

Patrick E. Maloney

From: FISHBIO Updates <updates@fishbio.com>
Sent: Wednesday, December 19, 2018 4:17 PM
To: FISHBIO Updates
Subject: Tuolumne River Update through 12/18/18
Attachments: Tuolumne Weir Update 2018.xlsx

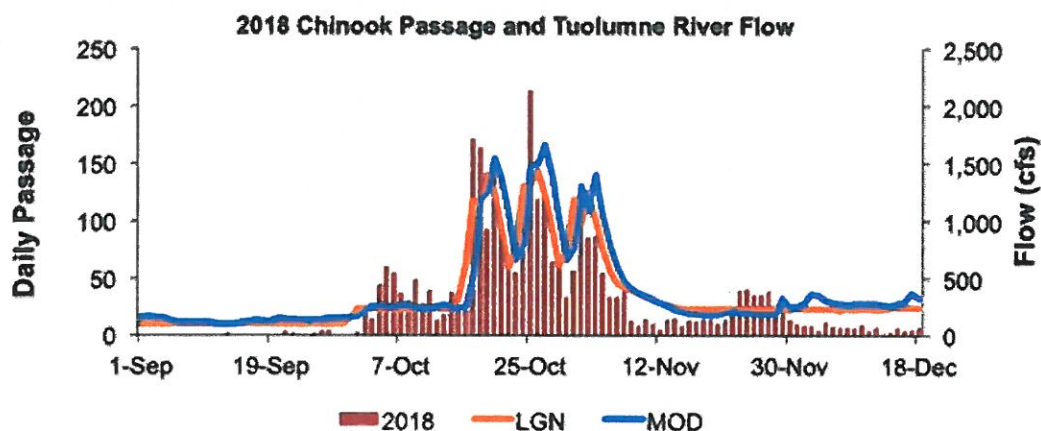
To All:

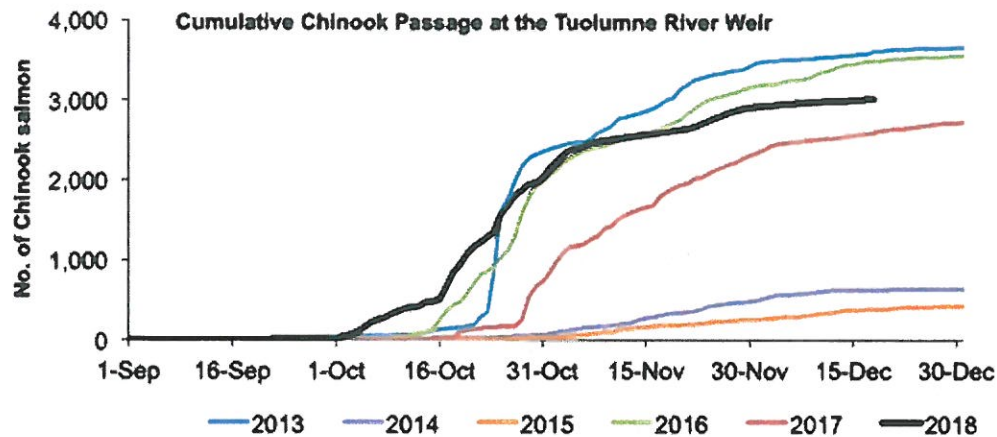
The Riverwatcher recorded 11 Chinook salmon passages at the Tuolumne River weir between 12:00 AM on December 17 and 11:59 PM on December 18, 2018.

Regards, **FISHBIO**

Updated Through: 12-18-2018

Year	Monitoring Start Date	Net Passage to Date	Season Total
2018	9/12/18	3,014	3,014
2017	9/26/17	2,592	2,769
2016	9/19/16	3,490	3,559
2015	9/28/15	380	436
2014	9/29/14	628	672
2013	9/24/13	3,610	3,738
2012	9/24/12	2,157	2,305
2011	9/16/11	2,772	2,891
2010	9/9/10	792	792
2009	9/22/09	259	299





FISHBIO

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Data Disclaimer: The data provided by [FISHBIO](http://fishbio.com) are courtesy of Stockton East Water District (SEWD), Tri-dam Project (TDP), Oakdale Irrigation District (OID), South San Joaquin Irrigation District (SSJID), Turlock Irrigation District (TID), Modesto Irrigation District (MID) and U.S. Fish and Wildlife Service (USFWS). Data are intended to be current, but are preliminary and are not guaranteed to be accurate. Source data are compiled and provided by FISHBIO, from whom [further information](#) can be obtained. Use or reproduction of this data is prohibited without prior permission. If you wish to be removed from the email, reply "[unsubscribe](#)."

Table 3
Proposed Tuolumne River Flow Schedule
Based on DWR Values, 60-20-20 Index for 2018, Hydrologic Conditions
Schedule For 2018-2019 Fish Flow Year

DATE		Number of DAYS	BASE FLOW ¹			PULSE FLOW ¹			INTERPOLATION FLOW			Other Adjusted Flow			TOTAL FERC FLOW		Agreed Upon
From:	To:		CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	ACCUM. A.F.	
15-Apr-2018	15-Apr-2018	1	175	347	347	0	0	0	0	0	0	0	0	0	175	347	1
16-Apr-2018	16-Apr-2018	1	175	347	694	0	0	0	0	0	0	0	0	0	175	694	1
17-Apr-2018	17-Apr-2018	1	175	347	1,041	0	0	0	0	0	0	0	0	0	175	1,041	1
18-Apr-2018	18-Apr-2018	1	175	347	1,388	716	1,419	1,419	0	0	0	0	0	0	891	2,808	1
19-Apr-2018	19-Apr-2018	1	175	347	1,736	1,113	2,208	3,627	0	0	0	0	0	0	1,288	5,363	1
20-Apr-2018	20-Apr-2018	1	175	347	2,083	596	1,183	4,810	0	0	0	0	0	0	771	6,893	1
21-Apr-2018	21-Apr-2018	1	175	347	2,430	199	394	5,205	0	0	0	0	0	0	374	7,634	1
22-Apr-2018	22-Apr-2018	1	175	347	2,777	0	0	5,205	0	0	0	0	0	0	175	7,982	1
23-Apr-2018	23-Apr-2018	1	175	347	3,124	636	1,262	6,466	0	0	0	0	0	0	811	9,590	1
24-Apr-2018	24-Apr-2018	1	175	347	3,471	1,551	3,075	9,542	0	0	0	0	0	0	1,726	13,013	1
25-Apr-2018	25-Apr-2018	1	175	347	3,818	1,193	2,366	11,908	0	0	0	0	0	0	1,368	15,726	1
26-Apr-2018	26-Apr-2018	1	175	347	4,165	954	1,893	13,800	0	0	0	0	0	0	1,129	17,966	1
27-Apr-2018	27-Apr-2018	1	175	347	4,512	795	1,577	15,377	0	0	0	0	0	0	970	19,890	1
28-Apr-2018	28-Apr-2018	1	175	347	4,860	557	1,104	16,481	0	0	0	0	0	0	732	21,341	1
29-Apr-2018	29-Apr-2018	1	175	347	5,207	954	1,893	18,374	0	0	0	0	0	0	1,129	23,581	1
30-Apr-2018	30-Apr-2018	1	175	347	5,554	1,590	3,154	21,528	0	0	0	0	0	0	1,765	27,082	1
01-May-2018	01-May-2018	1	175	347	5,901	2,465	4,889	26,418	0	0	0	0	0	0	2,640	32,318	1
02-May-2018	02-May-2018	1	175	347	6,248	2,067	4,101	30,518	0	0	0	0	0	0	2,242	36,766	1
03-May-2018	03-May-2018	1	175	347	6,595	1,710	3,391	33,909	0	0	0	0	0	0	1,885	40,504	1
04-May-2018	04-May-2018	1	175	347	6,942	1,431	2,839	36,748	0	0	0	0	0	0	1,606	43,690	1
05-May-2018	05-May-2018	1	175	347	7,289	1,232	2,445	39,193	0	0	0	0	0	0	1,407	46,482	1
06-May-2018	06-May-2018	1	175	347	7,636	954	1,893	41,085	0	0	0	0	0	0	1,129	48,722	1
07-May-2018	07-May-2018	1	175	347	7,983	1,749	3,470	44,555	0	0	0	0	0	0	1,924	52,538	1
08-May-2018	08-May-2018	1	175	347	8,331	1,352	2,681	47,236	0	0	0	0	0	0	1,527	55,567	1
09-May-2018	09-May-2018	1	175	347	8,678	1,153	2,287	49,523	0	0	0	0	0	0	1,328	58,201	1
10-May-2018	10-May-2018	1	175	347	9,025	954	1,893	51,416	0	0	0	0	0	0	1,129	60,440	1
11-May-2018	11-May-2018	1	175	347	9,372	795	1,577	52,993	0	0	0	0	0	0	970	62,365	1
12-May-2018	12-May-2018	1	175	347	9,719	676	1,341	54,333	0	0	0	0	0	0	851	64,852	1
13-May-2018	13-May-2018	1	175	347	10,066	557	1,104	55,437	0	0	0	0	0	0	732	65,504	1
14-May-2018	14-May-2018	1	175	347	10,413	477	946	56,384	0	0	0	0	0	0	652	66,797	1
15-May-2018	15-May-2018	1	175	347	10,760	406	804	57,188	0	0	0	0	0	0	581	67,948	1
16-May-2018	16-May-2018	1	175	347	11,107	318	631	57,819	0	0	0	0	0	0	493	68,926	1
17-May-2018	17-May-2018	1	175	347	11,455	278	552	58,371	0	0	0	0	0	0	453	69,826	1
18-May-2018	18-May-2018	1	175	347	11,802	239	473	58,844	0	0	0	0	0	0	414	70,646	1
19-May-2018	19-May-2018	1	175	347	12,149	199	394	59,238	0	0	0	0	0	0	374	71,387	1
20-May-2018	20-May-2018	1	175	347	12,496	159	315	59,554	0	0	0	0	0	0	334	72,050	1
21-May-2018	21-May-2018	1	175	347	12,843	119	237	59,790	0	0	0	0	0	0	294	72,633	1
22-May-2018	22-May-2018	1	175	347	13,190	80	158	59,948	0	0	0	0	0	0	255	73,138	1
23-May-2018	23-May-2018	1	175	347	13,537	40	79	60,027	0	0	0	0	0	0	215	73,564	1
24-May-2018	24-May-2018	1	175	347	13,884	0	0	60,027	0	0	0	0	0	0	175	73,911	1
25-May-2018	25-May-2018	1	175	347	14,231	0	0	60,027	0	0	0	0	0	0	175	74,258	1
26-May-2018	26-May-2018	1	175	347	14,579	0	0	60,027	0	0	0	0	0	0	175	74,606	1
27-May-2018	27-May-2018	1	175	347	14,926	0	0	60,027	0	0	0	0	0	0	175	74,953	1
28-May-2018	28-May-2018	1	175	347	15,273	0	0	60,027	0	0	0	0	0	0	175	75,300	1
29-May-2018	29-May-2018	1	175	347	15,620	0	0	60,027	0	0	0	0	0	0	175	75,647	1
30-May-2018	30-May-2018	1	175	347	15,967	0	0	60,027	0	0	0	0	0	0	175	75,994	1
31-May-2018	31-May-2018	1	175	347	16,314	0	0	60,027	0	0	0	0	0	0	175	76,341	1
01-Jun-2018	01-Jun-2018	1	75	149	16,463	0	0	60,027	0	0	0	0	0	0	75	76,490	1
02-Jun-2018	02-Jun-2018	1	75	149	16,612	0	0	60,027	0	0	0	0	0	0	75	76,639	1
03-Jun-2018	03-Jun-2018	1	75	149	16,760	0	0	60,027	0	0	0	0	0	0	75	76,787	1
04-Jun-2018	04-Jun-2018	1	75	149	16,909	0	0	60,027	0	0	0	0	0	0	75	76,936	1
05-Jun-2018	05-Jun-2018	1	75	149	17,058	0	0	60,027	0	0	0	0	0	0	75	77,085	1
06-Jun-2018	06-Jun-2018	1	75	149	17,207	0	0	60,027	0	0	0	0	0	0	75	77,234	1
07-Jun-2018	07-Jun-2018	1	75	149	17,355	0	0	60,027	0	0	0	0	0	0	75	77,382	1
08-Jun-2018	30-Jun-2018	23	75	3,421	20,777	0	0	60,027	0	0	0	0	0	0	75	80,804	1
01-Jul-2018	31-Jul-2018	31	75	4,612	25,388	0	0	60,027	0	0	0	0	0	0	75	85,415	1
01-Aug-2018	31-Aug-2018	31	75	4,612	30,000	0	0	60,027	0	0	0	0	0	0	75	90,027	1
01-Sep-2018	30-Sep-2018	30	75	4,463	34,463	0	0	60,027	0	0	0	0	0	0	75	94,490	1
01-Oct-2018	01-Oct-2018	1	200	397	34,860	0	0	60,027	0	0	0	0	0	0	200	94,887	1
02-Oct-2018	02-Oct-2018	1	200	397	35,256	0	0	60,027	0	0	0	0	0	0	200	95,283	1
03-Oct-2018	03-Oct-2018	1	200	397	35,653	0	0	60,027	0	0	0	0	0	0	200	95,680	1
04-Oct-2018	04-Oct-2018	1	200	397	36,050	0	0	60,027	0	0	0	0	0	0	200	96,077	1
05-Oct-2018	05-Oct-2018	1	200	397	36,446	0	0	60,027	0	0	0	0	0	0	200	96,473	1
06-Oct-2018	06-Oct-2018	1	200	397	36,843	0	0	60,027	0	0	0	0	0	0	200	96,870	1
07-Oct-2018	07-Oct-2018	1	200	397	37,240	0	0	60,027	0	0	0	0	0	0	200	97,267	1
08-Oct-2018	08-Oct-2018	1	200	397	37,636	0	0	60,027	0	0	0	0	0	0	200	97,663	1
09-Oct-2018	09-Oct-2018	1	200	397	38,033	0	0	60,027	0	0	0	0	0	0	200	98,060	1
10-Oct-2018	10-Oct-2018	1	200	397	38,430	0	0										

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DATE		Number of DAYS	BASE FLOW ¹			PULSE FLOW ¹			INTERPOLATION FLOW			Other Adjusted Flow			TOTAL FERC FLOW		Agreed Upon
From:	To:		CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	ACCUM. A.F.	
19-Nov-2018	19-Nov-2018	1	175	347	52,562	0	0	61,763	25	50	33,917	0	0	0	200	148,242	
20-Nov-2018	20-Nov-2018	1	175	347	52,909	0	0	61,763	25	50	33,967	0	0	0	200	148,639	
21-Nov-2018	21-Nov-2018	1	175	347	53,256	0	0	61,763	25	50	34,017	0	0	0	200	149,035	
22-Nov-2018	22-Nov-2018	1	175	347	53,603	0	0	61,763	25	50	34,066	0	0	0	200	149,432	
23-Nov-2018	23-Nov-2018	1	175	347	53,950	0	0	61,763	25	50	34,116	0	0	0	200	149,829	
24-Nov-2018	24-Nov-2018	1	175	347	54,298	0	0	61,763	25	50	34,165	0	0	0	200	150,225	
25-Nov-2018	25-Nov-2018	1	175	347	54,645	0	0	61,763	25	50	34,215	0	0	0	200	150,622	
26-Nov-2018	26-Nov-2018	1	175	347	54,992	0	0	61,763	25	50	34,264	0	0	0	200	151,019	
27-Nov-2018	27-Nov-2018	1	175	347	55,339	0	0	61,763	25	50	34,314	0	0	0	200	151,415	
28-Nov-2018	28-Nov-2018	1	175	347	55,686	0	0	61,763	25	50	34,364	0	0	0	200	151,812	
29-Nov-2018	29-Nov-2018	1	175	347	56,033	0	0	61,763	25	50	34,413	0	0	0	200	152,209	
30-Nov-2018	30-Nov-2018	1	175	347	56,380	0	0	61,763	25	50	34,463	0	0	0	200	152,606	
01-Dec-2018	01-Dec-2018	1	175	347	56,727	0	0	61,763	25	50	34,512	0	0	0	200	153,002	
02-Dec-2018	02-Dec-2018	1	175	347	57,074	0	0	61,763	25	50	34,562	0	0	0	200	153,399	
03-Dec-2018	03-Dec-2018	1	175	347	57,421	0	0	61,763	25	50	34,612	0	0	0	200	153,796	
04-Dec-2018	04-Dec-2018	1	175	347	57,769	0	0	61,763	25	50	34,661	0	0	0	200	154,192	
05-Dec-2018	05-Dec-2018	1	175	347	58,116	0	0	61,763	25	50	34,711	0	0	0	200	154,589	
06-Dec-2018	06-Dec-2018	1	175	347	58,463	0	0	61,763	25	50	34,760	0	0	0	200	154,986	
07-Dec-2018	07-Dec-2018	1	175	347	58,810	0	0	61,763	25	50	34,810	0	0	0	200	155,382	
08-Dec-2018	08-Dec-2018	1	175	347	59,157	0	0	61,763	25	50	34,860	0	0	0	200	155,779	
09-Dec-2018	09-Dec-2018	1	175	347	59,504	0	0	61,763	25	50	34,909	0	0	0	200	156,176	
10-Dec-2018	10-Dec-2018	1	175	347	59,851	0	0	61,763	25	50	34,959	0	0	0	200	156,572	
11-Dec-2018	11-Dec-2018	1	175	347	60,198	0	0	61,763	25	50	35,008	0	0	0	200	156,969	
12-Dec-2018	12-Dec-2018	1	175	347	60,545	0	0	61,763	25	50	35,058	0	0	0	200	157,366	
13-Dec-2018	13-Dec-2018	1	175	347	60,893	0	0	61,763	25	50	35,107	0	0	0	200	157,763	
14-Dec-2018	14-Dec-2018	1	175	347	61,240	0	0	61,763	25	50	35,157	0	0	0	200	158,159	
15-Dec-2018	15-Dec-2018	1	175	347	61,587	0	0	61,763	25	50	35,207	0	0	0	200	158,556	
16-Dec-2018	16-Dec-2018	1	175	347	61,934	0	0	61,763	25	50	35,256	0	0	0	200	158,953	
17-Dec-2018	17-Dec-2018	1	175	347	62,281	0	0	61,763	25	50	35,306	0	0	0	200	159,349	
18-Dec-2018	18-Dec-2018	1	175	347	62,628	0	0	61,763	25	50	35,355	0	0	0	200	159,746	
19-Dec-2018	19-Dec-2018	1	175	347	62,975	0	0	61,763	25	50	35,405	0	0	0	200	160,143	
20-Dec-2018	20-Dec-2018	1	175	347	63,322	0	0	61,763	25	50	35,455	0	0	0	200	160,539	
21-Dec-2018	21-Dec-2018	1	175	347	63,669	0	0	61,763	25	50	35,504	0	0	0	200	160,936	
22-Dec-2018	22-Dec-2018	1	175	347	64,017	0	0	61,763	25	50	35,554	0	0	0	200	161,333	
23-Dec-2018	23-Dec-2018	1	175	347	64,364	0	0	61,763	25	50	35,603	0	0	0	200	161,729	
24-Dec-2018	24-Dec-2018	1	175	347	64,711	0	0	61,763	25	50	35,653	0	0	0	200	162,126	
25-Dec-2018	25-Dec-2018	1	175	347	65,058	0	0	61,763	25	50	35,702	0	0	0	200	162,523	
26-Dec-2018	26-Dec-2018	1	175	347	65,405	0	0	61,763	25	50	35,752	0	0	0	200	162,920	
27-Dec-2018	27-Dec-2018	1	175	347	65,752	0	0	61,763	25	50	35,802	0	0	0	200	163,316	
28-Dec-2018	28-Dec-2018	1	175	347	66,099	0	0	61,763	25	50	35,851	0	0	0	200	163,713	
29-Dec-2018	29-Dec-2018	1	175	347	66,446	0	0	61,763	25	50	35,901	0	0	0	200	164,110	
30-Dec-2018	30-Dec-2018	1	175	347	66,793	0	0	61,763	25	50	35,950	0	0	0	200	164,506	
31-Dec-2018	31-Dec-2018	1	175	347	67,140	0	0	61,763	25	50	36,000	0	0	0	200	164,903	
01-Jan-2019	01-Jan-2019	1	175	347	67,488	0	0	61,763	0	0	36,000	0	0	0	175	165,250	
02-Jan-2019	02-Jan-2019	1	175	347	67,835	0	0	61,763	0	0	36,000	0	0	0	175	165,597	
03-Jan-2019	03-Jan-2019	1	175	347	68,182	0	0	61,763	0	0	36,000	0	0	0	175	165,944	
04-Jan-2019	04-Jan-2019	1	175	347	68,529	0	0	61,763	0	0	36,000	0	0	0	175	166,291	
05-Jan-2019	05-Jan-2019	1	175	347	68,876	0	0	61,763	0	0	36,000	0	0	0	175	166,639	
06-Jan-2019	06-Jan-2019	1	175	347	69,223	0	0	61,763	0	0	36,000	0	0	0	175	166,986	
07-Jan-2019	07-Jan-2019	1	175	347	69,570	0	0	61,763	0	0	36,000	0	0	0	175	167,333	
08-Jan-2019	08-Jan-2019	1	175	347	69,917	0	0	61,763	0	0	36,000	0	0	0	175	167,680	
09-Jan-2019	09-Jan-2019	1	175	347	70,264	0	0	61,763	0	0	36,000	0	0	0	175	168,027	
10-Jan-2019	10-Jan-2019	1	175	347	70,612	0	0	61,763	0	0	36,000	0	0	0	175	168,374	
11-Jan-2019	11-Jan-2019	1	175	347	70,959	0	0	61,763	0	0	36,000	0	0	0	175	168,721	
12-Jan-2019	12-Jan-2019	1	175	347	71,306	0	0	61,763	0	0	36,000	0	0	0	175	169,068	
13-Jan-2019	13-Jan-2019	1	175	347	71,653	0	0	61,763	0	0	36,000	0	0	0	175	169,415	
14-Jan-2019	14-Jan-2019	1	175	347	72,000	0	0	61,763	0	0	36,000	0	0	0	175	169,763	
15-Jan-2019	15-Jan-2019	1	175	347	72,347	0	0	61,763	0	0	36,000	0	0	0	175	170,110	
16-Jan-2019	16-Jan-2019	1	175	347	72,694	0	0	61,763	0	0	36,000	0	0	0	175	170,457	
17-Jan-2019	17-Jan-2019	1	175	347	73,041	0	0	61,763	0	0	36,000	0	0	0	175	170,804	
18-Jan-2019	18-Jan-2019	1	175	347	73,388	0	0	61,763	0	0	36,000	0	0	0	175	171,151	
19-Jan-2019	19-Jan-2019	1	175	347	73,736	0	0	61,763	0	0	36,000	0	0	0	175	171,498	
20-Jan-2019	20-Jan-2019	1	175	347	74,083	0	0	61,763	0	0	36,000	0	0	0	175	171,845	
21-Jan-2019	21-Jan-2019	1	175	347	74,430	0	0	61,763	0	0	36,000	0	0	0	175	172,192	
22-Jan-2019	22-Jan-2019	1	175	347	74,777	0	0	61,763	0	0	36,000	0	0	0	175	172,539	
23-Jan-2019	23-Jan-2019	1	175	347	75,124	0	0	61,763	0	0	36,000	0	0	0	175	172,886	

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Schedule For 2018-2019 Fish Flow Year

DATE		Number of DAYS	BASE FLOW ¹			PULSE FLOW ¹			INTERPOLATION FLOW			Other Adjusted Flow			TOTAL FERC FLOW ²		Agreed Upon
From:	To:		CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	ACCUM. A.F.	
06-Mar-2019	06-Mar-2019	1	175	347	89,702	0	0	61,763	574	1,139	58,477	0	0	0	749	209,942	
07-Mar-2019	07-Mar-2019	1	175	347	90,050	0	0	61,763	537	1,064	59,542	0	0	0	712	211,354	
08-Mar-2019	08-Mar-2019	1	175	347	90,397	0	0	61,763	537	1,064	60,606	0	0	0	712	212,765	
09-Mar-2019	09-Mar-2019	1	175	347	90,744	0	0	61,763	537	1,064	61,670	0	0	0	712	214,177	
10-Mar-2019	10-Mar-2019	1	175	347	91,091	0	0	61,763	537	1,064	62,734	0	0	0	712	215,588	
11-Mar-2019	11-Mar-2019	1	175	347	91,438	0	0	61,763	537	1,064	63,799	0	0	0	712	216,999	
12-Mar-2019	12-Mar-2019	1	175	347	91,785	0	0	61,763	537	1,064	64,863	0	0	0	712	218,411	
13-Mar-2019	13-Mar-2019	1	175	347	92,132	0	0	61,763	537	1,064	65,927	0	0	0	712	219,822	
14-Mar-2019	14-Mar-2019	1	175	347	92,479	0	0	61,763	537	1,064	66,992	0	0	0	712	221,233	
15-Mar-2019	15-Mar-2019	1	175	347	92,826	0	0	61,763	537	1,064	68,056	0	0	0	712	222,645	
16-Mar-2019	16-Mar-2019	1	175	347	93,174	0	0	61,763	537	1,064	69,120	0	0	0	712	224,056	
17-Mar-2019	17-Mar-2019	1	175	347	93,521	0	0	61,763	537	1,064	70,184	0	0	0	712	225,468	
18-Mar-2019	18-Mar-2019	1	175	347	93,868	0	0	61,763	2897	5,747	75,931	0	0	0	3,072	231,562	
19-Mar-2019	19-Mar-2019	1	175	347	94,215	0	0	61,763	2415	4,789	80,721	0	0	0	2,590	236,698	
20-Mar-2019	20-Mar-2019	1	175	347	94,562	0	0	61,763	2012	3,991	84,712	0	0	0	2,187	241,836	
21-Mar-2019	21-Mar-2019	1	175	347	94,909	0	0	61,763	1663	3,299	88,011	0	0	0	1,838	244,682	
22-Mar-2019	22-Mar-2019	1	175	347	95,256	0	0	61,763	1368	2,714	90,725	0	0	0	1,543	247,743	
23-Mar-2019	23-Mar-2019	1	175	347	95,603	0	0	61,763	537	1,064	91,789	0	0	0	712	249,155	
24-Mar-2019	24-Mar-2019	1	175	347	95,950	0	0	61,763	537	1,064	92,853	0	0	0	712	250,566	
25-Mar-2019	25-Mar-2019	1	175	347	96,298	0	0	61,763	537	1,064	93,918	0	0	0	712	251,978	
26-Mar-2019	26-Mar-2019	1	175	347	96,645	0	0	61,763	537	1,064	94,982	0	0	0	712	253,389	
27-Mar-2019	27-Mar-2019	1	175	347	96,992	0	0	61,763	537	1,064	96,046	0	0	0	712	254,800	
28-Mar-2019	28-Mar-2019	1	175	347	97,339	0	0	61,763	537	1,064	97,110	0	0	0	712	256,212	
29-Mar-2019	29-Mar-2019	1	175	347	97,686	0	0	61,763	537	1,064	98,175	0	0	0	712	257,623	
30-Mar-2019	30-Mar-2019	1	175	347	98,033	0	0	61,763	537	1,064	99,239	0	0	0	712	259,034	
31-Mar-2019	31-Mar-2019	1	175	347	98,380	0	0	61,763	537	1,064	100,303	0	0	0	712	260,446	
01-Apr-2019	01-Apr-2019	1	175	347	98,727	0	0	61,763	1824	3,619	103,922	0	0	0	1,999	264,411	
02-Apr-2019	02-Apr-2019	1	175	347	99,074	0	0	61,763	1502	2,980	106,902	0	0	0	1,677	267,739	
03-Apr-2019	03-Apr-2019	1	175	347	99,421	0	0	61,763	537	1,064	107,966	0	0	0	712	269,150	
04-Apr-2019	04-Apr-2019	1	175	347	99,769	0	0	61,763	537	1,064	109,030	0	0	0	712	270,561	
05-Apr-2019	05-Apr-2019	1	175	347	100,116	0	0	61,763	537	1,064	110,094	0	0	0	712	271,973	
06-Apr-2019	06-Apr-2019	1	175	347	100,463	0	0	61,763	537	1,064	111,159	0	0	0	712	273,384	
07-Apr-2019	07-Apr-2019	1	175	347	100,810	0	0	61,763	537	1,064	112,223	0	0	0	712	274,795	
08-Apr-2019	08-Apr-2019	1	175	347	101,157	0	0	61,763	537	1,064	113,287	0	0	0	712	276,207	
09-Apr-2019	09-Apr-2019	1	175	347	101,504	0	0	61,763	537	1,064	114,351	0	0	0	712	277,618	
10-Apr-2019	10-Apr-2019	1	175	347	101,851	0	0	61,763	537	1,064	115,416	0	0	0	712	279,030	
11-Apr-2019	11-Apr-2019	1	175	347	102,198	0	0	61,763	537	1,064	116,480	0	0	0	712	280,441	
12-Apr-2019	12-Apr-2019	1	175	347	102,545	0	0	61,763	537	1,064	117,544	0	0	0	712	281,852	
13-Apr-2019	13-Apr-2019	1	175	347	102,893	0	0	61,763	537	1,064	118,609	0	0	0	712	283,264	
14-Apr-2019	14-Apr-2019	1	175	347	103,240	0	0	61,763	537	1,064	119,673	0	0	0	712	284,675	
No. of days		365															

1 cfs day = 1.983471 acre-feet (af)

1. Total accumulation amount pertains to 2018-2019 Fish Year only.

2. The pulse flows are a target that represents a daily average target. The actual operational data will be adjusted to attain the annual requirement.

DON PEDRO / TUOLUMNE RIVER WATERSHED

	12/18/2018 Tuesday	12/17/2018 Monday	12/16/2018 Sunday	12/15/2018 Saturday	12/14/2018 Friday	12/13/2018 Thursday	12/12/2018 Wednesday
* Computed Natural Flow (cfs)	1,104	849	393	446	272	949	303
Don Pedro							
Elevation (Feet) ^(1)Max = 830.0, Min = 800.0)	776.4	776.3	776.2	776.2	776.2	776.2	776.1
Storage (AF) ^(1)Max = 2,030,000 Min=309,000)	1,421,239	1,420,253	1,419,267	1,419,267	1,419,267	1,419,267	1,418,283
Gain/(-Loss) (AF)	986	986	0	0	0	984	0
** Avg. Inflow (cfs)	732	733	234	233	233	775	177
Avg. Flows at La Grange							
TID Canal (cfs) ^(1)Max = 2500)	0	0	0	0	0	0	1
MID Canal (cfs) ^(1)Max = 1800)	0	0	0	0	0	68	0
River (cfs)^(1)Max = 8000)	235	236	233	233	233	210	176
Total (cfs)	235	236	234	233	233	279	177
Hetch Hetchy Reservoir							
Elevation (Feet) ^(1)Max = 3600 Min = 3520)	3,746.2	3,746.4	3,746.7	3,747.0	3,747.2	3,747.6	3,747.8
Storage (AF) ^(1)Max = 360,360 Min=410)	249,506	249,852	250,371	250,890	251,236	251,928	252,274
Gain/(-Loss) (AF)	-346	-519	-519	-346	-692	-346	-519
Avg. Release (cfs)	399	401	403	406	403	402	398
** Avg. Inflow (cfs)	225	139	141	232	54	228	136
Cherry Valley Reservoir							
Elevation (Feet) ^(1)Max = 4700 Min = 4440)	4,665.7	4,665.4	4,665.2	4,665.0	4,665.0	4,665.0	4,665.1
Storage (AF) ^(1)Max = 270,270 Min=0)	210,373	209,885	209,559	209,234	209,234	209,234	209,396
Gain/(-Loss) (AF)	488	326	325	0	0	-162	0
Avg. Release (cfs)	214	94	90	80	75	75	187
** Avg. Inflow (cfs)	460	258	254	80	75	-7	187
Lake Eleanor Reservoir							
Elevation (Feet) ^(1)Max = 4880.9 Min = 4820.9)	4,648.7	4,648.8	4,649.1	4,649.3	4,649.2	4,649.1	4,648.9
Storage (AF) ^(1)Max = 27,018 Min=0)	15,865	15,951	16,210	16,382	16,296	16,210	16,038
Gain/(-Loss) (AF)	-86	-259	-172	86	86	172	87
Avg. Release (cfs)	7	6	6	6	6	6	6
** Avg. Inflow (cfs)	-36	-125	-81	49	49	93	50
Avg. Div. to S.F. Pipeline (mgd)^(1)Max = 300)	223	223	223	223	223	223	223
Rain Fall (Inches)							
Hetch Hetchy	0.10	0.42	0.00	0.00	0.00	0.00	0.00
Cherry Valley	0.34	0.57	0.00	0.00	0.00	0.00	0.00
Moccasin	0.06	0.77	0.00	0.00	0.00	0.00	0.00
Sonora	0.20	0.68	0.00	0.00	0.00	0.00	0.00
Yosemite	0.20	0.34	0.00	0.00	0.00	0.00	0.00
Don Pedro	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Computed Natural Flow is a calculated value representing what the flow in the river at La Grange would be without human diversion, storage, or release. Due to the nature of the calculation, this value may be negative.

** Inflow is a calculated value representing the flow of water into a reservoir. Inflow to a reservoir is not necessarily equal to the Computed Natural Flow. Due to the nature of the calculation, this value may be negative.

Note: cfs is a rate of flow in cubic feet per second; a flow of 1 cfs over a 24-hour period (cfs/day) = 1.98 acre-feet (AF); mgd is a rate of flow in million gallons per day (megagallons per day); a flow rate of 1 mgd = 1.55 cfs; a flow of 1 mgd over a 24-hour period = 3.1 AF.

Accumulated Precipitation

2018 through 2019

Calculated Through: 19-Dec-18

INCHES OF PRECIPITATION

MONTH	HETCH-HETCHY			SONORA			YOSEMITE			WEIGHT ACCUM.*		
	MEAN	2018-19		MEAN	2018-19		MEAN	2018-19		MEAN	2018-19	
September	0.65	0.20		0.39	0.00		0.63	0.18		0.57	0.12	
October	2.04	0.56		1.65	0.48		1.92	1.03		2.60	0.77	
November	4.13	6.96		3.70	6.85		4.21	6.55		6.73	7.95	
December	5.54	1.26		5.13	1.87		6.18	1.25		12.70	9.53	
January	6.00	0.00		6.01	0.00		6.60	0.00		19.21	9.53	
February	5.62	0.00		5.45	0.00		6.20	0.00		25.31	9.53	
March	5.17	0.00		5.05	0.00		5.24	0.00		30.66	9.53	
April	3.32	0.00		2.83	0.00		3.05	0.00		33.95	9.53	
May	1.83	0.00		1.12	0.00		1.47	0.00		35.54	9.53	
June	0.75	0.00		0.29	0.00		0.55	0.00		36.10	9.53	
July	0.19	0.00		0.04	0.00		0.28	0.00		36.26	9.53	
August	0.19	0.00		0.08	0.00		0.16	0.00		36.41	9.53	
TOTALS	35.42	8.98		31.74	9.20		36.49	9.01				

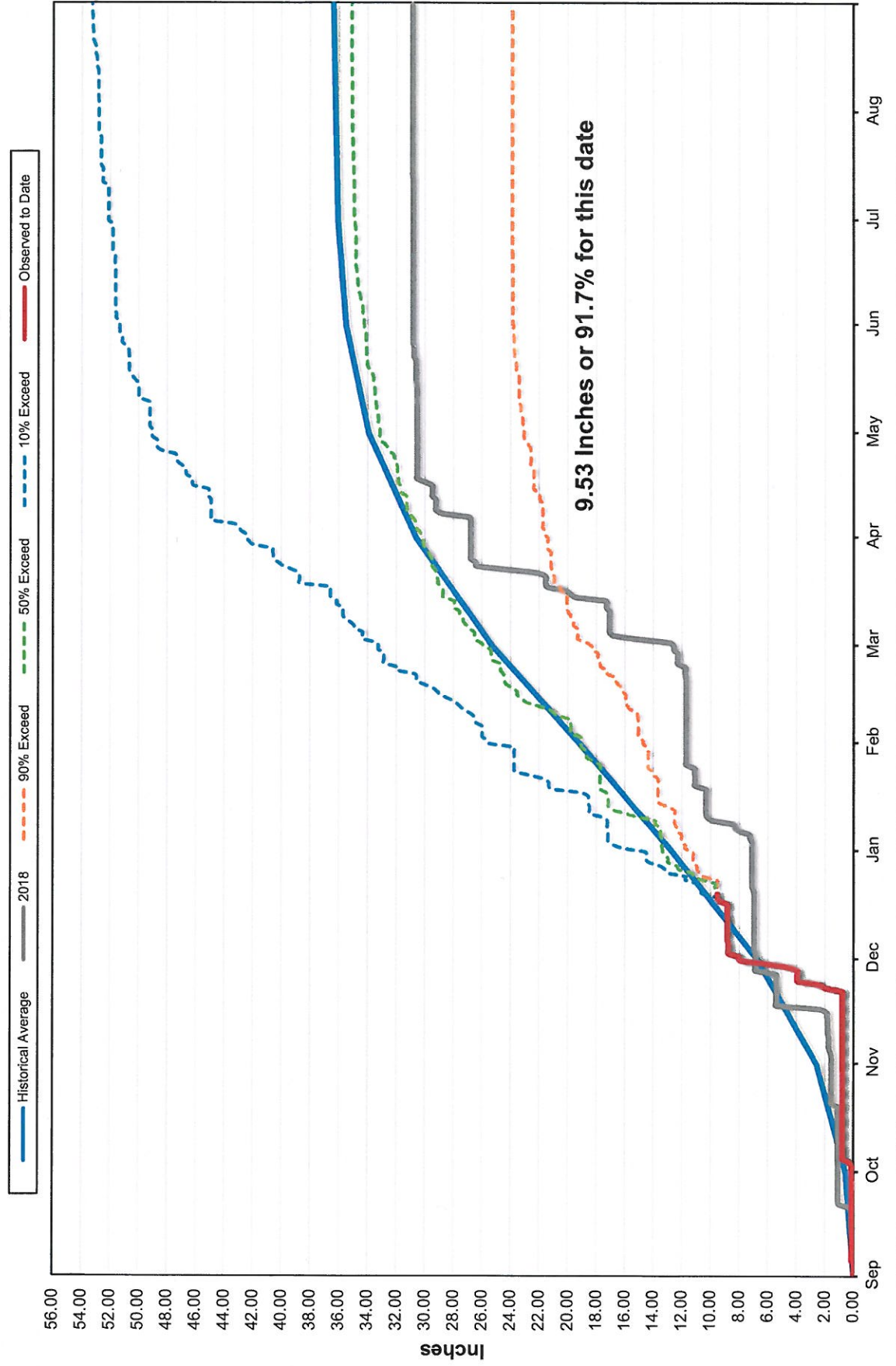
* Weight Accumulated Mean is from September 1 to end of month. Weight Mean is calculated by averaging Hetch-Hetchy and Sonora with a weight of 2 with Yosemite and multiplying the total by 1.05.

Actual precipitation as a % of for this date: $9.53/10.39 = 91.72\%$
 Actual precipitation as a % of total for water year: $9.53/36.41 = 26.17\%$
 If normal for remainder of season: $36.41-10.39+9.53 = 35.55$ inches
 or 97.64%

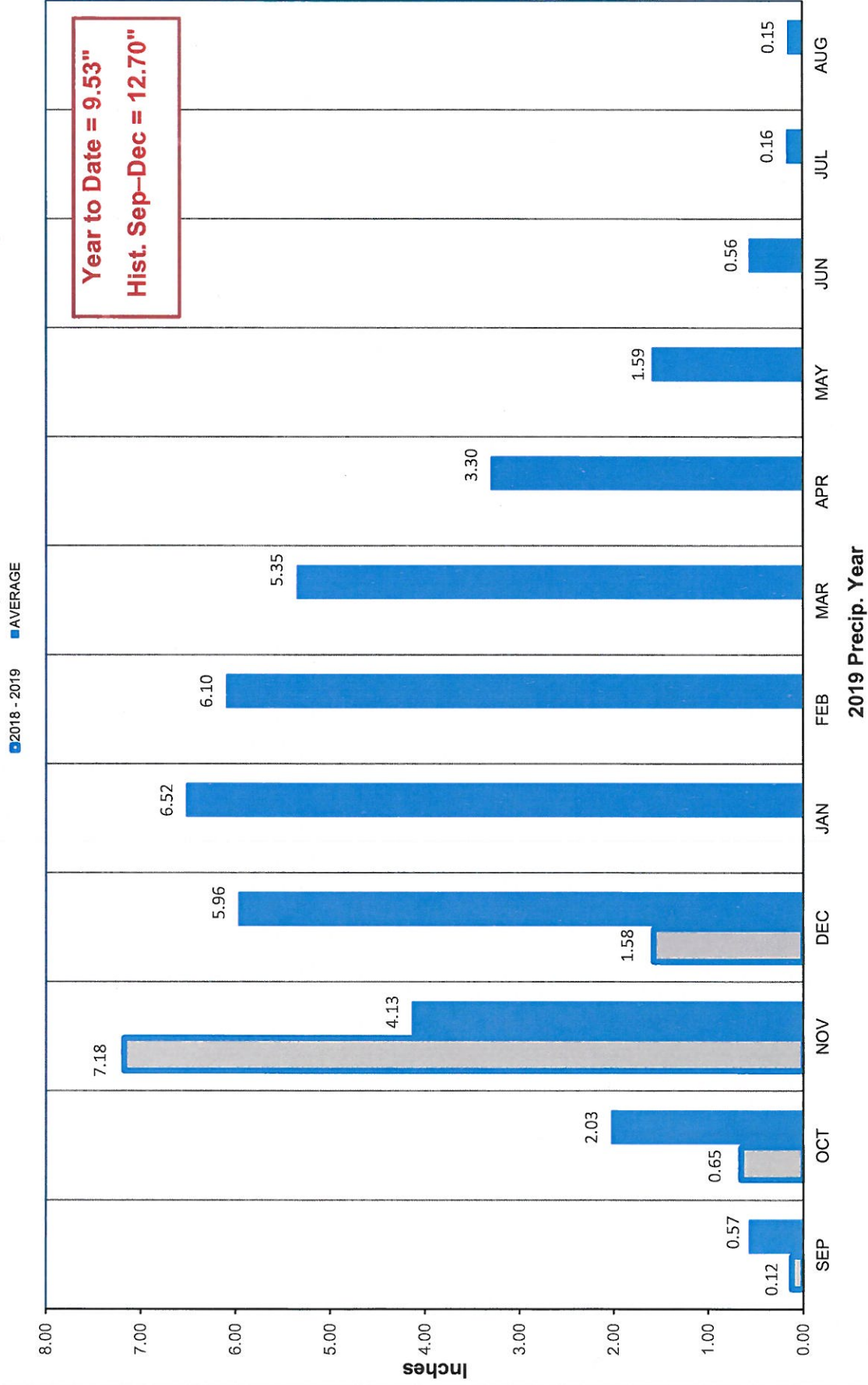
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Report

Tuolumne River Watershed Accumulated Precipitation



Tuolumne River Watershed Monthly Accumulation of Precipitation



TURLOCK IRRIGATION DISTRICT

(jac)

Watershed Daily Precipitation

