

January 2018 Seasonal Forecast

Barrier Assumptions

- The Middle River barrier is installed on March 31, 2018 and removed on November 15, 2018.
- The Old River at Tracy barrier is installed on March 31, 2018, and removed on November 4, 2018.
- The Grant Line Canal barrier is partially installed on March 28, 2018, and fully closed on June 1, 2018. The barrier is removed on November 3, 2018.
- The Spring Head of Old River (HOR) barrier is installed on April 1, 2018 and removed on May 31, 2018. The Fall HOR barrier is installed on September 30, 2018 and removed on November 5, 2018.

Hydrology Assumptions

The water allocations studies upon which this January 2018 Seasonal Forecast is based include actual water supply conditions as of January 1, 2018. The Water Year classification will be below normal for the Sacramento Valley and dry for the San Joaquin Valley. 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 January 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 8.1 and the San Joaquin Valley Index was 2.8.

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	8132	21565	585	2277	2277	3171	24655	20468
Feb	28990	42764	2707	4267	1693	3997	49977	45713
Mar	22474	40958	2623	5382	1498	3159	49188	45066
Apr	8067	18654	1695	4139	807	689	24689	22123
May	2602	17402	1248	4856	813	764	23703	19871
Jun	-1344	15495	954	2183	1403	1403	18825	12105
Jul	-3415	17792	333	1356	3106	3936	19680	8005
Aug	-2114	16800	351	1210	3188	4180	18566	7106
Sep	1344	17814	482	1291	4386	5563	19793	7101
Oct	-407	12425	210	1138	2749	2342	13976	7097
Nov	1477	10808	260	1343	3105	2098	12618	6317
Dec	2228	9693	160	1464	2358	2342	11534	5998
Avg.	5669	20181	967	2576	2282	2804	23934	17247

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 January 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 6.4 and the San Joaquin Valley Index was 1.9.

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	8132	17337	585	2277	1822	3171	20426	15835
Feb	14405	22111	782	1494	1152	3115	24626	20958
Mar	9771	16057	798	2923	1287	2101	20004	16518
Apr	672	10470	467	2358	807	689	13496	10586
May	-2277	8538	329	2531	813	667	11595	7737
Jun	-4033	10655	201	1460	807	655	12509	7105
Jul	-5367	12718	134	836	3497	748	13887	5003
Aug	-3253	12376	124	755	3789	927	13459	4653
Sep	504	11663	195	871	4386	1597	12935	4144
Oct	-407	9075	210	1138	2098	1740	10625	5002
Nov	1477	8827	260	1343	2239	2291	10637	5007
Dec	2228	8164	160	1464	1195	1974	10005	5999
Avg.	1821	12333	354	1621	1991	1640	14517	9046

Summary of Results

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

- The 50% and 90% exceedances follow a similar trend for most of the forecast period.
- The 90% scenario has higher EC/Bromide during the whole period except a short period in the middle of February. For the 50% exceedance, EC/Bromide peak during February, then decrease until early October, after that the EC/Bromide gradually increase. For the 90% exceedance, EC/Bromide peak during March, then decreases until September, after that EC/Bromide gradually increase.

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, after that that 90% scenario has higher EC/Bromide.
- For Old River at Highway 4, the 50% scenario has higher EC/Bromide before April 15, after that that 90% scenario has higher EC/Bromide.