

February 2018 Seasonal Forecast

Barrier Assumptions

- The Middle River barrier was installed on March 13, 2018 and is assumed to be removed on November 15, 2018.
- The Old River at Tracy barrier was installed on March 29, 2018, and is assumed to be removed on November 4, 2018.
- The Grant Line Canal barrier was partially installed on April 5, 2018, and is assumed to be fully closed on June 1, 2018 and removed on November 3, 2018.
- The Spring Head of Old River (HOR) barrier was installed on March 30, 2018 and is assumed to be removed on May 31, 2018. The Fall HOR barrier is assumed to be installed on September 30, 2018 and removed on November 5, 2018.

Hydrology Assumptions

The water allocations studies upon which this February 2018 Seasonal Forecast is based include actual water supply conditions as of February 1, 2018. The Water Year classification will be below normal for the Sacramento Valley and dry for the San Joaquin Valley for 50% exceedance, and dry for the Sacramento Valley and critical for the San Joaquin Valley for 90% exceedance. The hydrology data for the forecast were taken from a planning tool, and real time changes in operations have occurred since these studies were completed. Two scenarios were run under the following hydrologic assumptions:

50% Exceedance

- Wetter hydrology (50%) based on the June 1st Water Supply Index (WSI) until September with historical hydrology from October of last year to end of February of current year.
- Operating to meet SWRCB Water Rights Decision 1641 (D-1641) objectives along with moderate export restrictions required under the 2008 USFWS BiOp for Delta Smelt, 2009 NMFS BiOp for Salmonids and 2010 DFG Longfin Incidental Take Permit.
- Sacramento Valley Index was 6.7 and the San Joaquin Valley Index was 2.4.

Table 1: Assumptions for 50% Exceedance

	Sacramento River		East Side Streams CFS	San Joaquin River at Vernalis CFS	Jones PP CFS	Banks PP CFS	Delta Inflow CFS	NDOI CFS
	Accretions CFS	Freeport CFS						
Jan	8473	18020	667	2261	3334	3009	21174	16881
Feb	9723	18672	1011	4267	1981	1963	24189	21668
Mar	16285	26317	933	5382	2329	2329	32857	28731
Apr	672	14150	555	4139	807	521	19045	16639
May	-2602	7969	391	4856	813	764	13414	9588
Jun	-4538	10856	244	2183	1815	655	13477	7097
Jul	-5692	14198	149	1356	4180	585	15902	6504
Aug	-3253	12100	140	1210	3741	651	13654	5181
Sep	504	10991	223	1291	4386	1344	12710	4247
Oct	-407	8603	210	1138	2635	732	10154	5002
Nov	1477	9935	260	1343	3365	2282	11745	4997
Dec	2228	9189	160	1464	1724	1578	11030	6891
Avg.	1906	13417	412	2574	2592	1368	16613	11119

90% Exceedance

- Drier hydrology (90%) based on the June 1st Water Supply Index (WSI) until September with historical hydrology from October of last year to end of February of current year.
- Operating to meet SWRCB Water Rights Decision 1641 (D-1641) objectives along with moderate export restrictions required under the 2008 USFWS BiOp for Delta Smelt, 2009 NMFS BiOp for Salmonids and 2010 DFG Longfin Incidental Take Permit.
- Sacramento Valley Index was 6.0 and the San Joaquin Valley Index was 2.1.

Table 2: Assumptions for 90% Exceedance

	Sacramento River		East Side Streams CFS	San Joaquin River at Vernalis CFS	Jones PP CFS	Banks PP CFS	Delta Inflow CFS	NDOI CFS
	Accretions CFS	Freeport CFS						
Jan	8473	18020	667	2261	3334	3009	21174	16881
Feb	5402	13162	541	2035	1981	1963	15976	12633
Mar	8306	14836	711	2923	1694	1694	18695	15211
Apr	-2521	10117	414	2358	807	286	13090	10585
May	-4066	8424	296	2531	813	569	11448	7694
Jun	-5378	10235	187	1460	800	252	12075	7100
Jul	-6668	9530	124	836	813	260	10690	5001
Aug	-4066	8733	114	755	813	276	9807	4650
Sep	-168	9966	171	871	4033	269	11213	4123
Oct	-407	8603	210	1138	3113	268	10154	5000
Nov	1477	8827	260	1343	3247	1301	10637	4997
Dec	2228	7514	160	1464	903	1529	9354	6096
Avg.	218	10664	321	1664	1863	973	12859	8331

Summary of Results

EC and Bromide at Checks 2, 13, 41, and Silverwood Lake

- Both scenarios follow a similar trend for most of the forecast period.
- For Ccheck 2, the 90% exceedance scenario has higher EC/Bromide during the whole period except a short period in early April and early October. For Ccheck 13, the 90% exceedance scenario has higher EC/Bromide during the whole forecast period. For check 41 and Silverwood Lake, the 90% exceedance scenario has higher EC/Bromide during the whole period except December. For checks 2 and 13, EC/Bromide remain steady for the whole forecast period before November. After that EC/Bromide increases steadily. For Check 41 and Silverwood Lake, EC and Bromide remain flat for the whole forecast period except December for the 50% exceedance scenario; EC and Bromide remain flat for the whole forecast period for the 90% exceedance scenario.

EC and bromide at Export Locations and Old River Locations (Bacon Island and Highway 4)

- For Old River at Bacon Island, the 50% scenario has higher EC/Bromide before early June, and after November 15. At other times, the 90% scenario has higher EC/Bromide.
- For Old River at Highway 4, the 50% scenario has higher EC/Bromide before May 15 and after December 1. At other times, that 90% scenario has higher EC/Bromide.