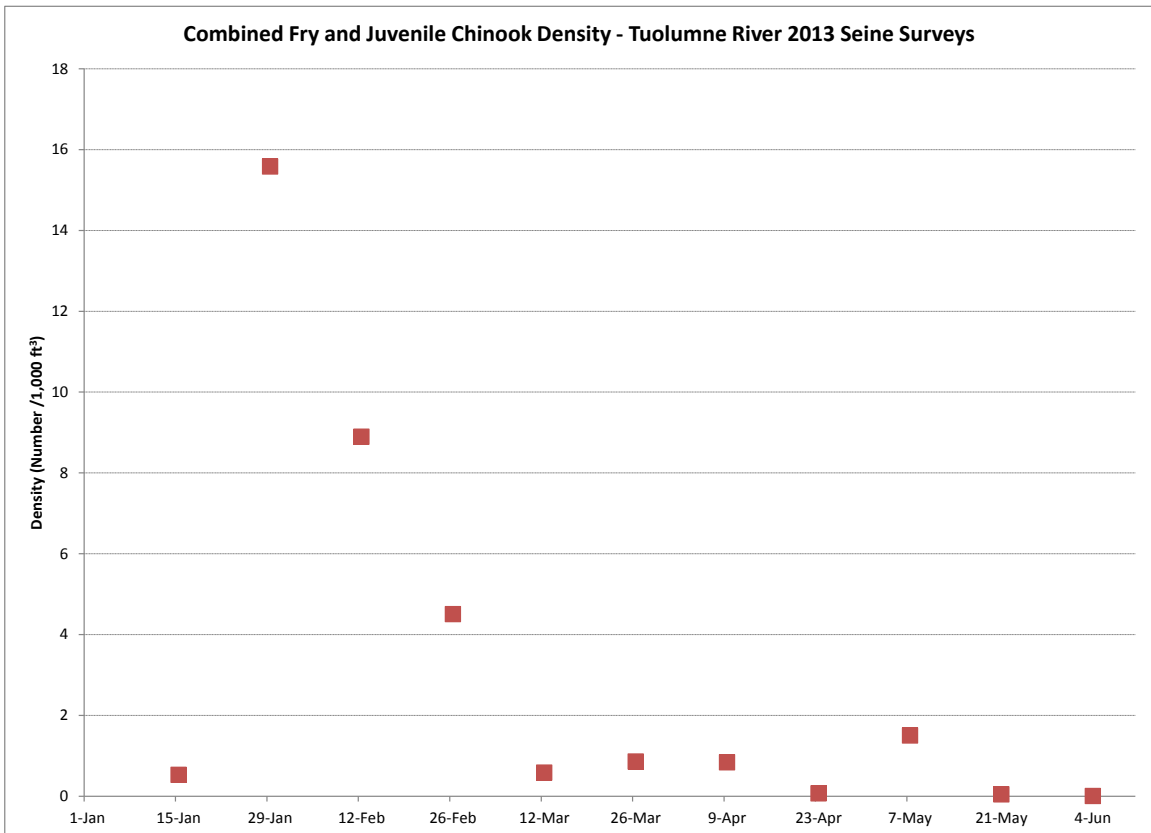
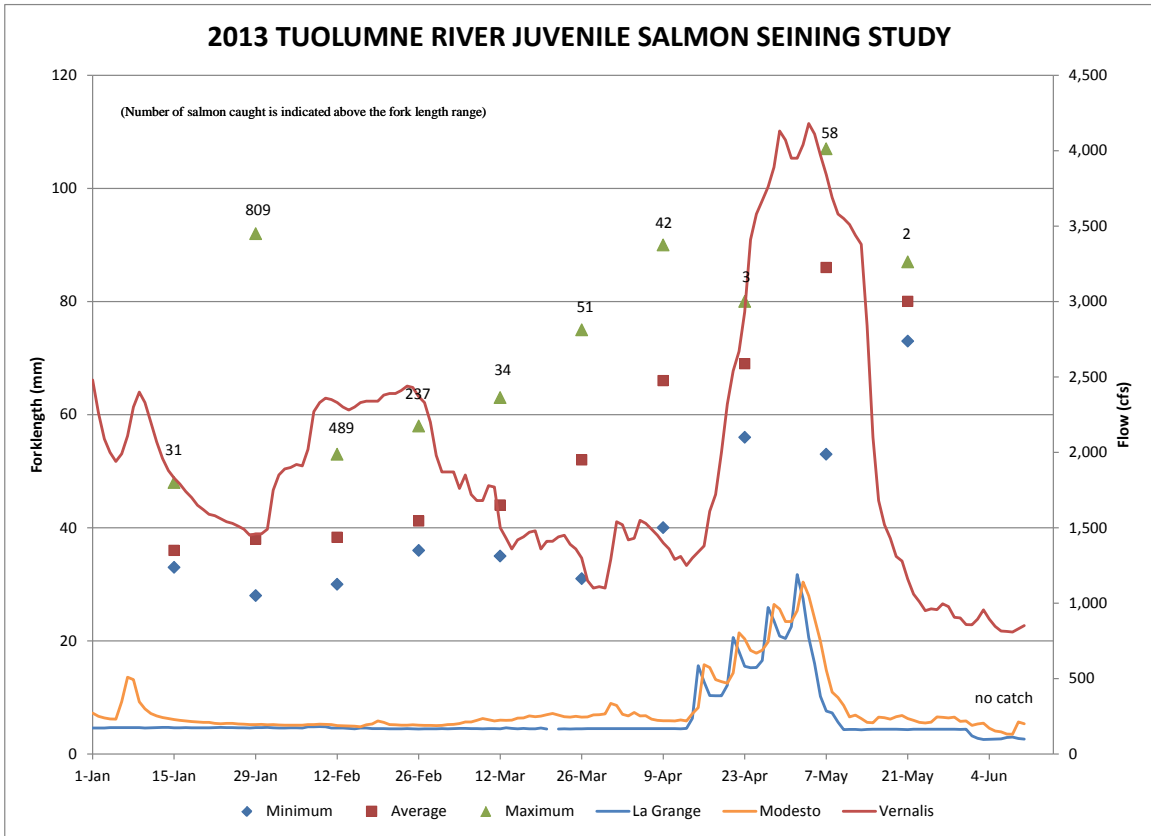
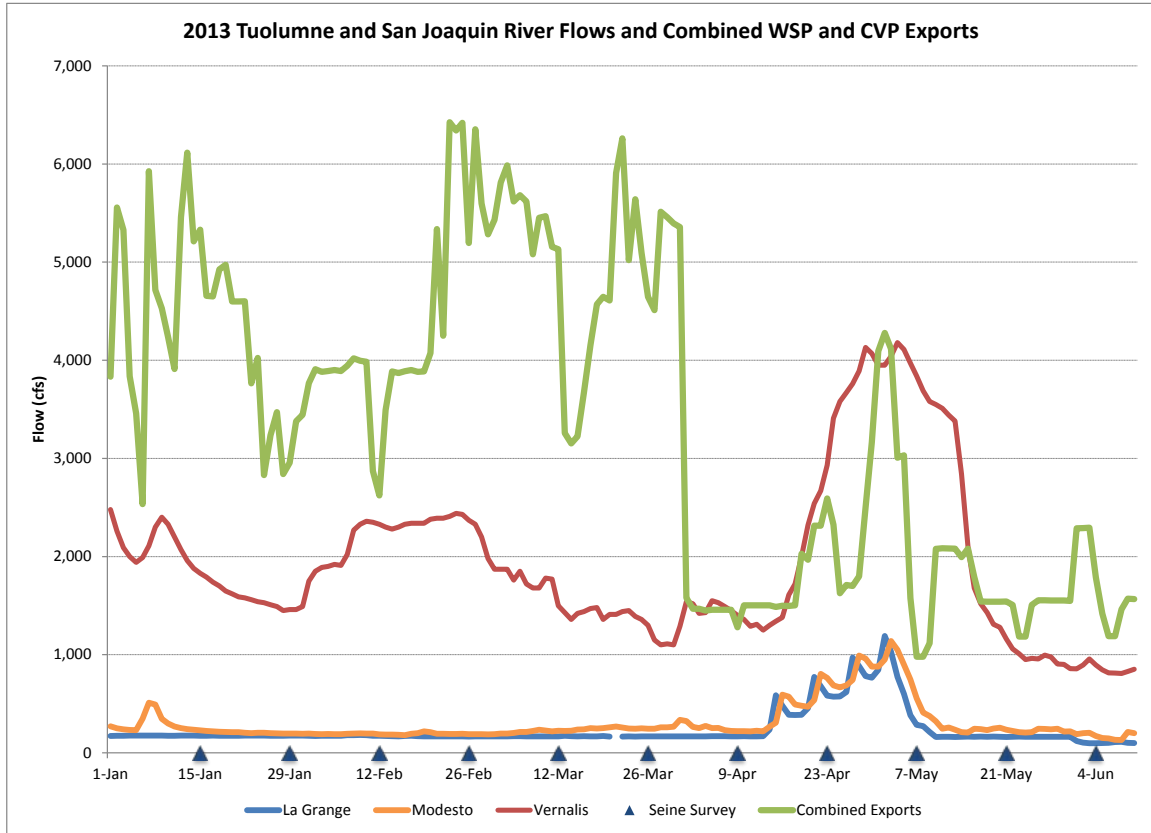


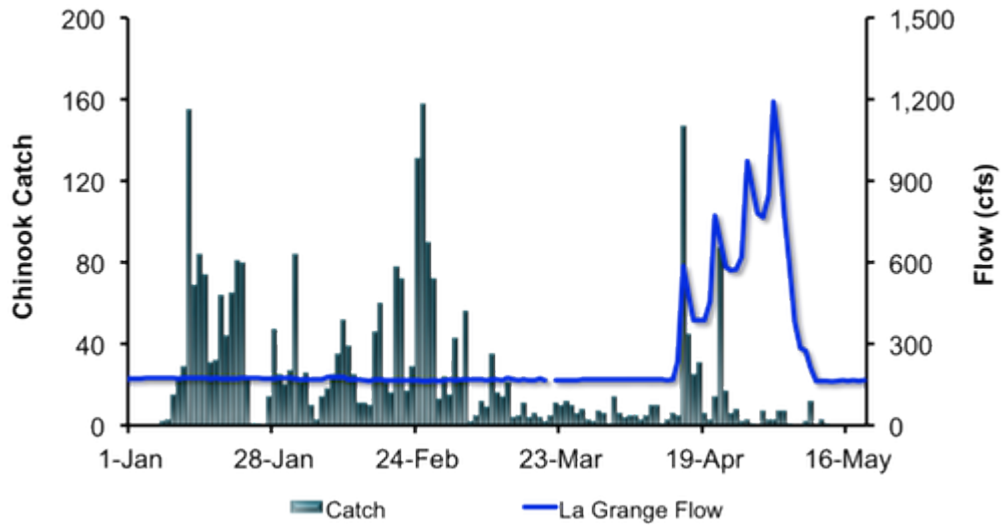
Lower Tuolumne River seine data for 2013



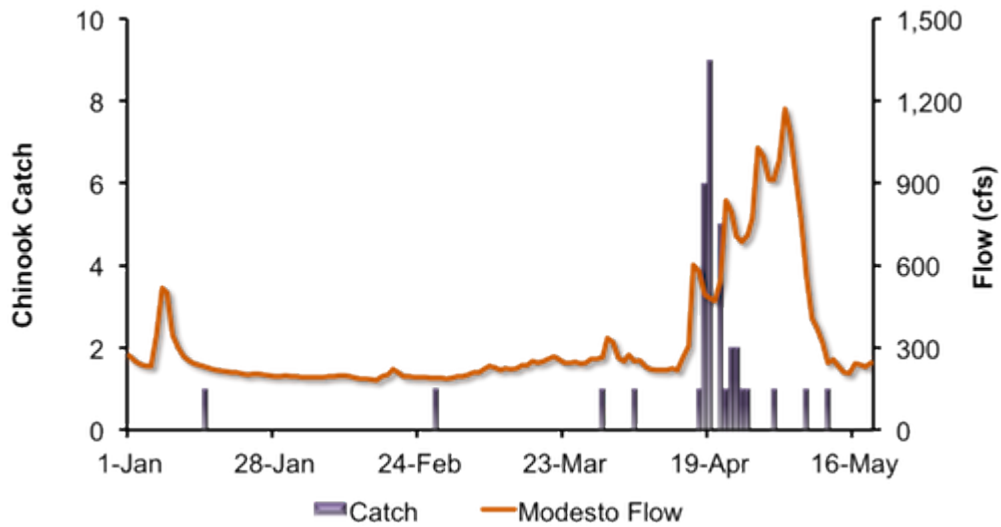
River flows and delta exports during 2013 seine surveys



Lower Tuolumne River RST data for 2013



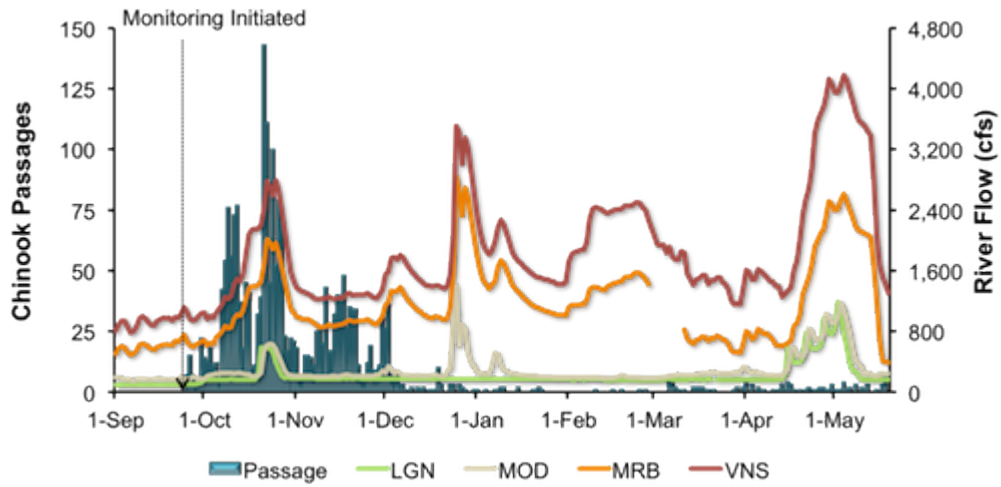
Daily Chinook salmon catch at Waterford and Tuolumne River flow recorded at La Grange (LGN) between January 1 and May 19, 2013. Season total = 3,106 captures.



Daily Chinook salmon catch at Grayson and Tuolumne River flow recorded at Modesto (MOD) between January 1 and May 19, 2013. Season total = 35 captures.

Source: San Joaquin Basin Newsletter, Volume 2012/13, Issue 15 (FISHBIO)

Lower Tuolumne River counting weir data for 2012-2013



Daily upstream Chinook passage at the Tuolumne River Weir in relation to daily average flows (cfs) recorded in the Tuolumne River at La Grange (LGN) and Modesto (MOD), and in the San Joaquin River at Vernalis (VNS) in 2012/13. Season total of Chinook detections = 2,300. Season total of *O. mykiss* detections = 3.

Source: San Joaquin Basin Newsletter, Volume 2012/13, Issue 15 (FISHBIO)

April 12, 2013

Tim Heyne
California Dept. of Fish and Game
P.O. Box 10
La Grange, CA 95329

Deborah Giglio
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

Maria Rea
National Marine Fisheries Service
650 Capitol Mall, Suite 8-300
Sacramento, CA 95814-4708

RE: Project 2299 – Update of Water Year Classification Index and Flow Schedule

Dear Fishery Agency Representatives:

The 1996 FERC Order, Amended Article 37, contained a Water Year Classification Index for determining the volume of scheduled stream flows for each fish flow year. The classifications were based on the San Joaquin Basin 60-20-20 Indices for water years 1906-1995. The order stated, "60-20-20 index numbers used each year shall be updated to incorporate subsequent water years pursuant to standard Water Resources Department procedures so as to maintain approximately the same frequency distribution of water year types." The index is now updated to incorporate water years through 2012 (Table 1). While the frequency distribution remains the same, some index numbers may change slightly with each annual update to maintain the frequency distribution.

As you know, the final 60-20-20 San Joaquin Basin Index is not available until August of each year. Therefore, all flows prior to August are based upon index estimates using both the dry and average scenarios when the 60-20-20 San Joaquin Basin Index is below its average. TID has conferred with the California Department of Fish and Wildlife (CDFW), the U.S. Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS) as to the current dry conditions and the desire of the fishery agencies until April 8 to begin spring pulse flows on April 10.

With the fishery agencies' reconsideration and reallocation of their desired start date to April 15, TID was able to use the published Bulletin 120 data from the California Department of Water Resources' (DWR) April 1 forecast for the purpose of deriving an updated 60-20-20 San Joaquin

Fishery Agencies Representatives
April 12, 2013
Page 2

Basin Index (Table 2). Based on those values and the resulting calculations, the forecast Tuolumne River volumes for the dry and average scenarios are 105,498 acre-feet (dry) and 115,448 acre-feet (average), which are within the Median Critical Water Year range. Therefore, the spring pulse flow volumes (and shapes) for the dry and average schedules are identical. Attached is the flow schedule based on the dry scenario (Table 3). According to the National Weather Service, there is no rain in the forecast for the next 16 days.

With concurrence of all parties, the interpolation water can be allocated differently during the remainder of the 2013-2014 fish year once the exact figure is known. Please contact Wes Monier at (209)-883-8321 if you wish to discuss such a possibility or have any other questions.

Sincerely,

A handwritten signature in black ink that reads "Steve Boyd". The signature is written in a cursive style with a large, sweeping "S" and "B".

Steve Boyd
Director of Water Resources and Regulatory Affairs

C: Casey Hashimoto - TID
Roger Van Hoy- MID
Michael Carline - CCSF
FERC Secretary

TABLE 1
DETERMINATION OF WATER YEAR CLASSIFICATION THRESHOLDS
 Water Year Classification

Water Year Classification	Cumulative Occurrence	Settlement Agreement	602020 INDEX (x 1000)			
			2010	2011	2012	
Critical Water Year and Below	0.0% -	1500	1,515	1,515	1,515	
Median Critical Water Year	6.4% <	1500	1,515	1,515	1,515	
Intermediate Critical Dry Water Year	14.4% <	2000	2,005	2,005	2,005	
Median Dry	20.5% <	2200	2,187	2,187	2,184	
Intermediate Dry-Below Normal	31.3% <	2400	2,441	2,442	2,441	
Median Below Normal	40.4% <	2700	2,725	2,725	2,725	
Intermediate Below Normal-Above Normal	50.7% <	3100	3,183	3,183	3,183	
Median Above Normal	66.2% <	3100	3,689	3,740	3,689	
Intermediate Above Normal-Wet	71.3% <	3100	3,903	4,028	4,028	
Median Wet/Maximum	86.7% <	3100	4,754	4,754	4,754	

Table 2 San Joaquin Index With Associated FERC Flows

SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION 602020 INDEX

YEAR	APRIL-JULY RUNOFF (AF)				OCTOBER-MARCH RUNOFF (AF)				TOTAL	602020 INDEX	TUOLUMNE RIVER		San Joaquin Index (not the FERC Index)
	STANISLAUS	TUOLUMNE	MERCED	FRONT	TUOLUMNE	MERCED	FRONT	MINIMUM FLOW REQUIREMENT			127,506 Dry	115,449 Critical	
12	394,507	609,424	300,876	558,917	215,106	254,324	114,994	244,726	829,150	2,184,064			
13	420,000	740,000	310,000	610,000	323,159	476,812	207,327	318,805	1,326,103	1,950,033			
Feb 1 Forecast													
Dry	400,000	730,000	370,000	770,000	285,000	415,000	165,000	240,000	1,115,000	2,021,813	118,010	Critical	
Average	630,000	1,120,000	550,000	1,130,000	430,000	625,000	285,000	400,000	1,740,000	2,842,813	200,004	Below Normal	
Wet	1,050,000	1,970,000	1,060,000	1,950,000	615,000	765,000	405,000	600,000	2,385,000	4,519,813	300,923	Wet	
Feb 12 Update													
Dry	360,000	670,000	340,000	700,000	295,000	415,000	165,000	240,000	1,115,000	1,901,813	114,071	Critical	
Average	570,000	1,010,000	500,000	1,030,000	430,000	625,000	285,000	400,000	1,740,000	2,650,813	159,148	Below Normal	
Wet	1,000,000	1,730,000	950,000	1,760,000	615,000	765,000	405,000	600,000	2,385,000	4,177,813	300,923	Wet	
Feb 19 Update													
Dry	340,000	630,000	310,000	640,000	295,000	415,000	165,000	240,000	1,115,000	1,811,813	111,498	Critical	
Average	530,000	940,000	460,000	950,000	430,000	625,000	285,000	400,000	1,740,000	2,512,813	148,216	Below Normal	
Wet	950,000	1,620,000	870,000	1,620,000	615,000	765,000	405,000	600,000	2,385,000	3,949,813	300,923	Wet	
Mar 1 Forecast													
Dry	320,000	580,000	220,000	540,000	290,000	445,000	185,000	270,000	1,190,000	1,670,813	107,467	Critical	
Average	490,000	840,000	360,000	820,000	330,000	485,000	215,000	330,000	1,370,000	2,216,813	129,420	Dry	
Wet	880,000	1,460,000	710,000	1,410,000	420,000	615,000	285,000	440,000	1,760,000	3,464,813	300,923	Above Normal	
Mar 12 Update													
Dry	360,000	620,000	230,000	560,000	290,000	445,000	185,000	270,000	1,190,000	1,736,813	109,354	Critical	
Average	510,000	850,000	360,000	810,000	330,000	485,000	215,000	330,000	1,370,000	2,228,813	130,121	Dry	
Wet	850,000	1,390,000	670,000	1,310,000	420,000	615,000	285,000	440,000	1,760,000	3,320,813	300,923	Above Normal	
Mar 19 Update													
Dry	340,000	580,000	200,000	480,000	280,000	445,000	185,000	270,000	1,190,000	1,640,813	106,609	Critical	
Average	460,000	790,000	320,000	720,000	330,000	485,000	215,000	330,000	1,370,000	2,096,813	122,400	Critical	
Wet	790,000	1,280,000	610,000	1,160,000	420,000	615,000	285,000	440,000	1,760,000	3,092,813	274,104	Below Normal	
Mar 26 Update													
Dry	340,000	570,000	200,000	440,000	280,000	445,000	185,000	270,000	1,190,000	1,604,813	105,560	Critical	
Average	470,000	760,000	310,000	650,000	330,000	485,000	215,000	330,000	1,370,000	2,024,813	118,186	Critical	
Wet	750,000	1,190,000	570,000	1,040,000	420,000	615,000	285,000	440,000	1,760,000	2,918,813	222,530	Below Normal	
Apr 1 Forecast													
Dry	300,000	570,000	210,000	420,000	323,100	476,700	207,200	318,800	1,325,800	1,601,973	105,498	Critical	
Average	420,000	740,000	310,000	610,000	323,100	476,700	207,200	318,800	1,325,800	1,949,973	115,448	Critical	
Wet	670,000	1,130,000	550,000	950,000	323,100	476,700	207,200	318,800	1,325,800	2,681,973	161,616	Below Normal	

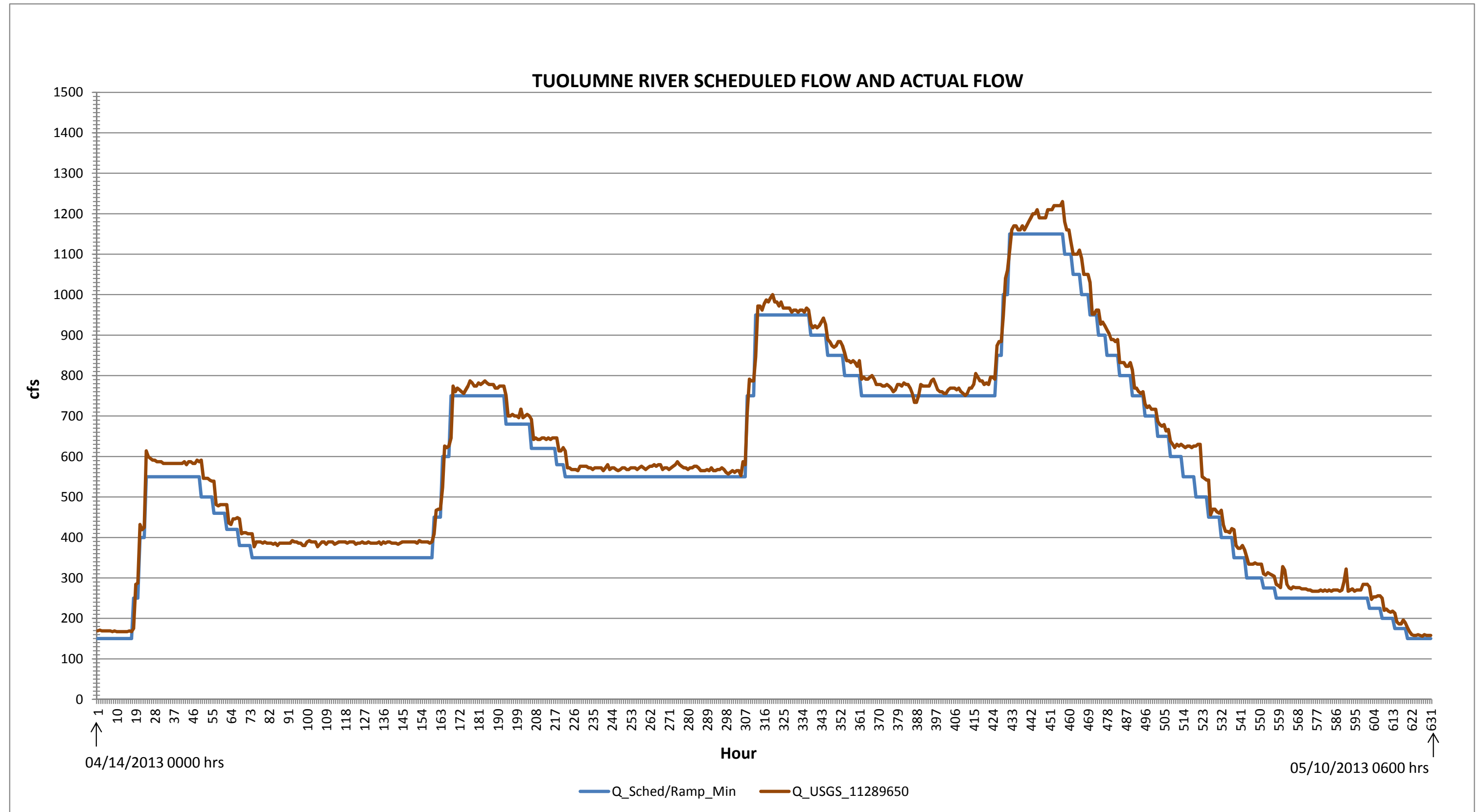
Table 3
 Tuolumne River Flow Schedule
 Based on DWR April 1, 60-20-20 Index for 2013, Hydrologic Conditions
 Schedule For 2013-2014 Fish Flow Year

DATE		Number of DAYS	BASE FLOW			PULSE FLOW ¹			INTERPOLATION FLOW			Other Adjusted Flow			TOTAL FERC FLOW	
From:	To:		CFS	AF	A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	ACCUM. A.F.
15-Apr-2013	15-Apr-2013	1	150	298	298	400	793	793	0	0	0	0	0	0	550	1,091
16-Apr-2013	16-Apr-2013	1	150	298	595	200	397	1,190	0	0	0	0	0	0	350	1,785
17-Apr-2013	17-Apr-2013	1	150	298	893	200	397	1,587	0	0	0	0	0	0	350	2,479
18-Apr-2013	18-Apr-2013	1	150	298	1,190	200	397	1,983	0	0	0	0	0	0	350	3,174
19-Apr-2013	19-Apr-2013	1	150	298	1,488	200	397	2,380	0	0	0	0	0	0	350	3,868
20-Apr-2013	20-Apr-2013	1	150	298	1,785	200	397	2,777	0	0	0	0	0	0	350	4,562
21-Apr-2013	21-Apr-2013	1	150	298	2,083	600	1,190	3,967	0	0	0	0	0	0	750	6,050
22-Apr-2013	22-Apr-2013	1	150	298	2,380	400	793	4,760	0	0	0	0	0	0	550	7,140
23-Apr-2013	23-Apr-2013	1	150	298	2,678	400	793	5,554	0	0	0	0	0	0	550	8,231
24-Apr-2013	24-Apr-2013	1	150	298	2,975	400	793	6,347	0	0	0	0	0	0	550	9,322
25-Apr-2013	25-Apr-2013	1	150	298	3,273	400	793	7,140	0	0	0	0	0	0	550	10,413
26-Apr-2013	26-Apr-2013	1	150	298	3,570	400	793	7,934	0	0	0	0	0	0	550	11,504
27-Apr-2013	27-Apr-2013	1	150	298	3,868	800	1,587	9,521	0	0	0	0	0	0	950	13,388
28-Apr-2013	28-Apr-2013	1	150	298	4,165	600	1,190	10,711	0	0	0	0	0	0	750	14,876
29-Apr-2013	29-Apr-2013	1	150	298	4,463	600	1,190	11,901	0	0	0	0	0	0	750	16,364
30-Apr-2013	30-Apr-2013	1	150	298	4,760	600	1,190	13,091	0	0	0	0	0	0	750	17,851
01-May-2013	01-May-2013	1	150	298	5,058	600	1,190	14,281	0	0	0	0	0	0	750	19,339
02-May-2013	02-May-2013	1	150	298	5,355	#####	1,983	16,264	0	0	0	0	0	0	1,150	21,620
03-May-2013	03-May-2013	1	150	298	5,653	800	1,587	17,851	0	0	0	0	0	0	950	23,504
04-May-2013	04-May-2013	1	150	298	5,950	550	1,091	18,942	0	0	0	0	0	0	700	24,893
05-May-2013	05-May-2013	1	150	298	6,248	279	553	19,496	0	0	0	0	0	0	429	25,743
06-May-2013	06-May-2013	1	150	298	6,545	200	397	19,892	0	0	0	0	0	0	350	26,438
07-May-2013	07-May-2013	1	150	298	6,843	100	198	20,091	0	0	0	0	0	0	250	26,934
08-May-2013	08-May-2013	1	150	298	7,140	0	0	20,091	0	0	0	0	0	0	150	27,231
09-May-2013	09-May-2013	1	150	298	7,438	0	0	20,091	0	0	0	0	0	0	150	27,529
10-May-2013	10-May-2013	1	150	298	7,736	0	0	20,091	0	0	0	0	0	0	150	27,826
11-May-2013	11-May-2013	1	150	298	8,033	0	0	20,091	0	0	0	0	0	0	150	28,124
12-May-2013	12-May-2013	1	150	298	8,331	0	0	20,091	0	0	0	0	0	0	150	28,421
13-May-2013	13-May-2013	1	150	298	8,628	0	0	20,091	0	0	0	0	0	0	150	28,719
14-May-2013	14-May-2013	1	150	298	8,926	0	0	20,091	0	0	0	0	0	0	150	29,016
15-May-2013	15-May-2013	1	150	298	9,223	0	0	20,091	0	0	0	0	0	0	150	29,314
16-May-2013	16-May-2013	1	150	298	9,521	0	0	20,091	0	0	0	0	0	0	150	29,611
17-May-2013	17-May-2013	1	150	298	9,818	0	0	20,091	0	0	0	0	0	0	150	29,909
18-May-2013	18-May-2013	1	150	298	10,116	0	0	20,091	0	0	0	0	0	0	150	30,206
19-May-2013	19-May-2013	1	150	298	10,413	0	0	20,091	0	0	0	0	0	0	150	30,504
20-May-2013	20-May-2013	1	150	298	10,711	0	0	20,091	0	0	0	0	0	0	150	30,801
21-May-2013	21-May-2013	1	150	298	11,008	0	0	20,091	0	0	0	0	0	0	150	31,099
22-May-2013	22-May-2013	1	150	298	11,306	0	0	20,091	0	0	0	0	0	0	150	31,396
23-May-2013	23-May-2013	1	150	298	11,603	0	0	20,091	0	0	0	0	0	0	150	31,694
24-May-2013	24-May-2013	1	150	298	11,901	0	0	20,091	0	0	0	0	0	0	150	31,991
25-May-2013	25-May-2013	1	150	298	12,198	0	0	20,091	0	0	0	0	0	0	150	32,289
26-May-2013	26-May-2013	1	150	298	12,496	0	0	20,091	0	0	0	0	0	0	150	32,586
27-May-2013	27-May-2013	1	150	298	12,793	0	0	20,091	0	0	0	0	0	0	150	32,884
28-May-2013	28-May-2013	1	150	298	13,091	0	0	20,091	0	0	0	0	0	0	150	33,181
29-May-2013	29-May-2013	1	150	298	13,388	0	0	20,091	0	0	0	0	0	0	150	33,479
30-May-2013	30-May-2013	1	150	298	13,686	0	0	20,091	0	0	0	0	0	0	150	33,777
31-May-2013	31-May-2013	1	150	298	13,983	0	0	20,091	0	0	0	0	0	0	150	34,074
01-Jun-2013	01-Jun-2013	1	50	99	14,083	0	0	20,091	0	0	0	0	0	0	50	34,173
02-Jun-2013	02-Jun-2013	1	50	99	14,182	0	0	20,091	0	0	0	0	0	0	50	34,272
03-Jun-2013	03-Jun-2013	1	50	99	14,281	0	0	20,091	0	0	0	0	0	0	50	34,371
04-Jun-2013	04-Jun-2013	1	50	99	14,380	0	0	20,091	0	0	0	0	0	0	50	34,471
05-Jun-2013	05-Jun-2013	1	50	99	14,479	0	0	20,091	0	0	0	0	0	0	50	34,570
06-Jun-2013	06-Jun-2013	1	50	99	14,579	0	0	20,091	0	0	0	0	0	0	50	34,669
07-Jun-2013	30-Jun-2013	24	50	2,380	16,959	0	0	20,091	0	0	0	0	0	0	50	37,049
01-Jul-2013	31-Jul-2013	31	50	3,074	20,033	0	0	20,091	0	0	0	0	0	0	50	40,124
01-Aug-2013	31-Aug-2013	31	50	3,074	23,107	0	0	20,091	0	0	0	0	0	0	50	43,198
01-Sep-2013	30-Sep-2013	30	50	2,975	26,083	0	0	20,091	0	0	0	0	0	0	50	46,173
01-Oct-2013	01-Oct-2013	1	126	250	26,332	0	0	20,091	0	0	0	0	0	0	126	46,423
02-Oct-2013	07-Oct-2013	6	126	1,497	27,829	0	0	20,091	210	2,494	2,494	0	0	0	335	50,414
08-Oct-2013	19-Oct-2013	12	126	2,994	30,824	0	0	20,091	0	0	2,494	0	0	0	126	53,408
20-Oct-2013	21-Oct-2013	2	126	499	31,323	0	0	20,091	0	0	2,494	0	0	0	126	53,907
22-Oct-2013	23-Oct-2013	2	126	499	31,822	0	0	20,091	0	0	2,494	0	0	0	126	54,406
24-Oct-2013	31-Oct-2013	8	126	1,996	33,818	0	0	20,091	0	0	2,494	0	0	0	126	56,403
01-Nov-2013	30-Nov-2013	30	150	8,926	42,744	0	0	20,091	0	0	2,494	0	0	0	150	65,328
01-Dec-2013	31-Dec-2013	31	150	9,223	51,967	0	0	20,091	0	0	2,494	0	0	0	150	74,552
01-Jan-2014	31-Jan-2014	31	150	9,223	61,190	0	0	20,091	0	0	2,494	0	0	0	150	83,775
01-Feb-2014	28-Feb-2014	28	150	8,331	69,521	0	0	20,091	0	0	2,494	0	0	0	150	92,105
01-Mar-2014	31-Mar-2014	31	150	9,223	78,744	0	0	20,091	0	0	2,494	0	0	0	150	101,328
01-Apr-2014	14-Apr-2014	14	150	4,165	82,909	0	0	20,091	0	0	2,494	0	0	0	150	105,494

No. of days 365 (April 10 through April 14)

1 cfs day = 1,983,471 acre-feet (af)

1. The pulse flows are a target that represents a daily average.



DWR Tuolumne River Forecast (2013 April-July)

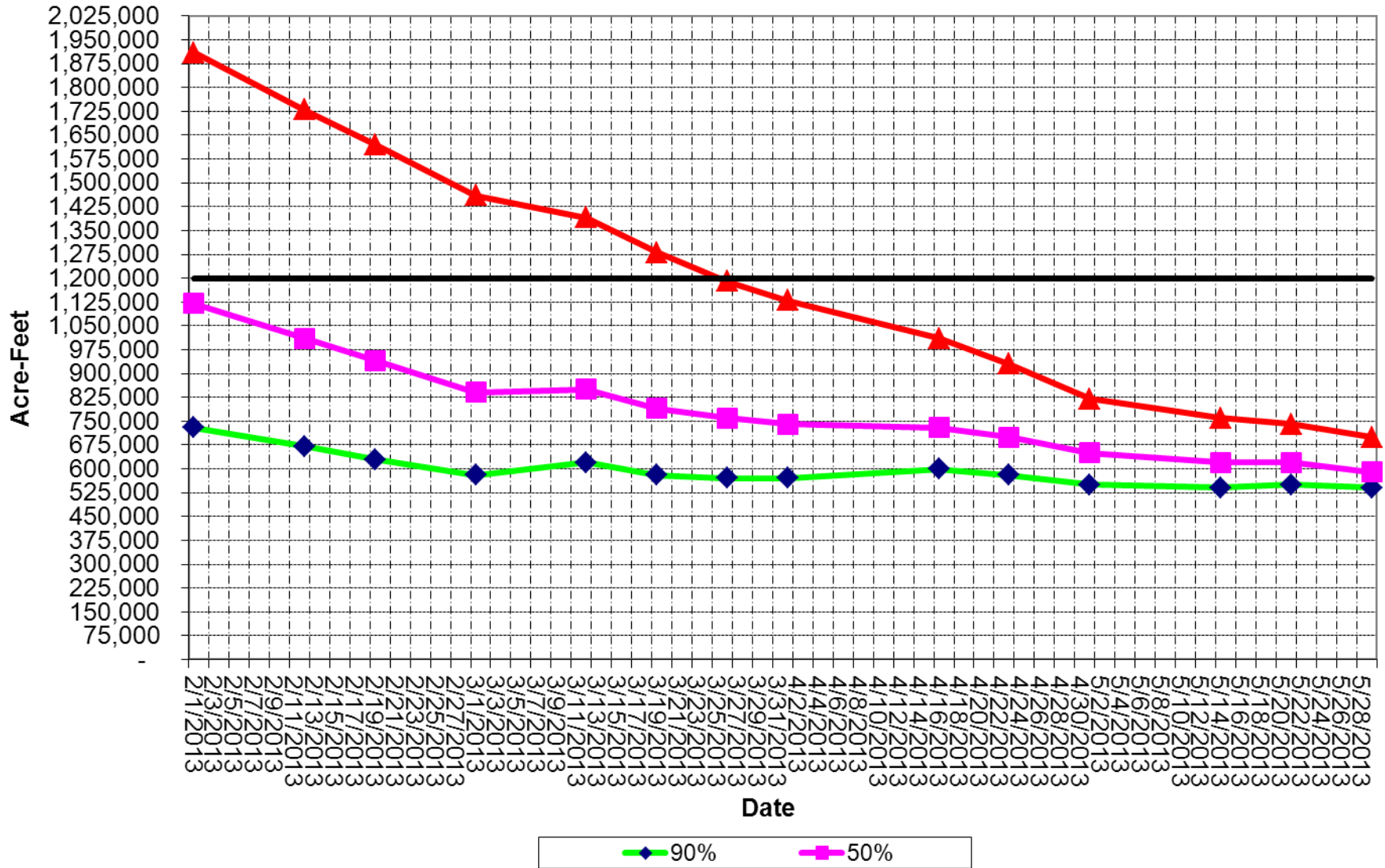


Table 1

SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION

602020 INDEX

YEAR	APRIL-JULY RUNOFF (AF)					OCTOBER-MARCH RUNOFF (AF)					602020 INDEX	TUOLUMNE RIVER		San Joaquin Index (not the FERC Index)
	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL		MINIMUM FLOW REQUIREMENT		
12	394,507	609,424	300,876	558,917	1,863,724	215,106	254,324	114,994	244,726	829,150	2,184,064	127,506	Dry	
13	300,000	590,000	260,000	510,000	1,660,000	323,159	476,812	207,327	318,805	1,326,103	1,698,033	108,245	Critical	
Feb 1 Forecast														
Dry	400,000	730,000	370,000	770,000	2,270,000	295,000	415,000	165,000	240,000	1,115,000	2,021,813	118,010	Critical	
Average	630,000	1,120,000	550,000	1,130,000	3,430,000	430,000	625,000	285,000	400,000	1,740,000	2,842,813	200,004	Below Normal	
Wet	1,090,000	1,910,000	1,060,000	1,950,000	6,010,000	615,000	765,000	405,000	600,000	2,385,000	4,519,813	300,923	Wet	
Feb 12 Update														
Dry	360,000	670,000	340,000	700,000	2,070,000	295,000	415,000	165,000	240,000	1,115,000	1,901,813	114,071	Critical	
Average	570,000	1,010,000	500,000	1,030,000	3,110,000	430,000	625,000	285,000	400,000	1,740,000	2,650,813	159,148	Below Normal	
Wet	1,000,000	1,730,000	950,000	1,760,000	5,440,000	615,000	765,000	405,000	600,000	2,385,000	4,177,813	300,923	Wet	
Feb 19 Update														
Dry	340,000	630,000	310,000	640,000	1,920,000	295,000	415,000	165,000	240,000	1,115,000	1,811,813	111,498	Critical	
Average	530,000	940,000	460,000	950,000	2,880,000	430,000	625,000	285,000	400,000	1,740,000	2,512,813	148,216	Below Normal	
Wet	950,000	1,620,000	870,000	1,620,000	5,060,000	615,000	765,000	405,000	600,000	2,385,000	3,949,813	300,923	Wet	
Mar 1 Forecast														
Dry	320,000	580,000	220,000	540,000	1,660,000	290,000	445,000	185,000	270,000	1,190,000	1,670,813	107,467	Critical	
Average	490,000	840,000	360,000	820,000	2,510,000	330,000	495,000	215,000	330,000	1,370,000	2,216,813	129,420	Dry	
Wet	880,000	1,460,000	710,000	1,410,000	4,460,000	420,000	615,000	285,000	440,000	1,760,000	3,464,813	300,923	Above Normal	
Mar 12 Update														
Dry	360,000	620,000	230,000	560,000	1,770,000	290,000	445,000	185,000	270,000	1,190,000	1,736,813	109,354	Critical	
Average	510,000	850,000	360,000	810,000	2,530,000	330,000	495,000	215,000	330,000	1,370,000	2,228,813	130,121	Dry	
Wet	850,000	1,390,000	670,000	1,310,000	4,220,000	420,000	615,000	285,000	440,000	1,760,000	3,320,813	300,923	Above Normal	
Mar 19 Update														
Dry	340,000	580,000	200,000	490,000	1,610,000	290,000	445,000	185,000	270,000	1,190,000	1,640,813	106,609	Critical	
Average	480,000	790,000	320,000	720,000	2,310,000	330,000	495,000	215,000	330,000	1,370,000	2,096,813	122,400	Critical	
Wet	790,000	1,280,000	610,000	1,160,000	3,840,000	420,000	615,000	285,000	440,000	1,760,000	3,092,813	274,104	Below Normal	
Mar 26 Update														
Dry	340,000	570,000	200,000	440,000	1,550,000	290,000	445,000	185,000	270,000	1,190,000	1,604,813	105,580	Critical	
Average	470,000	760,000	310,000	650,000	2,190,000	330,000	495,000	215,000	330,000	1,370,000	2,024,813	118,196	Critical	
Wet	750,000	1,190,000	570,000	1,040,000	3,550,000	420,000	615,000	285,000	440,000	1,760,000	2,918,813	222,530	Below Normal	
Apr 1 Forecast														
Dry	300,000	570,000	210,000	420,000	1,500,000	325,000	475,000	205,000	320,000	1,325,000	1,601,813	105,494	Critical	
Average	420,000	740,000	310,000	610,000	2,080,000	325,000	475,000	205,000	320,000	1,325,000	1,949,813	115,443	Critical	
Wet	670,000	1,130,000	550,000	950,000	3,300,000	325,000	475,000	205,000	320,000	1,325,000	2,681,813	161,603	Below Normal	
Apr 16 Update														
Dry	300,000	600,000	220,000	410,000	1,530,000	325,000	475,000	205,000	320,000	1,325,000	1,619,813	106,008	Critical	
Average	410,000	730,000	300,000	580,000	2,020,000	325,000	475,000	205,000	320,000	1,325,000	1,913,813	114,414	Critical	
Wet	590,000	1,010,000	480,000	840,000	2,920,000	325,000	475,000	205,000	320,000	1,325,000	2,453,813	143,542	Dry	
Apr 23 Update														
Dry	290,000	580,000	210,000	380,000	1,460,000	325,000	475,000	205,000	320,000	1,325,000	1,577,813	104,808	Critical	
Average	390,000	700,000	280,000	540,000	1,910,000	325,000	475,000	205,000	320,000	1,325,000	1,847,813	112,527	Critical	
Wet	530,000	930,000	420,000	760,000	2,640,000	325,000	475,000	205,000	320,000	1,325,000	2,285,813	133,452	Dry	
May 1 Forecast														
Dry	270,000	550,000	200,000	340,000	1,360,000	323,000	477,000	207,000	319,000	1,326,000	1,518,013	103,098	Critical	
Average	360,000	650,000	260,000	490,000	1,760,000	259,000	407,000	206,000	331,000	1,203,000	1,733,413	109,256	Critical	
Wet	460,000	820,000	370,000	660,000	2,310,000	305,013	559,603	228,774	378,500	1,471,890	2,117,191	123,592	Dry	
May 14 Update														
Dry	270,000	540,000	230,000	430,000	1,470,000	323,000	477,000	207,000	319,000	1,326,000	1,584,013	104,985	Critical	
Average	340,000	620,000	270,000	500,000	1,730,000	259,000	407,000	206,000	331,000	1,203,000	1,715,413	108,742	Critical	
Wet	420,000	760,000	350,000	620,000	2,150,000	305,013	559,603	228,774	378,500	1,471,890	2,021,191	117,974	Critical	
May 21 Update														
Dry	270,000	550,000	240,000	450,000	1,510,000	323,000	477,000	207,000	319,000	1,326,000	1,608,013	105,671	Critical	
Average	330,000	620,000	270,000	510,000	1,730,000	259,000	407,000	206,000	331,000	1,203,000	1,715,413	108,742	Critical	
Wet	400,000	740,000	330,000	610,000	2,080,000	305,013	559,603	228,774	378,500	1,471,890	1,979,191	116,283	Critical	
May 29 Update														
Dry	270,000	540,000	240,000	460,000	1,510,000	323,000	477,000	207,000	319,000	1,326,000	1,608,013	105,671	Critical	
Average	300,000	590,000	260,000	510,000	1,660,000	259,000	407,000	206,000	331,000	1,203,000	1,673,413	107,541	Critical	
Wet	350,000	700,000	310,000	580,000	1,940,000	305,013	559,603	228,774	378,500	1,471,890	1,895,191	113,882	Critical	

Ranking of years

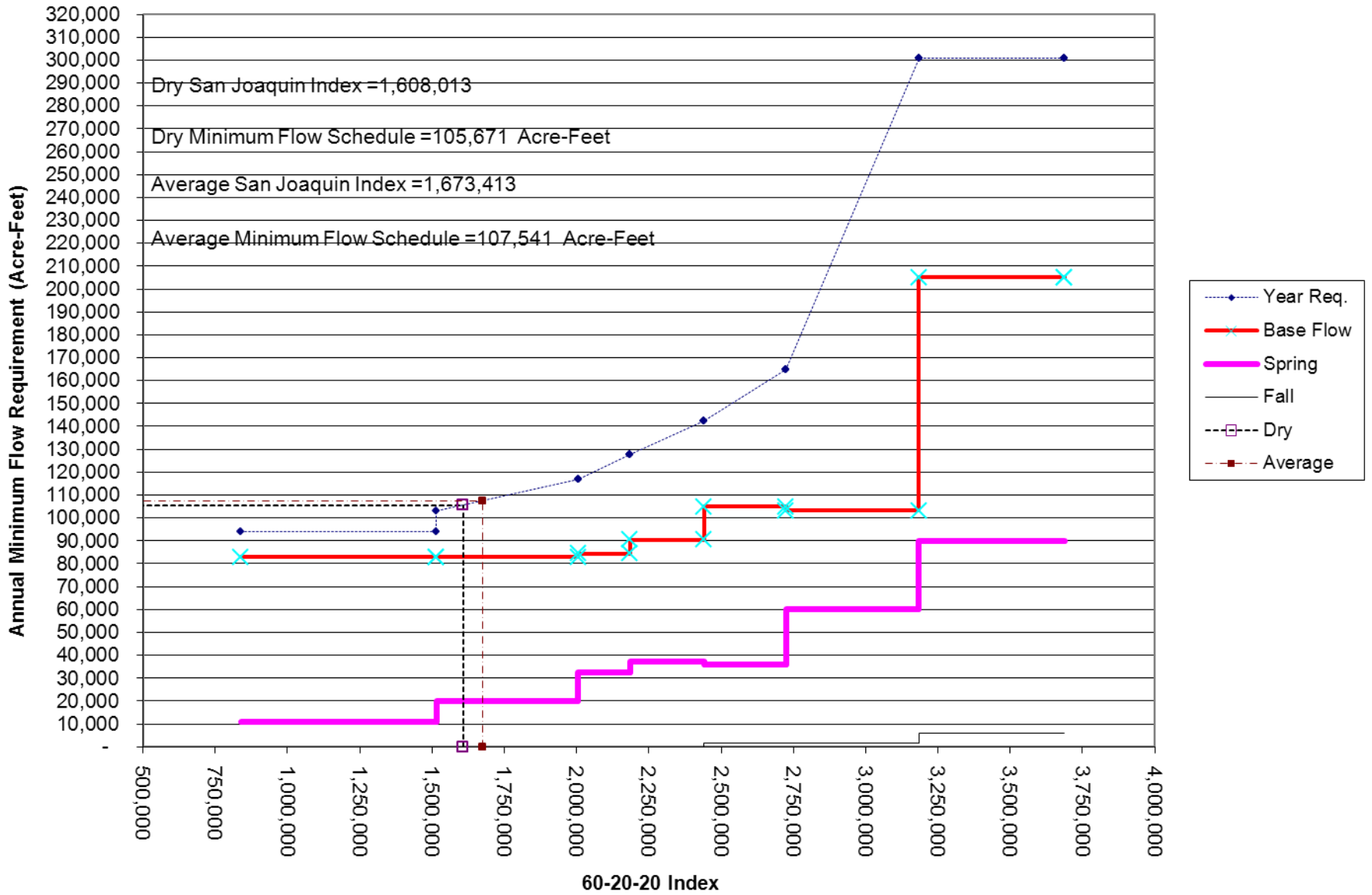
(years after Intermediate Critical were removed so as to get full table on page)

TABLE 2

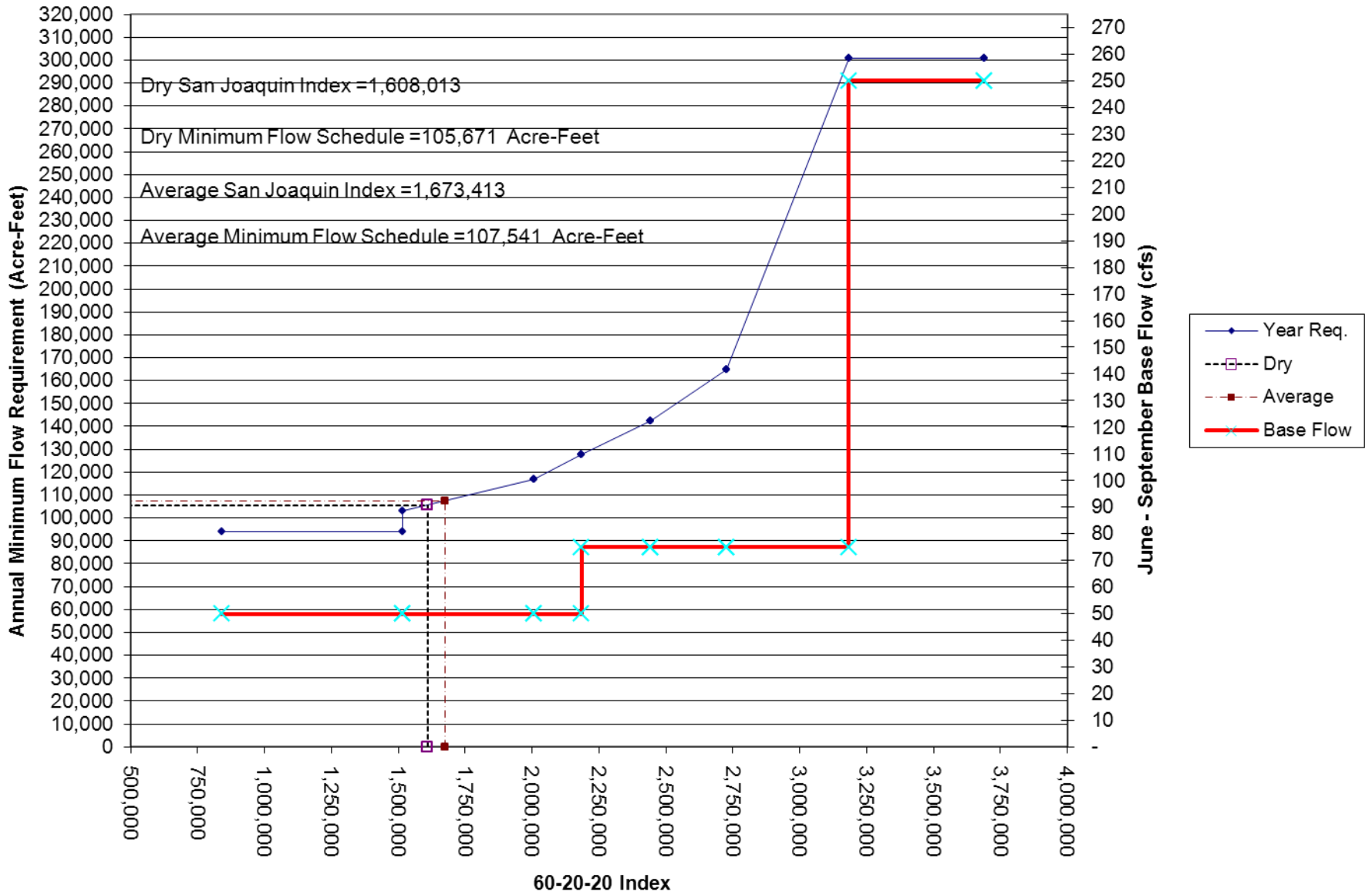
SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION 602020 INDEX (1906-2013)

Year	APRIL-JULY RUNOFF (AF)					OCTOBER-MARCH RUNOFF (AF)					602020 INDEX	TUOLUMNE RIVER		RANKING		
	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL		MINIMUM FLOW REQUIREMENT	% Occurrence			
77	115,510	301,020	123,290	261,910	801,730	37,290	75,447	23,960	83,830	220,527	838,770	94,000	0.93%	6.4%	Critical Water Year and Below	1
31	215,400	422,580	189,200	349,400	1,176,580	99,200	176,960	69,260	112,500	457,920	1,200,755	94,000	1.87%	6.4%	Critical Water Year and Below	2
61	292,320	525,700	226,750	451,300	1,496,070	102,740	190,340	81,710	160,300	535,090	1,375,467	94,000	2.80%	6.4%	Critical Water Year and Below	3
24	167,200	381,920	174,600	310,000	1,033,720	93,900	160,710	74,600	119,000	448,210	1,419,746	94,000	3.74%	6.4%	Critical Water Year and Below	4
34	219,400	442,590	189,000	408,500	1,259,490	202,700	353,950	166,100	261,700	984,450	1,440,719	94,000	4.67%	6.4%	Critical Water Year and Below	5
88	221,363	494,015	273,584	562,724	1,551,686	147,688	319,524	132,264	264,996	864,472	1,476,178	94,000	5.61%	6.4%	Critical Water Year and Below	6
90	284,227	522,338	271,588	514,221	1,592,374	183,526	315,971	127,174	205,469	832,140	1,514,587	103,000	6.54%	14.4%	Median Critical Water Year	7
92	265,933	525,254	299,041	568,447	1,658,675	208,210	291,924	141,018	214,560	855,712	1,557,439	104,225	7.48%	14.4%	Median Critical Water Year	8
76	192,810	362,547	167,420	350,000	1,072,777	160,410	273,828	121,590	220,200	776,028	1,568,133	104,531	8.41%	14.4%	Median Critical Water Year	9
13	300,000	590,000	260,000	510,000	1,660,000	323,159	476,812	202,327	318,805	1,326,103	1,698,033	108,245	9.35%	14.4%	Median Critical Water Year	10
60	398,750	720,210	343,480	608,300	2,070,740	193,260	321,230	138,780	195,900	849,170	1,854,036	112,705	10.28%	14.4%	Median Critical Water Year	11
87	236,229	472,644	220,693	553,900	1,483,466	125,682	172,140	74,504	178,700	551,026	1,861,362	112,914	11.21%	14.4%	Median Critical Water Year	12
91	407,650	878,256	446,291	835,932	2,568,129	94,026	196,094	108,498	160,701	558,319	1,955,459	115,605	12.15%	14.4%	Median Critical Water Year	13
89	512,169	865,641	377,875	668,116	2,423,801	257,337	434,481	146,206	232,772	1,070,796	1,963,675	115,840	13.08%	14.4%	Median Critical Water Year	14
07	285,037	502,525	238,765	431,011	1,457,338	276,100	328,109	160,216	228,256	992,681	1,972,939	116,104	14.02%	14.4%	Median Critical Water Year	15
13	475,400	878,000	341,600	645,800	2,340,800	102,100	146,830	61,200	127,300	437,430	2,001,850	116,931	14.95%	20.5%	Intermediate Critical Dry Water Year	16
29	411,700	791,650	387,100	701,500	2,291,950	100,400	182,820	95,600	137,000	515,820	2,004,815	117,016	15.89%	20.5%	Intermediate Critical Dry Water Year	17
30	513,100	855,790	385,300	683,000	2,437,190	207,500	281,790	121,600	153,300	764,190	2,016,115	117,677	16.82%	20.5%	Intermediate Critical Dry Water Year	18
94	310,876	621,864	268,027	602,238	1,803,005	138,318	228,143	96,587	198,194	661,242	2,053,560	119,869	17.76%	20.5%	Intermediate Critical Dry Water Year	19
08	420,178	785,350	418,664	824,581	2,448,773	197,515	334,052	186,169	267,895	985,631	2,060,978	120,303	18.69%	20.5%	Intermediate Critical Dry Water Year	20
72	466,700	747,739	351,300	652,500	2,218,239	305,300	436,497	186,200	326,000	1,253,997	2,158,908	126,034	19.63%	20.5%	Intermediate Critical Dry Water Year	21
47	393,550	676,350	338,320	707,200	2,115,420	233,330	414,950	225,780	389,900	1,263,960	2,183,022	127,445	20.56%	31.3%	Median Dry	22
08	412,000	702,600	339,300	713,000	2,166,900	190,600	292,000	160,500	338,200	981,300	2,396,400	139,914	30.84%	31.3%	Median Dry	33
85	433,120	800,741	386,800	785,850	2,406,511	242,590	394,804	169,010	301,600	1,108,004	2,403,226	140,313	31.78%	40.4%	Intermediate Dry-Below Normal	34
33	517,100	923,010	424,600	901,400	2,766,110	81,900	160,750	86,100	166,000	494,750	2,440,676	142,502	32.71%	40.4%	Intermediate Dry-Below Normal	35
48	769,430	1,178,790	597,970	1,035,700	3,581,890	116,560	1,272,110	85,550	138,100	562,320	2,698,202	162,902	40.19%	40.4%	Intermediate Dry-Below Normal	43
54	640,620	1,019,780	483,640	1,015,900	3,159,940	238,140	405,170	184,080	268,600	1,095,990	2,720,188	164,643	41.12%	50.7%	Median Below Normal	44
09	638,467	1,104,952	564,927	1,042,315	3,350,661	335,715	545,114	254,462	375,366	1,510,657	2,724,724	165,003	42.06%	50.7%	Median Below Normal	45
62	784,570	1,313,980	660,500	1,485,900	4,244,950	200,810	432,920	257,650	365,700	1,257,080	3,073,479	268,373	49.53%	50.7%	Median Below Normal	53
18	593,200	1,085,190	560,200	1,159,300	3,397,890	221,000	355,270	252,800	240,800	1,069,870	3,079,512	270,161	50.47%	50.7%	Median Below Normal	54
51	530,760	943,500	438,980	916,500	2,829,740	1,148,730	1,521,840	782,620	899,100	4,352,290	3,139,076	287,816	51.40%	66.2%	Intermediate Below Normal-Above Norm	55
10	697,100	1,137,400	592,300	1,194,400	3,621,200	691,300	965,400	454,100	759,200	2,870,000	3,646,720	300,923	65.42%	66.2%	Intermediate Below Normal-Above Norm	70
79	760,550	1,267,931	668,860	1,295,280	3,992,621	386,570	618,989	385,400	475,680	1,866,639	3,668,900	300,923	66.36%	71.3%	Median Above Normal	71
37	810,100	1,420,270	800,100	1,625,100	4,655,570	282,200	555,090	406,600	538,100	1,781,990	3,897,744	300,923	71.03%	71.3%	Median Above Normal	76
74	890,300	1,398,577	734,900	1,507,500	4,531,277	643,600	802,284	378,100	603,800	2,427,784	3,903,413	300,923	71.96%	86.7%	Intermediate Above Normal-Wet	77
43	847,430	1,373,490	718,200	1,341,500	4,280,620	693,290	966,310	550,540	646,700	2,856,840	4,027,938	300,923	72.90%	86.7%	Intermediate Above Normal-Wet	78
16	1,029,900	1,623,000	920,500	1,925,100	5,498,500	608,000	826,570	508,200	726,800	2,669,570	4,652,601	300,923	85.98%	86.7%	Intermediate Above Normal-Wet	92
80	923,700	1,695,742	883,720	1,910,780	5,413,942	842,250	1,268,308	718,980	911,490	3,741,028	4,730,351	300,923	86.92%	100.0%	Median Wet/Maximum	93
07	1,691,800	2,381,000	1,304,500	2,229,000	7,606,300	1,052,900	1,204,900	759,800	654,500	3,672,100	6,198,200	300,923	99.07%	100.0%	Median Wet/Maximum	106
06	1,710,000	2,682,000	1,491,200	3,354,900	9,238,190	628,300	767,220	470,700	666,800	2,533,020	6,697,454	300,923	100.00%	100.0%	Median Wet/Maximum	107

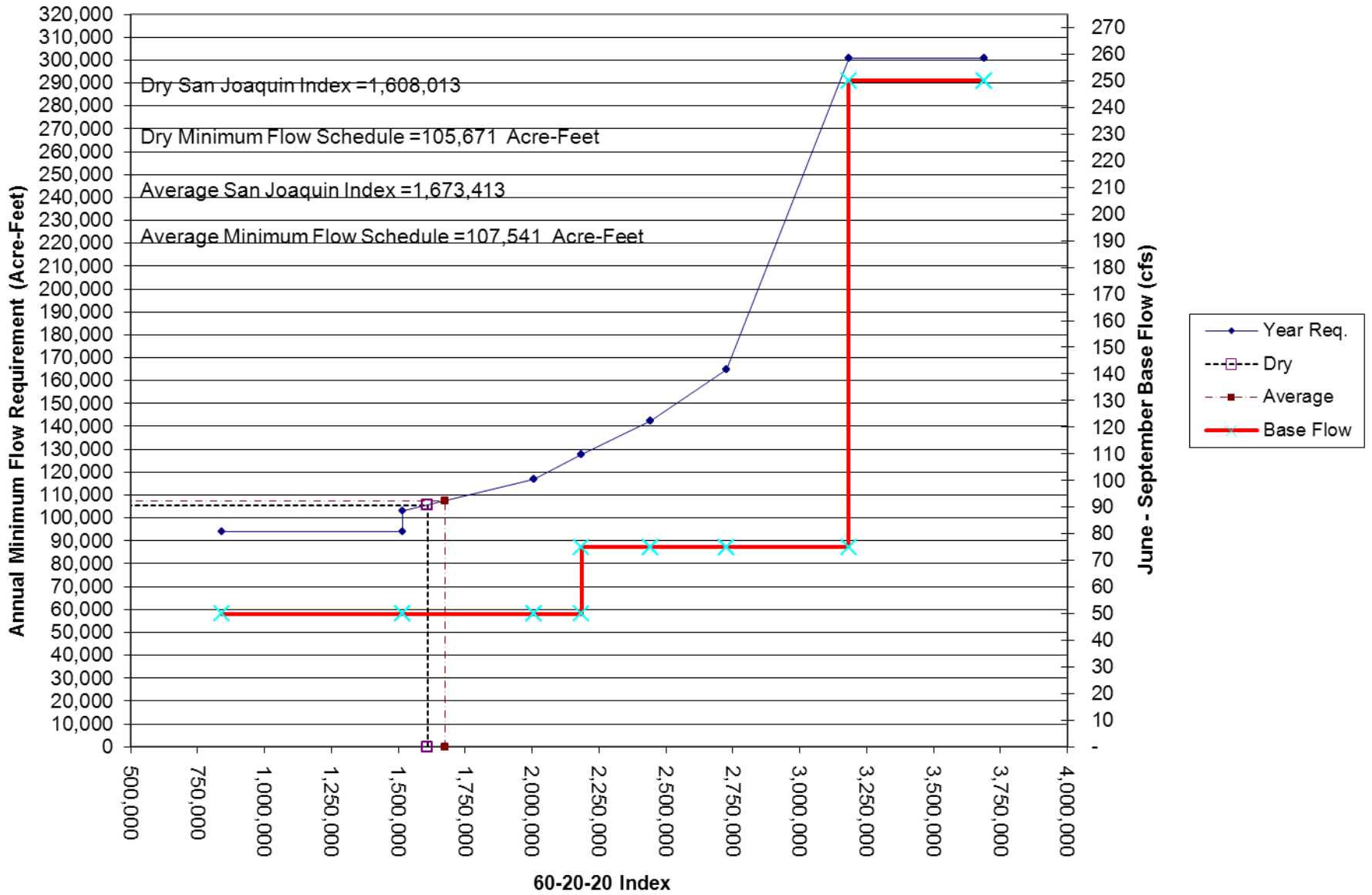
TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 1) Annual Flow Requirement



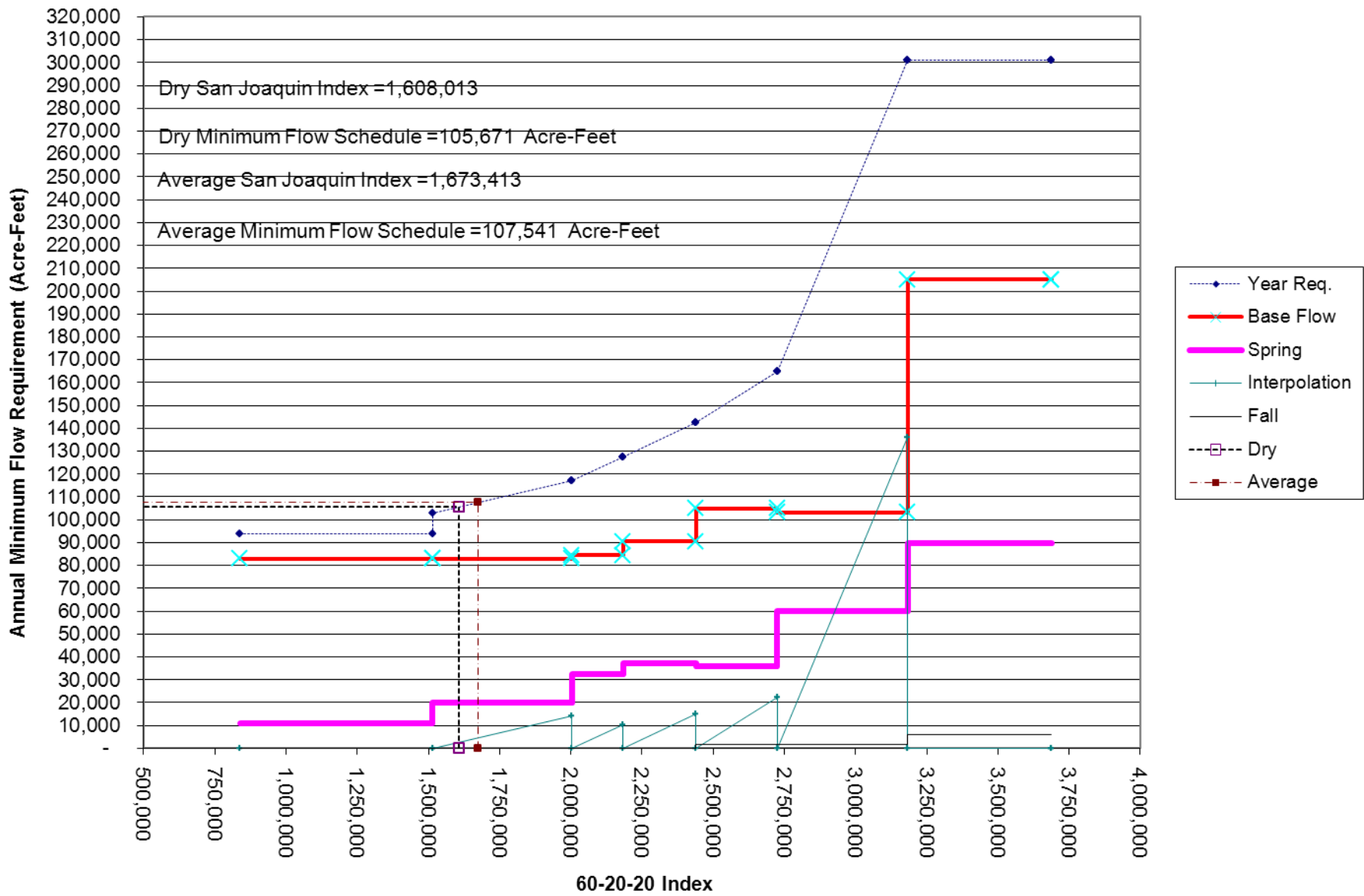
TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 3)
(Summer Base Flow)



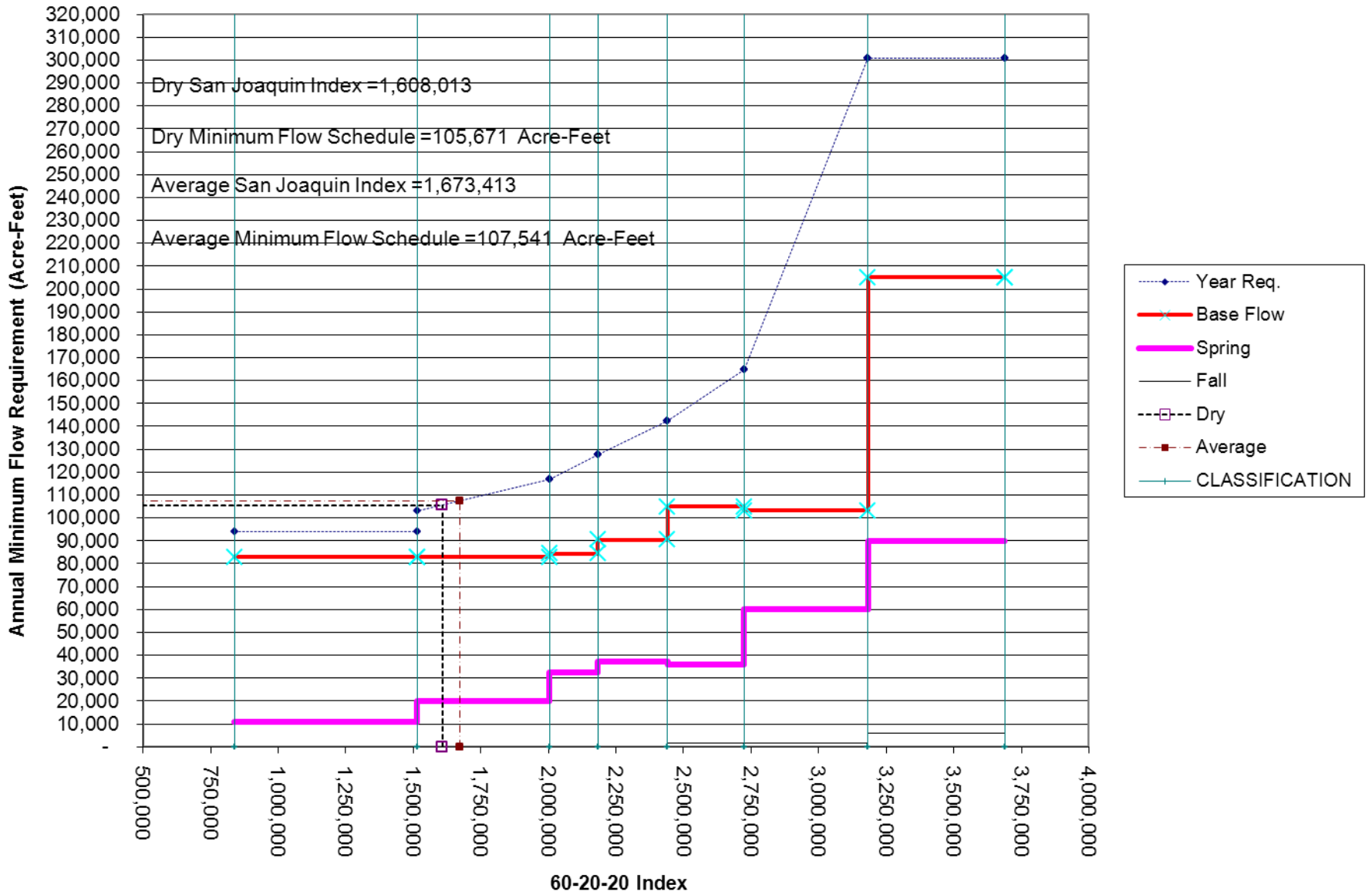
TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 4)
(Summer Base Flow)



TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 4)
Interpolation Volume



TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 5)
Classification



2013-2014 Tuolumne Total River Requirement

