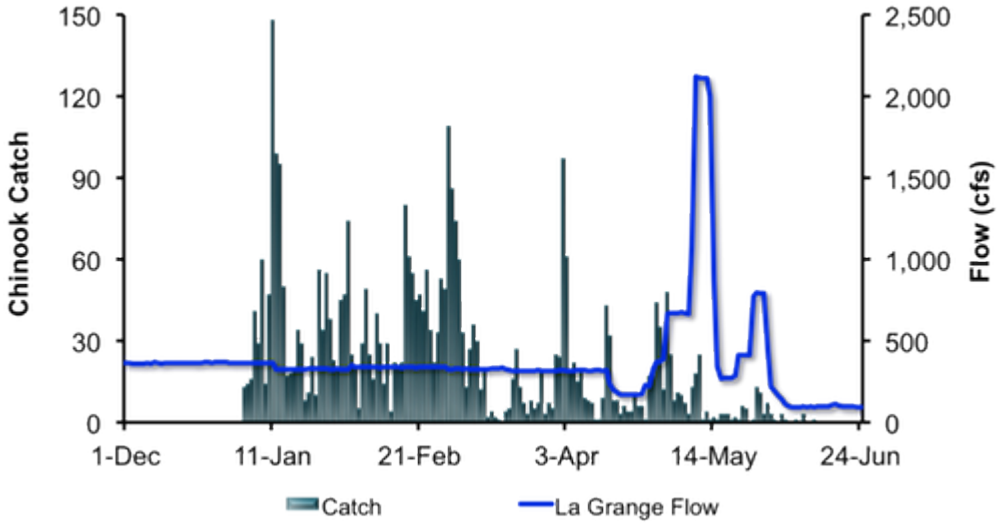
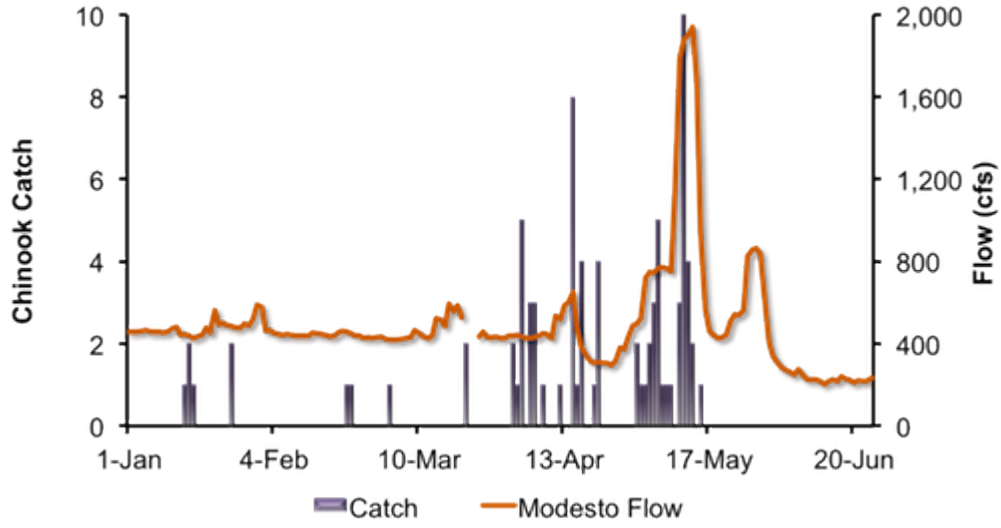
Lower Tuolumne River RST data for 2011/2012



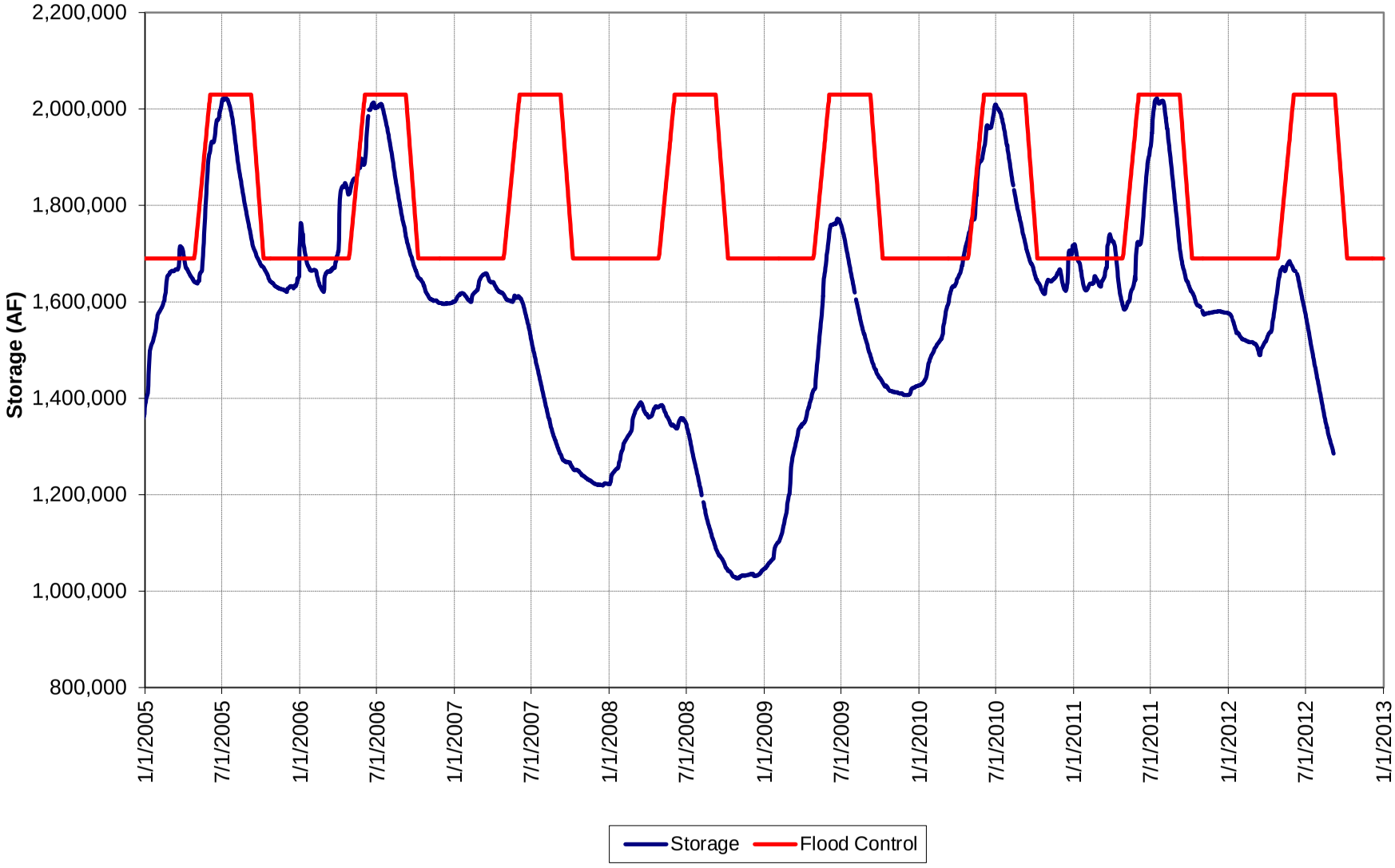
Daily Chinook salmon catch at Waterford (RM 30) and daily average Tuolumne River flows at La Grange (LGN) and between December 1, 2011, and June 24, 2012. The RST sampling ended on June 15, 2012. Season total = 3,626 captures. No *O. mykiss* captures during reporting period.

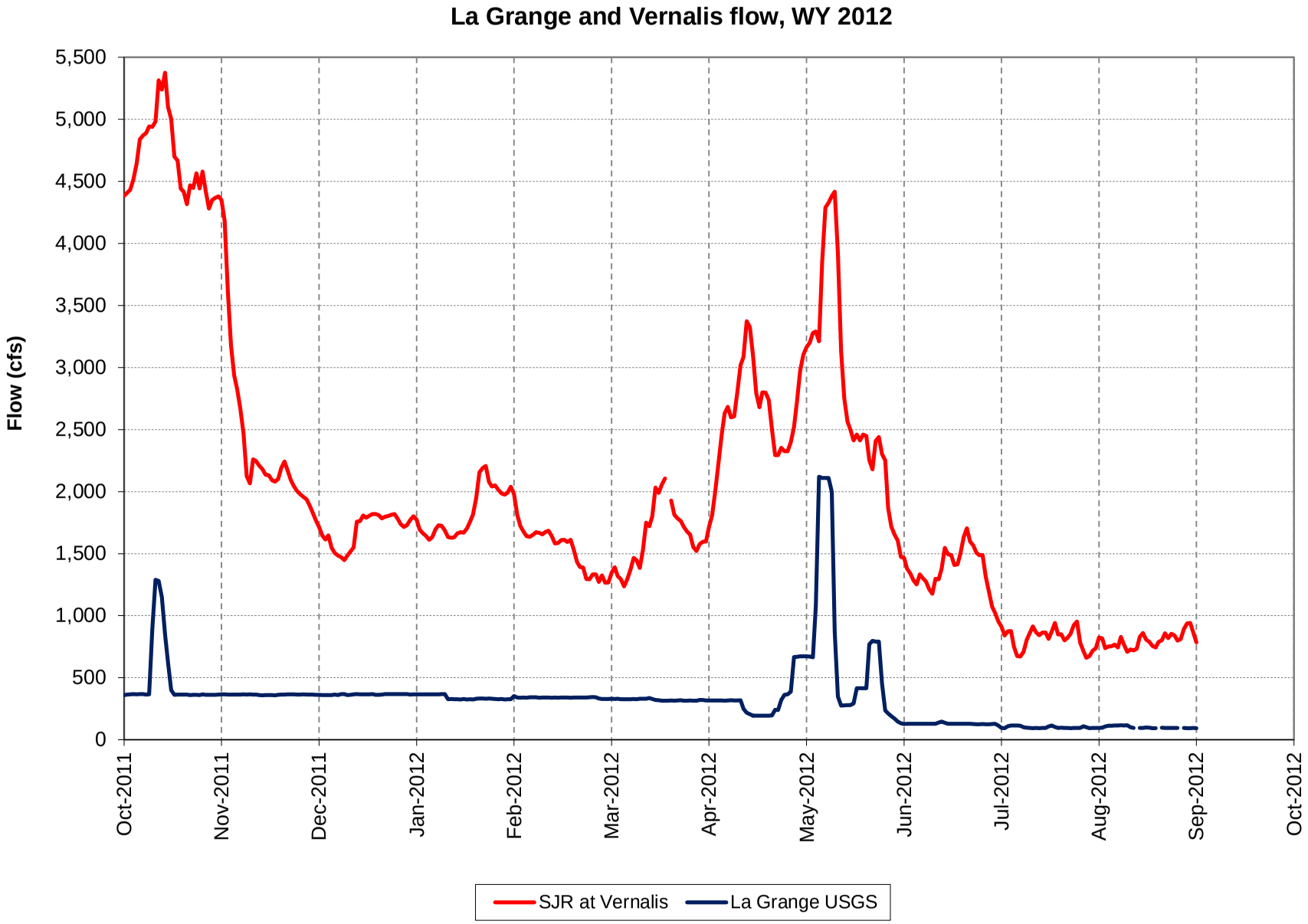


Daily Chinook salmon catch at Grayson and Tuolumne River flow recorded at Modesto (MOD) between January 1 and June 20, 2012. The RST sampling ended on June 15, 2012. Season total = 82 captures. No *O. mykiss* captures during season.

Source: San Joaquin Basin Newsletter, Volume 2012, Issue 20 (FISHBIO)

Don Pedro Storage and Flood Control Capacity, 2005-2012




La Grange and Vernalis flow, WY 2012
Flow (cfs)
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Oct-2011
Nov-2011
Dec-2011
Jan-2012
Feb-2012
Mar-2012
Apr-2012
May-2012
Jun-2012
Jul-2012
Aug-2012
Sep-2012
Oct-2012
SJR at Vernalis
La Grange USGS

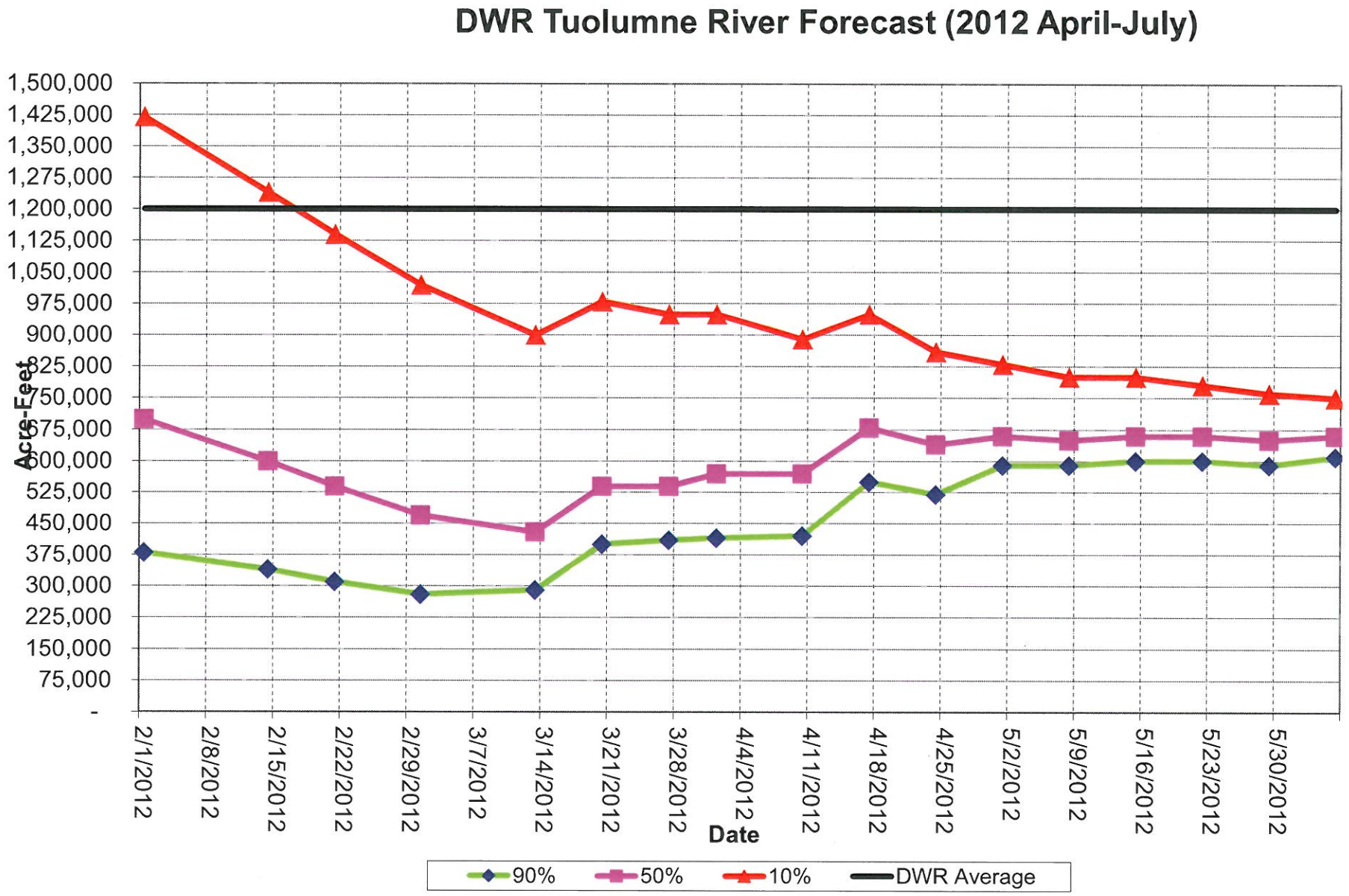

DWR Tuolumne River Forecast (2012 April-July)
1,500,000
1,425,000
1,350,000
1,275,000
1,200,000
1,125,000
1,050,000
975,000
900,000
825,000
750,000
675,000
600,000
525,000
450,000
375,000
300,000
225,000
150,000
75,000
-
Acre-Feet
2/1/2012
2/8/2012
2/15/2012
2/22/2012
2/29/2012
3/7/2012
3/14/2012
3/21/2012
3/28/2012
4/4/2012
4/11/2012
4/18/2012
4/25/2012
5/2/2012
5/9/2012
5/16/2012
5/23/2012
5/30/2012
Date
90%
50%
10%
DWR Average

Table 1

SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION

602020 INDEX

YEAR	APRIL-JULY RUNOFF (AF) STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	OCTOBER-MARCH RUNOFF (AF) STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	602020 INDEX	TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT	San Joaquin Index (not the FERC Index)
11	1,350,414	2,172,501	1,133,496	2,243,065	6,899,476	819,843	1,248,753	727,148	881,767	3,677,511	5,584,773	300,923	Wet
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	127,346	Dry
Feb 1 Forecast													
Dry	170,000	380,000	180,000	390,000	1,120,000	155,000	210,000	97,000	205,000	667,000	1,705,400	108,455	Critical
Average	350,000	700,000	340,000	750,000	2,140,000	235,000	320,000	150,000	295,000	1,000,000	2,384,000	139,086	Dry
Wet	780,000	1,420,000	810,000	1,490,000	4,500,000	415,000	550,000	297,000	485,000	1,747,000	3,949,400	300,923	Wet
Feb 14 Update													
Dry	140,000	340,000	140,000	310,000	930,000	155,000	210,000	97,000	205,000	667,000	1,591,400	105,196	Critical
Average	290,000	600,000	280,000	630,000	1,800,000	235,000	320,000	150,000	295,000	1,000,000	2,180,000	127,112	Dry
Wet	690,000	1,240,000	680,000	1,270,000	3,880,000	415,000	550,000	297,000	485,000	1,747,000	3,577,400	300,923	Above Normal
Feb 21 Update													
Dry	120,000	310,000	130,000	280,000	840,000	155,000	210,000	97,000	205,000	667,000	1,537,400	103,652	Critical
Average	260,000	540,000	260,000	570,000	1,630,000	235,000	320,000	150,000	295,000	1,000,000	2,078,000	121,233	Critical
Wet	640,000	1,140,000	620,000	1,150,000	3,550,000	415,000	550,000	297,000	485,000	1,747,000	3,379,400	300,923	Above Normal
Mar 1 Forecast													
Dry	120,000	280,000	100,000	240,000	740,000	160,000	205,000	90,000	200,000	655,000	1,475,000	94,000	Critical
Average	240,000	470,000	220,000	510,000	1,440,000	200,000	260,000	125,000	260,000	845,000	1,933,000	114,962	Critical
Wet	600,000	1,020,000	530,000	1,020,000	3,170,000	270,000	320,000	160,000	330,000	1,080,000	3,018,000	251,929	Below Normal
Mar 13 Update													
Dry	120,000	290,000	110,000	240,000	760,000	160,000	205,000	90,000	200,000	655,000	1,487,000	94,000	Critical
Average	220,000	430,000	200,000	470,000	1,320,000	200,000	260,000	125,000	260,000	845,000	1,861,000	112,904	Critical
Wet	530,000	900,000	470,000	880,000	2,780,000	270,000	320,000	160,000	330,000	1,080,000	2,784,000	182,572	Below Normal
Mar 20 Update													
Dry	220,000	400,000	180,000	370,000	1,170,000	160,000	205,000	90,000	200,000	655,000	1,733,000	109,244	Critical
Average	310,000	540,000	270,000	550,000	1,670,000	200,000	260,000	125,000	260,000	845,000	2,071,000	120,830	Critical
Wet	590,000	980,000	520,000	930,000	3,020,000	270,000	320,000	160,000	330,000	1,080,000	2,928,000	225,253	Below Normal
Mar 27 Update													
Dry	220,000	410,000	180,000	360,000	1,170,000	160,000	205,000	90,000	200,000	655,000	1,733,000	109,244	Critical
Average	310,000	540,000	260,000	530,000	1,640,000	200,000	260,000	125,000	260,000	845,000	2,053,000	119,793	Critical
Wet	570,000	950,000	500,000	880,000	2,900,000	270,000	320,000	160,000	330,000	1,080,000	2,856,000	203,913	Below Normal
Apr 1 Forecast													
Dry	215,000	415,000	175,000	390,000	1,195,000	215,000	255,000	115,000	245,000	830,000	1,783,000	110,674	Critical
Average	320,000	570,000	270,000	570,000	1,730,000	215,000	255,000	115,000	245,000	830,000	2,104,000	122,732	Dry
Wet	570,000	950,000	500,000	900,000	2,920,000	215,000	255,000	115,000	245,000	830,000	2,818,000	192,650	Below Normal
Apr 10 Update													
Dry	210,000	420,000	180,000	390,000	1,200,000	215,000	255,000	115,000	245,000	830,000	1,786,000	110,760	Critical
Average	310,000	570,000	270,000	560,000	1,710,000	215,000	255,000	115,000	245,000	830,000	2,092,000	122,040	Critical
Wet	520,000	890,000	470,000	850,000	2,730,000	215,000	255,000	115,000	245,000	830,000	2,704,000	163,352	Below Normal
Apr 17 Update													
Dry	260,000	550,000	280,000	510,000	1,600,000	215,000	255,000	115,000	245,000	830,000	2,026,000	118,237	Critical
Average	360,000	680,000	360,000	680,000	2,080,000	215,000	255,000	115,000	245,000	830,000	2,314,000	134,975	Dry
Wet	530,000	950,000	530,000	930,000	2,940,000	215,000	255,000	115,000	245,000	830,000	2,830,000	196,206	Below Normal
Apr 24 Update													
Dry	250,000	520,000	260,000	490,000	1,520,000	215,000	255,000	115,000	245,000	830,000	1,978,000	116,249	Critical
Average	340,000	640,000	330,000	650,000	1,960,000	215,000	255,000	115,000	245,000	830,000	2,242,000	130,746	Dry
Wet	480,000	860,000	470,000	860,000	2,670,000	215,000	255,000	115,000	245,000	830,000	2,668,000	160,486	Below Normal
May 1 Forecast													
Dry	330,000	590,000	295,000	550,000	1,765,000	215,000	255,000	115,000	245,000	830,000	2,125,000	123,942	Dry
Average	370,000	660,000	320,000	680,000	2,030,000	215,000	255,000	115,000	245,000	830,000	2,284,000	133,213	Dry
Wet	500,000	830,000	430,000	850,000	2,610,000	215,000	255,000	115,000	245,000	830,000	2,632,000	157,619	Below Normal
May 08 Update													

Table 1

SAN JOAQUIN VALLEY WATER YEAR HYDROLOGIC CLASSIFICATION

602020 INDEX

YEAR	APRIL-JULY RUNOFF (AF) STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	OCTOBER-MARCH RUNOFF (AF) STANISLAUS	TUOLUMNE	MERCED	FRIANT	TOTAL	602020 INDEX	TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT	San Joaquin Index (not the FERC Index)
Dry	330,000	590,000	295,000	550,000	1,765,000	215,000	255,000	115,000	245,000	830,000	2,125,000	123,942	Dry
Average	360,000	650,000	310,000	660,000	1,980,000	215,000	255,000	115,000	245,000	830,000	2,254,000	131,451	Dry
Wet	480,000	800,000	400,000	810,000	2,490,000	215,000	255,000	115,000	245,000	830,000	2,560,000	151,886	Below Normal
May 15 Update													
Dry	345,000	600,000	295,000	560,000	1,800,000	215,000	255,000	115,000	245,000	830,000	2,146,000	125,152	Dry
Average	380,000	660,000	320,000	650,000	2,010,000	215,000	255,000	115,000	245,000	830,000	2,272,000	132,508	Dry
Wet	490,000	800,000	400,000	770,000	2,460,000	215,000	255,000	115,000	245,000	830,000	2,542,000	150,452	Below Normal
May 22 Update													
Dry	350,000	600,000	290,000	530,000	1,770,000	215,000	255,000	115,000	245,000	830,000	2,128,000	124,115	Dry
Average	390,000	660,000	320,000	620,000	1,990,000	215,000	255,000	115,000	245,000	830,000	2,260,000	131,803	Dry
Wet	470,000	780,000	380,000	720,000	2,350,000	215,000	255,000	115,000	245,000	830,000	2,476,000	145,197	Dry
May 29 Update													
Dry	360,000	590,000	290,000	540,000	1,780,000	215,000	255,000	115,000	245,000	830,000	2,134,000	124,461	Dry
Average	390,000	650,000	310,000	610,000	1,960,000	215,000	255,000	115,000	245,000	830,000	2,242,000	130,746	Dry
Wet	460,000	760,000	360,000	680,000	2,260,000	215,000	255,000	115,000	245,000	830,000	2,422,000	141,318	Dry
Jun 05 Update													
Dry	370,000	610,000	290,000	520,000	1,790,000	215,000	255,000	115,000	245,000	830,000	2,140,000	124,807	Dry
Average	390,000	660,000	310,000	580,000	1,940,000	215,000	255,000	115,000	245,000	830,000	2,230,000	130,041	Dry
Wet	450,000	750,000	350,000	640,000	2,190,000	215,000	255,000	115,000	245,000	830,000	2,380,000	138,851	Dry

TABLE 1

Based on Regression Curves

MINIMUM TUOLUMNE RIVER FLOW REQUIREMENT BASED ON 1996 SETTLEMENT AGREEMENT

INDEX CUTOFFS BASED ON SAN JOAQUIN 602020 INDEX UPDATED THROUGH WATER YEAR 2011

Dry San Joaquin Index =2,184,064 Average San Joaquin Index =2,230,000

BASE FLOW (Table 3)

C.F.S.

	INDEX CUTOFF	31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC	
1 CRITICAL WATER YEAR AND BELOW	0	150	150	150	150	150	50	50	50	50	126	150	150	82,909
2 MEDIAN CRITICAL WATER YEAR	1,515	150	150	150	150	150	50	50	50	50	126	150	150	82,909
3 INTERMEDIATE C-D WATER YEAR	2,005	150	150	150	150	150	50	50	50	50	150	150	150	84,397
4 MEDIAN DRY	2,187	150	150	150	150	150	75	75	75	75	150	150	150	90,446
5 INTERMEDIATE D-BN	2,442	180	180	180	180	180	75	75	75	75	180	180	180	104,906
6 MEDIAN BELOW NORMAL	2,725	175	175	175	175	175	75	75	75	75	187	175	175	103,240
7 INTERMEDIATE BN-AN	3,183	300	300	300	300	300	250	250	250	250	300	300	300	205,091
8 MEDIAN ABOVE NORMAL	3,740	300	300	300	300	300	250	250	250	250	300	300	300	205,091
9 INTERMEDIATE AN-W	4,028	300	300	300	300	300	250	250	250	250	300	300	300	205,091
10 MEDIAN WET/ MAXIMUM	4,754	300	300	300	300	300	250	250	250	250	300	300	300	205,091

PULSE FLOWS (Table 2)

A.F.

		31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC
1 CRITICAL WATER YEAR AND BELOW	0				11,091								
2 MEDIAN CRITICAL WATER YEAR	1,515				20,091								
3 INTERMEDIATE C-D WATER YEAR	2,005				32,619								
4 MEDIAN DRY	2,187				37,060								
5 INTERMEDIATE D-BN	2,442				35,920						1,676		
6 MEDIAN BELOW NORMAL	2,725				60,027						1,736		
7 INTERMEDIATE BN-AN	3,183				89,882						5,950		
8 MEDIAN ABOVE NORMAL	3,740				89,882						5,950		
9 INTERMEDIATE AN-W	4,028				89,882						5,950		
10 MEDIAN WET/ MAXIMUM	4,754				89,882						5,950		

TOTAL MINIMUM FLOW REQUIREMENT

A.F.

		31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC	TOTAL
1 CRITICAL WATER YEAR AND BELOW	0	9,223	8,331	9,223	20,017	9,223	2,975	3,074	3,074	2,975	7,736	8,926	9,223	94,000
2 MEDIAN CRITICAL WATER YEAR	1,515	9,223	8,331	9,223	29,017	9,223	2,975	3,074	3,074	2,975	7,736	8,926	9,223	103,000
3 INTERMEDIATE C-D WATER YEAR	2,005	9,223	8,331	9,223	41,545	9,223	2,975	3,074	3,074	2,975	9,223	8,926	9,223	117,016
4 MEDIAN DRY	2,187	9,223	8,331	9,223	45,986	9,223	4,463	4,612	4,612	4,463	9,223	8,926	9,223	127,506
5 INTERMEDIATE D-BN	2,442	11,068	9,997	11,068	46,631	11,068	4,463	4,612	4,612	4,463	12,744	10,711	11,068	142,502
6 MEDIAN BELOW NORMAL	2,725	10,760	9,719	10,760	70,440	10,760	4,463	4,612	4,612	4,463	13,240	10,413	10,760	165,003
7 INTERMEDIATE BN-AN	3,183	18,446	16,661	18,446	107,733	18,446	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
8 MEDIAN ABOVE NORMAL	3,740	18,446	16,661	18,446	107,733	18,446	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
9 INTERMEDIATE AN-W	4,028	18,446	16,661	18,446	107,733	18,446	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
10 MEDIAN WET/ MAXIMUM	10,000	18,446	16,661	18,446	107,733	18,446	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923

Note: Pulse flow allocation may occur in other months or during more than one month.

TABLE 1

Based on Regression Curves

MINIMUM TUOLUMNE RIVER FLOW REQUIREMENT BASED ON 1996 SETTLEMENT AGREEMENT

INDEX CUTOFFS BASED ON SAN JOAQUIN 602020 INDEX UPDATED THROUGH WATER YEAR 2011

Dry San Joaquin Index =2,184,064

Average San Joaquin Index =2,230,000

TOTAL MINIMUM FLOW REQUIREMENT

A.F.

		31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC	TOTAL
1 CRITICAL WATER YEAR AND BELOW	0	9,223	8,331	9,223	14,471	14,769	2,975	3,074	3,074	2,975	7,736	8,926	9,223	94,000
2 MEDIAN CRITICAL WATER YEAR	1,515	9,223	8,331	9,223	18,971	19,269	2,975	3,074	3,074	2,975	7,736	8,926	9,223	103,000
3 INTERMEDIATE C-D WATER YEAR	2,005	9,223	8,331	9,223	25,235	25,533	2,975	3,074	3,074	2,975	9,223	8,926	9,223	117,016
4 MEDIAN DRY	2,187	9,223	8,331	9,223	27,456	27,753	4,463	4,612	4,612	4,463	9,223	8,926	9,223	127,506
5 INTERMEDIATE D-BN	2,442	11,068	9,997	11,068	28,671	29,028	4,463	4,612	4,612	4,463	12,744	10,711	11,068	142,502
6 MEDIAN BELOW NORMAL	2,725	10,760	9,719	10,760	40,427	40,774	4,463	4,612	4,612	4,463	13,240	10,413	10,760	165,003
7 INTERMEDIATE BN-AN	3,183	18,446	16,661	18,446	62,792	63,387	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
8 MEDIAN ABOVE NORMAL	3,740	18,446	16,661	18,446	62,792	63,387	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
9 INTERMEDIATE AN-W	4,028	18,446	16,661	18,446	62,792	63,387	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
10 MEDIAN WET/ MAXIMUM	10,000	18,446	16,661	18,446	62,792	63,387	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923

Note: Pulse flow allocation may occur in other months or during more than one month.

TOTAL MINIMUM FLOW REQUIREMENT CFS

		31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC	AVERAGE
1 CRITICAL WATER YEAR AND BELOW	0	150	150	150	336	150	50	50	50	50	126	150	150	130
2 MEDIAN CRITICAL WATER YEAR	1,515	150	150	150	488	150	50	50	50	50	126	150	150	143
3 INTERMEDIATE C-D WATER YEAR	2,005	150	150	150	698	150	50	50	50	50	150	150	150	162
4 MEDIAN DRY	2,187	150	150	150	773	150	75	75	75	75	150	150	150	177
5 INTERMEDIATE D-BN	2,442	180	180	180	784	180	75	75	75	75	207	180	180	198
6 MEDIAN BELOW NORMAL	2,725	175	175	175	1,184	175	75	75	75	75	215	175	175	229
7 INTERMEDIATE BN-AN	3,183	300	300	300	1,811	300	250	250	250	250	397	300	300	417
8 MEDIAN ABOVE NORMAL	3,740	300	300	300	1,811	300	250	250	250	250	397	300	300	417
9 INTERMEDIATE AN-W	4,028	300	300	300	1,811	300	250	250	250	250	397	300	300	417
10 MEDIAN WET/ MAXIMUM	10,000	300	300	300	1,811	300	250	250	250	250	397	300	300	417

TABLE 1

Based on Regression Curves

MINIMUM TUOLUMNE RIVER FLOW REQUIREMENT BASED ON 1996 SETTLEMENT AGREEMENT

INDEX CUTOFFS BASED ON SAN JOAQUIN 602020 INDEX UPDATED THROUGH WATER YEAR 2011

Dry San Joaquin Index =2,184,064

Average San Joaquin Index =2,230,000

PULSE FLOWS FOR MODELING EFFORT

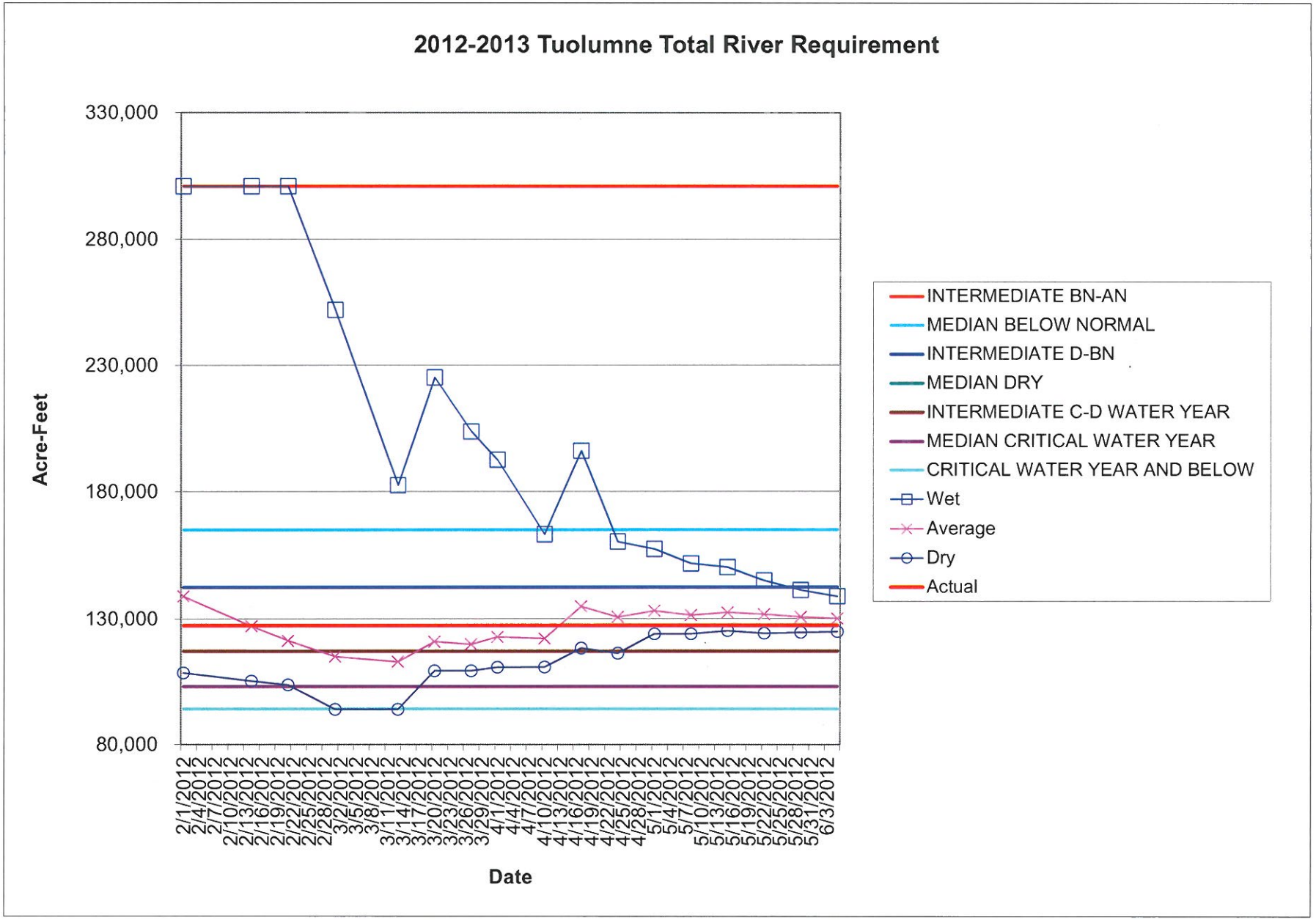
A.F.

		31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC
1 CRITICAL WATER YEAR AND BELOW	0				5,546	5,546							
2 MEDIAN CRITICAL WATER YEAR	1,515				10,046	10,046							
3 INTERMEDIATE C-D WATER YEAR	2,005				16,310	16,310							
4 MEDIAN DRY	2,187				18,530	18,530							
5 INTERMEDIATE D-BN	2,442				17,960	17,960					1,676		
6 MEDIAN BELOW NORMAL	2,725				30,014	30,014					1,736		
7 INTERMEDIATE BN-AN	3,183				44,941	44,941					5,950		
8 MEDIAN ABOVE NORMAL	3,740				44,941	44,941					5,950		
9 INTERMEDIATE AN-W	4,028				44,941	44,941					5,950		
10 MEDIAN WET/ MAXIMUM	4,754				44,941	44,941					5,950		

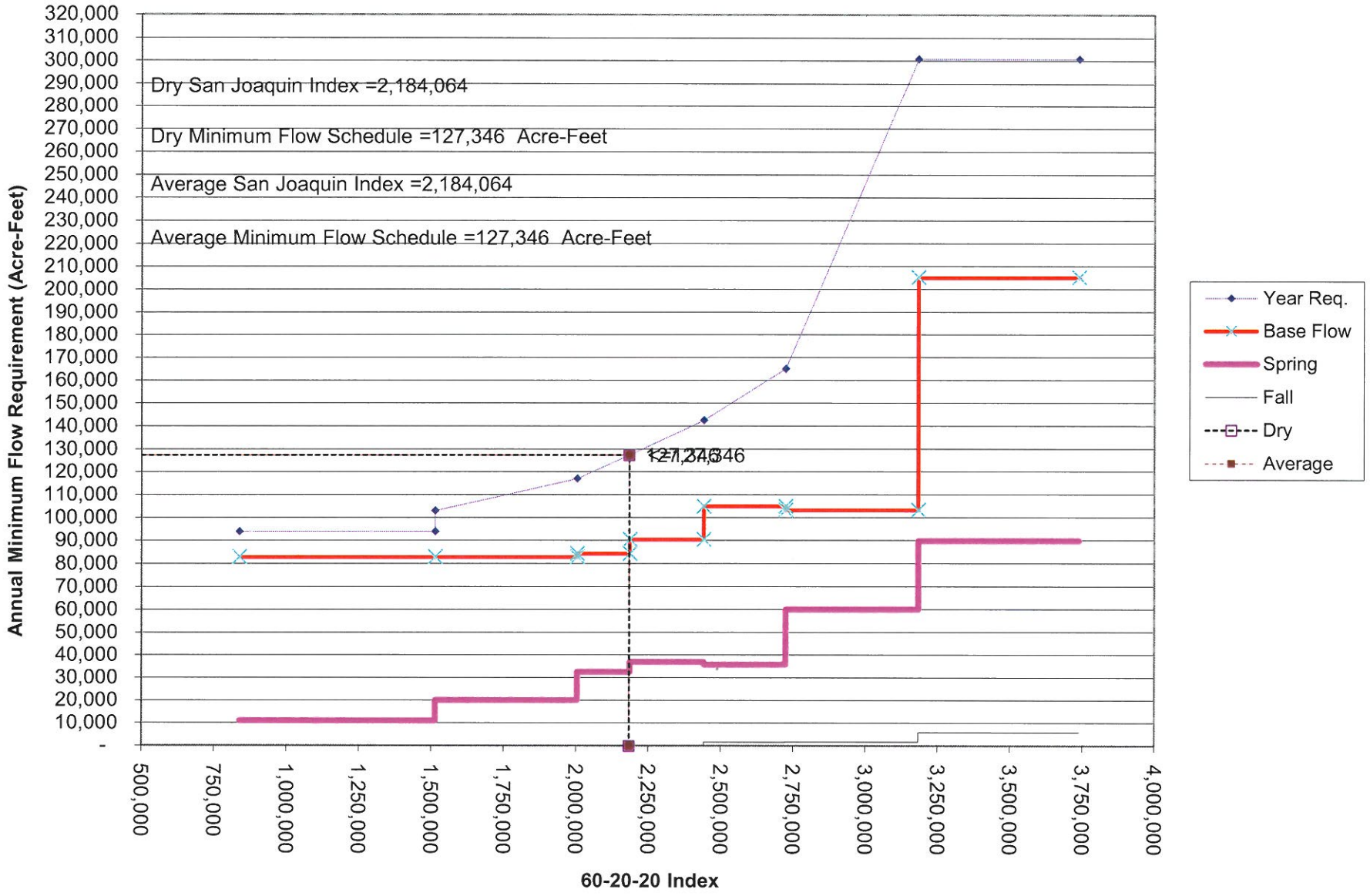
TOTAL MINIMUM FLOW REQUIREMENT FOR MODELING EFFORT

CFS

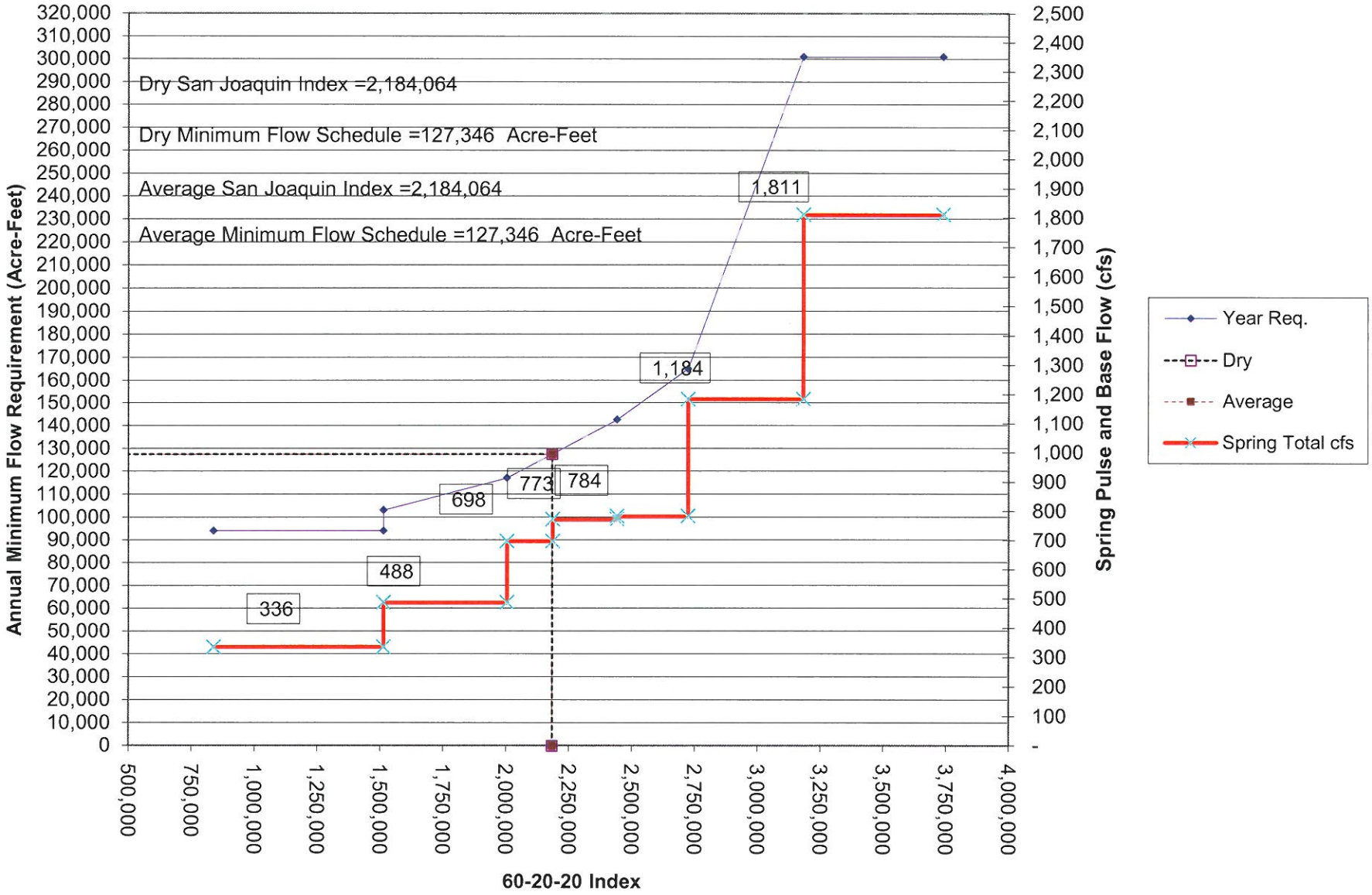
		31 JAN	28 FEB	31 MAR	30 APR	31 MAY	30 JUN	31 JUL	31 AUG	30 SEP	31 OCT	30 NOV	31 DEC	TOTAL
1 CRITICAL WATER YEAR AND BELOW	0	9,223	8,331	9,223	14,620	14,620	2,975	3,074	3,074	2,975	7,736	8,926	9,223	94,000
2 MEDIAN CRITICAL WATER YEAR	1,515	9,223	8,331	9,223	19,120	19,120	2,975	3,074	3,074	2,975	7,736	8,926	9,223	103,000
3 INTERMEDIATE C-D WATER YEAR	2,005	9,223	8,331	9,223	25,384	25,384	2,975	3,074	3,074	2,975	9,223	8,926	9,223	117,016
4 MEDIAN DRY	2,187	9,223	8,331	9,223	27,604	27,604	4,463	4,612	4,612	4,463	9,223	8,926	9,223	127,506
5 INTERMEDIATE D-BN	2,442	11,068	9,997	11,068	28,849	28,849	4,463	4,612	4,612	4,463	12,744	10,711	11,068	142,502
6 MEDIAN BELOW NORMAL	2,725	10,760	9,719	10,760	40,600	40,600	4,463	4,612	4,612	4,463	13,240	10,413	10,760	165,003
7 INTERMEDIATE BN-AN	3,183	18,446	16,661	18,446	63,090	63,090	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
8 MEDIAN ABOVE NORMAL	3,740	18,446	16,661	18,446	63,090	63,090	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
9 INTERMEDIATE AN-W	4,028	18,446	16,661	18,446	63,090	63,090	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923
10 MEDIAN WET/ MAXIMUM	10,000	18,446	16,661	18,446	63,090	63,090	14,876	15,372	15,372	14,876	24,396	17,851	18,446	300,923


2012-2013 Tuolumne Total River Requirement
330,000
280,000
230,000
180,000
130,000
80,000
Acre-Feet
2/1/2012
2/4/2012
2/7/2012
2/10/2012
2/13/2012
2/16/2012
2/19/2012
2/22/2012
2/25/2012
2/28/2012
3/2/2012
3/5/2012
3/8/2012
3/11/2012
3/14/2012
3/17/2012
3/20/2012
3/23/2012
3/26/2012
3/29/2012
4/1/2012
4/4/2012
4/7/2012
4/10/2012
4/13/2012
4/16/2012
4/19/2012
4/22/2012
4/25/2012
4/28/2012
5/1/2012
5/4/2012
5/7/2012
5/10/2012
5/13/2012
5/16/2012
5/19/2012
5/22/2012
5/25/2012
5/28/2012
5/31/2012
6/3/2012
Date
INTERMEDIATE BN-AN
MEDIAN BELOW NORMAL
INTERMEDIATE D-BN
MEDIAN DRY
INTERMEDIATE C-D WATER YEAR
MEDIAN CRITICAL WATER YEAR
CRITICAL WATER YEAR AND BELOW
Wet
Average
Dry
Actual

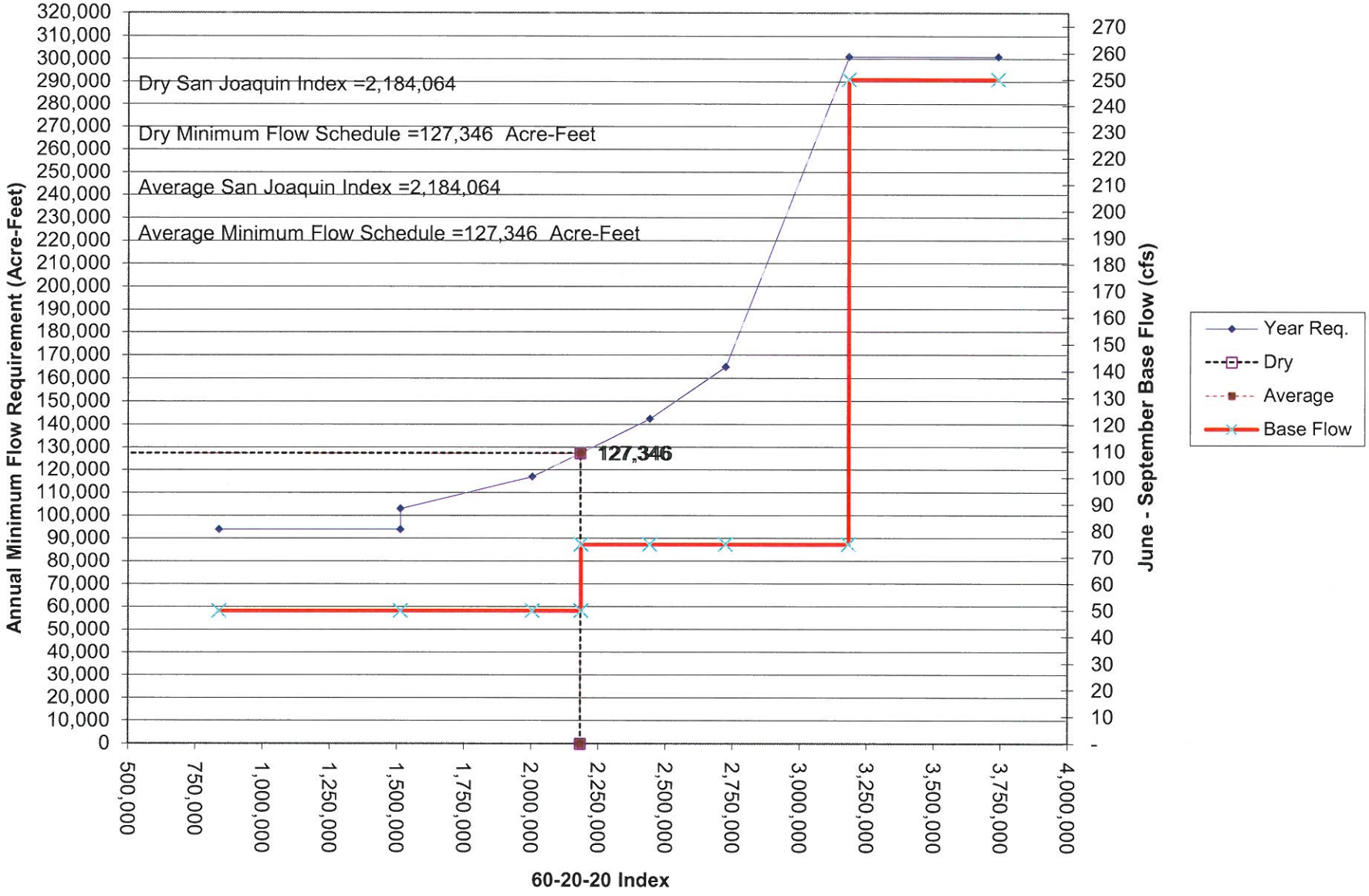
TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 1)
Annual Flow Requirement



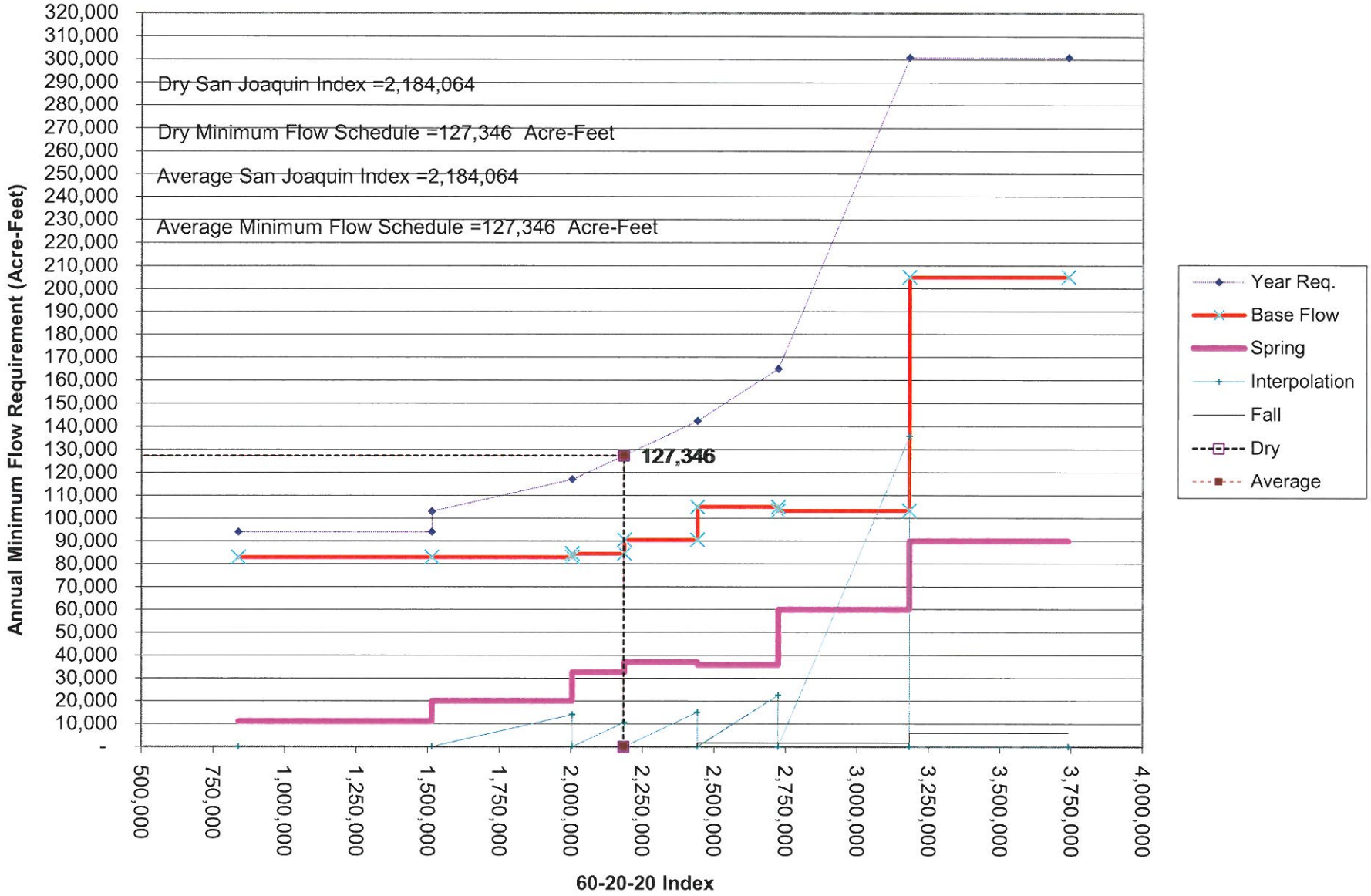
TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 2)
(Spring Pulse Flow Plus Base Flow)



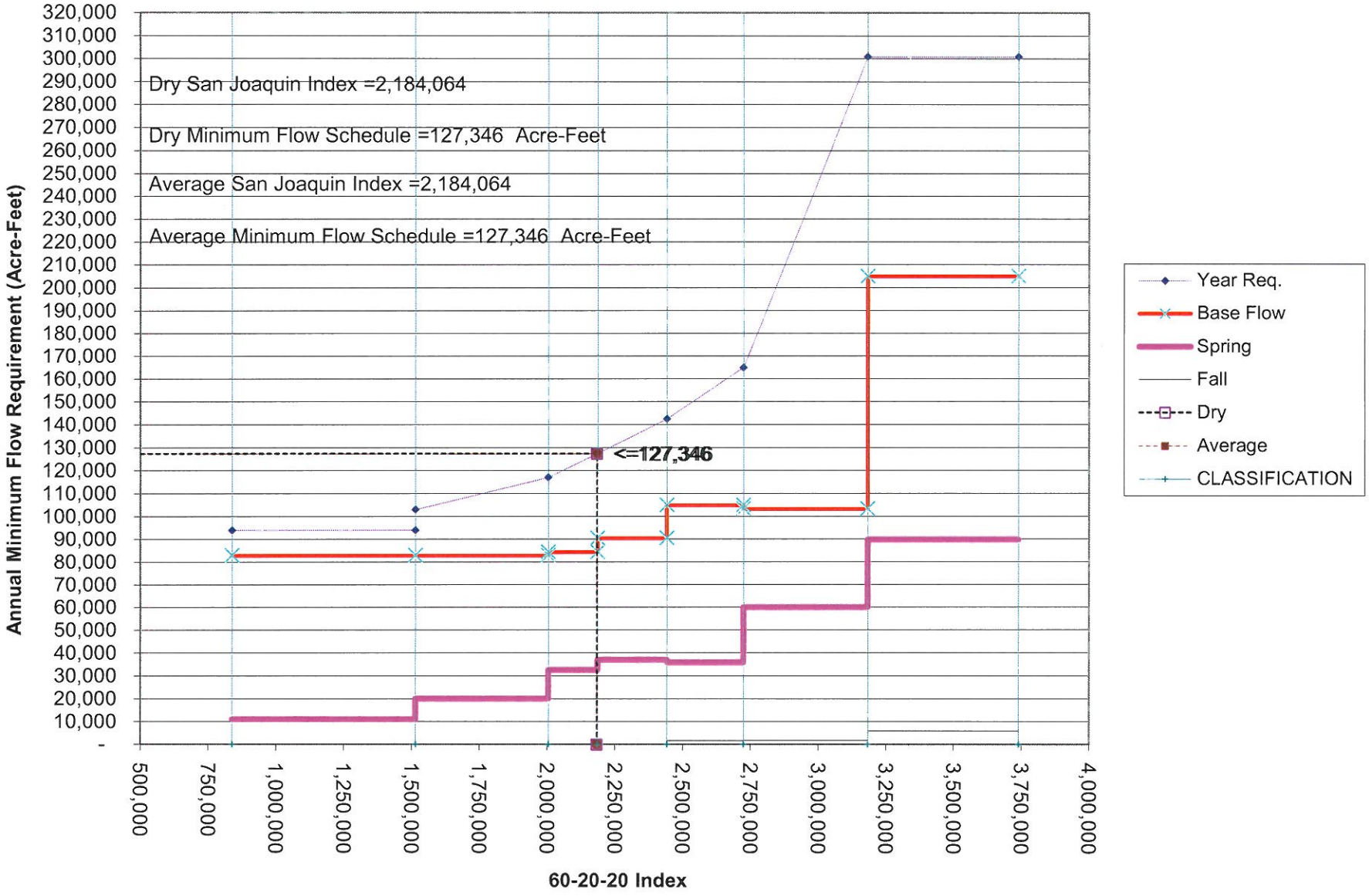
TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 3)
(Summer Base Flow)



TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 4)
Interpolation Volume



TUOLUMNE RIVER MINIMUM FLOW REQUIREMENT (Figure 5)
Classification



Dry San Joaquin Index =2,184,064

Dry Minimum Flow Schedule =127,346 Acre-Feet

Average San Joaquin Index =2,184,064

Average Minimum Flow Schedule =127,346 Acre-Feet

Table 2

Tuolumne River Flow Schedule

Based on DWR 60-20-20 Final Index for 2012, Final Hydrologic Conditions

SCHEDULE FOR 2012 - 2013 Fish Flow Year

DATE		Number of	BASE FLOW			PULSE FLOW			INTERPOLATION FLOW			TOTAL FERC FLOW	
From:	To:	DAYS	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	AF	ACCUM. A.F.	CFS	ACCUM. A.F.
15-Apr-2012	15-Apr-2012	1	150	298	298	0	0	0	0	0	0	150	298
16-Apr-2012	16-Apr-2012	1	150	298	595	0	0	0	0	0	0	150	595
17-Apr-2012	17-Apr-2012	1	150	298	893	0	0	0	0	0	0	150	893
18-Apr-2012	18-Apr-2012	1	150	298	1,190	0	0	0	0	0	0	150	1,190
19-Apr-2012	19-Apr-2012	1	150	298	1,488	0	0	0	0	0	0	150	1,488
20-Apr-2012	20-Apr-2012	1	150	298	1,785	0	0	0	0	0	0	150	1,785
21-Apr-2012	21-Apr-2012	1	150	298	2,083	0	0	0	0	0	0	150	2,083
22-Apr-2012	22-Apr-2012	1	150	298	2,380	0	0	0	0	0	0	150	2,380
23-Apr-2012	23-Apr-2012	1	150	298	2,678	0	0	0	0	0	0	150	2,678
24-Apr-2012	24-Apr-2012	1	150	298	2,975	0	0	0	0	0	0	150	2,975
25-Apr-2012	25-Apr-2012	1	150	298	3,273	45	90	90	0	0	0	195	3,363
26-Apr-2012	26-Apr-2012	1	150	298	3,570	50	99	189	0	0	0	200	3,759
27-Apr-2012	27-Apr-2012	1	150	298	3,868	150	298	487	0	0	0	300	4,355
28-Apr-2012	28-Apr-2012	1	150	298	4,165	200	397	883	0	0	0	350	5,049
29-Apr-2012	29-Apr-2012	1	150	298	4,463	200	397	1,280	0	0	0	350	5,743
30-Apr-2012	30-Apr-2012	1	150	298	4,760	200	397	1,677	0	0	0	350	6,437
01-May-2012	01-May-2012	1	150	298	5,058	500	992	2,669	0	0	0	650	7,726
02-May-2012	02-May-2012	1	150	298	5,355	500	992	3,660	0	0	0	650	9,016
03-May-2012	03-May-2012	1	150	298	5,653	500	992	4,652	0	0	0	650	10,305
04-May-2012	04-May-2012	1	150	298	5,950	500	992	5,644	0	0	0	650	11,594
05-May-2012	05-May-2012	1	150	298	6,248	500	992	6,636	0	0	0	650	12,883
06-May-2012	06-May-2012	1	150	298	6,545	500	992	7,627	0	0	0	650	14,173
07-May-2012	07-May-2012	1	150	298	6,843	500	992	8,619	0	0	0	650	15,462
08-May-2012	08-May-2012	1	150	298	7,140	500	992	9,611	0	0	0	650	16,751
09-May-2012	09-May-2012	1	150	298	7,438	1,900	3,769	13,379	0	0	0	2,050	20,817
10-May-2012	10-May-2012	1	150	298	7,736	1,900	3,769	17,148	0	0	0	2,050	24,883
11-May-2012	11-May-2012	1	150	298	8,033	1,900	3,769	20,917	0	0	0	2,050	28,950
12-May-2012	12-May-2012	1	150	298	8,331	1,900	3,769	24,685	0	0	0	2,050	33,016
13-May-2012	13-May-2012	1	150	298	8,628	1,150	2,281	26,966	0	0	0	1,300	35,594
14-May-2012	14-May-2012	1	150	298	8,926	850	1,686	28,652	0	0	0	1,000	37,578
15-May-2012	15-May-2012	1	150	298	9,223	600	1,190	29,842	0	0	0	750	39,065
16-May-2012	16-May-2012	1	150	298	9,521	100	198	30,040	0	0	0	250	39,561
17-May-2012	17-May-2012	1	150	298	9,818	100	198	30,239	0	0	0	250	40,057
18-May-2012	18-May-2012	1	150	298	10,116	100	198	30,437	0	0	0	250	40,553
19-May-2012	19-May-2012	1	150	298	10,413	100	198	30,636	0	0	0	250	41,049
20-May-2012	20-May-2012	1	150	298	10,711	250	496	31,131	0	0	0	400	41,842
21-May-2012	21-May-2012	1	150	298	11,008	250	496	31,627	0	0	0	400	42,636
22-May-2012	22-May-2012	1	150	298	11,306	250	496	32,123	0	0	0	400	43,429
23-May-2012	23-May-2012	1	150	298	11,603	250	496	32,619	0	0	0	400	44,222
24-May-2012	24-May-2012	1	150	298	11,901	0	0	32,619	611	1,212	1212	761	45,732
25-May-2012	25-May-2012	1	150	298	12,198	0	0	32,619	611	1,212	2425	761	47,242
26-May-2012	26-May-2012	1	150	298	12,496	0	0	32,619	611	1,212	3637	761	48,752
27-May-2012	27-May-2012	1	150	298	12,793	0	0	32,619	611	1,212	4849	761	50,261
28-May-2012	28-May-2012	1	150	298	13,091	0	0	32,619	611	1,212	6061	761	51,771
29-May-2012	29-May-2012	1	150	298	13,388	0	0	32,619	200	397	6458	350	52,465
30-May-2012	30-May-2012	1	150	298	13,686	0	0	32,619	50	99	6557	200	52,862
31-May-2012	31-May-2012	1	150	298	13,983	0	0	32,619	25	50	6607	175	53,209
01-Jun-2012	01-Jun-2012	1	50	99	14,083	0	0	32,619	100	198	6805	150	53,507
02-Jun-2012	02-Jun-2012	1	50	99	14,182	0	0	32,619	75	149	6954	125	53,755
03-Jun-2012	03-Jun-2012	1	50	99	14,281	0	0	32,619	50	99	7053	100	53,953
04-Jun-2012	04-Jun-2012	1	50	99	14,380	0	0	32,619	25	50	7103	75	54,102
05-Jun-2012	05-Jun-2012	1	50	99	14,479	0	0	32,619	0	0	7103	50	54,201
06-Jun-2012	06-Jun-2012	1	50	99	14,579	0	0	32,619	0	0	7103	50	54,300
07-Jun-2012	30-Jun-2012	24	50	2,380	16,959	0	0	32,619	0	0	7103	50	56,680
01-Jul-2012	31-Jul-2012	31	50	3,074	20,033	0	0	32,619	0	0	7103	50	59,755
01-Aug-2012	31-Aug-2012	31	50	3,074	23,107	0	0	32,619	0	0	7103	50	62,829
01-Sep-2012	30-Sep-2012	30	50	2,975	26,083	0	0	32,619	0	0	7103	50	65,804
01-Oct-2012	01-Oct-2012	1	150	298	26,380	0	0	32,619	0	0	7103	150	66,102
02-Oct-2012	07-Oct-2012	6	150	1,785	28,165	0	0	32,619	0	0	7103	150	67,887
08-Oct-2012	10-Oct-2012	3	150	893	29,058	0	0	32,619	0	0	7103	150	68,779
11-Oct-2012	12-Oct-2012	2	150	595	29,653	0	0	32,619	407	1,614	8716	557	70,988
13-Oct-2012	14-Oct-2012	2	150	595	30,248	0	0	32,619	407	1,614	10330	557	73,197
15-Oct-2012	31-Oct-2012	17	150	5,058	35,306	0	0	32,619	0	0	10,330	150	78,255
01-Nov-2012	30-Nov-2012	30	150	8,926	44,231	0	0	32,619	0	0	10,330	150	87,181
01-Dec-2012	31-Dec-2012	31	150	9,223	53,455	0	0	32,619	0	0	10,330	150	96,404
01-Jan-2013	31-Jan-2013	31	150	9,223	62,678	0	0	32,619	0	0	10,330	150	105,627
01-Feb-2013	28-Feb-2013	28	150	8,331	71,008	0	0	32,619	0	0	10,330	150	113,958
01-Mar-2013	31-Mar-2013	31	150	9,223	80,231	0	0	32,619	0	0	10,330	150	123,181
01-Apr-2013	14-Apr-2013	14	150	4,165	84,397	0	0	32,619	0	0	10,330	150	127,346
No. of days		365	(April 15 through April 14)										

1 cfs day = 1.983471 acre-feet (af)