Delta Operations for Salmonids and Sturgeon (DOSS) Group

01/26/10 Tues conf. call 9:00 am

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project to salmonids and green sturgeon. DOSS will coordinate the work of other technical teams.

Attendees: Mike Ford, Reza Shahcheraghi, Carol Stroble (DWR), Roger Guinee, Nick Hindman (FWS), Jeff Stuart, Bruce Oppenheim, Garwin Yip, Barb Byrne (NMFS), John Hannon, Thuy Washburn (USBR), Tom Kimball, Greg Wilson (SWRCB).

Agenda items: fish monitoring, Delta water quality, proposed workshop

1) Fish Monitoring: Knights Landing (KL) weekly summary:

Date	Flow (cfs)	Water Temp (F)	Secchi (ft)	Turbidity (NTU)	Species	Catch	Min FL (mm)	Max FL (mm)	WR CPUE
01/19/10	14063	51	0.9	38.9	13 WR, 2 SR, 2 LF	605	32	133	3.28
01/20/10	24638	51	0.4	78.1	22 WR, 8 SR, 3 LF	600	31	180	10.83
01/21/10	26488	51			11 WR, 4 SR	963	33	106	5.41
01/22/10	27067	49	0.2	715.5	1 WR, 8 SR	509	31	77	3.00
01/23/10	26050	49	0.3	305.0	3 WR, 7 SR	959	30	85	1.82
01/24/10	24438	49	0.5	155.0	2 WR, 3 SR	1157	32	85	1.01
01/25/10		49	0.5	62.8	9 WR, 10 SR	672	31	119	4.25

FR = Fall run, LF = Late fall run, WR = winter-run, SR = spring-run

Knights Landing (KL): Flows have really picked up in the last few weeks, with flows exceeding 10,000 cfs beginning 1/14/10 (slight dip to 8803 cfs on 1/17) and exceeding 20,000 cfs since last Wednesday, 1/20. We've seen a big jump in catch (and CPUE) coincident with those increased flows. Turbidity peaked at 715 NTU on 1/22, however the reading was probably in error and more like 300 NTU (Robert Vincik, DFG).

<u>Summary of KL data from 1/19-1/25:</u>
Total Chinook catch ranged from 509 to 1157 per day during the storm, however most of these were fall-run fry.

Spring-run: catch ranged from 3-10, total catch for the week was 42
Winter-run: catch ranged from 1-22, total catch for the week was 61
late Fall-run: catch ranged from 0-3, total catch since 1/19 is: 5
ad-clipped chinook: catch ranged from 0-24, total catch since 1/19 is 40
ad-clipped steelhead: catch ranged from 0-18, total catch since 1/19 is 37
unclipped steelhead: catch ranged from 0-1, total catch since 1/19 is 1

The Knight's Landing catch index for winter-run (CPUE, with raw catches standardized to one day of effort) ranged from 1-10.8 with an average for the week of 4.2.

FWS data (for 1/17-1/23)
Beach Seines: 189 fall-run chinook, 7 winter-run chinook, & 3 tagged Chinook. The winter-run were caught at Sandy Beach, Georgiana Slough, and KL in the central delta, north delta, and lower Sacramento seine runs (sizes ranged from 74-114 mm).

Sacramento & Mossdale Trawls: No species of concern

Chipps Island Trawls: 1 late-fall chinook, 4 tagged chinook, 1 longfin smelt, & 1 Delta smelt (72 mm)

Note: Due to the Federal holiday on Monday and weather conditions throughout the week, many of the trawl sampling efforts were cancelled.

Mill & Deer Creeks:
Due to high flows, the Mill Trap only fished for 2 days this past week. A total of 24 Chinook fry were captured: 33-39 mm fl and 5 spring-run Chinook yearlings: 89-107 mm fl. No steelhead were trapped.

Due to damage to the high-line cable securing the Deer Creek trap, the trap did not fish last week after the flows subsided.

Both the Mill and Deer Creek traps should be fishing again on Wednesday, 1/27.

CVP and SWP Fish Salvage Facilities (1/19-1/24)

Note on winter-run vs. late-fall run IDs: The "ad-clipped winter-run" fish reported caught at the SWP cannot be ad-clipped winter-run, because there have been no hatchery releases of winter-run yet. Race is determined for these reports by the standard "length of fish at date" criteria, which can mis-identify late fall run fish as winter run fish. The "ad-clipped winter-runs" are likely late-fall-runs from the Coleman NFH.

Note on loss numbers used by DOSS: The loss numbers reported in the DOSS notes use the data that are reported via e-mail by DFG in the weekly salvage update, which may be different from the preliminary loss numbers posted by the USBR on the CVO website: *http://www.usbr.gov/mp/cvo/vungvari/salmondly.pdf*.

Note on preliminary Juvenile Production Estimate (JPE): NMFS has calculated a **preliminary** winter-run JPE which is needed for Action 4.2.3 in the NMFS OCAP opinion (*i.e.*, 2% JPE/2000 see p. 648-650 of the BO). The preliminary JPE estimate of 1,144,860 is based on last year's fecundity, sex ratio, pre-spawn mortality and temperature-related mortality and will be updated as we obtain the current year information. Even if the final JPE is 1/2 the current preliminary estimate, the reported loss density still would not have hit the JPE-based trigger to date.

Note on coded wire tag (CWT) releases from Coleman National Fish Hatchery: There have been 2 releases of spring-run surrogates (for a total of ~ 230,000 tagged late-fall-run Chinook salmon). These uniquely marked hatchery fish are released in the upper Sacramento River at the same time as the wild spring-run are leaving the tributaries. The assumption is that these hatchery surrogates will show up in the Delta at the same time as the wild fish, and can be used to estimate incidental take. Since we know how many fish are released, 0.5% of the total release (or approximately 1,150 fish) is the incidental take limit. The current cumulative loss of tagged late-fall-run (after adjusting for the ad-clipped winter-run) is 162.

Note on other loss density triggers: DWR will report back to the DOSS group additional information regarding the loss density triggers.

After "converting" ad-clipped winter-run to ad-clipped late-fall-run, the weekly loss & salvage numbers from 1/19-1/24 are:
unclipped winter-run LOSS= CVP + SWP = 11 (unchanged) + 0 (unchanged) = 11
ad-clipped winter-run LOSS = CVP + SWP = 0 (from 64) + 0 (from 72) = 0

unclipped late-fall LOSS = CVP + SWP = 0 (unchanged) + 0 (unchanged) = 0
ad-clipped late-fall LOSS = CVP + SWP = 68 (from 4) + 90 (from 18) = 158

unclipped steelhead SALVAGE = CVP + SWP = 0 + 4 = 4
ad-clipped steelhead SALVAGE = CVP + SWP = 40.33 + 8 = 48.33

Splittail SALVAGE = CVP + SWP = 28 + 12 = 40

No delta smelt were salvaged during this reporting period.
No sturgeon were salvaged during this reporting period.

The recent storm has initiated the movement of fish into the Delta (cues for fish movement include turbidity, flow, and water temperature), as shown by the high catch (and high CPUE) at Knight's Landing and increased salvage in the last week to two weeks. **However, based on the information we have to date, fish monitoring data did not trigger or warrant any operational changes and so DOSS has no advice for WOMT today.** We will continue to monitor catch data closely.

Smelt Working Group (SWG) report (Jeff Stuart)
SWG did meet this week. No action triggered by turbidity. No delta smelt or longfin smelt salvaged at the fish facilities. No SWG advice to FWS or WOMT this week.

Green Sturgeon update: no report

2) Water Operations *(DWR reporting)*

SWP:
Pumping at 4500 cfs at Clifton Court
Oroville releasing at 1350 cfs

Freeport flowing at 52,500 cfs yesterday
Vernalis at about 4100 cfs

DWR considers operations to be controlled by -5000 OMR, given the rising tide.
Water quality in good shape

OMR update:
As of yesterday, daily ave was -3838 cfs (Sat daily OMR was -560 cfs, Sun daily OMR was -1890 cfs), 14-day ave was -3965 cfs, and the 5-day ave was -2743 cfs. Outflow today about 57-58K cfs

CVP:
Pumping at 2700 cfs, will likely go up to 3300 cfs tomorrow (1/27).
Sacramento (Keswick release) at 3900
American (Nimbus release) at 1500 cfs
Stanislaus (Goodwin release) at 200 cfs

3) Turbidity: Currently under 12 NTU 3-day average at all three compliance locations.

Prisoners Point = 21.14 NTU
Holland Cut = 6 NTU
Victoria Canal = 7.65 NTU

4) Other Compliance Standards
Water quality is in good shape. CVP pumping capacity is 4,600 cfs, and SWP pumping capacity is 6,700 cfs. DWR reported that on January 20, 2010, the Delta shifted from balanced to excess conditions, so if it weren't for the NMFS OMR action (OMR no more negative than -5,000 cfs), the Projects would likely be pumping up to their total capacity of 11,300 cfs. DWR explained that the NMFS OMR action is considered controlling, even though actual OMR is considerably lower (i.e., less negative) than the NMFS OMR action limit, because OMR can fluctuate widely with the tides and the Projects are operating conservatively to ensure that they remain in compliance with the NMFS OMR action.

5) Other Items
VAMP: It's possible that VAMP will be extended but discussions are still ongoing. VAMP biology team meeting on Friday, probably in Stockton.

Workshop proposal: Barb Byrne (NMFS) and another yet-to-volunteer member of the DOSS group will draft an outline for the ½ hour "DOSS toolbox" presentation to take place at the mid-February "Delta Fish Management Toolbox" review/workshop being organized by Victoria Poage (FWS). Draft outline will be coordinated with the Smelt Working Group and presented at next week's DOSS call.

Action Items for next DOSS call (lead)

- Background information on the loss density triggers (DWR)
- Draft outline for DOSS toolbox workshop (NMFS)

No advice to WOMT or NMFS for the week of 1/25-1/29, though we will keep an eye on the loss densities now that fish are starting to show up in greater numbers at the facilities.

DOSS notes and advice can be found at: http://swr.nmfs.noaa.gov/ocap/actions.htm

Next Mtg: 2/2/2010 at 9:00 am. Bruce Oppenheim will lead.