**Sites Workshop**

**July 16, 2019**

**CDFW Operations Scenario - For Discussion Purposes Only**

* Two runs:
  + Sites diversions limited to November through March
  + Sites diversion in any month

Sacramento River:

* No monthly pulse protection based on Bend Bridge flow
* Sacramento River flow ramp down rate as per State Water Resources Control Board Order 90-5
  + > 6,000 cfs Sacramento River flow – decrease in flow not to exceed 2.5% per hour and maximum of 15% per day
  + 4,000 cfs to 6,000 cfs Sacramento River flow – decrease in flow not to exceed 100 cfs per hour and maximum of 200 cfs per day
  + < 4,000 cfs Sacramento River flow – decrease in flow not to exceed 100 cfs per day
* Model flow volume, frequency and duration changes in Moulton Weir Bypass inundation
* Model flow volume, frequency and duration changes in Colusa Weir Bypass inundation
* Model flow volume, frequency and duration changes in Tisdale Weir Bypass inundation
* Bypass flow > 10,000 cfs at Wilkins Slough prior to Sites diversions – functional fish flow (Matt Johnson CDFW in conjunction with NMFS SW Science Center pers. comm.)
* Fremont Weir notch diversion prioritization - Preferred alternative 6,000 cfs starting at 15 feet to 29.5 feet elevation at Fremont Weir gauge from November 1 through March 15. After March 15th through April maintain 600 cfs fish passage flow through the Fremont Weir notch (Yolo Bypass Habitat Restoration and Fish Passage Project EIR/EIS 2019)
* Model flow volume, frequency and duration changes in Fremont Weir overtopping inundation

Delta:

* Preferential CVP/SWP WIIN Act Flexibility up to full diversion capacity of 11,200 cfs during excess Delta conditions (USBR ROC LTO BA 2018)
* > 35,000 cfs inflow at Freeport prior to Sites diversions – functional fish flow (NMFS CWF BO 2017 Appendix E, CDFW CWF ITP 2017, Flow-mediated effects on travel time, routing, and survival of juvenile Chinook salmon in a spatially complex, tidally forced river delta, Perry et al 2018)
* NDOI outflow index > 44,500 cfs – functional fish flow longfin smelt (CDFW CWF ITP 2017, Population Dynamics of an Estuarine Forage Fish: Disaggregating Forces Driving Long-Term Decline of Longfin Smelt in California's San Francisco Estuary, Nobriga and Rosenfield 2016)