

February 2019 Seasonal Forecast

Barrier Assumptions

- The Middle River barrier is installed from May 15th, 2019 to November 15th, 2019
- The Old River at Tracy barrier is installed from May 15th, 2019 to November 15th, 2019
- The Grant Line Canal barrier is installed from May 15th, 2019 to November 15th, 2019
- The Head of Old River Barrier is installed from March 15th, 2019 to May 15th, 2019

Hydrology Assumptions

The water allocations studies upon which this February 2019 Seasonal Forecast is based include actual water supply conditions as of February 1, 2019. The Water Year classification will be Below Normal for both the Sacramento Valley and 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 February 1st Water Supply Index (WSI) until September with historical hydrology (90%) in the fall months (Oct-Dec)
- 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.

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	24167	31275	1334	1545	3578	2374	34380	29787
Feb	25208	40207	3565	7490	3781	4159	51501	45127
Mar	19868	29884	2277	5374	2783	1857	37761	33635
Apr	6386	15209	1460	4134	897	615	21005	18380
May	1952	11010	1074	4863	888	641	17145	13384
Jun	-1513	12940	812	2185	1681	1176	16130	9419
Jul	-3253	19484	295	1350	4098	6131	21327	6497
Aug	-1952	18183	309	1203	4399	6115	19899	5343
Sep	1176	15495	430	1294	4403	5865	17425	4449
Oct	-407	10392	210	1138	4399	797	11943	4994
Nov	1477	11194	260	1343	3843	3054	13004	5006
Dec	2228	10978	160	1464	2244	1496	12819	8241
Avg.	6278	18854	1016	2782	3083	2857	22861	15355

90% Exceedance

- Drier hydrology (90%) based on the February 1st Water Supply Index (WSI) until September with historical hydrology (90%) in the fall months (Oct-Dec)
- 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.

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	24167	31275	1334	1545	3578	2374	34380	28928
Feb	18006	33005	3565	7490	3781	3637	44299	37617
Mar	14331	22343	1055	1596	1612	1050	25220	22436
Apr	2017	10604	637	2487	807	706	13930	10969
May	-1626	9091	453	2212	813	716	11954	8085
Jun	-3697	11226	296	891	807	706	12606	7242
Jul	-4879	13060	162	781	3415	1203	14201	5007
Aug	-2765	12848	156	699	3432	1789	13907	4678
Sep	840	12285	241	823	4403	2244	13556	4192
Oct	-407	9628	210	1138	4163	309	11178	5007
Nov	1477	9516	260	1343	2920	2333	11325	5004
Dec	2228	9303	160	1464	2017	1350	11143	6977
Avg.	4141	15349	711	1872	2646	1535	18142	12178

Summary of Results

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

- Overall trends for the February Forecasts are very similar to the January Forecasts. Quality is at its best in the July to August period and at its worst in the November to December period in most of these cases.

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

- At Banks and Tracy, the 50% exceedance has the lower EC during the spring while the summer and fall show lower EC for the 90% exceedance. In the spring, South Delta water quality is controlled more by delta inflow, with the wetter 50% exceedance having the better quality. In the summer and fall South Delta quality is driven more by exports pulling back sea salt, therefore the greater exports in the 50% result in the higher EC during this time.