

## **Delta Operations for Salmonids and Sturgeon (DOSS) Group**

11/24/09 Tues conf. call 9:00 am

**Objective of the DOSS group:** Provide recommendations to WOMT and NMFS on measures to reduce adverse effects of Delta operations of the CVP and SWP to salmonids and green sturgeon and will coordinate the work of the other technical teams.

**Meeting Objective:** Review fish monitoring data and provide recommendation to the Water Operations Management Team (WOMT) as to triggers for Delta Cross Channel (DCC) gate closures in the NMFS 2009 OCAP biological opinion.

**Attendees:** Andy Chu, & Mitch Goode (DWR), Thuy Washburn & John Hannon (USBR), Matt Nobriga (DFG), Pat Brandes & Roger Guinee (FWS), Bruce Oppenheim, Garwin Yip, Barbara Byrne & Jeff Stuart (NMFS), Bruce Herbold (EPA)

### **Agenda items:**

- 1) Review current DCC ops
- 2) Delta Action 8 study criteria
- 3) Move DOSS to Monday

### **Notes:**

**1) DCC gate ops:** Gates are currently closed to meet the Rio Vista Flow Standard, but may reopen 11/25 if the runoff from past weekend rain boosts Freeport flows. Daily Rio Vista flows for the last few days are in the range of 6,000 – 7,000 cfs, which may be enough to meet the D-1641 monthly standard (4500 cfs) for the month of November. The monthly average to date at Rio Vista is currently at 4600 or 4800 cfs. Bruce Herbold asked why open the gates if Rio Vista flows are so close to the D-1641 standard? Ans. Freeport flows are expected to drop after the rain this week. Freeport flows are expected to decrease due to the ramping down of Keswick releases to 3250 cfs minimum. Less Freeport flows coupling with DCC opening may cause problems for the 7-day Rio Vista average in early December. Pat Brandes from the Delta Action 8 Experiment team hopes that the Projects can keep the DCC open for the first few days of December after the experiment fish are scheduled to be released on December 1, 2009. Representatives from the Project agency agreed to explore the option of closing the DCC a couple of days earlier before the Dec. 1<sup>st</sup> release to ensure the 7-day Rio Vista compliance in the first week of Dec.

**Action Item:** Thuy Wasburn will find out if DCC gates can be closed before Dec. 1<sup>st</sup> to boost Rio Vista flows during the first week in December (meet w/Andy Chu off line)

### **Fish Monitoring:**

Reviewed FWS data (Sacramento Trawl and seine sites) and DFG trapping data at Knights Landing (KL). For other monitoring sites, see:  
<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

KL data since last week:

Date	Flow	Water		Turbidity	Species	Catch	CPUE
		temp (F)	Secchi (ft)				
11/17/09	4033	54	2.9	5.9	CS	0	0
11/19/09	4151	54	3.0	6.4	CS	0	0
11/21/09	4481	52	2.9	6.7	CS	0	0
11/23/09		52	2.6	8.6	CS	0	0

FWS data (DAT call 11/15 – 11/21): No juvenile salmonids caught in the trawls at Chipps, Mossdale, and Sacramento. Seines caught one winter-run at Sherwood Harbor on 11/18 and one winter-run at Sand Cove on 11/20.

Fish monitoring data (KLI and SCI) did not trigger or warrant DCC gate closures. DFG data at KL covers up to yesterday, November 23<sup>rd</sup>, CPUE has been zero since the 17<sup>th</sup>, trawls have been zero, and seines < 3 fish per day. Juvenile salmonids do not appear to be moving downstream due to low flow conditions. Water temperatures are in range where we expect to see fish moving (under 56 degrees) if flows increase. Need a storm event to get juvenile salmonids moving.

No salmonids or sturgeon have been reported salvaged at the fish salvage facilities since October 1<sup>st</sup>.

## 2) Delta Action 8 Study:

Reviewed criteria suggested last week:

- a) use real-time ops based on weather, consider proportion of winter-run or spring-run population passing the DCC gates
- b) if it stays dry wild fish are unlikely to move past the gates until after the experiment anyway
- c) only a small number of wild juveniles would be exposed to open gates (dry hydrology) during first two weeks of December
- d) no significant flow increases are predicted in the next 2 weeks
- e) if fish show up at KL between Dec 1-15, use triggers in the NMFS BiOp

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Agreed that a small portion of the winter-run juvenile population has past the DCC to date, and these fish are not at risk from the study because they have moved further down the Sacramento River. Some greater portion of this year's juveniles remains upriver (above the DCC), but it is unlikely these fish will move down in the first two weeks of December unless there is a large rain event. Estimated it takes at least 2 days for juvenile salmonids to travel from KL to the DCC. The DCC gates should be closed December 1 in order to protect early spring-run juveniles (NMFS BiOp). DFG's study (Alice Low) of DCC gates and salvage loss data showed a weak correlation in the first 2 weeks of December, and a stronger relation towards the end of December, presumably because major rain events are more common in late December.

Pat mentioned the study design is to clarify how much benefit is actually achieved by closing the DCC gates. The study will show under what conditions the DCC gates provide protection for salmonids from increased mortality associated with longer passage through the central delta (i.e., resulting from predation, entrainment, high temp, and contaminants). Past studies (USGS) showed gate closures in January resulted in higher proportion of releases going thru Georgiana Slough. Matt asked what conclusions can you draw from hatchery fish since they are more susceptible to predators than wild out-migrants – which are not presently trying to move through this region? He suggested minimizing the difference between hatchery release and wild fish behavior by releasing study fish when wild fish are moving downstream. However, this would increase the risk to wild fish if the gates were open during that period. Pat asked if the DCC gates could be closed on Monday (11/30) then opened on Tues (12/1) in order to provide more stabilized hydrologic conditions for the experiment (fish releases start at midnight on 12/1). Andy agreed to the proposed plan.

Discussed using the KL catch index to provide more conservative criteria for DCC gate closures during the DA8 experiment, concluded that we would not want to make the criteria more restrictive than it currently is stated in the NMFS BiOp.

**3) Move DOSS to Monday:** DOSS deferred to next mtg, due to time constraints.

**Other Items: Request to** add Jeff Stuart, John Hannon, and Nick Hindman to the DAT reflector. Bruce O will request that Sheila add these people.

**Recommendation for the week of 11/23 – 11/28:**

## **Delta Action 8**

### **Background**

Excerpt from the NMFS BO (p. 637)

*“The USFWS conducts a juvenile Chinook salmon Delta survival experiment each year in December and January. This is usually conducted in the first two weeks of December and may include experimental openings of the DCC gates. These studies may be implemented if NMFS concurs that the study plan has been adapted to sufficiently reduce loss of salmonids.”*

### **DOSS advice to NMFS re: Delta Action 8:**

DOSS advises that the Delta Action 8 experiment be allowed to go forward, with the “gates open” experimental treatment in place from December 1-14. Thereafter, per the NMFS RPA, the Delta Cross Channel (DCC) gates will be closed (with exceptions as noted in the RPA) from Dec 15-Jan 31. If, during the “gates open” experimental period, the Knight’s Landing Catch Index (KLCI) is >3 fish/day, the DCC gates will be closed within 24 hours of the trigger (or as soon as possible given necessary notification procedures for boaters). If the KLCI is >3 fish/day and ≤5 fish/day, the DCC gates will stay closed for three days. If the KLCI is >5 fish/day, the DCC gates will stay closed until the KLCI falls below 3 fish/day\*.

If the weather stays dry, the DCC gates may need to be closed during the “gates open” experimental period in order to meet the 7-day Rio Vista flow standard during December.

Rationale for DOSS advice: Current monitoring data show few salmon moving into the Delta past the Delta Cross Channel and salmon are not expected to be moving during the next few weeks based on current weather forecasts. DOSS agreed that, based on current and forecasted hydrology; the Delta Action 8 “gates open” treatment would pose a low risk to listed salmonids. The KLCI triggers outlined above will provide for a protective gate closure during the “gates open” experimental period if conditions change and salmon begin moving into the Delta.

*\*these triggers and gate closure periods are the same as described in the RPA for the Oct 1-Nov 30 DCC gate operations (p. 636 of the NMFS Biological Opinion).*

Next Mtg: 12/01/09 at 9:00 am. Agenda items: Moving DOSS to Monday