

Figure 1. Waterford Chinook catch and Tuolumne River flow at La Grange, 2017.

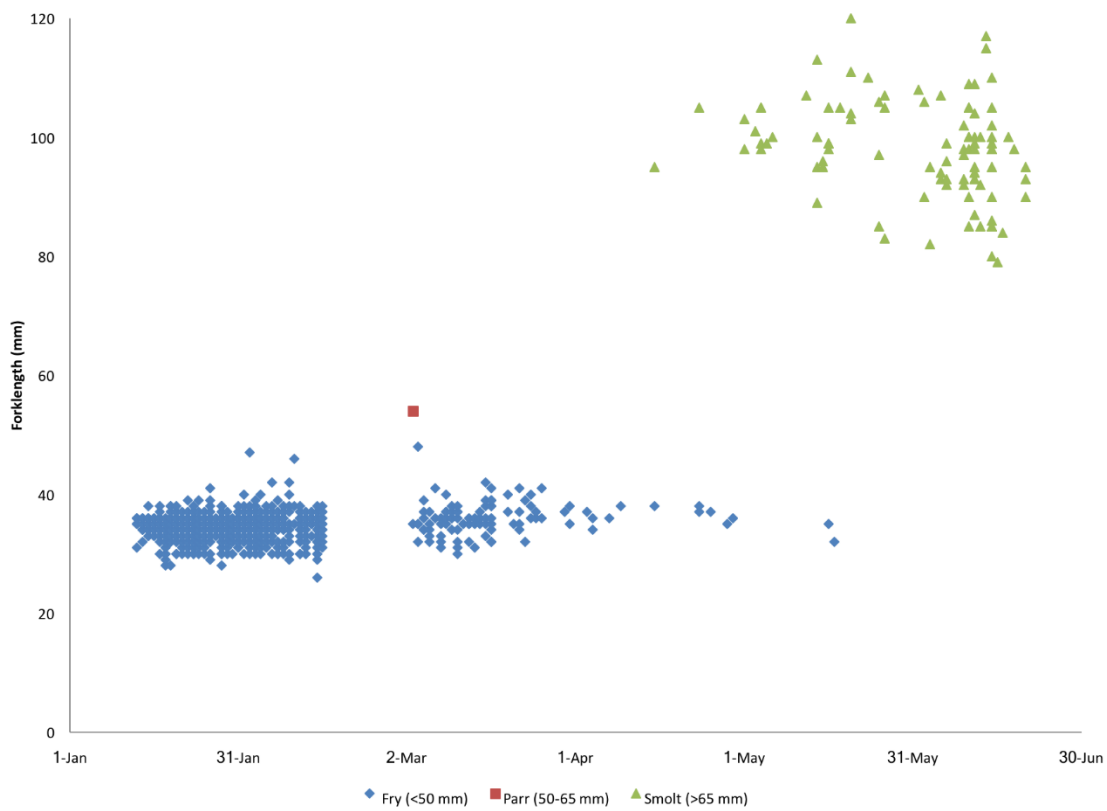


Figure 2. Chinook forklengths by lifestage at Waterford, 2017.



Figure 3. Grayson Chinook catch and Tuolumne River flow at Modesto, 2017.

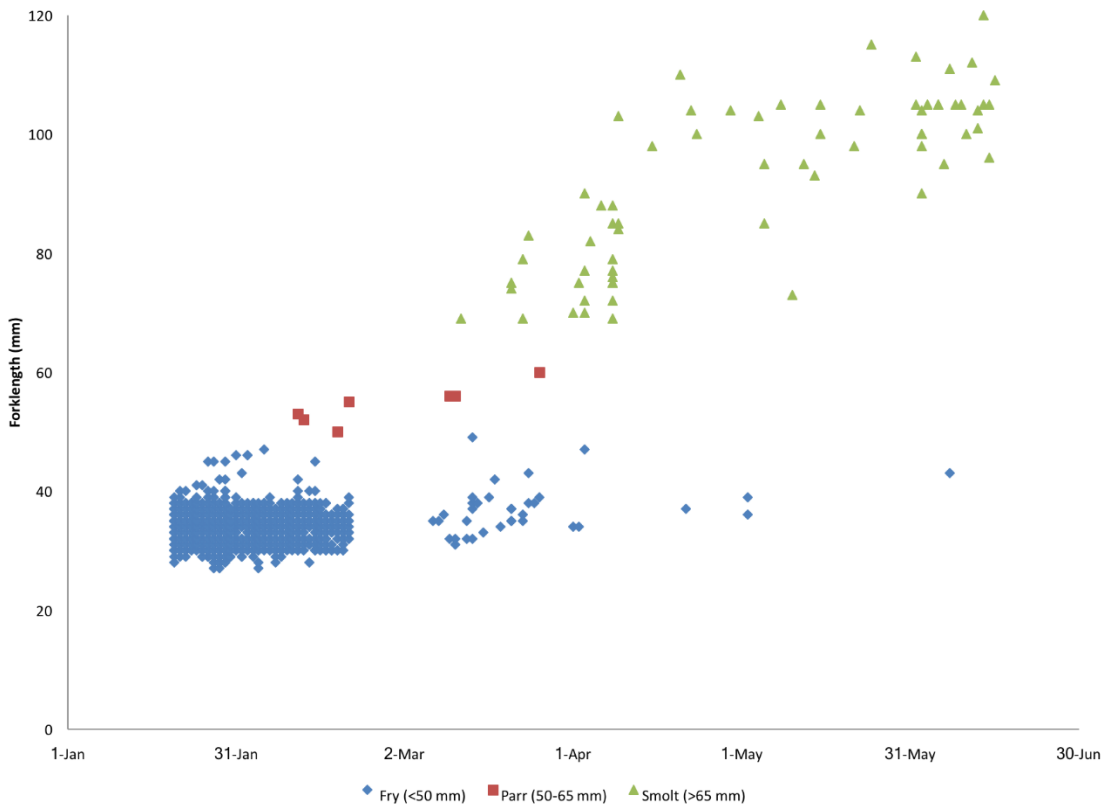


Figure 4. Chinook forklenghs by lifestage at Grayson, 2017.

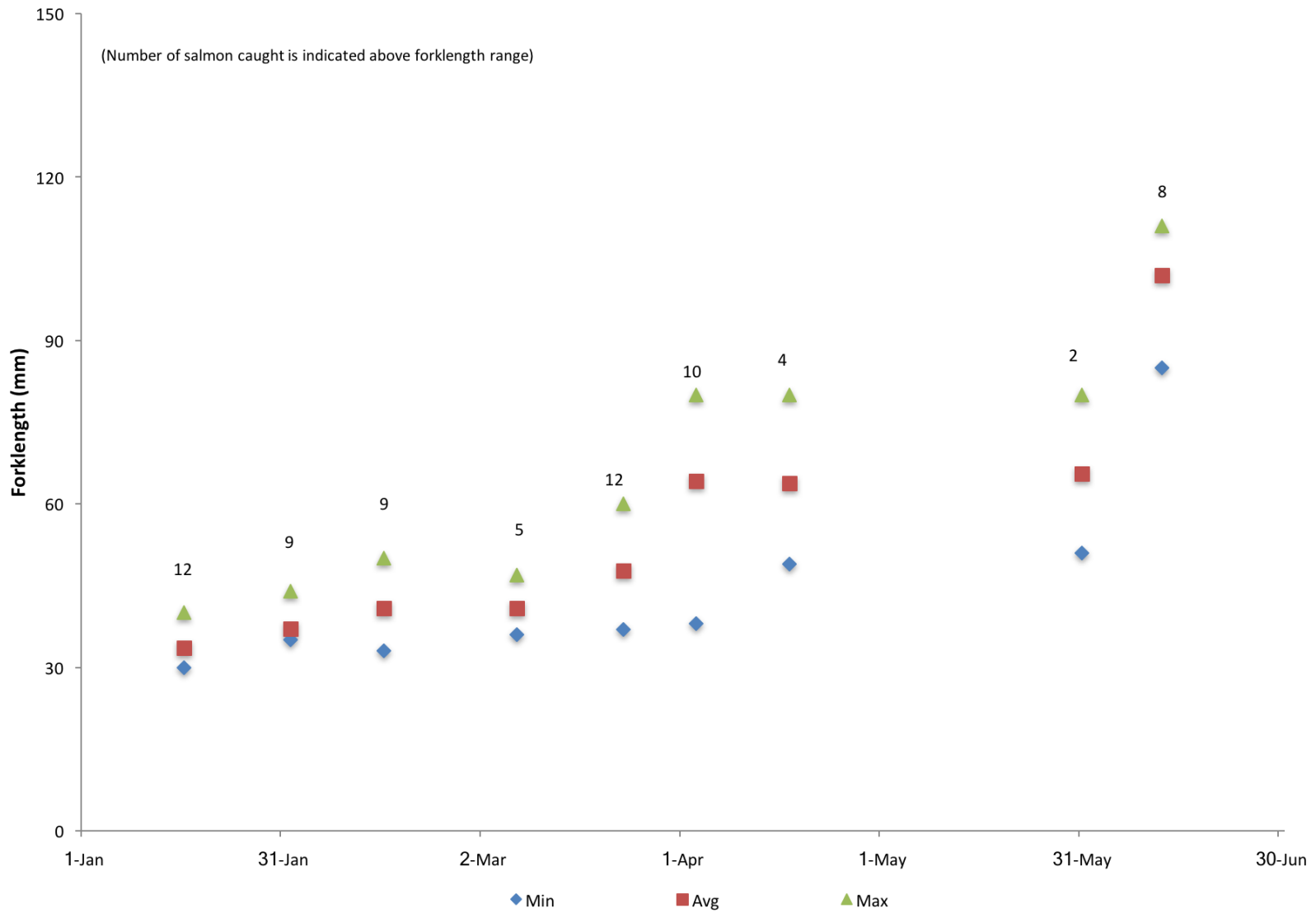


Figure 5. Number and minimum, average and maximum forklength of Chinook captured during the 2017 Tuolumne River seine surveys. Note: graphs do not include floodplain habitat surveyed in April and May.

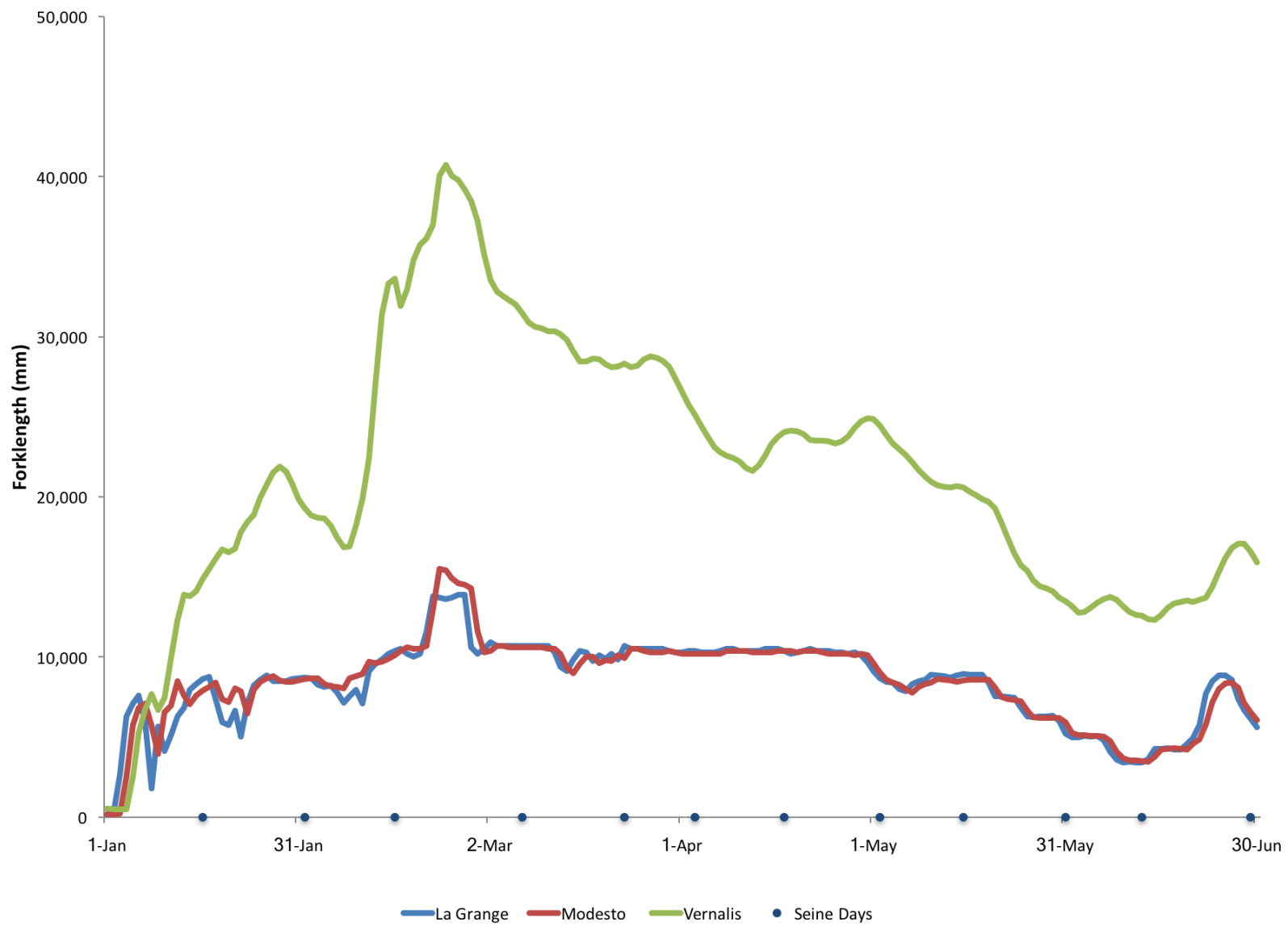


Figure 6. Tuolumne River flow at La Grange and Modesto and San Joaquin River flow at Vernalis during 2017 Tuolumne River seine surveys.

Patrick - here is a summary I have sent to some of our grantees on the project:

The City of Modesto published a request for proposals and the bid period closed on June 13th. We had estimated that the actual construction would cost between \$700-\$800k, which we had secured through several grants.

Unfortunately, we received only a single bid and it was for \$2.4M, well beyond the amount of funding that we have secured. As such, we were not be able to remove Dennett Dam this summer.

While this was very disappointing news, we are not ready to give up on removing this damaging structure.

We have spoken to the contractor who did bid on it and feel that we can reduce the cost and re-bid it to do the work next summer. The following factors conspired to inflate the price, and we feel that many of these can be removed:

1. Many contractors bid on their summer work the prior fall or winter. We were very late for many contractors to bid for work this summer. We will aim to bid this again this fall or winter, which will hopefully open the opportunity for more contractors to bid.

2. The high flows were a big part of the high cost. Not only did we have one of the deepest snowpacks on record, the SFPUC is completely draining Cherry Lake for some long-planned maintenance. As such, TID is dumping a lot of water and flows will generally be high (around 4,000-5,000 cfs) throughout the summer. In most years, summer flows will typically come down to a couple of hundred cfs by late July or August, so this was a very unusual set of circumstances that is creating high flows all summer. While TID was amenable to reducing their flows to about 1,200 cfs for a 4-5 week period in late August to early September, it would still have been a fairly significant flow. To accommodate flows in this range, the contractor has to build cofferdams of considerable size. They would also have difficulties accessing the site and, under their plan would have to "abandon" some of their equipment on the far bank for the duration of the project, meaning they wouldn't have use of it while the project was in progress. In talking to TID, they believe that in almost any other year it would be easy for them to bring the river flow down to about 150 cfs for a 12 week period, and so we expect that next year they will be able to do that.

3. The 4-5 week construction window was very short and the contractor would have to work from dawn to dusk, under a very stressful situation, to get the work done. As such, they built in quite a bit of overtime into the cost. Next year, we believe we can provide a longer construction window and thus have lower labor costs.

If you remove the factors outlined above, the contractor felt that we could get the cost down to perhaps \$1.5M. As such, we will focus our efforts on raising additional funds and rebidding it this fall.

While disheartening, the merits of the project are still worth the effort. We believe that it will continue to attract funding and that we will be in a very good position to do the work next summer.

If you have suggestions for additional sources of funds we would welcome those ideas.

Patrick Koepele  
Executive Director  
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**Tuolumne River Projects  
City of Modesto 2017**

**Project:** Tuolumne River Regional Park Gateway Parcel – Phase 2

**Cost:** \$2,129,097 (Engineer's Estimate)

**Scope of Work:** Engineered Landforms, Construction of Backwater Channel, Pedestrian Bridge, Outdoor Classroom with Tiered Seating, Observation Deck, 12' Wide Permeable Concrete Trails with 4' D.G. Edge and Seating.

**Engineering Firm:** AECOM

**Contractor:** Empire Landscaping

**Contract Award:** \$2,067,738

**Status:** Under Construction

**Project:** Tuolumne River Sheet Pile and Dam Debris Removal Project

**Cost:** \$1,500,000 (Approximate Estimate)

**Scope of Work:** Temporary Diversion of the River with Cofferdams, Removal of Sheet Pile and Dam Debris from Riverbed, Remove Cofferdam and Restore Disturbed Areas in the Riparian Corridor.

**Engineering Firm:** FlowWest

**Contractor:** N/A

**Contract Award:** N/A

**Status:** Will Solicit for Bids this Fall, and Construction is Anticipated in the Summer of 2018

Table 2

**SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION**  
**602020 INDEX**

YEAR	APRIL-JULY RUNOFF (AF)					OCTOBER-MARCH RUNOFF (AF)					602020	TUOLUMNE RIVER		San Joaquin Index
	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	INDEX	MINIMUM FLOW REQUIREMENT	(not the FERC Index)	
16	568,262	1,020,077	494,607	892,555	2,975,501	498,761	783,833	351,782	391,110	2,025,486	2,352,037	142,502	Dry	
17	1,440,796	2,454,169	1,232,846	2,641,089	7,768,900	1,570,518	2,276,847	1,222,014	1,585,049	6,654,428	6,462,633	300,923	Wet	
<b>Feb 1 Forecast</b>														
Dry	810,000	1,430,000	790,000	1,690,000	4,720,000	969,000	1,463,000	772,000	1,010,000	4,214,000	4,145,207	300,923	Wet	
Average	1,040,000	1,820,000	970,000	2,050,000	5,880,000	1,094,000	1,678,000	867,000	1,140,000	4,779,000	4,954,207	300,923	Wet	
Wet	1,500,000	2,610,000	1,480,000	2,870,000	8,460,000	1,299,000	1,993,000	1,082,000	1,380,000	5,754,000	6,697,207	300,923	Wet	
<b>Feb 08 Update</b>														
Dry	950,000	1,680,000	910,000	1,890,000	5,430,000	969,000	1,463,000	772,000	1,010,000	4,214,000	4,571,207	300,923	Wet	
Average	1,160,000	2,040,000	1,080,000	2,230,000	6,510,000	1,094,000	1,678,000	867,000	1,140,000	4,779,000	5,332,207	300,923	Wet	
Wet	1,600,000	2,790,000	1,550,000	2,990,000	8,930,000	1,299,000	1,993,000	1,082,000	1,380,000	5,754,000	6,979,207	300,923	Wet	
<b>Feb 14 Update</b>														
Dry	1,020,000	1,780,000	990,000	1,970,000	5,760,000	969,000	1,463,000	772,000	1,010,000	4,214,000	4,769,207	300,923	Wet	
Average	1,220,000	2,110,000	1,150,000	2,290,000	6,770,000	1,094,000	1,678,000	867,000	1,140,000	4,779,000	5,488,207	300,923	Wet	
Wet	1,650,000	2,820,000	1,590,000	3,000,000	9,060,000	1,299,000	1,993,000	1,082,000	1,380,000	5,754,000	7,057,207	300,923	Wet	
<b>Feb 21 Update</b>														
Dry	1,110,000	1,960,000	1,080,000	2,130,000	6,280,000	969,000	1,463,000	772,000	1,010,000	4,214,000	5,081,207	300,923	Wet	
Average	1,300,000	2,260,000	1,230,000	2,430,000	7,220,000	1,094,000	1,678,000	867,000	1,140,000	4,779,000	5,758,207	300,923	Wet	
Wet	1,710,000	2,930,000	1,630,000	3,090,000	9,360,000	1,299,000	1,993,000	1,082,000	1,380,000	5,754,000	7,237,207	300,923	Wet	
<b>Mar 1 Forecast</b>														
Dry	1,170,000	2,020,000	1,090,000	2,180,000	6,460,000	1,416,000	2,032,000	1,074,000	1,320,000	5,842,000	5,514,807	300,923	Wet	
Average	1,340,000	2,280,000	1,230,000	2,460,000	7,310,000	1,546,000	2,237,000	683,000	1,520,000	5,986,000	6,053,607	300,923	Wet	
Wet	1,790,000	2,900,000	1,580,000	3,050,000	9,320,000	1,846,000	2,652,000	1,434,000	1,910,000	7,842,000	7,630,807	300,923	Wet	
<b>Mar 14 Update</b>														
Dry	1,200,000	2,050,000	1,080,000	2,190,000	6,520,000	1,416,000	2,032,000	1,074,000	1,320,000	5,842,000	5,550,807	300,923	Wet	
Average	1,350,000	2,270,000	1,200,000	2,430,000	7,250,000	1,546,000	2,237,000	683,000	1,520,000	5,986,000	6,017,607	300,923	Wet	
Wet	1,740,000	2,790,000	1,500,000	2,920,000	8,950,000	1,846,000	2,652,000	1,434,000	1,910,000	7,842,000	7,408,807	300,923	Wet	
<b>Mar 21 Update</b>														
Dry	1,160,000	2,010,000	1,050,000	2,120,000	6,340,000	1,416,000	2,032,000	1,074,000	1,320,000	5,842,000	5,442,807	300,923	Wet	
Average	1,300,000	2,210,000	1,160,000	2,340,000	7,010,000	1,546,000	2,237,000	683,000	1,520,000	5,986,000	5,873,607	300,923	Wet	
Wet	1,630,000	2,680,000	1,440,000	2,770,000	8,520,000	1,846,000	2,652,000	1,434,000	1,910,000	7,842,000	7,150,807	300,923	Wet	
<b>Mar 28 Update</b>														
Dry	1,210,000	2,080,000	1,070,000	2,180,000	6,540,000	1,416,000	2,032,000	1,074,000	1,320,000	5,842,000	5,562,807	300,923	Wet	
Average	1,340,000	2,260,000	1,180,000	2,380,000	7,160,000	1,546,000	2,237,000	683,000	1,520,000	5,986,000	5,963,607	300,923	Wet	
Wet	1,630,000	2,680,000	1,430,000	2,750,000	8,490,000	1,846,000	2,652,000	1,434,000	1,910,000	7,842,000	7,132,807	300,923	Wet	
<b>Apr 1 Forecast</b>														
Dry	1,210,000	2,040,000	1,060,000	2,110,000	6,420,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	5,653,407	300,923	Wet	
Average	1,340,000	2,210,000	1,160,000	2,300,000	7,010,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,007,407	300,923	Wet	
Wet	1,620,000	2,600,000	1,400,000	2,640,000	8,260,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,757,407	300,923	Wet	
<b>Apr 11 Update</b>														
Dry	1,280,000	2,160,000	1,120,000	2,230,000	6,790,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	5,875,407	300,923	Wet	
Average	1,400,000	2,310,000	1,210,000	2,410,000	7,330,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,199,407	300,923	Wet	
Wet	1,630,000	2,630,000	1,410,000	2,690,000	8,360,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,817,407	300,923	Wet	
<b>Apr 18 Update</b>														
Dry	1,400,000	2,330,000	1,200,000	2,320,000	7,250,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,151,407	300,923	Wet	
Average	1,520,000	2,460,000	1,280,000	2,490,000	7,750,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,451,407	300,923	Wet	
Wet	1,710,000	2,730,000	1,450,000	2,730,000	8,620,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,973,407	300,923	Wet	

Table 2

**SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION**  
**602020 INDEX**

YEAR	APRIL-JULY RUNOFF (AF)					OCTOBER-MARCH RUNOFF (AF)					602020	TUOLUMNE RIVER	San Joaquin Index
	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	INDEX	MINIMUM FLOW REQUIREMENT	(not the FERC Index)
<b>Apr 25 Update</b>													
Dry	1,390,000	2,330,000	1,190,000	2,330,000	7,240,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,145,407	300,923	Wet
Average	1,500,000	2,440,000	1,260,000	2,490,000	7,690,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,415,407	300,923	Wet
Wet	1,650,000	2,650,000	1,400,000	2,690,000	8,390,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,835,407	300,923	Wet
<b>May 1 Forecast</b>													
Dry	1,370,000	2,230,000	1,140,000	2,250,000	6,990,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	5,995,407	300,923	Wet
Average	1,490,000	2,400,000	1,240,000	2,440,000	7,570,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,343,407	300,923	Wet
Wet	1,660,000	2,660,000	1,380,000	2,710,000	8,410,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,847,407	300,923	Wet
<b>May 09 Update</b>													
Dry	1,380,000	2,240,000	1,150,000	2,260,000	7,030,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,019,407	300,923	Wet
Average	1,490,000	2,400,000	1,240,000	2,430,000	7,560,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,337,407	300,923	Wet
Wet	1,650,000	2,640,000	1,360,000	2,670,000	8,320,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,793,407	300,923	Wet
<b>May 16 Update</b>													
Dry	1,390,000	2,230,000	1,150,000	2,270,000	7,040,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,025,407	300,923	Wet
Average	1,490,000	2,390,000	1,240,000	2,420,000	7,540,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,325,407	300,923	Wet
Wet	1,630,000	2,620,000	1,350,000	2,640,000	8,240,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,745,407	300,923	Wet
<b>May 23 Update</b>													
Dry	1,370,000	2,230,000	1,130,000	2,290,000	7,020,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,013,407	300,923	Wet
Average	1,450,000	2,380,000	1,210,000	2,420,000	7,460,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,277,407	300,923	Wet
Wet	1,580,000	2,590,000	1,300,000	2,610,000	8,080,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,649,407	300,923	Wet
<b>May 30 Update</b>													
Dry	1,370,000	2,220,000	1,160,000	2,240,000	6,990,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	5,995,407	300,923	Wet
Average	1,440,000	2,360,000	1,230,000	2,360,000	7,390,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,235,407	300,923	Wet
Wet	1,560,000	2,550,000	1,310,000	2,530,000	7,950,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,571,407	300,923	Wet
<b>Jun 06 Update</b>													
Dry	1,340,000	2,170,000	1,130,000	2,290,000	6,930,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	5,959,407	300,923	Wet
Average	1,400,000	2,300,000	1,200,000	2,400,000	7,300,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,181,407	300,923	Wet
Wet	1,510,000	2,480,000	1,280,000	2,560,000	7,830,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,499,407	300,923	Wet
<b>Jun 13 Update</b>													
Dry	1,310,000	2,170,000	1,130,000	2,380,000	6,990,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	5,995,407	300,923	Wet
Average	1,370,000	2,300,000	1,200,000	2,520,000	7,390,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,235,407	300,923	Wet
Wet	1,480,000	2,470,000	1,280,000	2,680,000	7,910,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,547,407	300,923	Wet
<b>Jun 20 Update</b>													
Dry	1,340,000	2,350,000	1,180,000	2,560,000	7,430,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,259,407	300,923	Wet
Average	1,400,000	2,480,000	1,250,000	2,700,000	7,830,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,499,407	300,923	Wet
Wet	1,500,000	2,640,000	1,320,000	2,850,000	8,310,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,787,407	300,923	Wet
<b>Jun 27 Update</b>													
Dry	1,360,000	2,340,000	1,180,000	2,560,000	7,440,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,265,407	300,923	Wet
Average	1,410,000	2,460,000	1,240,000	2,690,000	7,800,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,481,407	300,923	Wet
Wet	1,500,000	2,610,000	1,310,000	2,830,000	8,250,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,751,407	300,923	Wet
<b>Jul 04 Update</b>													
Dry	1,360,000	2,400,000	1,220,000	2,590,000	7,570,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,343,407	300,923	Wet
Average	1,410,000	2,470,000	1,250,000	2,690,000	7,820,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,493,407	300,923	Wet
Wet	1,500,000	2,610,000	1,310,000	2,830,000	8,250,000	1,571,000	2,277,000	1,222,000	1,585,000	6,655,000	6,751,407	300,923	Wet





# Don Pedro Reservoir

