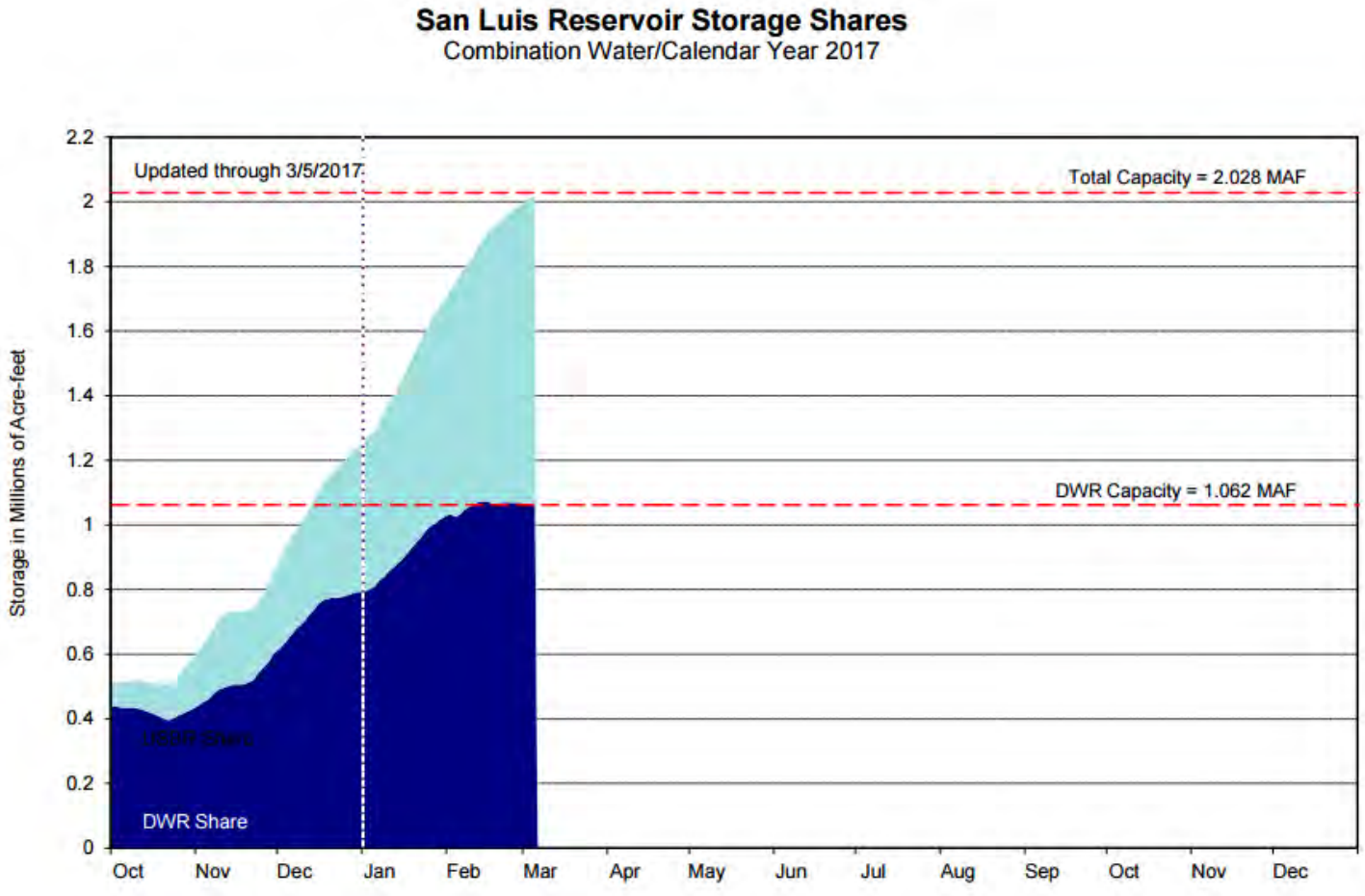
San Luis Storage at 99 Percent

As of March 5th, San Luis total (CVP + SWP) storage is at 2,017,045 AF and is at 99% of capacity (up 38,555 AF from last week and up 2% in capacity). The CVP share is 953,391 AF and increased by 43,573 AF in the same time frame.



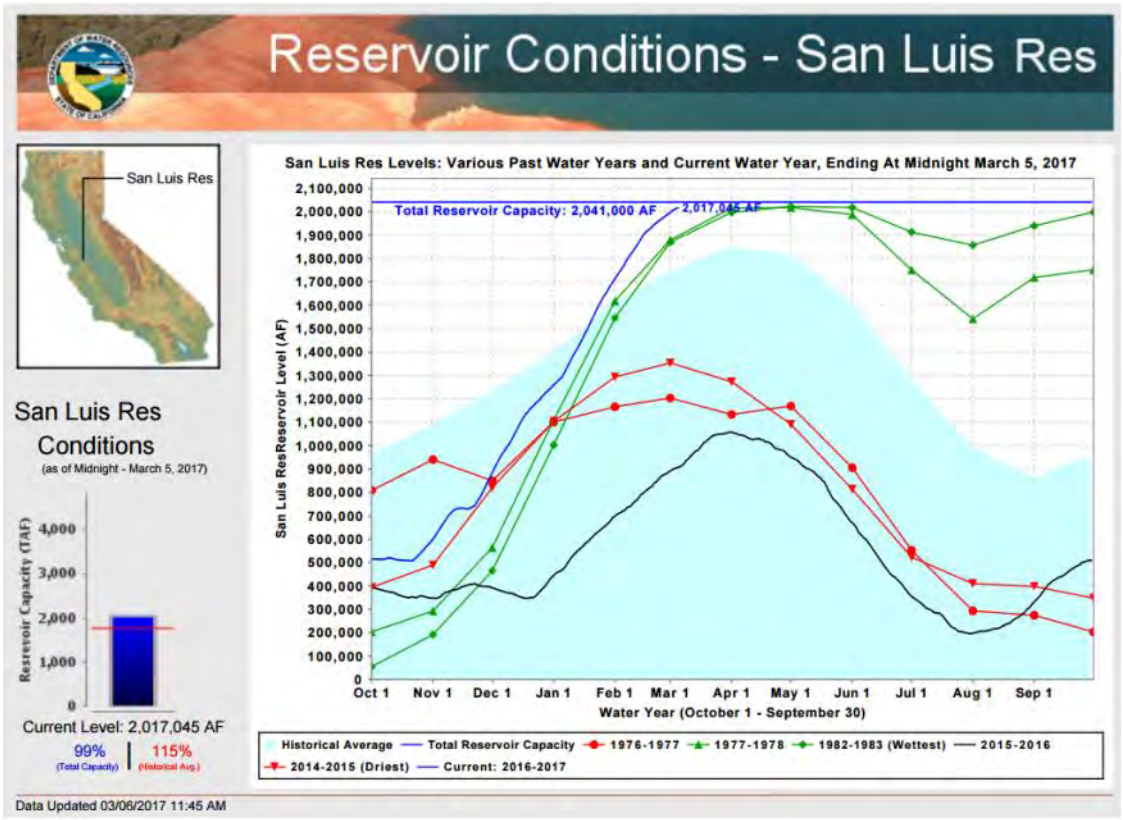
For current San Luis Reservoir Storage Shares, go to http://www.water.ca.gov/swp/operationscontrol/docs/storsanl.pdf

Federal Storage within San Luis Reservoir

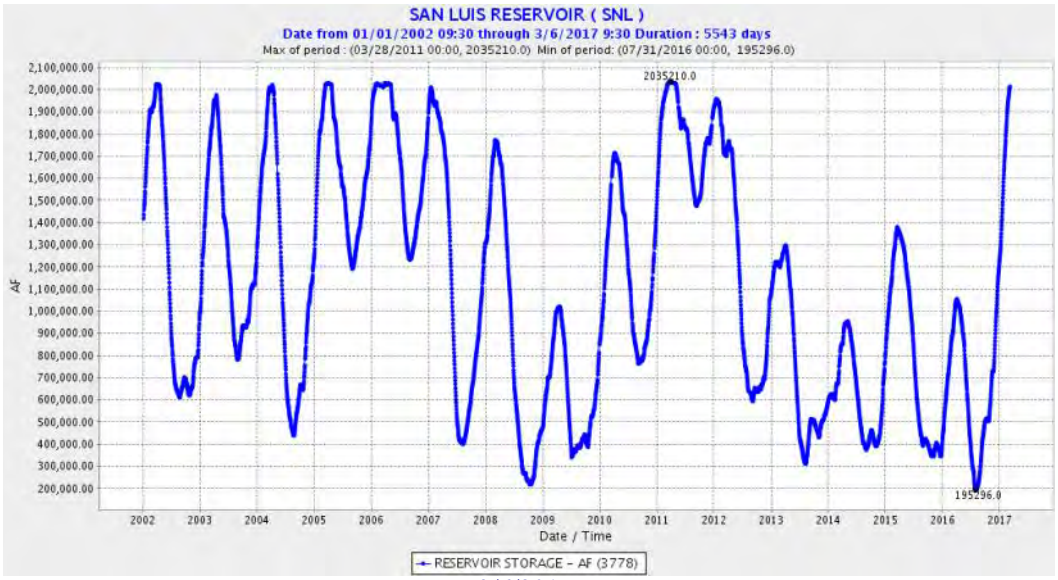
As of March 5th, federal storage was at 953,391AF (98.73% full—up 43,573AF from last week). Total federal storage capacity is 965,655AF.

State Storage within San Luis Reservoir

As of March 5th, state storage was at 1,063,654AF (now at 100.14% capacity—down 5,018AF from last week). The total state storage capacity in SLR is 1,062,180AF. Total State and Federal storage reported is 2,017,045AF. The reservoir is at 99% of capacity.



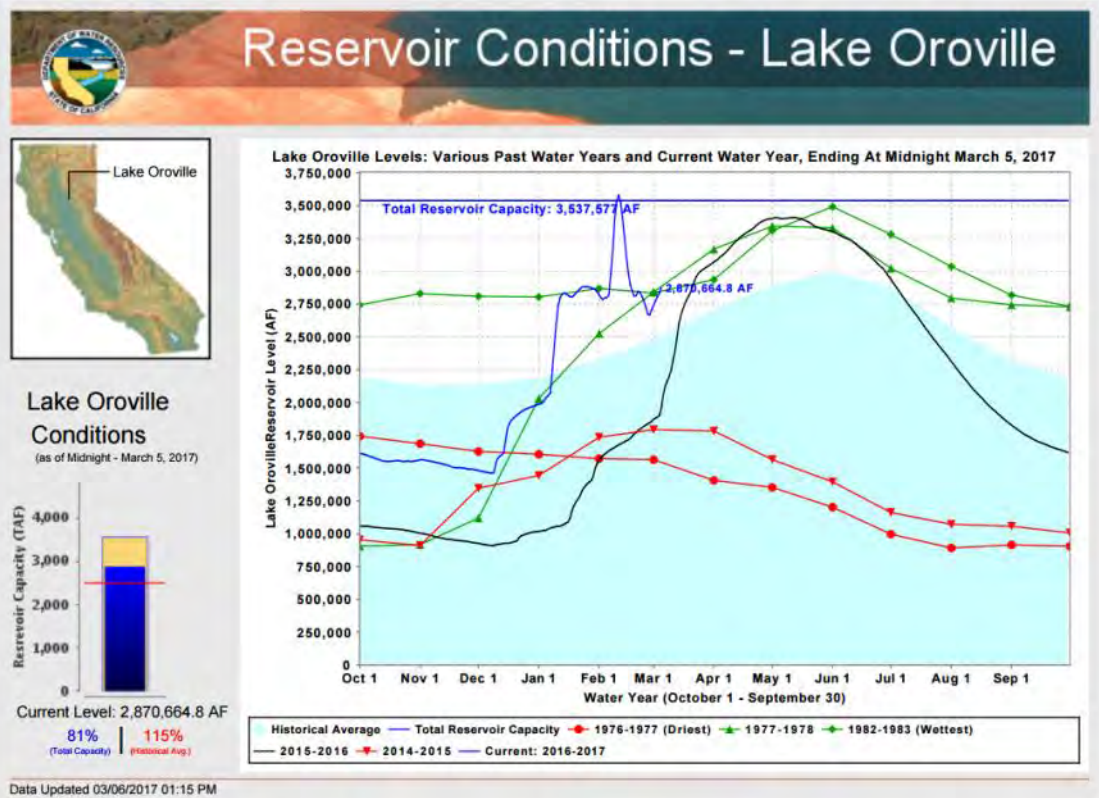
http://cdec.water.ca.gov/reservoir_map.html



http://cdec.water.ca.gov/jsp/ad/jsp/PlotServlet.jsp?sensor_no=3778&end=3%2F6%2F2017+9%3A30&geom=huge&interval=5543&cookiesEnabled=1

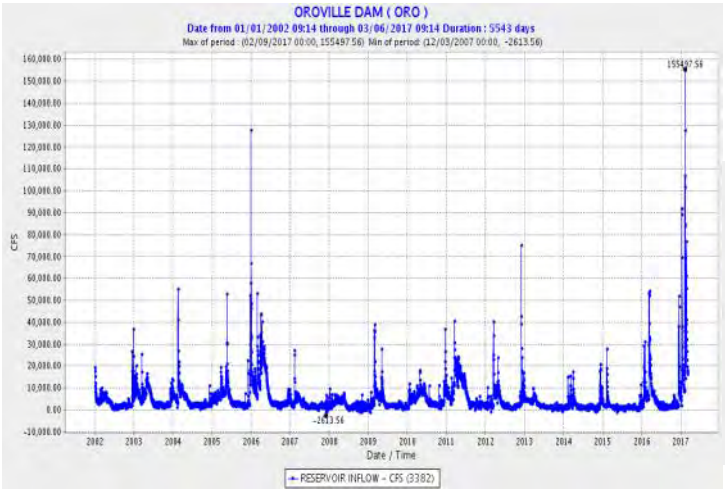
Oroville Storage

As of March 5th, storage was approximately 2,674,233AF (up 196,432AF and at 81% capacity —up 5% in capacity from last week).

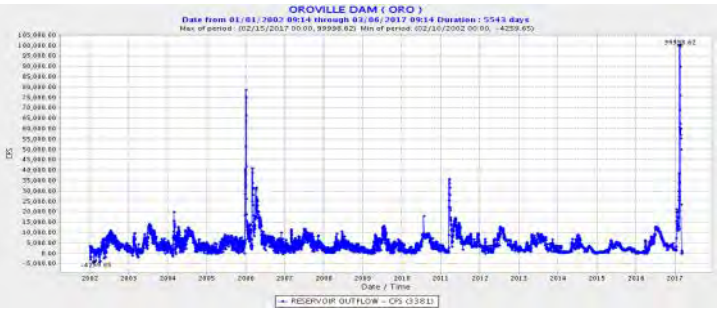


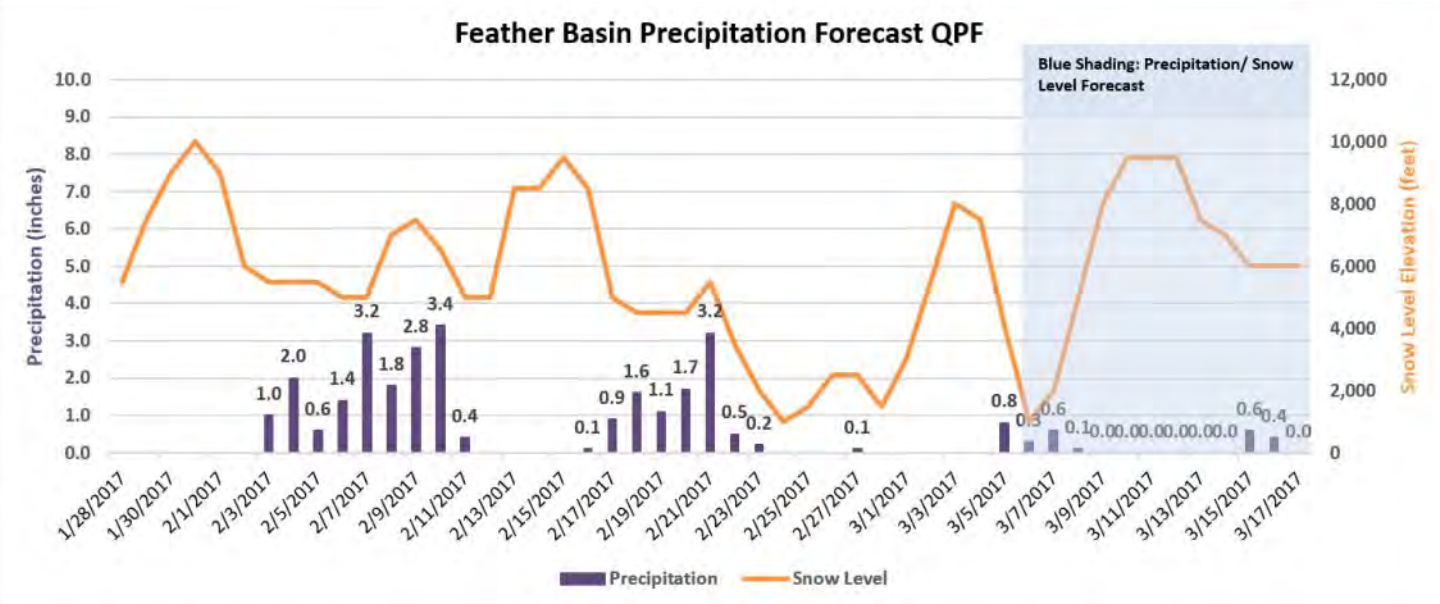
The current level is 115% of the historical average. Inflows for the past week averaged 35,565AF/day. Total capacity of Oroville is 3,538,000AF. Current releases into the Feather River as of Sunday have gone to 1,914AF/day.

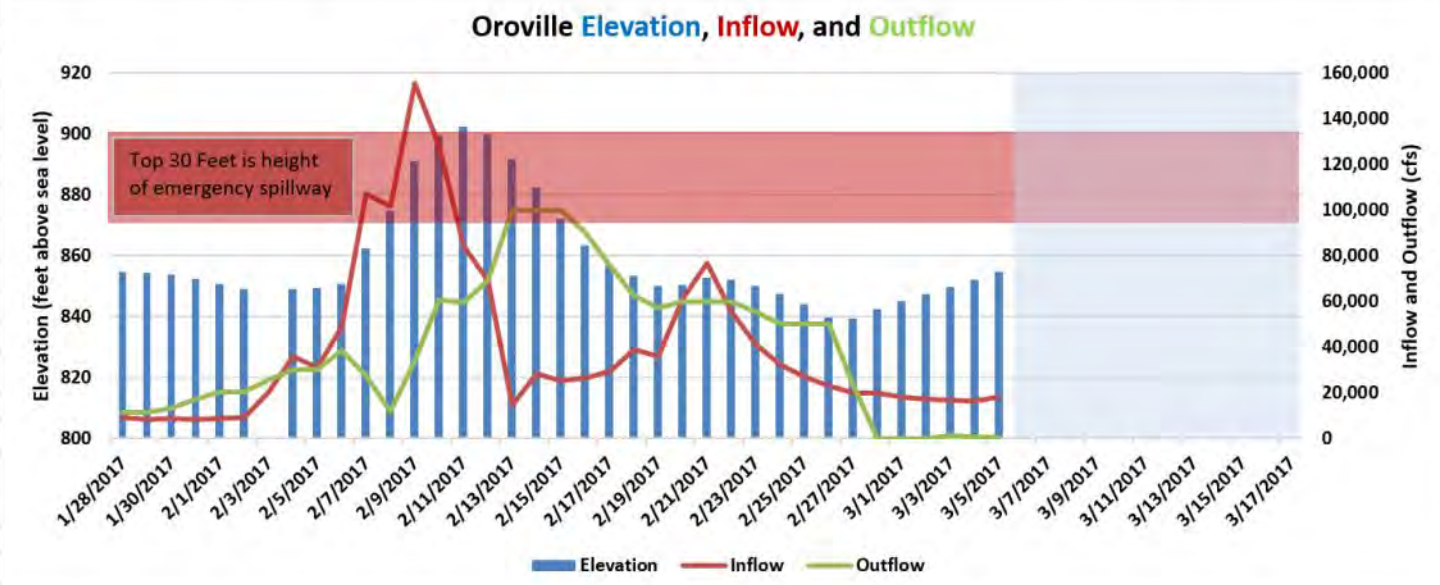
Inflows



Outflows

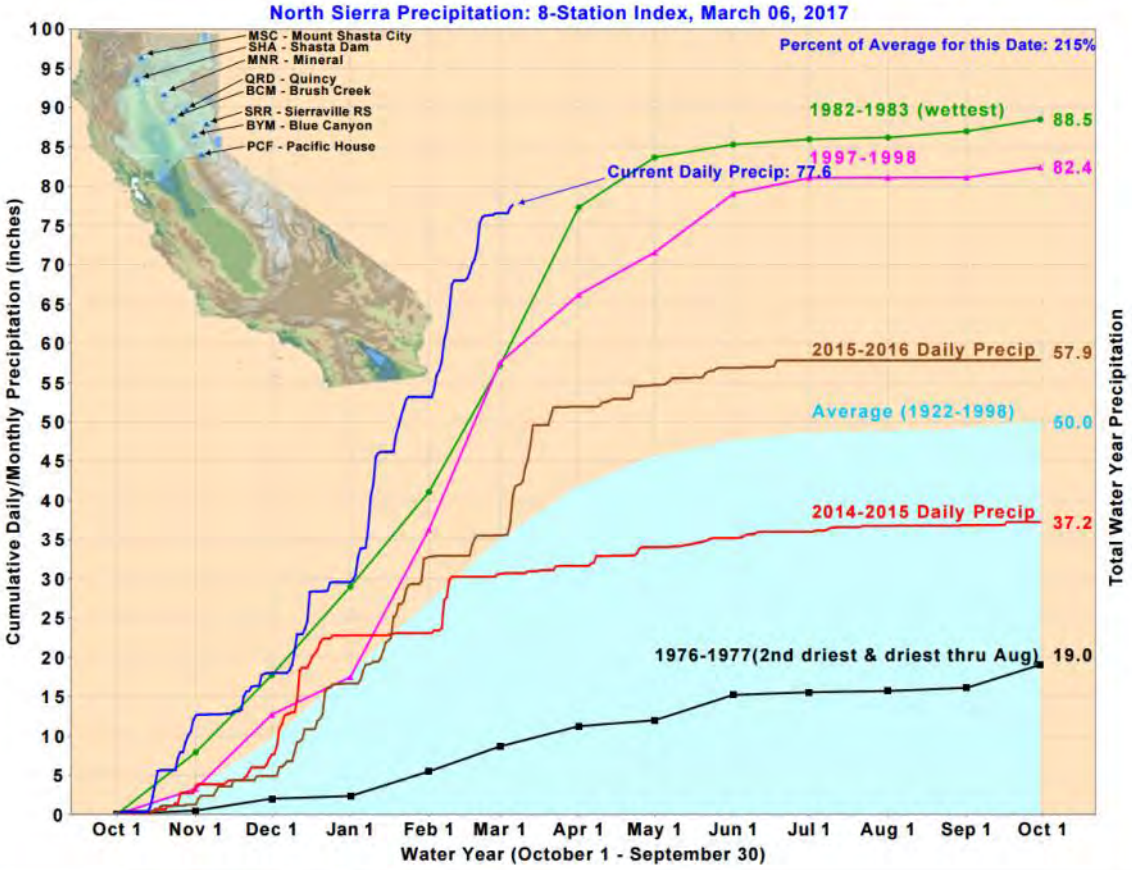



Feather Basin Precipitation Forecast QPF
Blue Shading: Precipitation/ Snow Level Forecast
Precipitation (inches)
Snow Level Elevation (feet)
Precipitation
Snow Level

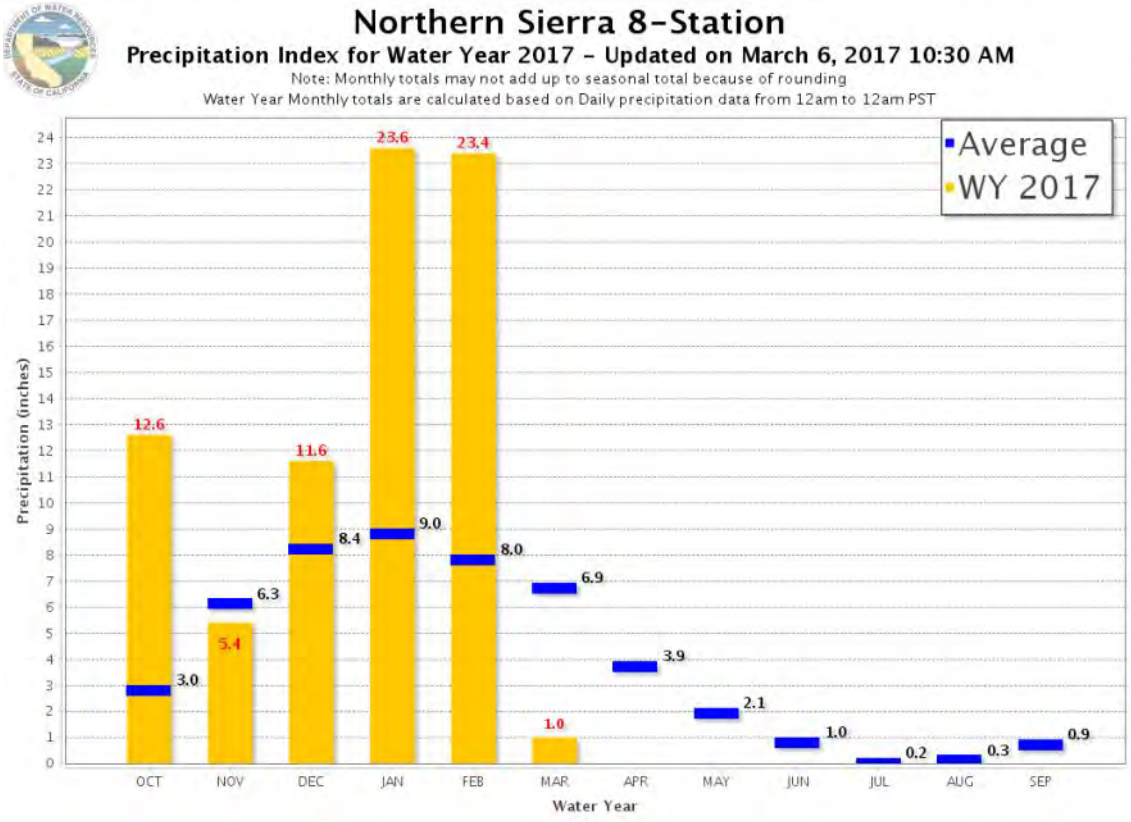

Oroville Elevation, Inflow, and Outflow
Top 30 Feet is height of emergency spillway
Elevation (feet above sea level)
Inflow and Outflow (cfs)
Elevation
Inflow
Outflow

Northern Sierra Precipitation

As of March 6th, the 8-station Northern California index has recorded 77.6 inches of precipitation for this water year (up 1.1 inches from last week). This represents 215% of the typical average rainfall to date (155.2% of total for season). The average total for the normal season is 50.0 inches.



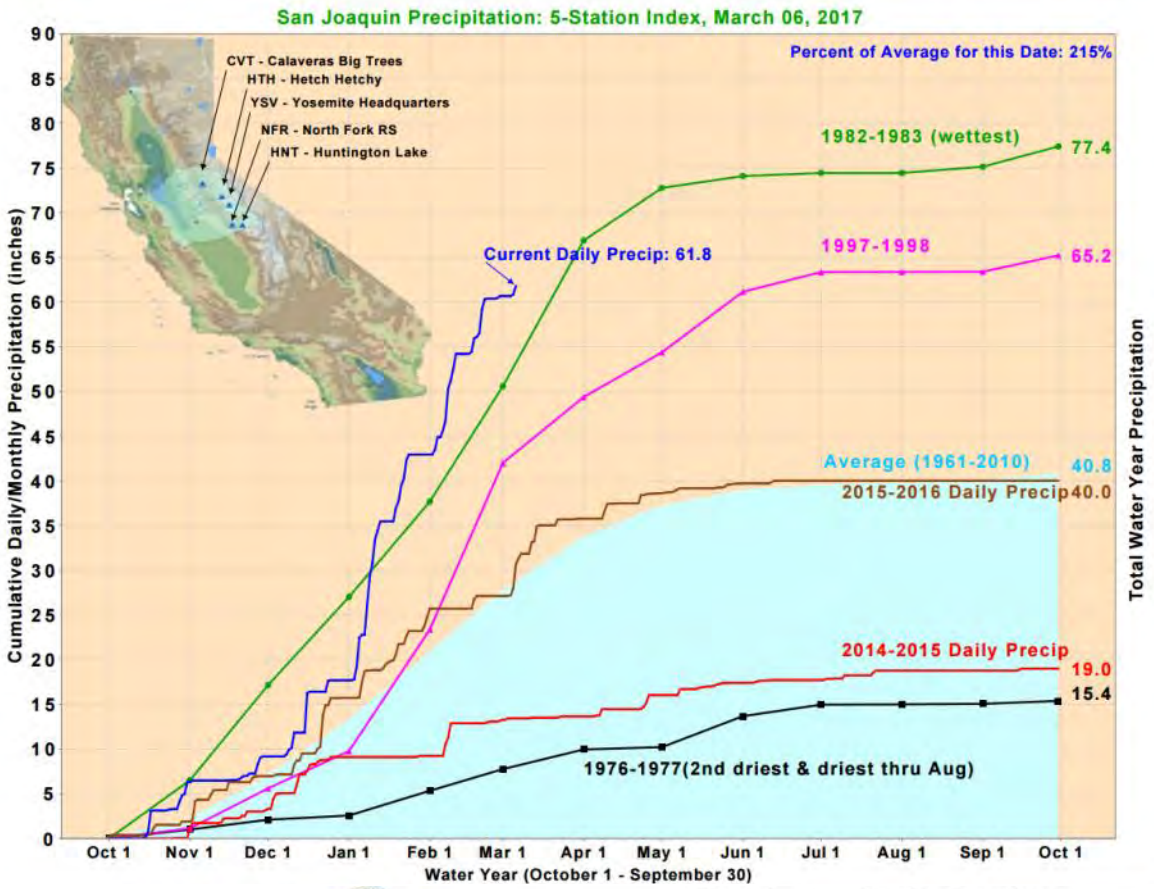
http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf



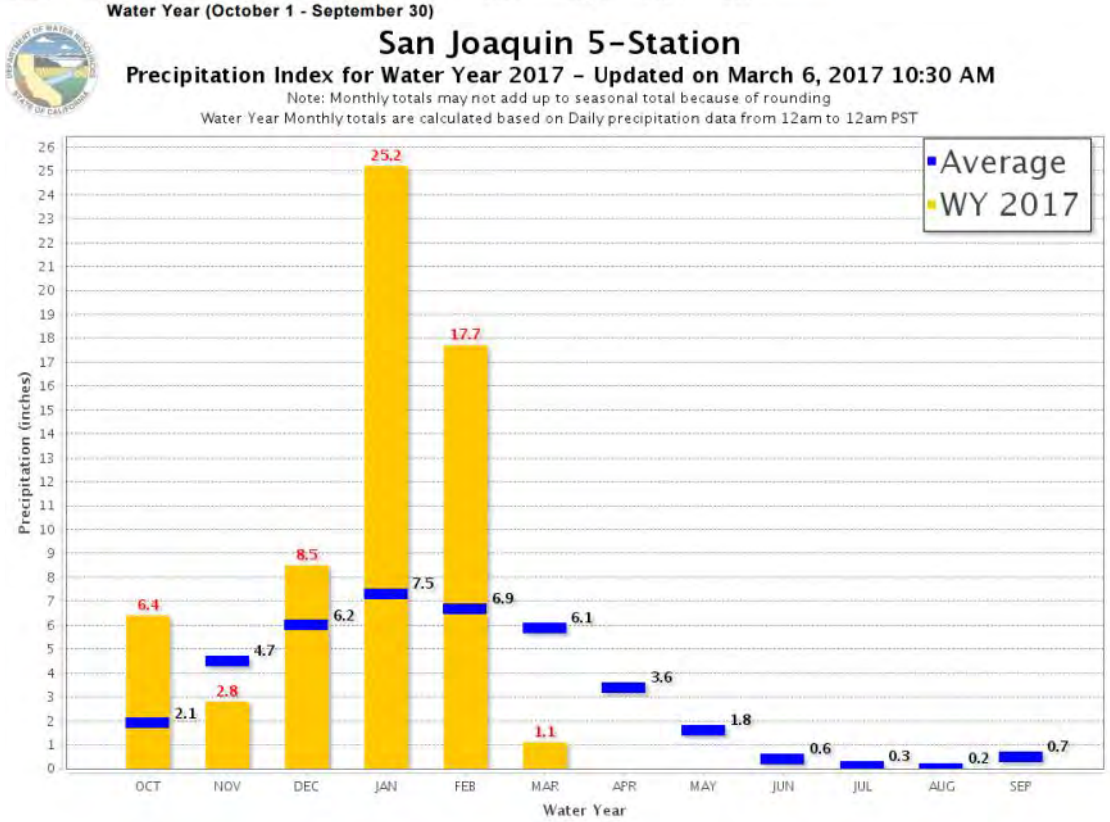
http://cdec.water.ca.gov/images/WYPrecip/BAR_ESI.PNG

San Joaquin Precipitation

As of March 6th, the 5-station San Joaquin index has recorded 61.8 inches of precipitation for this water year (up 1.3 inches from last week). This represents 215% of the typical average rainfall to date (151.5% of total for season). The average total for the normal season is 40.8 inches.



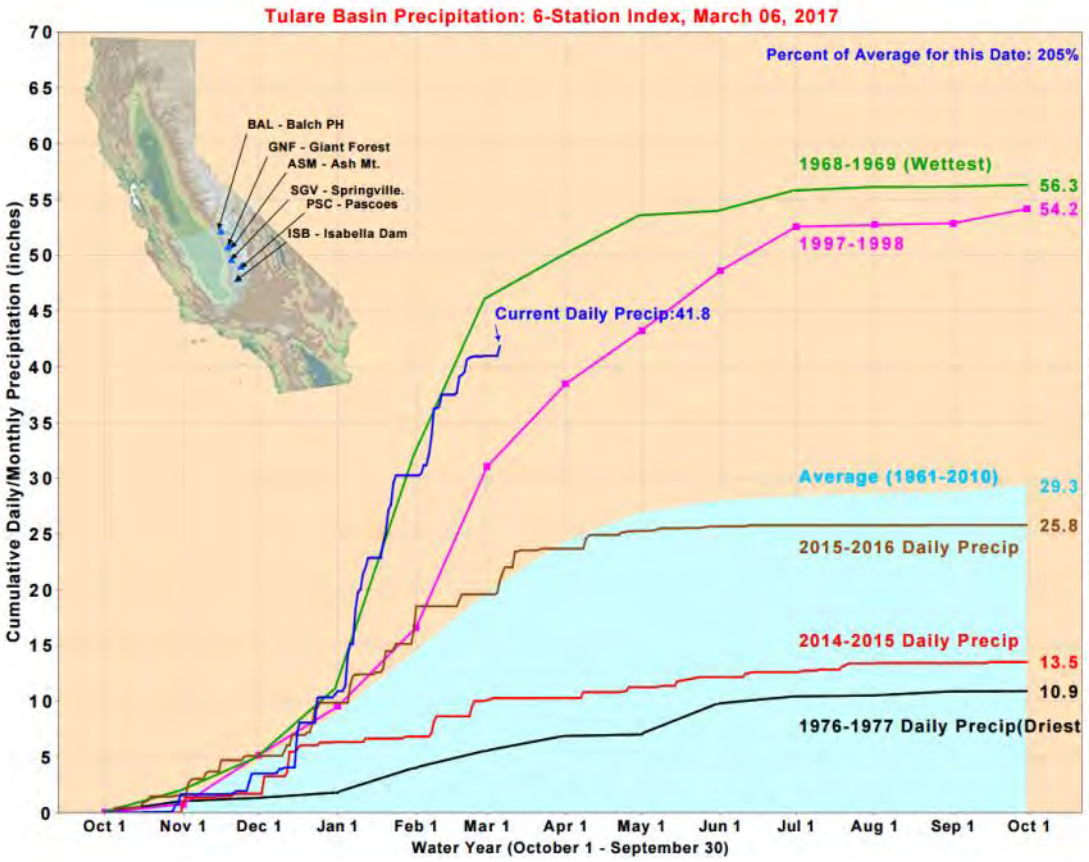
http://cdec.water.ca.gov/cgi-progs/products/PLOT_FSI.pdf



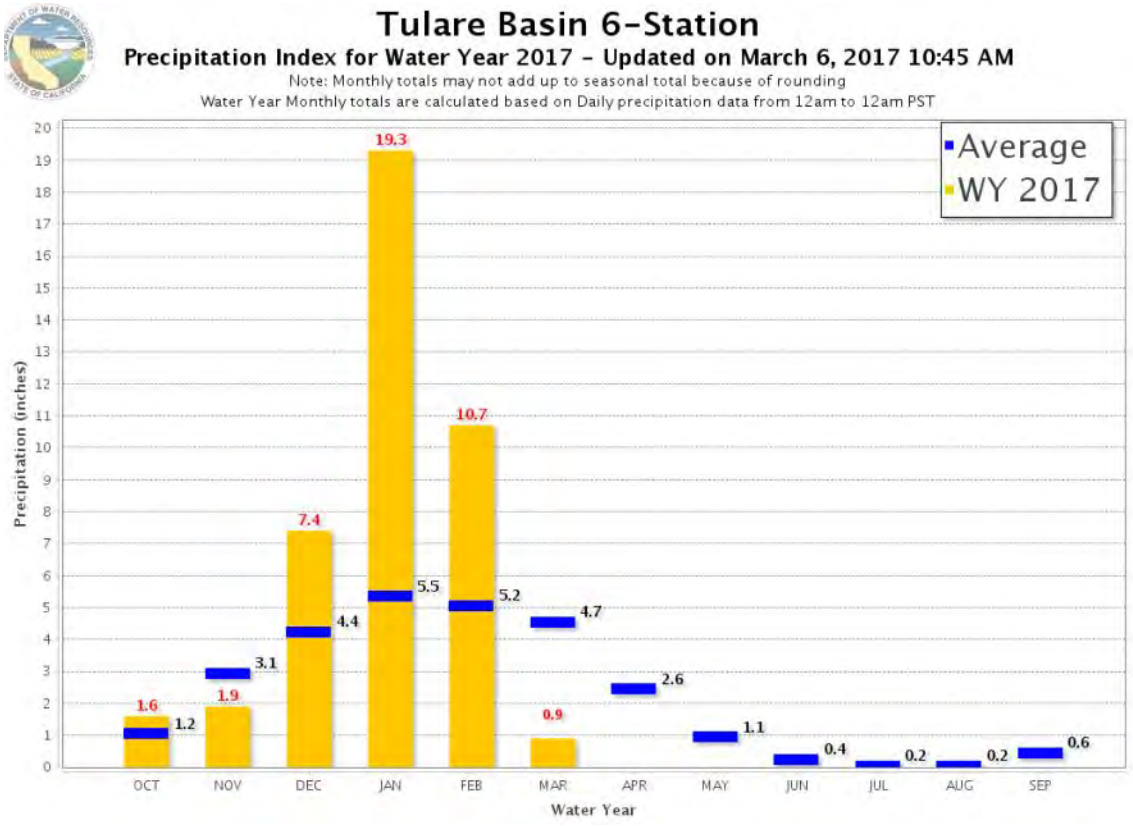
http://cdec.water.ca.gov/images/WYPrecip/BAR_FSI.PNG

Tulare Lake Basin Precipitation

As of March 6th, the 6-station Tulare Basin index has recorded 41.8 inches of precipitation for this water year (up 0.9 of an inch from last week). This represents 205% of the typical average rainfall to date (142.7% of total for season). The average total for the normal season is 29.3 inches.

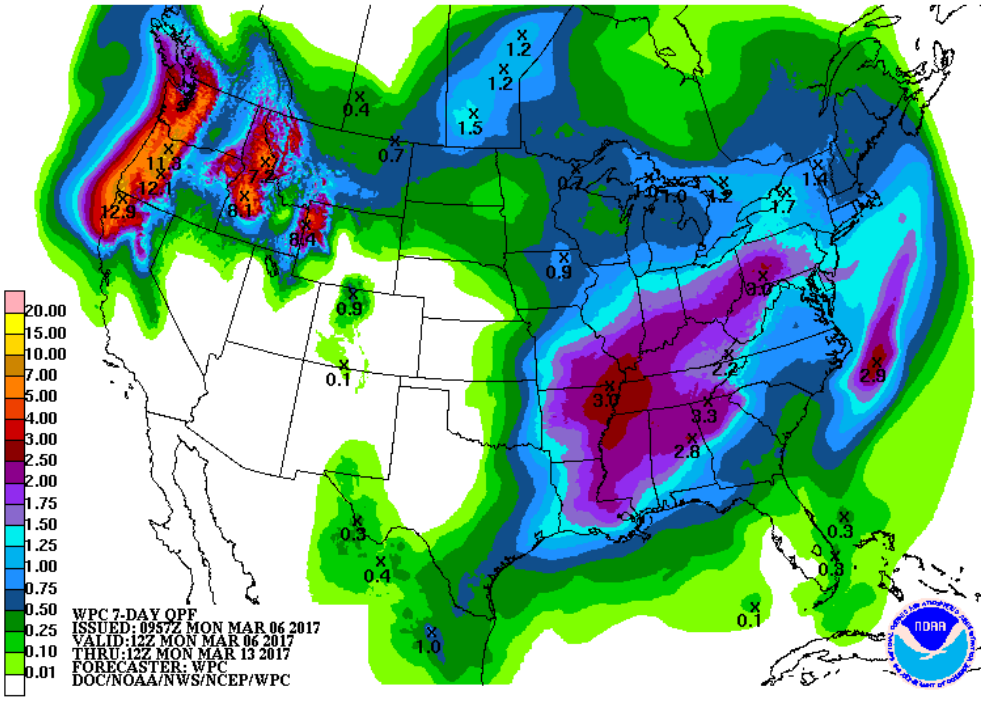


http://cdec.water.ca.gov/cgi-progs/products/PLOT_TSI.pdf

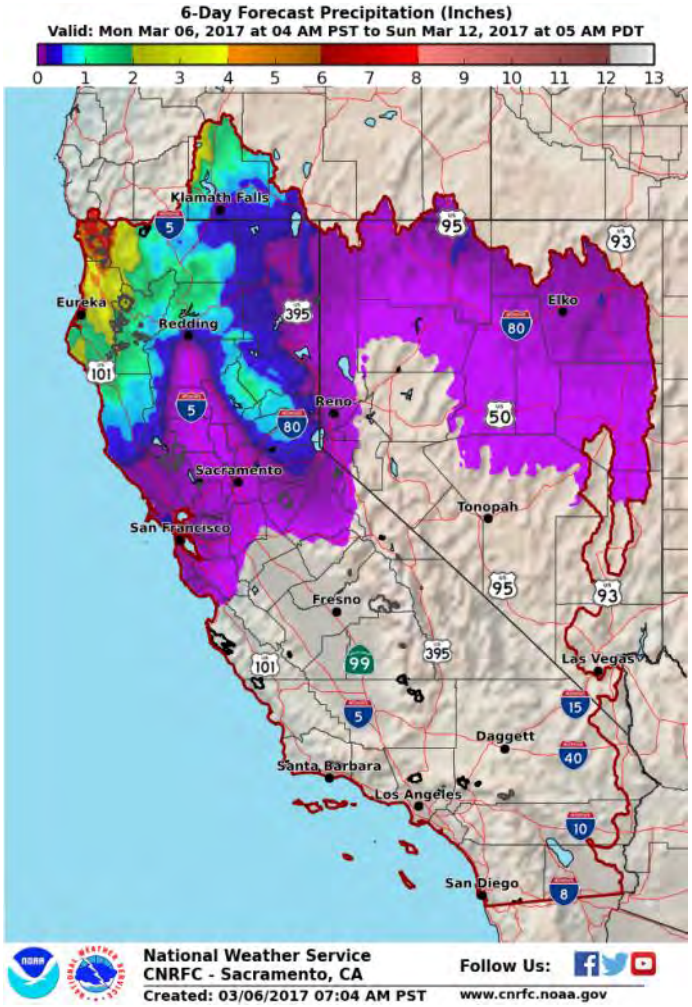


http://cdec.water.ca.gov/images/WYPrecip/BAR_TSI.PNG

More Precipitation for Northern California This Week



http://www.wpc.ncep.noaa.gov/#



http://www.cnrfc.noaa.gov/precipForecast.php?cwa=RSA&day=123456&img=6

Feather River Basin—10-Day Forecast

10-Day Feather Basin Quantitative Precipitation Forecast (QPF)

Monday, March 06, 2017
(each day ends at 0400 PST)

Day No.	Date		Precip (inches)	Snow Level (feet)	Average Daily* Precip (inches)	Snow Depth (inches)	Min Temp (F)
	Saturday, February 25, 2017	Actual	0.0	1,500			
	Sunday, February 26, 2017		0.0	2,500			
	Monday, February 27, 2017		0.1	2,500			
	Tuesday, February 28, 2017		0.0	1,500			
	Wednesday, March 01, 2017		0.0	3,000			
	Thursday, March 02, 2017		0.0	5,500			
	Friday, March 03, 2017		0.0	8,000			
	Saturday, March 04, 2017		0.0	7,500			
	Sunday, March 05, 2017		0.8	4,000			
	Monday, March 06, 2017		0.3	1,000	0.19	1.3	27.8
	Total observed:		1.2				
1	Tuesday, March 07, 2017	Forecast	0.6	2,000	0.19	1.2	27.9
2	Wednesday, March 08, 2017		0.1	5,000	0.19	1.2	27.9
3	Thursday, March 09, 2017		0.0	8,000	0.18	1.2	28.0
4	Friday, March 10, 2017		0.0	9,500	0.18	1.2	28.0
5	Saturday, March 11, 2017		0.0	9,500	0.18	1.1	28.1
6	Sunday, March 12, 2017		0.0	9,500	0.18	1.1	28.2
7	Monday, March 13, 2017		0.0	7,500	0.18	1.1	28.4
8	Tuesday, March 14, 2017		0.0	7,000	0.18	1.0	28.5
9	Wednesday, March 15, 2017		0.6	6,000	0.18	1.0	28.6
10	Thursday, March 16, 2017		0.4	6,000	0.18	0.9	28.7
	Friday, March 17, 2017		0.0	6,000	0.18	0.9	28.8
	10-Day Total:		1.7		1.82		
	10-Day Percent of Normal:		93%				
	Accumulated Observed Precip for WY 2017:		83.7	(WY 2016: 63.0)			

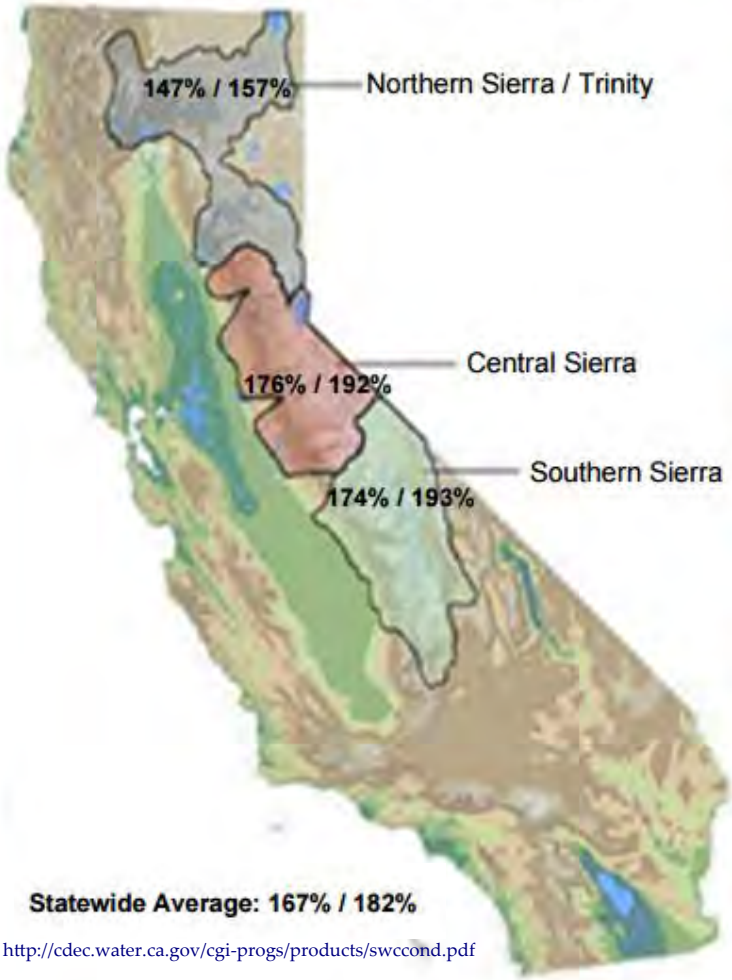
Comments:

Cold temperatures and unsettled conditions are forecasted to continue for the Feather Basin into Wednesday. Periods of widespread, light to moderate rain and snow are expected. Significant snowfall accumulation is forecasted in the Sierra. Strong, gusty winds are likely at times. A drying and warming trend is expected to begin around the middle of the work-week. The next update of this forecast will be about Tuesday, March 7, 2017, unless there are significant hydrologic changes.

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

Current Regional Snowpack from Automated Snow Sensors

% of April 1 Average / % of Normal for This Date



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

Compared to Last Week's Summaries

NORTH	
Data as of March 6, 2017	
Number of Stations Reporting	29
Average snow water equivalent (Inches)	40.9
Percent of April 1 Average (%)	147
Percent of normal for this date (%)	157

28 stations
Up 2.0"
Up 4%
Down 5%

CENTRAL	
Data as of March 6, 2017	
Number of Stations Reporting	42
Average snow water equivalent (Inches)	51.4
Percent of April 1 Average (%)	176
Percent of normal for this date (%)	192

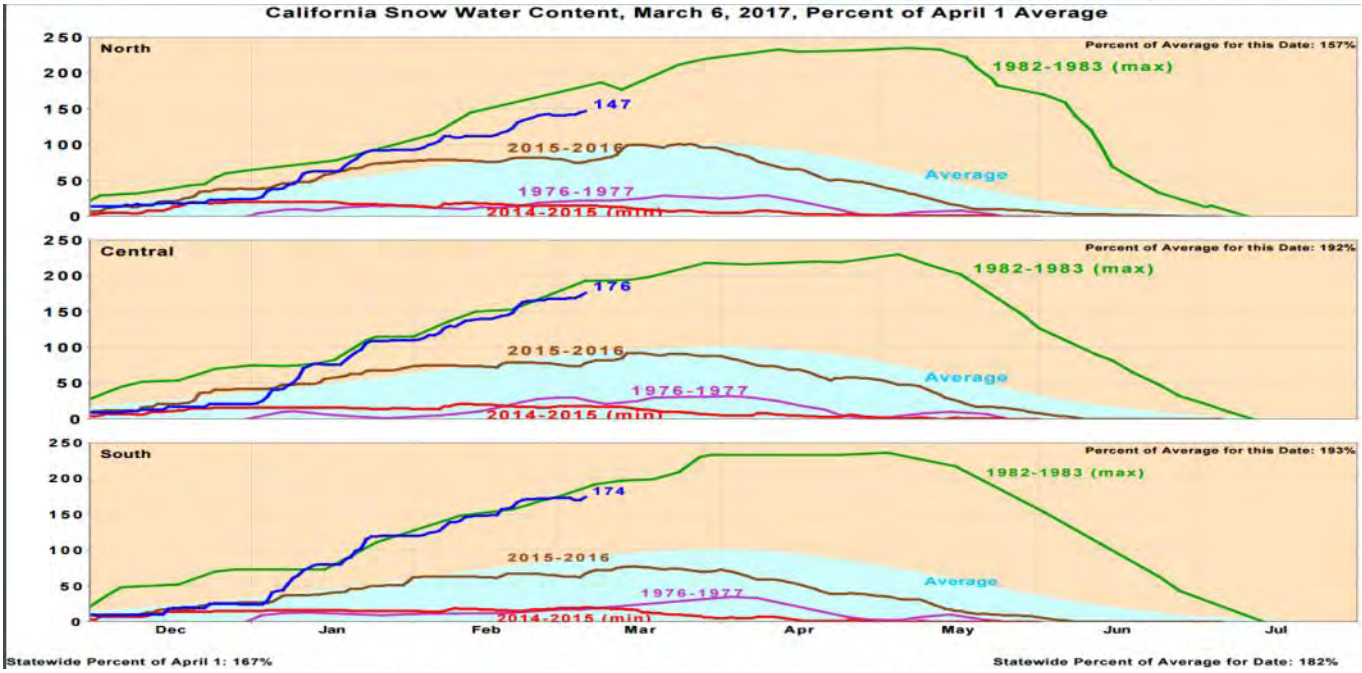
42 stations
Up 2.4"
Up 8%
Down 3%

SOUTH	
Data as of March 6, 2017	
Number of Stations Reporting	27
Average snow water equivalent (Inches)	46.0
Percent of April 1 Average (%)	174
Percent of normal for this date (%)	193

28 stations
Unchanged
Up 2%
Down 12%

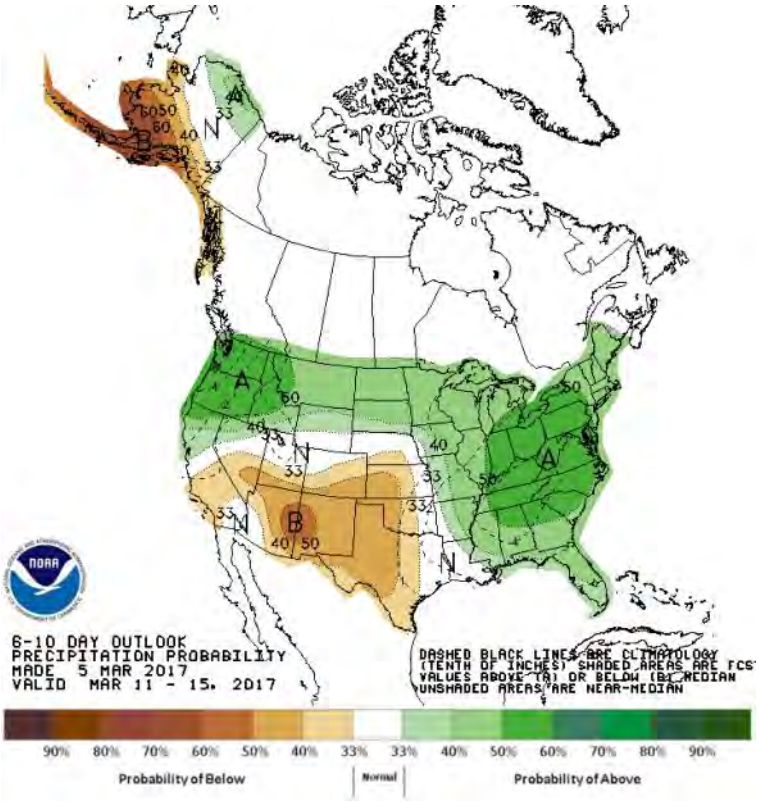
STATE	
Data as of March 6, 2017	
Number of Stations Reporting	98
Average snow water equivalent (Inches)	46.8
Percent of April 1 Average (%)	167
Percent of normal for this date (%)	182

98 stations
Up 1.5"
Up 3%
Down 6%

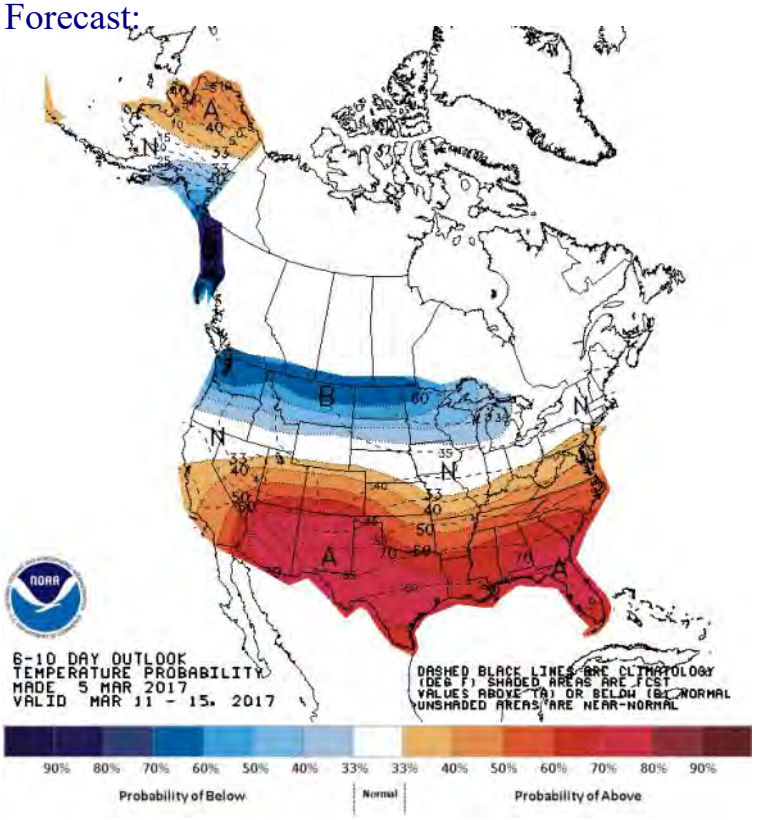


http://cdec.water.ca.gov/cgi-progs/products/PLOT_SWC.pdf

6-10 day Precipitation Forecast:

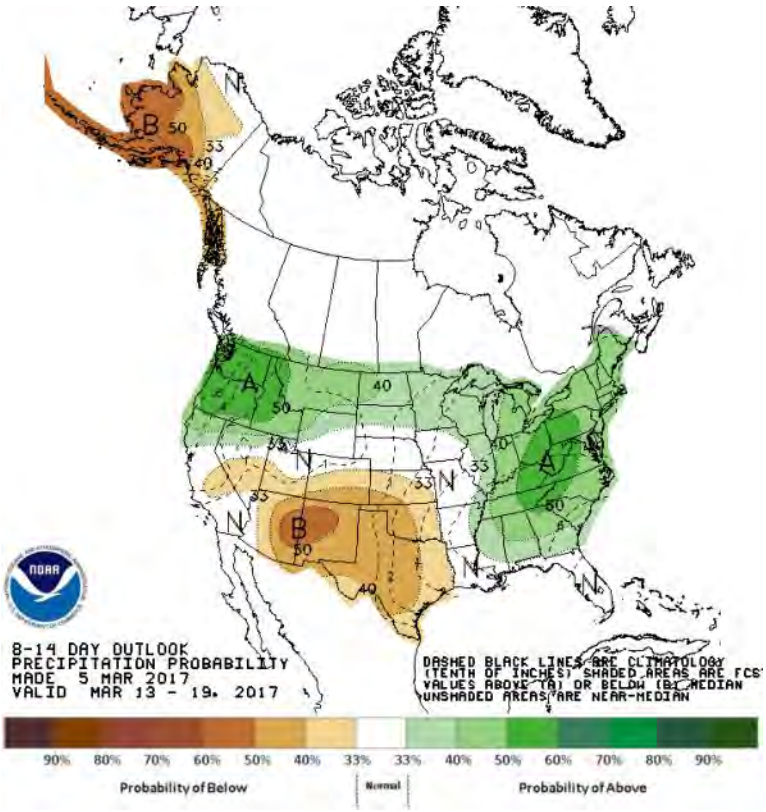


6-10 day Temperature Forecast:

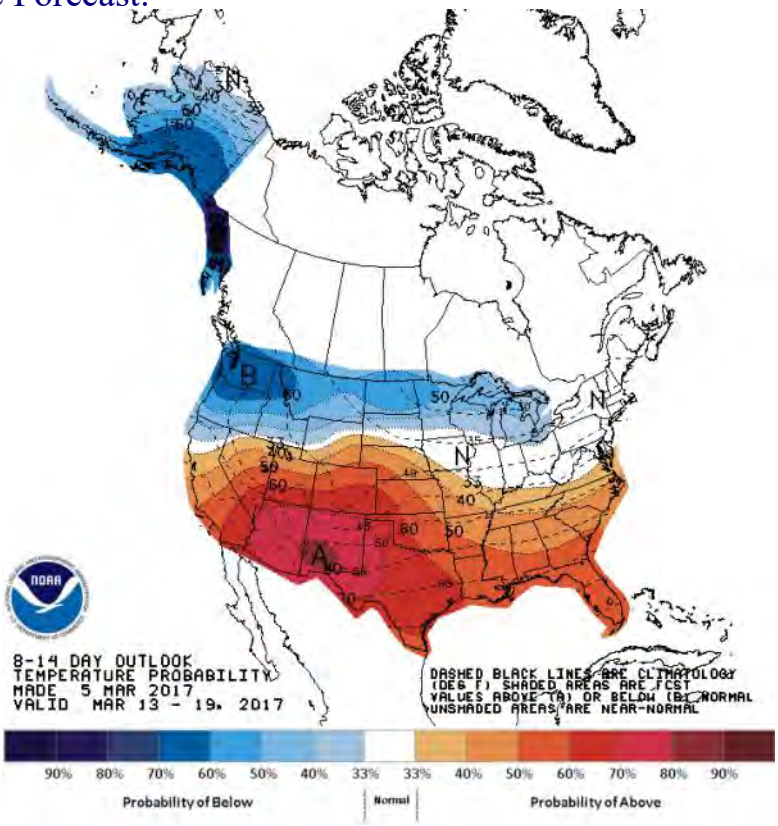


http://www.cpc.ncep.noaa.gov/products/predictions/610day/

8-14 day Precipitation Forecast:

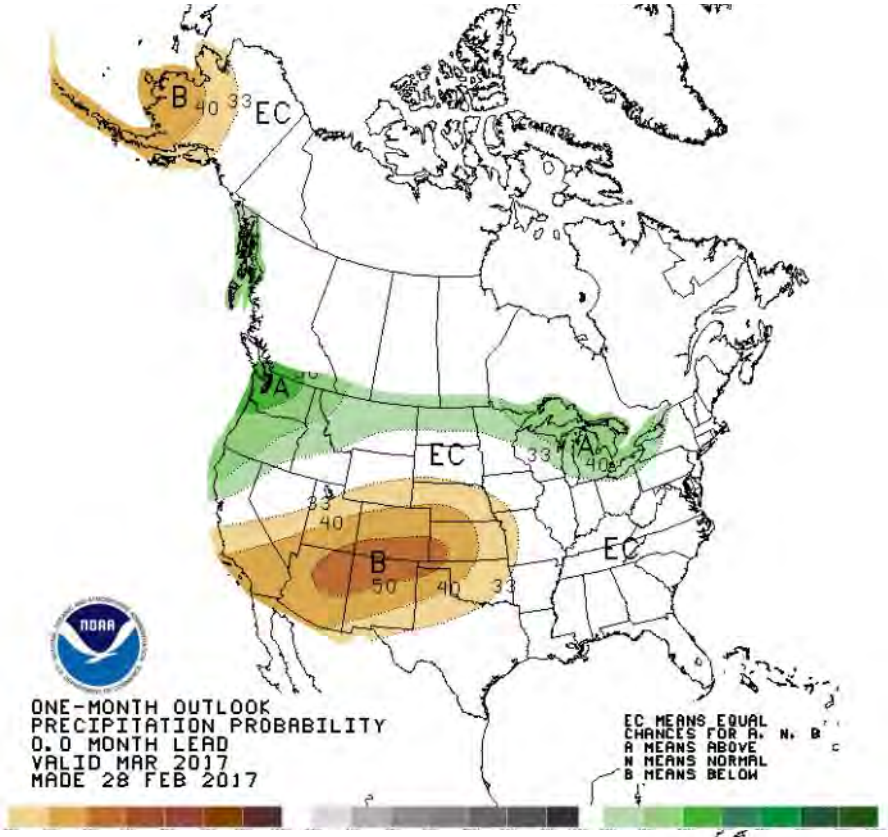


8-14 day Temperature Forecast:

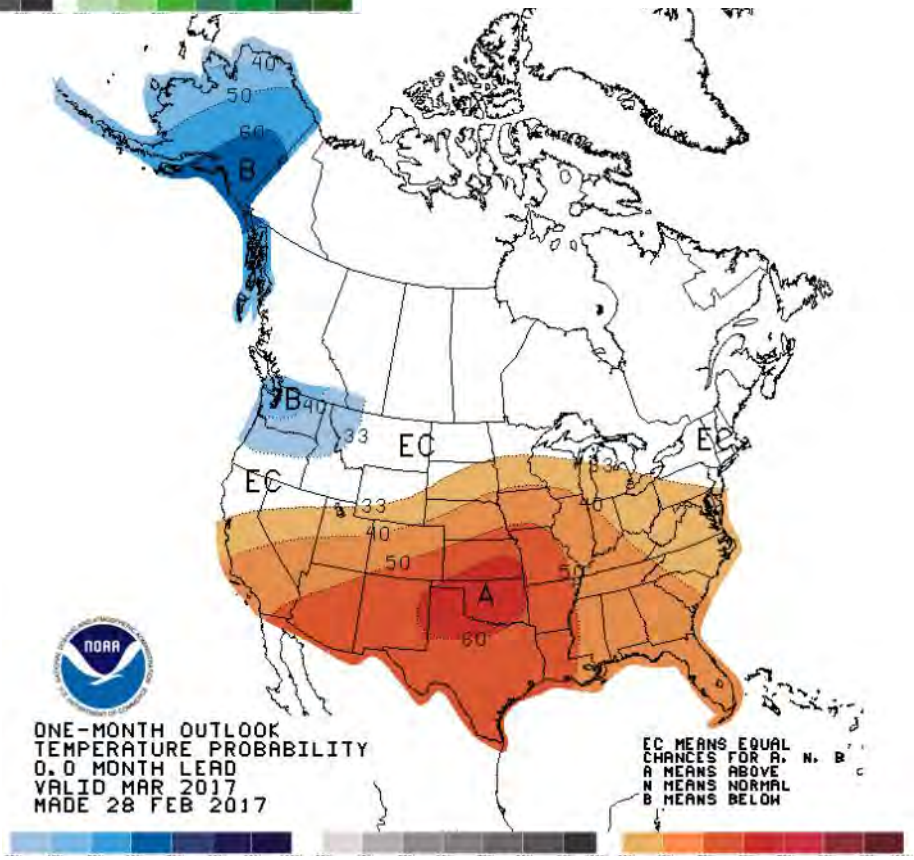


http://www.cpc.ncep.noaa.gov/products/predictions/814day/

March Precipitation Forecast:

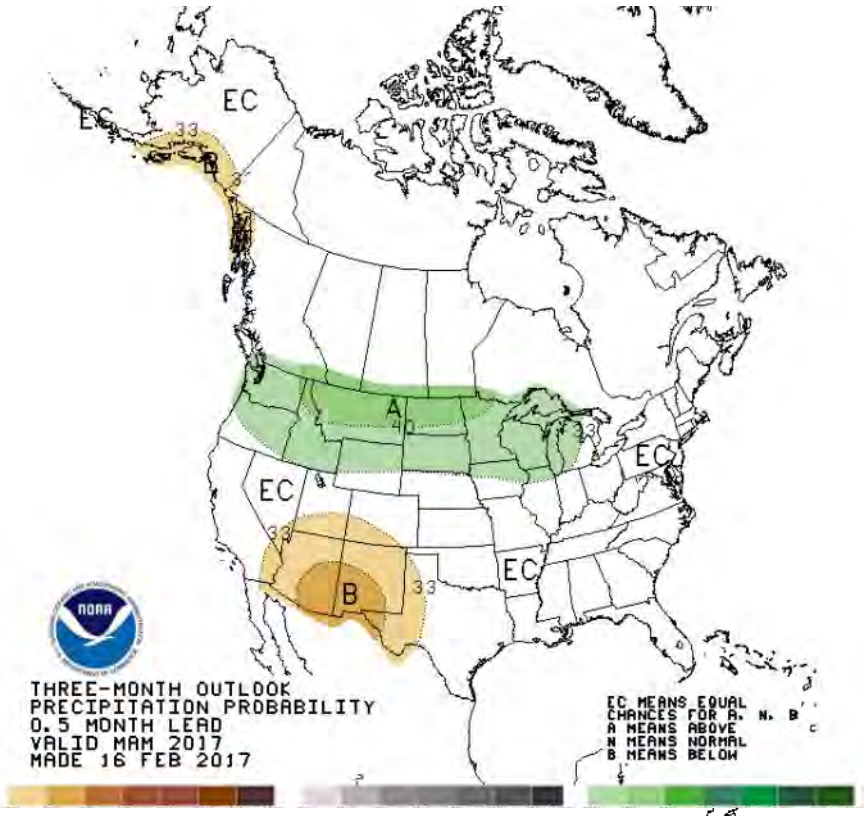


March Temperature Forecast:

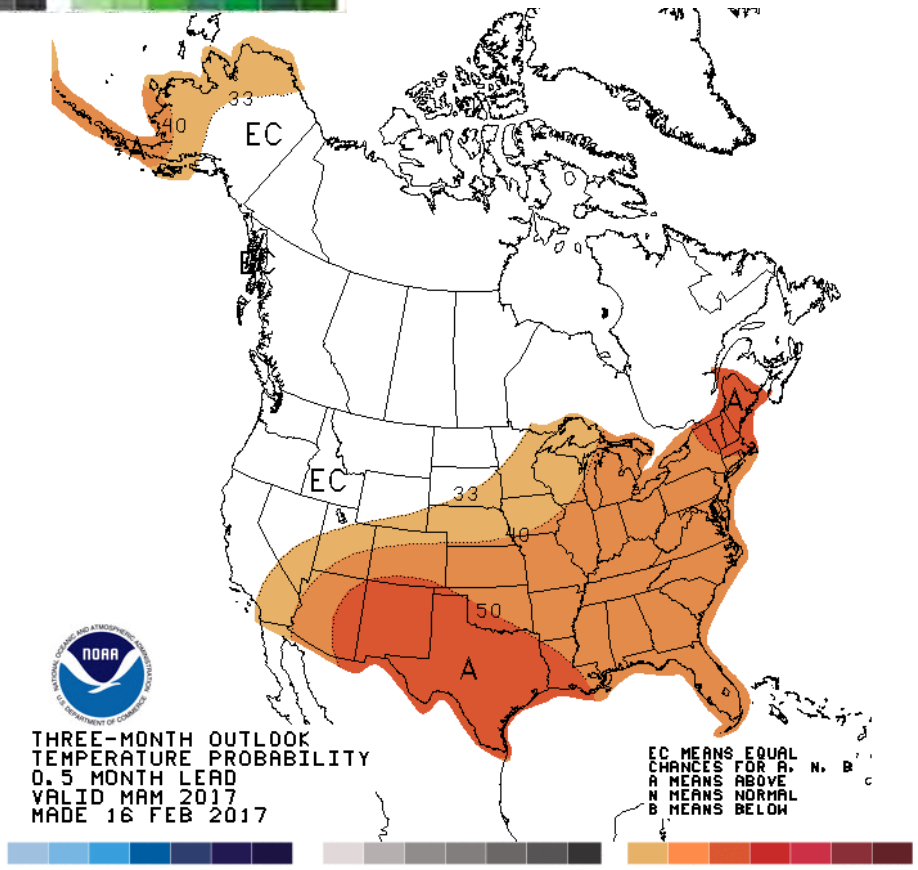


http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/index.php

March–May Precipitation Forecast:



March–May Temperature Forecast:



http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

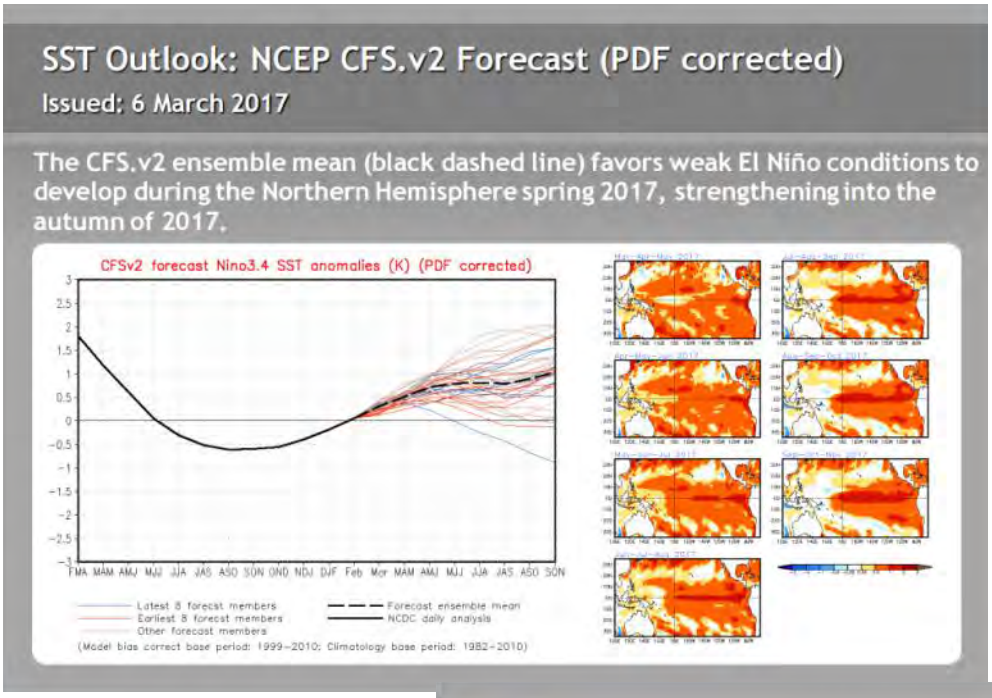
Long Range Forecast—

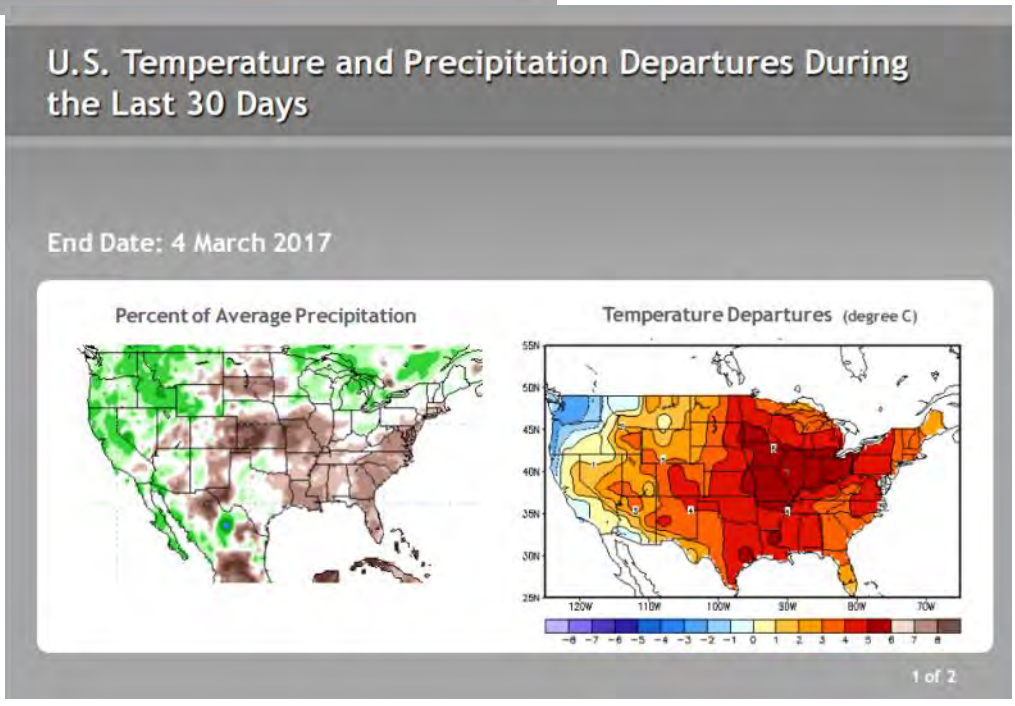
The Climate Prediction Center/NCEP issued its new Update on March 6, 2017:

ENSO Alert System Status: Final La Niña Advisory

- **ENSO-neutral conditions are present.***
- **Equatorial sea surface temperatures (SSTs) are near-average across the central and east-central Pacific. They are above-average in the eastern Pacific Ocean.**
- **ENSO-neutral conditions have returned and are favored to continue through at least the Northern Hemisphere spring 2017.***

* 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

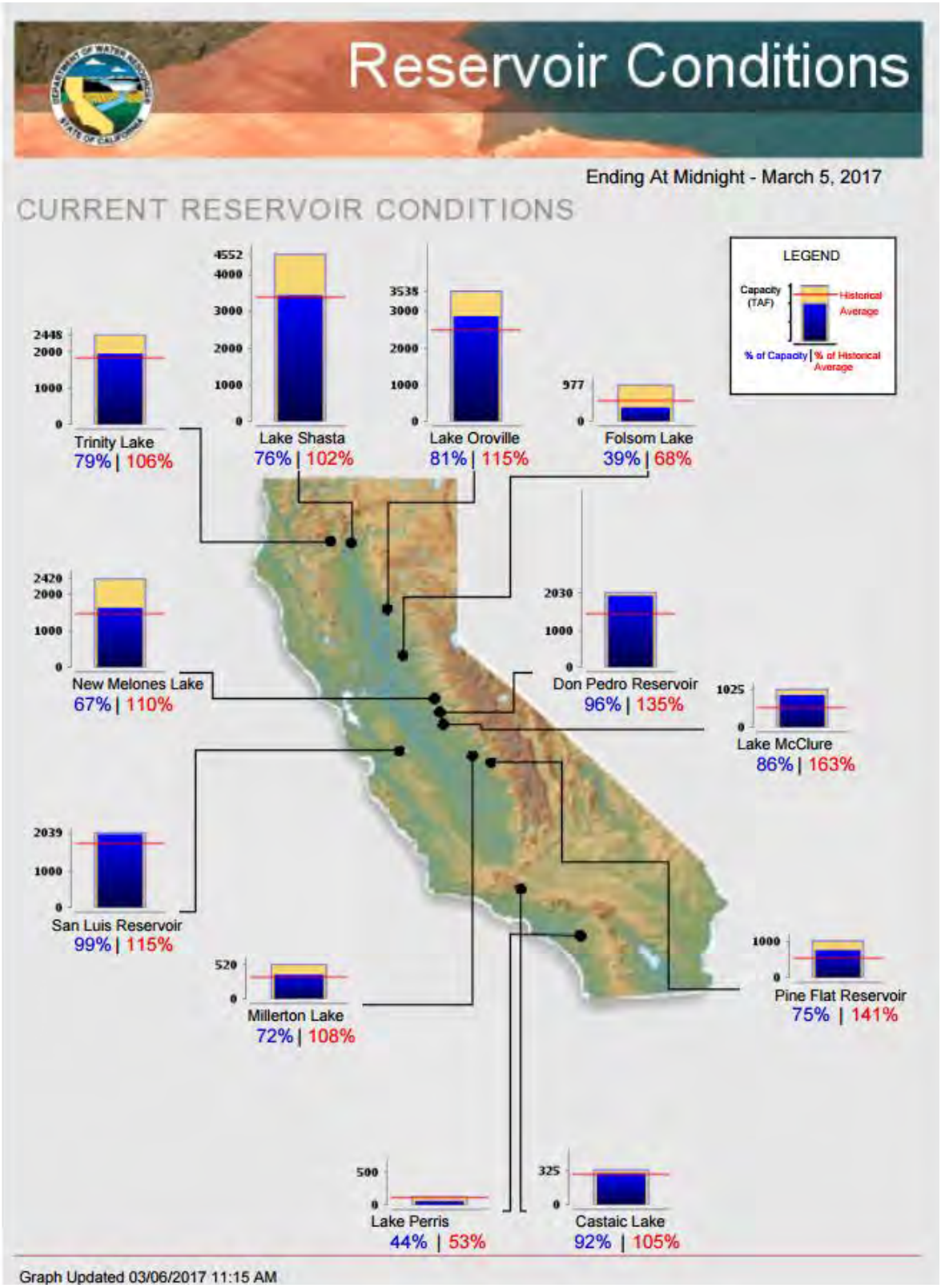




http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf—pages 25 and 29

Reservoir Storage

As of March 5th, Northern California reservoirs are between 68-115% of historical average and 39-81% of capacity--Oroville is up 5%, Trinity is up 1%, Shasta is down 11%, and Folsom is down 9% in capacity from last week. The central ones are between 108-163% of historical average and 67-99% of capacity. San Luis is up 2% of capacity.



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

Daily Statewide Hydrologic Update

March 05, 2017

Data as of 11:59:59 PM on March 05, 2017

Sacramento Region Summary			
Precip: 8-Station Index			
Season to Date	217%	%Avg year	155%
Northern Sierra Snow Water Content			
% to Date	156%	%Apr 1	145%
Reservoir Storage			
Reservoir	%Hist.Avg.	%Capacity	*Encrch
Shasta	102%	76%	195
Oroville	115%	81%	83
New Bullards	122%	80%	-20
Folsom	68%	39%	-197

San Joaquin Region Summary			
Precip: 5-Station Index			
Season to Date	217%	%Avg year	151%
Central Sierra Snow Water Content			
% to Date	189%	%Apr 1	172%
Reservoir Storage			
Reservoir	%Hist.Avg.	%Capacity	*Encrch
New Melones	110%	67%	-351
Don Pedro	135%	96%	n/a
Exchequer	163%	86%	n/a
Millerton	108%	72%	-72

Tulare Lake Region Summary			
Precip: Tulare Precipitation Index			
Season to Date	207%	%Avg year	143%
Southern Sierra Snow Water Content			
% to Date	190%	%Apr 1	170%
Reservoir Storage			
Reservoir	%Hist.Avg.	%Capacity	*Encrch
Pine Flat	141%	75%	363
Terminus	342%	50%	90
Success	185%	58%	30
Isabella	164%	54%	35

State Region Summary			
Precip: Statewide Precipitation Index			
Season to Date	n/a	%Avg year	n/a
Statewide Snow Water Content			
% to Date	179%	%Apr 1	163%
Reservoir Storage			
Reservoir	%Hist.Avg.	%Capacity	*Encrch

CDEC
State Climatologist
State Meteorologist
California Cooperative Snow Surveys

Regional river forecast conditions reflect river forecast guidance products issued jointly by CNRFC/DWR. NWS Weather Forecast Offices issue the official watches, warnings, statements, and advisories.

Hydrologic Regions

NC - North Coast	SR - Sacramento River
SF - San Francisco Bay	SJ - San Joaquin
CC - Central Coast	TL - Tulare Lake
SC - South Coast	NL - North Lahontan
CR - Colorado River-Desert	SL - South Lahontan

Regional River Forecast Condition

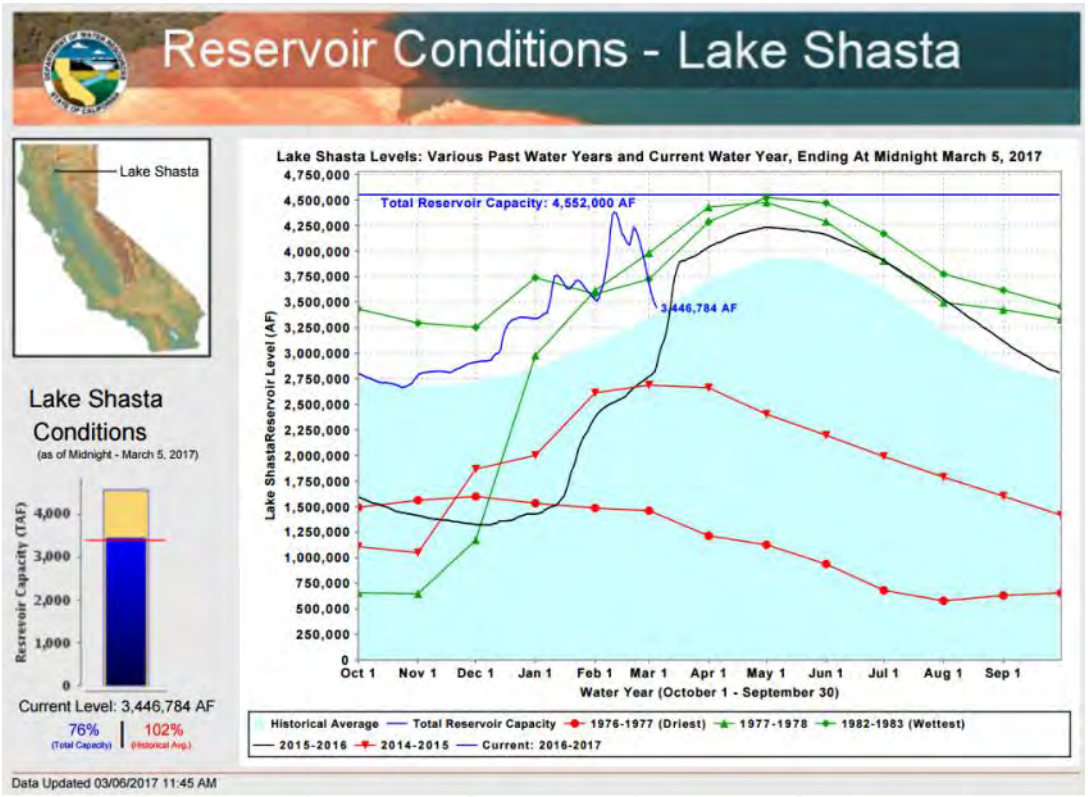
- All Regional Forecast Points Normal
- One Or More Points Above Monitor Stage
- One Or More Points Above Flood Stage
- One Or More Points Above Danger Stage
- No Regional Forecast Points

*Encrch = Flood Space Encroachment in 1,000 acre-ft

http://cdec.water.ca.gov/floodER/hydro/

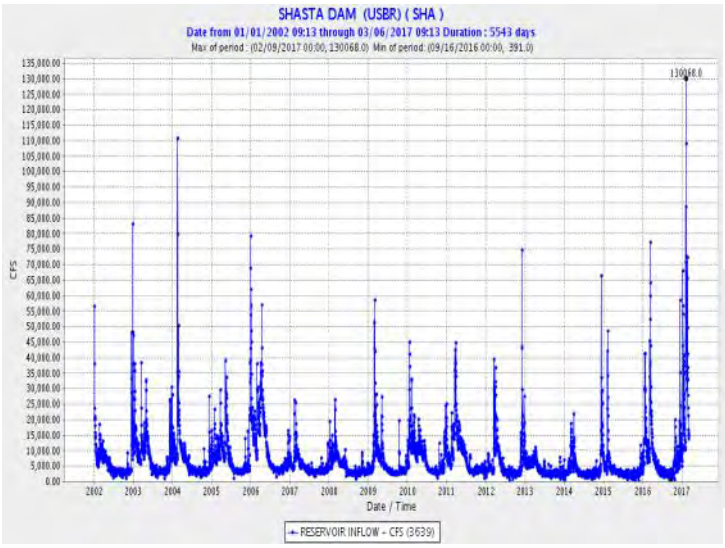
Shasta Storage —

As of March 5th, storage was approximately 3,446,784AF (down 507,380AF and at 76% of capacity — down 11% in capacity from last week). The current level is 102% of the historical average. Total capacity of Shasta is about 4,552,000AF. Shasta's weekly average inflows are about 34,471AF/day, and outflows are about 67,005AF/day as of Sunday.



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

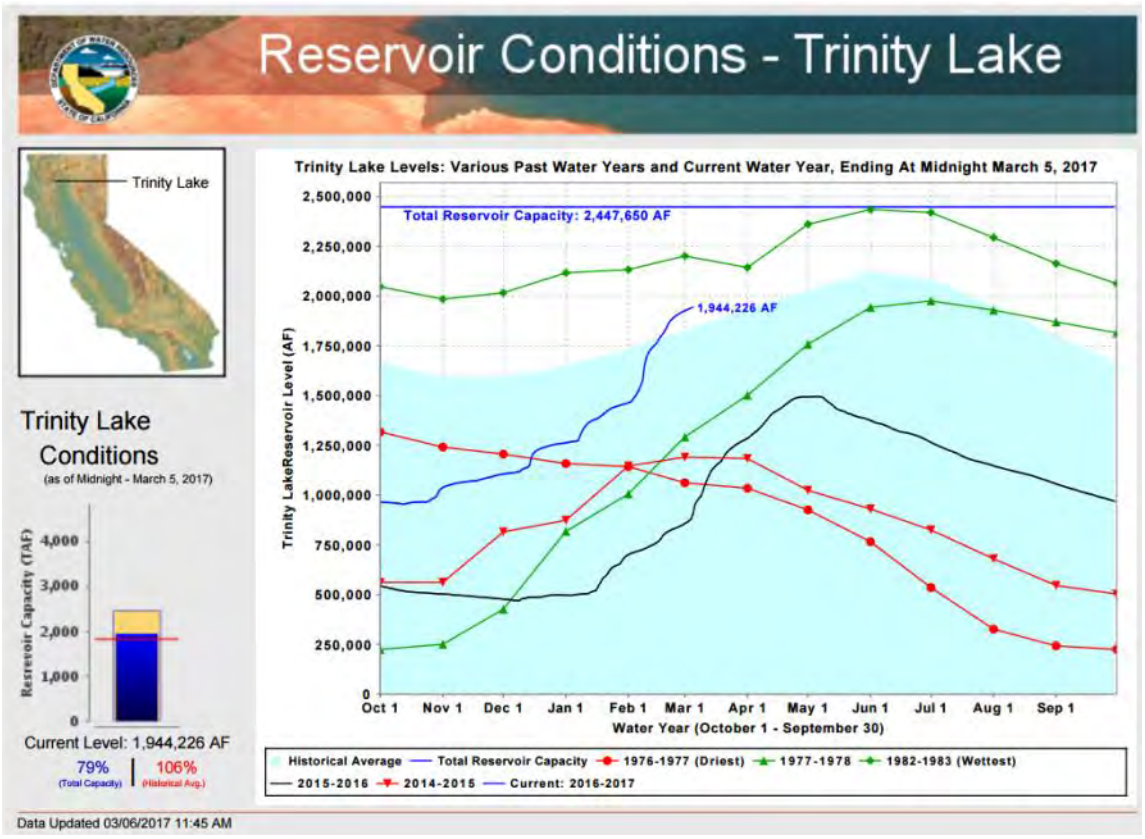
Inflows



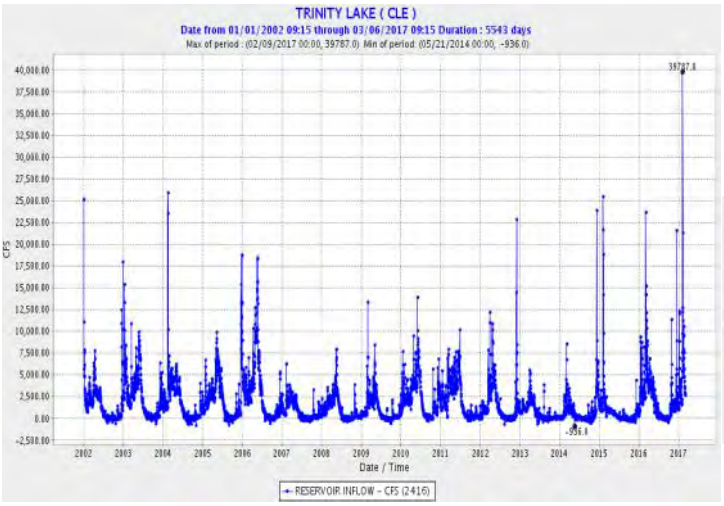
Outflows

Trinity Lake Storage

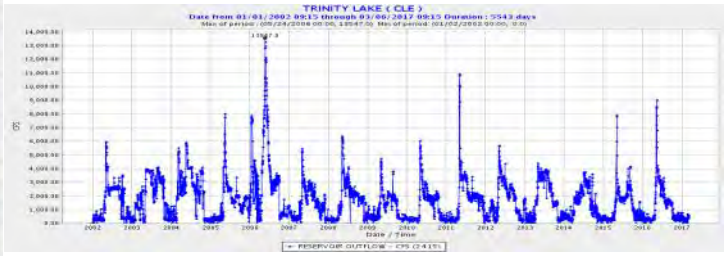
As of March 5th, storage was approximately 1,944,226AF with capacity being at 79% (up 33,803AF and up 1% in capacity from last week). The current level is 106% of the historical average. Net inflows for the past week averaged 5,818AF/day. Total capacity of the Trinity is about 2,448,000AF. On Sunday, releases to the Trinity River were about 841AF/day.



Inflows

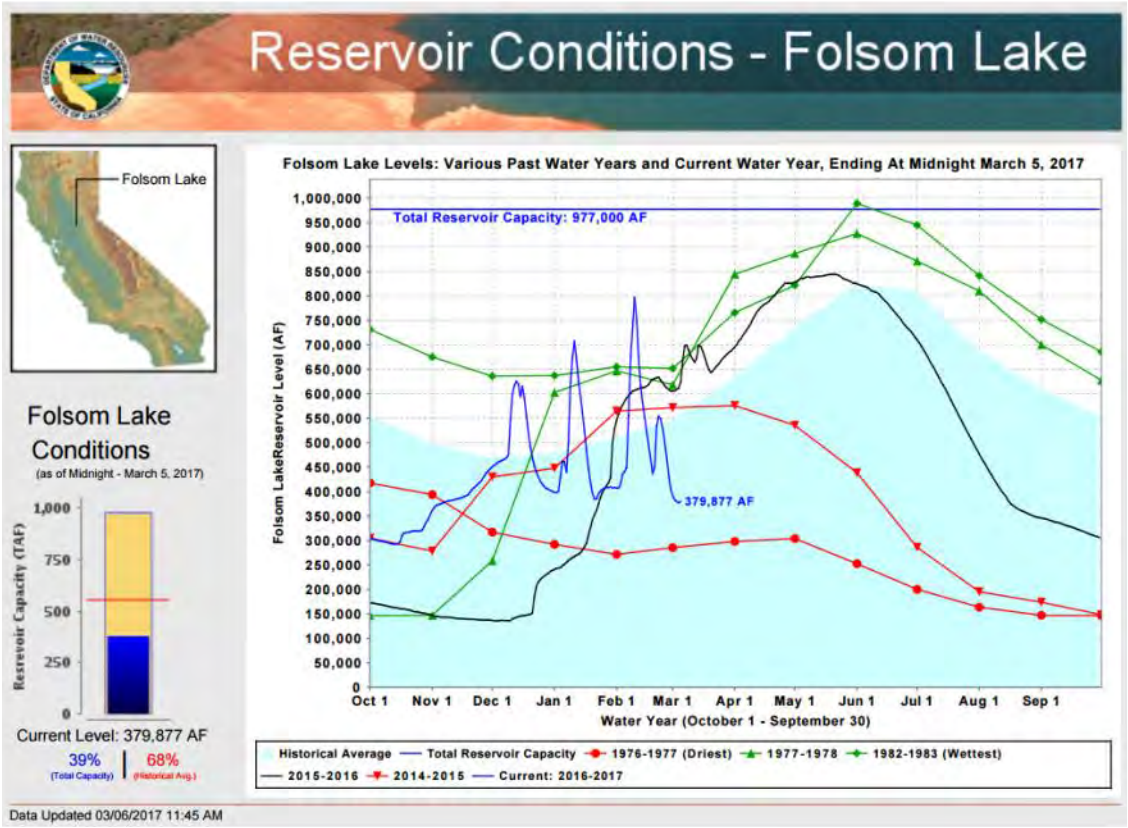


Outflows

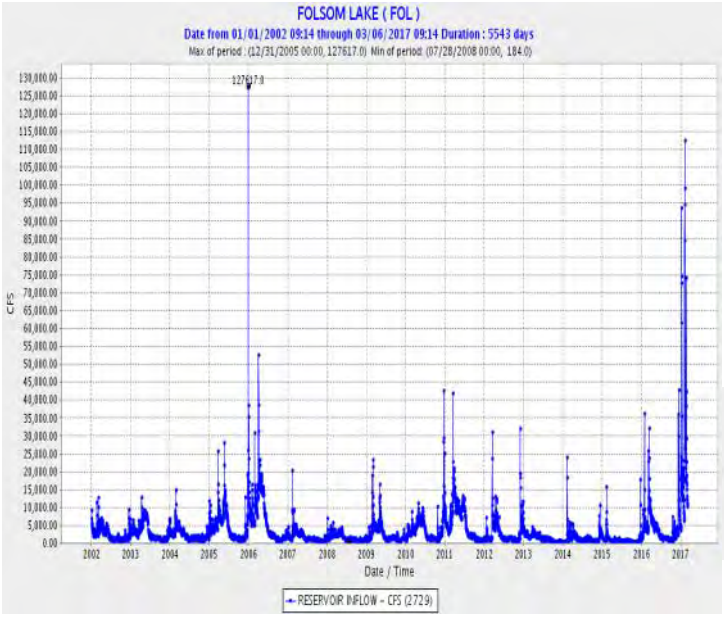


Folsom Storage

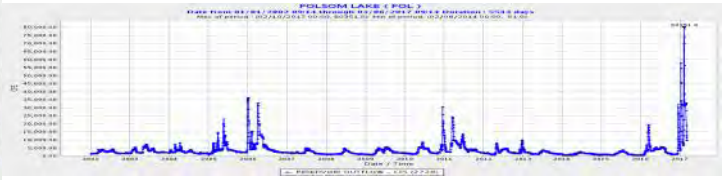
As of March 5th, storage was approximately 379,877AF (down 90,011AF and at 39% capacity—capacity down 9% from last week). The current level is 68% of the historical average. Inflows for the past week averaged 23,859AF/day. Total capacity of Folsom is 977,000AF. As of Sunday, releases were about 19,319AF/day.



Inflows

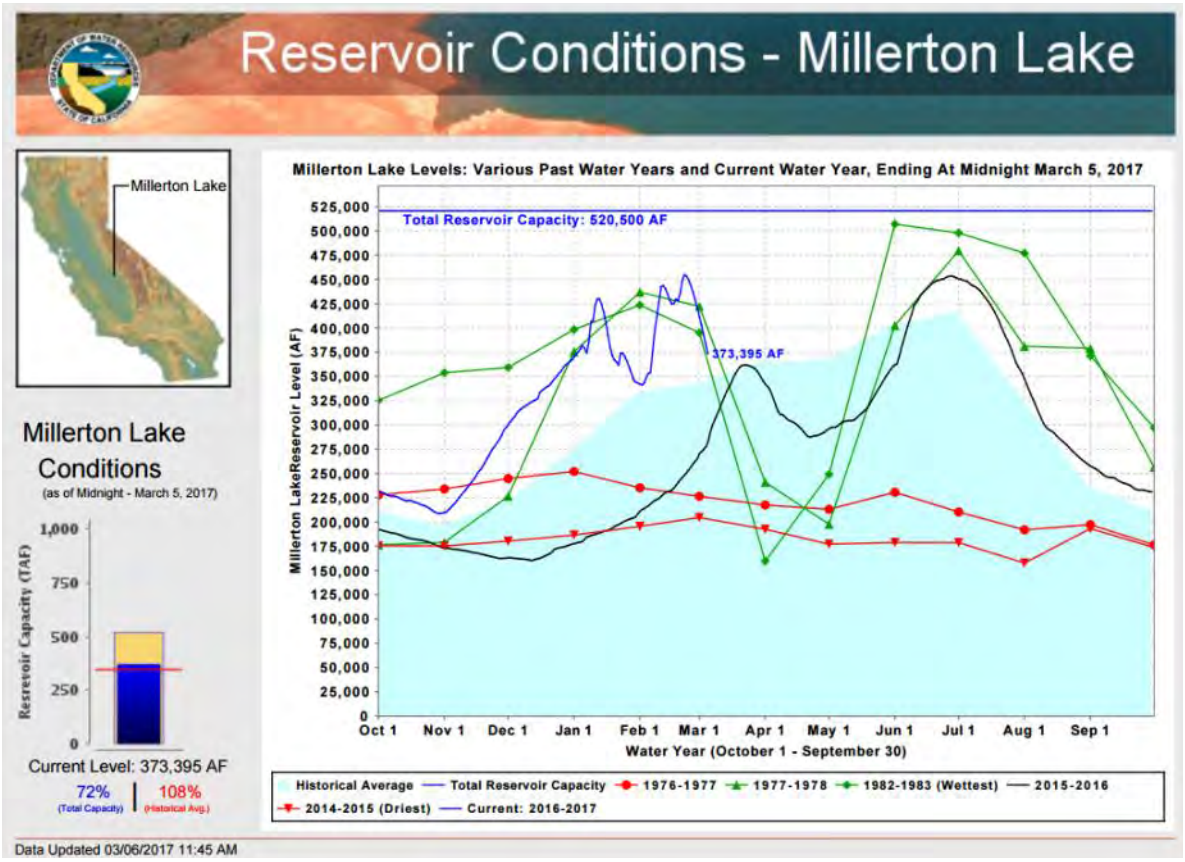


Outflows

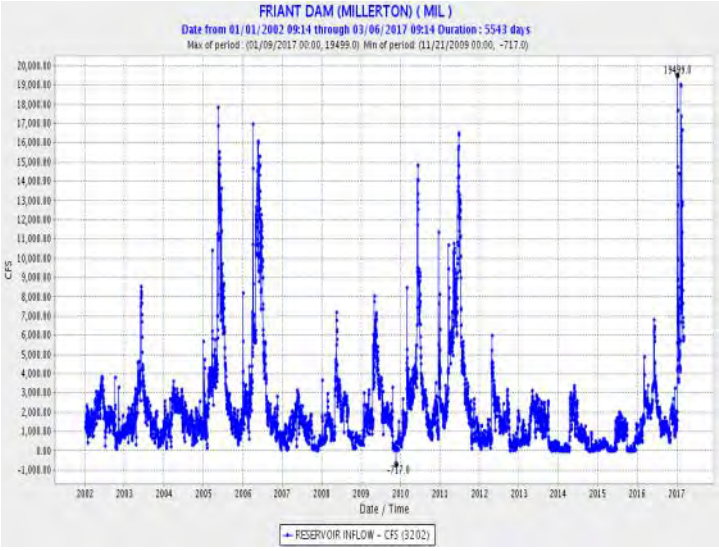


Friant Storage

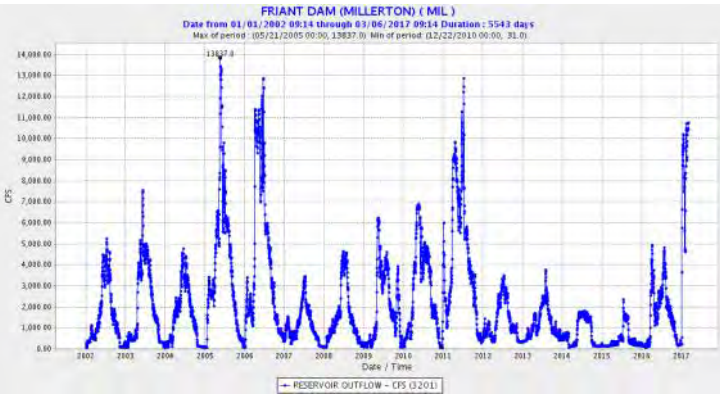
As of March 5th, storage was about 373,395AF (down 63,268AF and at 72% capacity—down 12% in capacity from last week). The current level is 108% of the historical average. Inflows for the last week averaged about 11,992AF/day. Total capacity of Friant is 520,500AF. On Sunday, 852CFS was released into the Friant/Kern Canal, 932CFS was released into the Madera Canal, and 8,981CFS was released into the San Joaquin River. The eight upstream San Joaquin River reservoirs are about 52% full, holding 316,077AF of their 611,688AF capacity.



Inflows

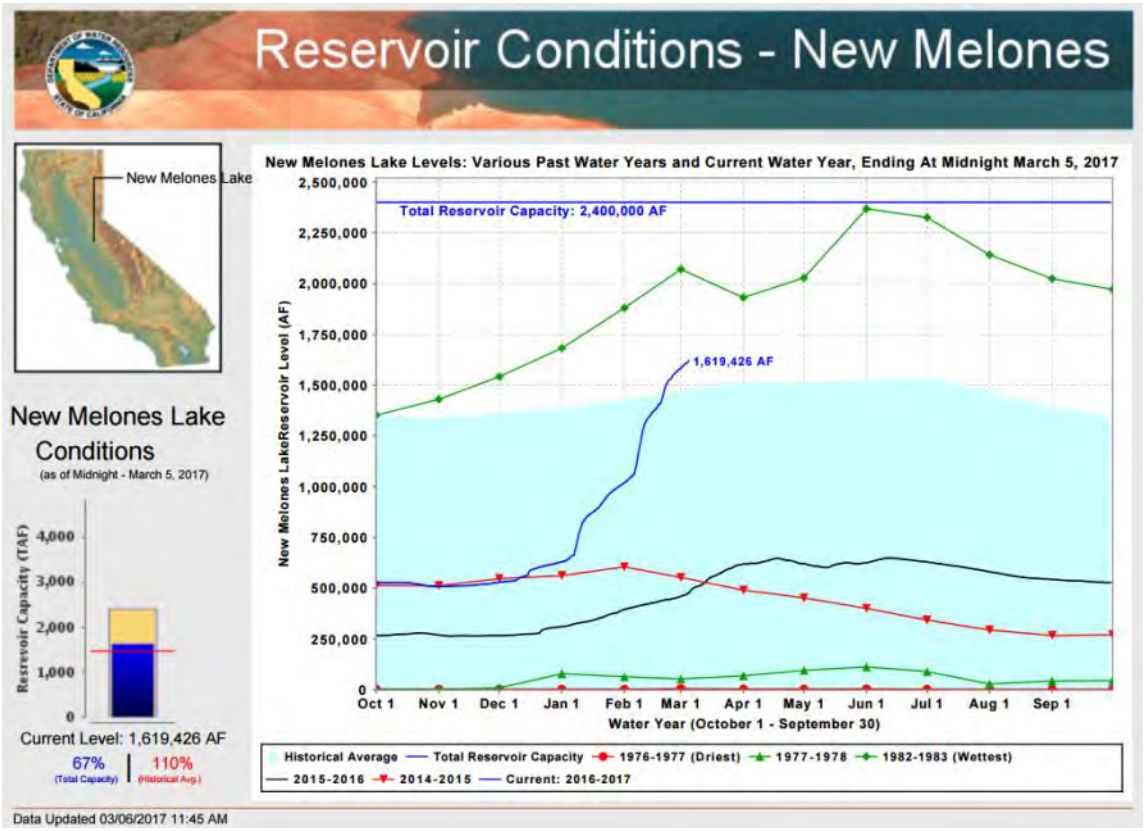


Outflows

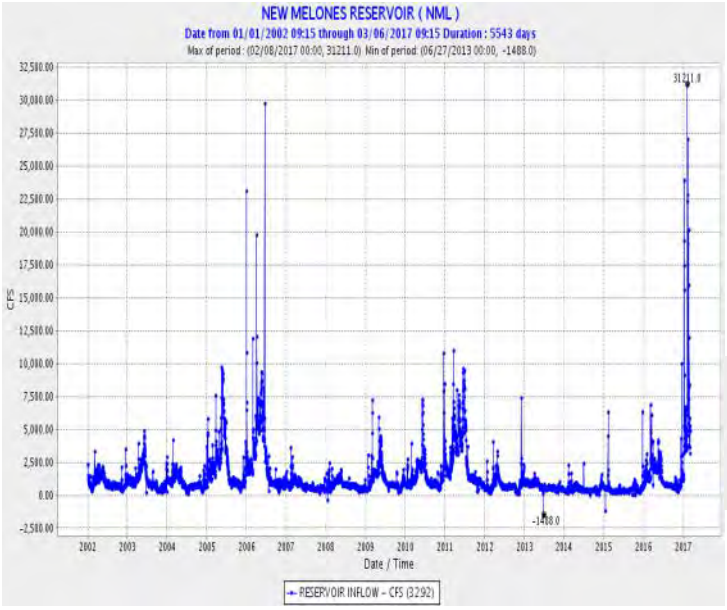


New Melones Storage

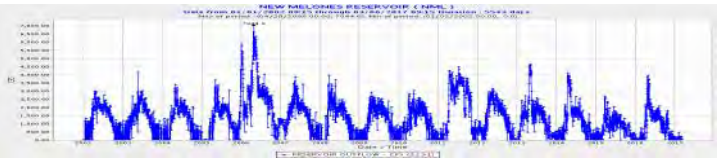
As of March 5th, storage was approximately 1,619,426AF (up 61,986AF and at 67% capacity—up 2% in capacity from last week). The current level is 110% of the historical average. Inflows for the past week averaged 9,271AF/day. Total capacity of New Melones is 2,400,000AF. Current releases to the Stanislaus River have been adjusted to 107AF/day.



Inflows

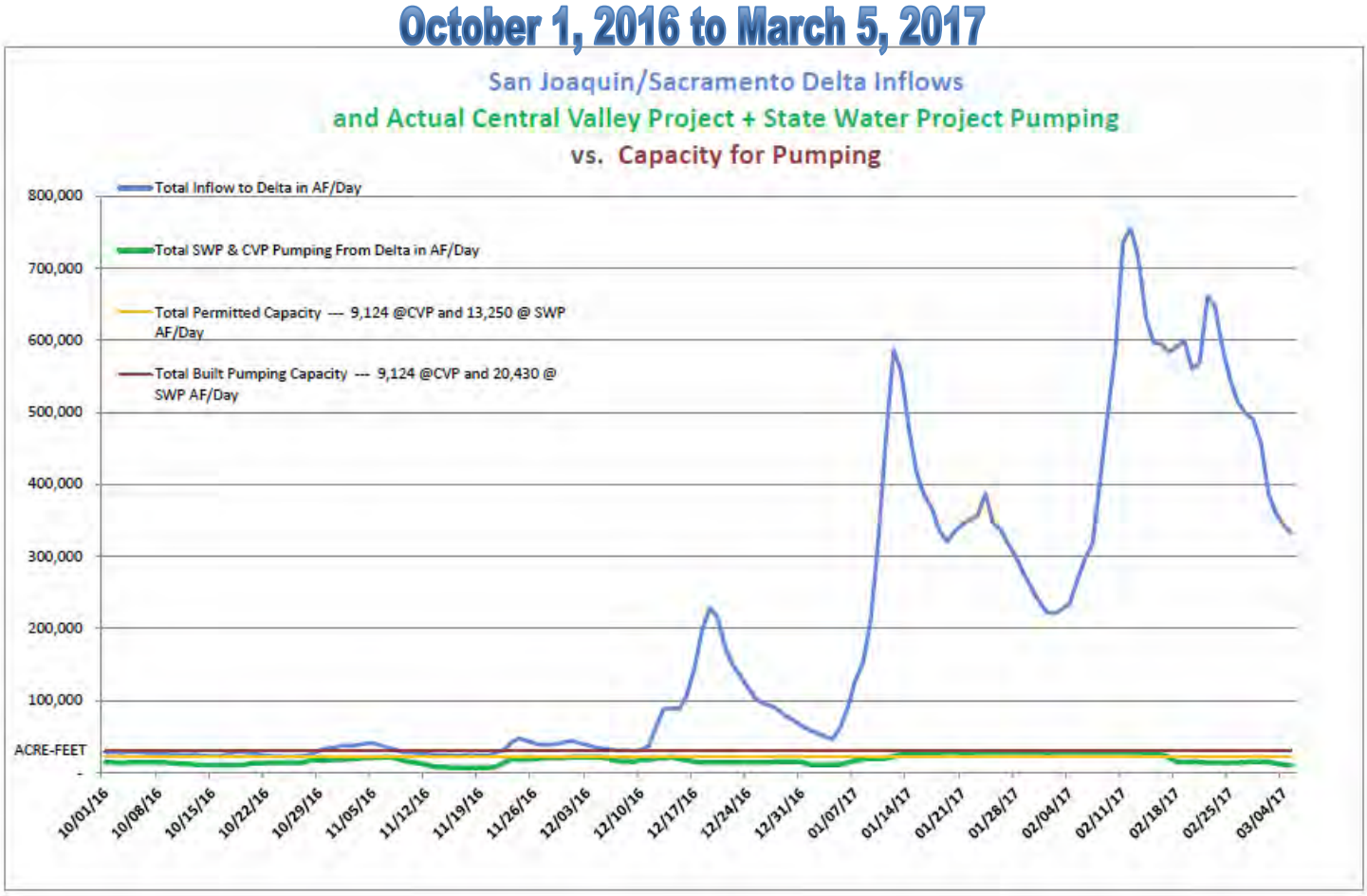


Outflows

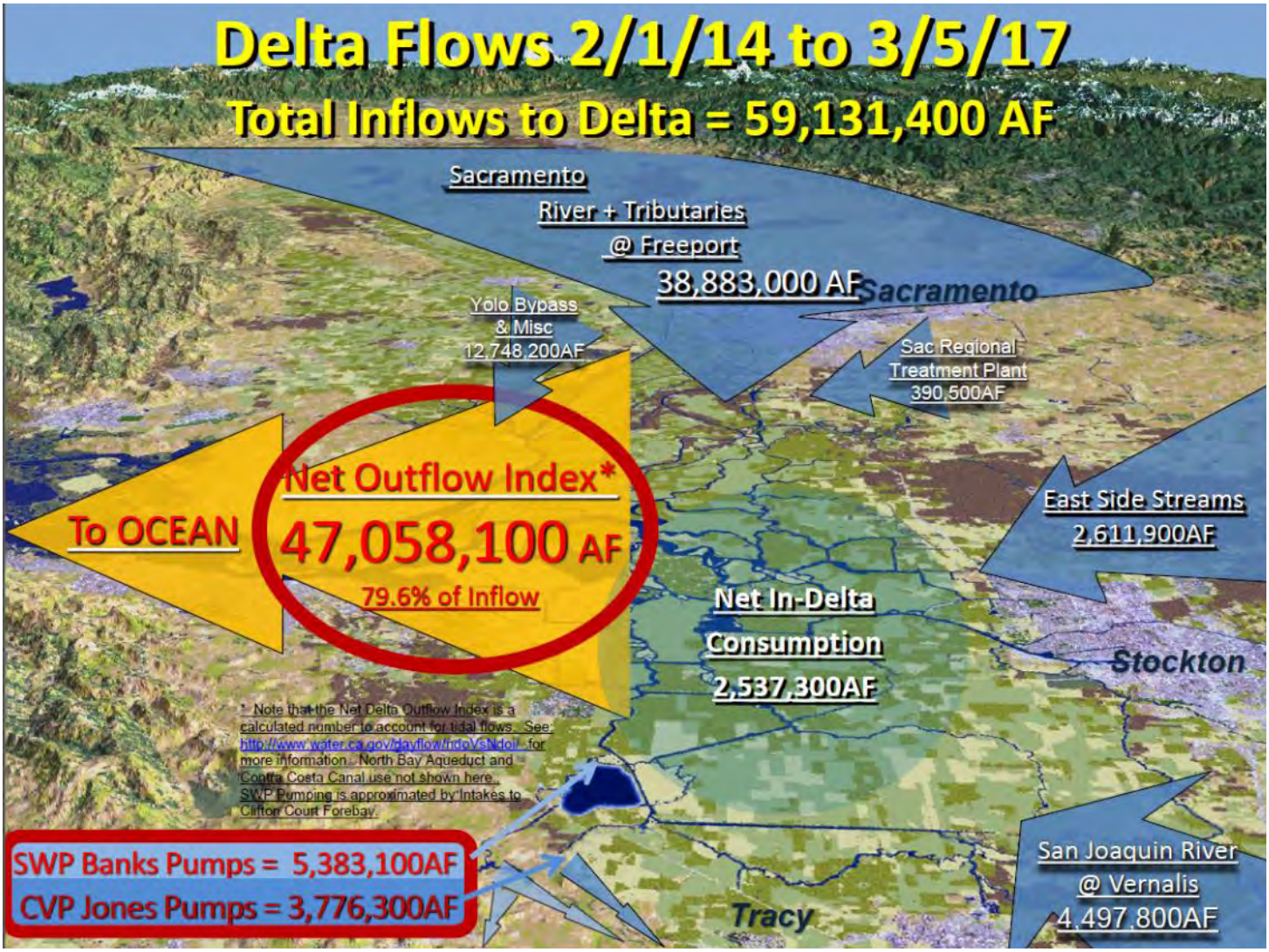


Pumping Has Slowed with State Storage at Capacity (and Federal is close).

Total Delta Inflow from the Delta Outflow Computation chart (https://www.usbr.gov/mp/cvo/vungvari/doutdly.pdf) for March 5th is listed as 167,447 cfs (332,131 AF/day) and outflow is 161,370 cfs (320,077 AF/day) with delta exports being 5,305 cfs (10,522 AF/day).

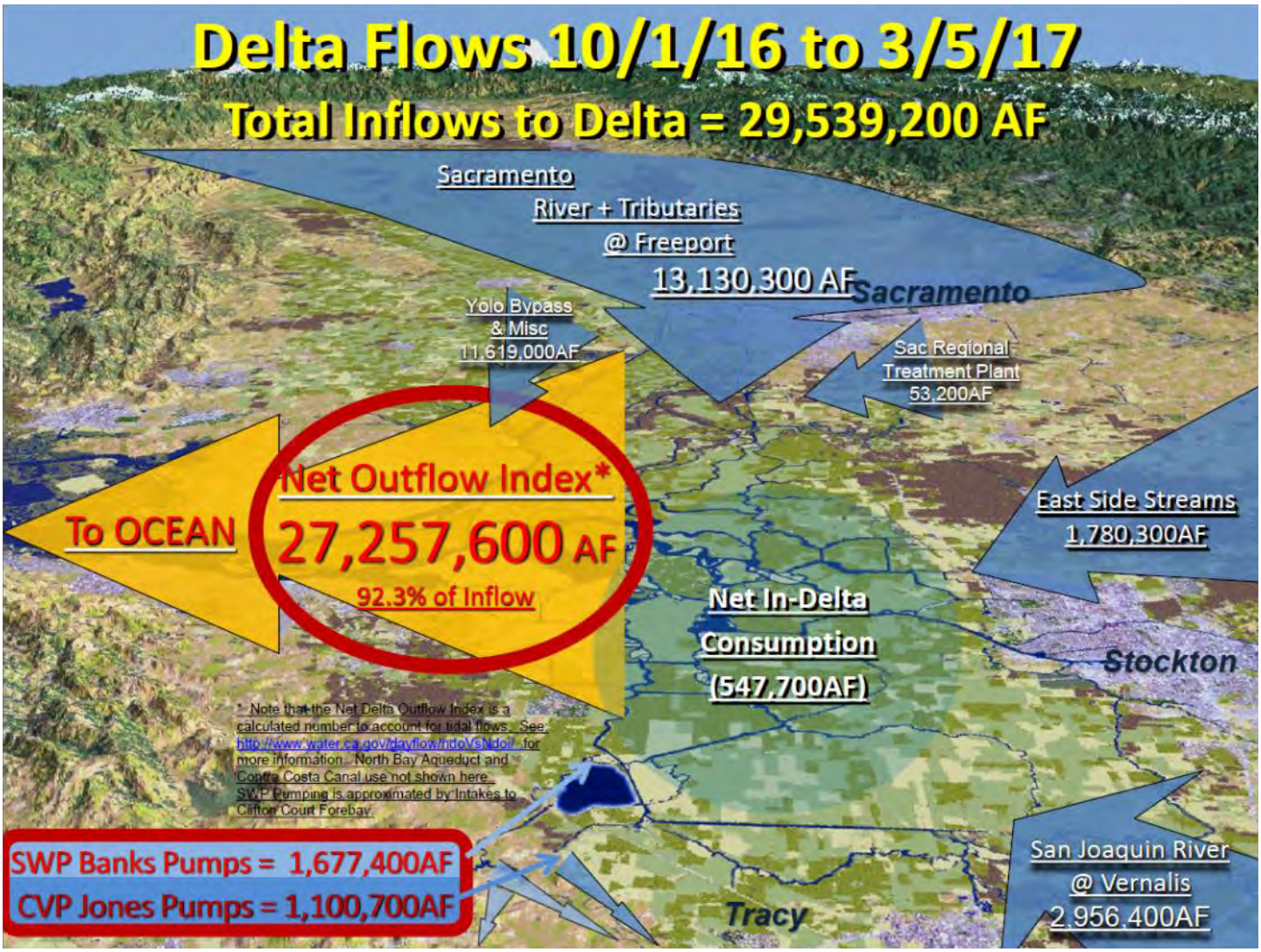


Plenty of water has been flowing through the delta. In the last thirty-seven months, over 59.1 million acre-feet of water have poured into the delta. Of that water, 79.6 percent, or over 47 million acre-feet, has gone out to the ocean, but just over 9.1 million acre-feet have been pumped into the California Aqueduct and Delta Mendota Canal for cities and farms. Since October 1, 2016, the losses are worse with 92.3 percent wasted to the ocean.



Delta Flows from October 1, 2016, through March 5, 2017

In five months, 29,539,200AF of water flowed into the Delta. The Net In-Delta Consumption was (547,700AF) (-1.9%). The Banks and Jones Pumps captured 2,778,100AF (9.4%), and 27,257,600AF (92.3%) flowed out to the ocean.



2017 Allocations—
SWP:

The 2017 SWP allocation is set at 20% as of November 28, 2016.
http://www.water.ca.gov/news/newsreleases/2016/112916.pdf

As of December 21, 2016, the 2017 SWP allocation is set at 45%.
http://www.water.ca.gov/news/newsreleases/2016/122116.pdf

As of January 18, 2017, the 2017 SWP allocation is set at 60%.
http://www.water.ca.gov/news/newsreleases/2017/011817swp_allocation.pdf

CVP:

As of February 28, 2017, USBR announces Friant Class 1 allocation is set at 100%.
https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=58769

2016 Allocations—
SWP:

The 2016 SWP allocation is set at 15% as of January 26, 2016.
http://www.water.ca.gov/swpao/docs/notices/16-01.pdf

As of February 24, 2016, the 2016 SWP allocation is set at 30%.
http://www.water.ca.gov/news/newsreleases/2016/022416.pdf

As of March 17, 2016, the 2016 SWP allocation is set at 45%.
http://www.water.ca.gov/news/newsreleases/2016/031716.pdf

As of April 21, 2016, the 2016 SWP allocation is set at 60%.
http://www.water.ca.gov/swpao/docs/notices/16-06.pdf

CVP:

As of April 1, 2016, USBR announces South-of-the-Delta Ag CVP Allocation is set at 5%, and Friant Class 1 allocation is set at 30%.
http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=53447

As of Friday, April 8, 2016, the Friant Class 1 allocation was increased to 40%.

As of Thursday, April 21, 2016, the Friant Class 1 allocation was increased to 50%.
http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=53887

As of Friday, May 6, 2016, the Friant Class 1 allocation was increased to 65%.
http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=54347

As of Monday, July 18, 2016, the Friant Class 1 allocation was increased to 75% along with an exchange agreement to support South-of-Delta operations.
http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=55667

Note! The January 9, 2017 verbal notification that was made that Friant Class 1 allocation will be 100% was for **old year** 2016-17 supplies.

***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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