January 2016 Seasonal Forecast

Barrier Assumptions

Last year's installation and removal dates will be assumed until further information is provided.

- The Middle River barrier is installed from March 31st, 2016 to November 20th, 2016
- The Old River at Tracy barrier is installed from April 3rd, 2016 to November 4th, 2016
- The Grant Line Canal barrier is installed from April 17th, 2016 to November 4th, 2016
- The HORB was not installed

Hydrology Assumptions

Two scenarios were run under the following Hydrologic assumptions:

50% Exceedance (90% Fall)

- Wetter hydrology (50%) based on the January 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.
- Freeport flow varies from approximately 8,500 cfs in December to approximately 29,000 cfs in February
- Projects' exports including the Lower Yuba Accord Component #1 water to both the State Water Project and Central Valley Project.

90% Exceedance (90% Fall)

- Drier hydrology (90%) based on the January 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.
- Freeport flow varies from approximately 6,200 cfs in October to approximately 14,600 cfs in February
- Projects' exports including the Lower Yuba Accord Component #1 water to the State Water Project and Central Valley Project.

Summary of Results

EC and Bromide at Check Structures and Silverwood Lake

- From January 2016 to July 2016, the EC and bromide outputs for the 50% and 90% exceedance range from approximately 400 us/cm to 600 us/cm. In the summer months, the EC and bromide begin to increase, with the values peaking around September and decreasing through the remainder of the forecast period.

Summary of Results (continued)

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

- After August, inflows into the Delta begin to decrease which leads to a degradation in water quality.

- Inflows into the Delta increase around the month of September which leads to an improvement in water quality in the 50% exceedance case. In the 90% exceedance case, inflows and pumping offset each other which lead to the water quality remaining relatively flat.

EC and Bromide at Export Locations

- The trends at Banks and Jones are similar to what is seen at Bacon Island and Highway 4.

- A degradation in water quality can be seen after August in the 50% exceedance case, and the quality begins to improve around September.

Table 1: Net Delta Outflow (cfs)

Month	50%-Mod	90%-Mod
January	23735	11319
February	31518	13341
March	30589	12766
April	17927	9969
May	12932	7099
June	7812	7092
July	5218	4220
August	4946	4320
September	4575	4224
October	6005	5003
November	5005	4995
December	4699	5008