

## WOMT Notes

### May 26, 2015 Meeting

#### 1. General Information:

##### CVP

- *Keswick Releases to upper Sacramento River @ 7500 cfs*
- *Nimbus Releases to lower American River @ 1500 cfs*
- *Goodwin Release to Stanislaus River @ 150 cfs*
- *Jones Pumping Plant @ 0 due to switchyard outage thru 6/27, then back to 800 cfs one day on, one day off*
- *Delta Cross-Channel Gates: Closed during week, opened on weekends Friday morning thru Monday morning*
- *Federal Share of San Luis 324 TAF*

##### SWP

- *Oroville Release to Feather River @ 1500 cfs*
- *Clifton Court Allotment @ 1300 cfs (400 cfs is for CVP), back to 900 cfs on 6/28*
- *State Share of San Luis @ 804 TAF*

##### Delta

- *Freeport Flow approx. 7,900 cfs*
- *Vernalis Flow approx. 400 cfs*

- *Delta Outflow approx.5,100 cfs*

### **OMR (cfs):**

- INDEX (as of 5/24/2015):
  - 5 day average: -1300 cfs,
  - 14 day average: -1270 cfs
- USGS (as of 5/9/2015):
  - 5-day average: -1210 cfs
  - 14 day average: -1370 cfs

### **FISHERY UPDATES:**

#### **DOSS**

DOSS Advice to WOMT and NMFS: None.

#### Delta RPA Actions affecting operations during May:

Action IV.1.2 (DCC gate operations):

- DCC gates were opened Friday, 5/22 and are closing today, 5/26.
- DCC gates will open again Friday, 5/29, and will close Monday, June 1
- Both of the above openings are usual operations during the May 21-June 15 period of both the NMFS BiOp and D-1641 DCC operations schedule.

Action IV.2.3 (OMR Flow Management)

- The OMR limit of no more negative than -5,000 cfs is in effect.

Action IV.2.1 (I:E ratio)

- Currently, the Critical year 1:1 ratio (of San Joaquin inflow at Vernalis to combined CVP/SWP exports) is in effect. This action restricts combined exports to 100% of Vernalis flow, or 1,500 cfs, whichever is greater.

DOSS Estimates of Fish Distribution

DOSS estimates of the current distribution of listed Chinook and steelhead, as a percentage of the population, are based on recent monitoring data and historical migration timing patterns. The table below reflects current distribution. Note that the latest Chipps Island, Sacramento Trawl, and Beach seine data was not available by the time of the 5/26/15 DOSS call, due to the Monday holiday. The Mossdale Trawl data was received and quickly reviewed during the DOSS call.

Location	Yet to Enter Delta (Upstream of Knights Landing)	In the Delta	Exited the Delta (Past Chipps Island)
Young-of-year (YOY) winter-run Chinook salmon (naturally produced)		>99% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: same)	
YOY winter-run Chinook salmon (hatchery-produced)		>99% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: same)	
YOY spring-run Chinook salmon <sup>A</sup>		>99% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: Few stragglers yet to enter the Delta, 5% in the Delta, 95% exited the Delta)	
Yearling spring-run Chinook salmon <sup>B</sup>		>99% out of Delta; Generally done migrating with the exception of a few stragglers. (last week: same)	
Hatchery steelhead <sup>C</sup>		>99% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: >95% out of Delta)	
Sacramento River steelhead (naturally- produced)		Limited catch data	

San Joaquin River steelhead <sup>D</sup>	<p style="text-align: center;">&gt;95% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: Few stragglers yet to enter the Delta, 5% in the Delta, 95% exited the Delta)</p>
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<sup>A</sup> Chipp Island Trawl data of spring-run is difficult to interpret now that the 75% unmarked fall-run productions are likely masking the wild spring-run Chinook catch.

<sup>B</sup> No yearling spring-run Chinook salmon have been caught in 2014 monitoring. In general, very few yearling spring-run Chinook salmon are observed because of their relatively large size and strong swimming (and associated gear avoidance) abilities.

<sup>C</sup> Difficult to assess now that all hatchery releases are in the system (CNFH, Feather River Fish Hatchery, and Mokelumne Fish Hatchery released as usual; Nimbus Hatchery released their steelhead in the spring of 2014 because of expected unsuitable hatchery water temperatures during the summer of 2014). Percentages are intended to capture distribution of steelhead that migrate out; not those that may residualize.

<sup>D</sup> Have observed a few juvenile steelhead in monitoring data. Distribution estimates are also based on 10 years of historical data from Mossdale Trawls (on the San Joaquin River) and RST data from Caswell Park (on the Stanislaus River), as well as on recent flow and water temperature conditions.

### DOSS Feedback on Entrainment Risk

Entrainment risk of fish from the Sacramento River into the Interior Delta (same as last week except for tidal conditions):

DOSS noted that generally, there is an increased risk of entrainment into the interior Delta during spring tides, compared to during neap tides, at any OMR level. During a spring tide, tidal conditions extend further upstream and may, for example, create conditions at Georgiana Slough (e.g., reverse flows) that are associated with routing into Georgiana Slough, a route to the interior Delta. Currently, the Delta is experiencing a neap tide.

DOSS notes that an open DCC may increase the risk of entrainment into the interior Delta for fish in the vicinity of the DCC. However, occasional DCC gate opening from 5/21 to 6/15 is allowed per both D-1641 and the NMFS BiOp's RPA Action IV.1.2, and

so this opening doesn't represent any change in risk to migrating salmonids relative to typical operations.

Entrainment risk of fish in the Interior Delta into the CVP/SWP facilities (same as last week):

DOSS assessed the current risk of entrainment for listed salmonids. For listed salmonids in the Delta, the current risk of entrainment for each OMR flow range was characterized as follows:

- -1,200 to -2,000 cfs has a medium risk of entrainment
- -2,000 to -3,500 cfs has a medium to high risk of entrainment
- -3,500 to -5,000 cfs has a high risk of entrainment

DOSS notes that, once the CVP pumping plant resumes operations on Thursday, 5/28, the risk of facility loss may be reduced relative to the risk during the period of SWP pumping only, since the CVP is more efficient at salvaging fish.

Next Meeting: DOSS will not meet next week, though data will be shared with the DOSS group via e-mail. The next DOSS conference call will be on 6/9/15 at 9am.

**SWG** – Group met Monday, no advice. Low to medium risk of entrainment at current low OMR levels. Continue to monitor and meet, next meeting is next Monday.

**NMFS** – No determination needed.

**USFWS** – No determination at this time.

**DFW** – No determination.

**SWRCB:**

- **Division of Water Rights** – Drought Workshop was held on May 20; Shasta Temperature Management Plan is still being discussed. Current indications are Reclamation will be right on border of 56 degree compliance at Clear

Creek. More information will be presented internally to SWRCB this week, not sure what they'll do with it.

- **Office of Delta Watermaster** - Nothing to report.

**2. WOMT Decisions** - None