CVP operations provided by the WIIN Act and the amended COA, the initial Ag Service allocation may be 25-30%. With average hydrology, the allocation could increase to 45-55% by April or May with an increase to 65-70% if the San Joaquin basin hydrology is above average by late spring.

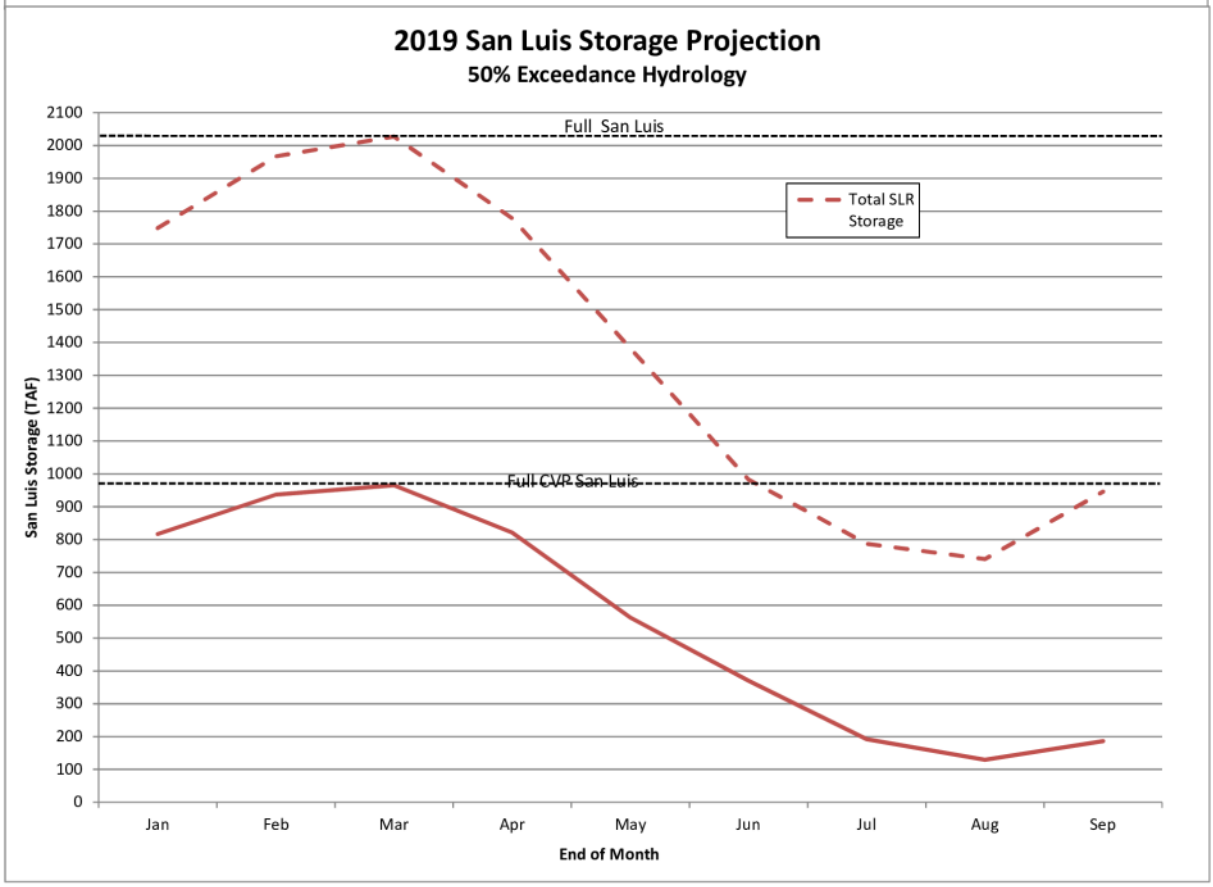
Rescheduling Opportunities

Reclamation released a draft of the Rescheduling Guidelines on January 23 . The Guidelines limit rescheduling to the lesser of 10% of each district's contract entitlement or the district's total Project supply remaining on Feb 28, 2019. The use of rescheduled water will not be limited to a specified period; however, Reclamation will assess a loss factor of 1% beginning April 1 on undelivered rescheduled water to account for evaporation. The Guidelines also call for the reduction of undelivered rescheduled water by an amount equal to the foregone Jones pumping due to a full CVP San Luis.



T. Boardman, WWD
2/1/2019





T. Boardman, WWD
2/1/2019

2019 Agricultural Water Allocations—

SWP:

As of January 25, 2019, the 2019 allocation is set at 15%.

https://water.ca.gov/News/News-Releases/2019/January/SWP-Allocations-Increased-to-15-Percent

As of November 30, 2018, the 2019 allocation is set at 10%.

https://water.ca.gov/News/News-Releases/2018/Nov-18/Initial-State-Water-Project-Allocation-at-10-Percent

CVP:

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 September 26, 2018, the Friant Class 1 allocation is raised by USBR by 3% to 88%.

https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=63235

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

***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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