

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

**Conference call: 12/28/10, 9:00 a.m.**

**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 on salmonids and green sturgeon.

DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: <http://swr.nmfs.noaa.gov/ocap/actions.htm>

**DWR:** Angela Llaban, Mike Ford, Andy Chu, Cynthia LeDoux-Bloom

**FWS:** Roger Guinee; **NMFS:** Barbara Rocco, Bruce Oppenheim

**DFG:** Dan Kratville, Joe Johnson; **Reclamation:** Thuy Washburn, Josh Israel

**SWRCB:** Kari Kyler

### **Agenda**

- 1) Fish monitoring
- 2) Water project operations
- 3) Forecasts
- 4) Daily monitoring over the weekend
- 5) Posting notes

### **Fish Monitoring**

Knights Landing: Flows from 12/20 through 12/27 averaged 24,461 cfs. During this period, there were 295 salmon caught of which 207 were fall run, 51 were spring run, 36 were winter run, 1 was late-fall run. Also, 13 ad-clipped hatchery fish were caught. Water temperature averaged 51.7°F. Fall- and spring-run CPUE peaked at 56.5 on 12/21 when 127 fish were caught. Winter- and late-fall-run CPUE peaked at 7.0 on the same day.

Tisdale Weir: Flows averaged 27,843 cfs with a high of 30,700 cfs (12/27) and temperatures averaged 49.9°F from 12/20 through 12/27. There were 406 fish caught of which 174 were fall run, 140 were spring run, 76 were winter run, 1 was late-fall run, and 15 were ad-clipped. Fall- and spring-run CPUE peaked at 53.3 on 12/21; winter- and late-fall-run peaked on the same day at 14.4. Turbidity was down to 12.66 on 12/26 but reached a high of 54.5 on 12/27. There are still ad-clipped fish most likely from the Coleman late-fall releases. Some fall run are coming in as well. Winter-run size ranges from 54 to about 100 mm; spring-run size falls in between fall and winter run. Fall-run or late-fall run Chinook are referred to as “older juveniles” because of their size at this time of year (i.e, that is due to the overlap in size they can’t be distinguished from spring-run and winter-run). The “Frank Fisher size at length Model” is used to determine one race from another for salmon in the Central Valley. Spring run are supposed to be smaller than winter run this time of year and there is an overlap between spring and fall run. DOSS would like to determine how to refine race identification in the coming years using genetics.

Moulton Weir: Flows averaged 26,668 cfs from 12/20 through 12/27, but peaked at 31,738 cfs on 12/23. Water temperatures averaged 50°F; turbidity averaged 26.11 NTU but peaked at 49.2 on 12/37. CPUE for fall and spring run averaged 9.33, with a high of 15.4 on 12/22; CPUE for winter and late fall averaged 1.32, with a high of 3.33 on 12/23. A total of 156 salmon were

caught of which 103 were fall run, 30 were spring run, 16 were winter run, and 7 were ad-clipped. There were no late-fall run caught.

Mossdale: Two salmon were caught—one on 12/19 and one on 12/20; one was a spring run and one was a winter run based on length at date. Fork lengths were 38 mm (spring run) and 78 mm (winter-run). There are not many salmon coming down the San Joaquin River yet.

Sacramento KDTR at Sherwood Harbor: Data from 12/20 through 12/23 show that 204 fish were caught of which 181 were fall run, 19 were spring run, 1 was a winter run, 1 was an unidentified adult, and 2 were ad-clipped. Fork lengths for the ad-clipped fish were 98 and 115 mm. There was 1 winter run at 91 mm; however, the size overall ranged from 29 to 41 mm. Water temperatures ranged from 9.9 to 10.3°F.

Chippis Island trawl: Data from 12/19 through 12/23 show that 107 fish were caught of which 3 were late-fall salmon (identified by length at size), 56 were hatchery ad-clipped, 1 was a splittail, 27 were longfin smelt, 20 were delta smelt. Fork length ranged from 60 to 165 mm.

Beach Seines: From 12/19 through 12/21, 412 fish were caught; 262 were Chinook of which 34 were winter run, 191 were fall run, 31 were spring run, two were late fall, two identified only as “adult”, two were ad-clipped. One delta smelt and 149 were longfin smelt. Temperatures ranged from 9.0 to 12.1°F.

Deer & Mills Creeks: The traps are still out; there is no new information. The traps will be back in the water in January.

As seen by the large number of hatchery ad-clipped salmon at Chippis Island, the late-fall releases are actually leaving the Delta now.

## **Salvage Data**

With the increase in flows, there were quite a few increases in fish numbers at the facilities. Hatchery Chinook salmon came through beginning on 12/21; however, it is difficult to get the daily information. DFG summarized the weekly data for today’s call.

### CVP:

From 12/20 through 12/25, salvage data for fall run showed 28 ad-clipped and 20 losses; 16 non-clipped with 10 losses. Salvage for late-fall run was 199 ad-clipped with 137 losses; 20 non-clipped with 14 losses. Salvage for winter run was 51 clipped with 36 losses; 26 non-clipped with 18 losses.

### SWP:

From 12/21 through 12/26, there were 63 salvaged and 262 losses of ad-clipped fall run; zero non-clipped. For late-fall run, there were 271 salvage and 1173 losses of ad-clipped fish, and 8 non-clipped salvaged and 34 losses. For winter run, there were 122 salvages and 529 losses of ad-clipped fish and 20 salvaged and 88 losses of non-clipped fish. SWP begins to get salmon about 2 weeks after they appear at the CVP facility. We’re getting quite a few now.

Total YTD cumulative winter run losses at CVP is 205 so far this year. No steelhead were caught this week at either facility; the total for the year is six. The hatchery ad-clipped fish are not included in the daily loss calculation for loss density for old juveniles; totals are for only wild fish. We are not using figures for ad-clipped winter run because there have been no releases; they are expected to be released in February. We are most likely seeing late-fall run hatchery fish that were released from Coleman and not winter run hatchery fish at this time.

#### Loss Density 12/20–12/25/10:

Combined daily loss went up considerably since last week (12/21) because of the increased loss at SWP. The daily loss from 12/20 through 12/25 peaked at 61.9 on 12/23 at SWP and 9.75 on 12/20 at CVP. The combined loss peaked at 69.9 on 12/23. Loss density ranged from 0.24 to 3.14 fish/TAF.

Daily loss density is still below the first trigger requirement for RPA action 4.2.3 (OMR flow) in the NMFS opinion. The numbers have been trending downward since 12/23, which reflects the pulse of wild fish that came through since the ad-clipped fish were released (as they tend to move together; ad-clipped fish will attract wild stocks)

DOSS is getting into the time of year when we should look closely at and monitor daily losses and loss densities at the fish facilities; DOSS will request regular updates of the coded wire tag (CWT) results (Angela, DWR will email Jonathan at FWS) coming from facilities. The Coleman NFH spring-run surrogate release (12/21) should begin to show up in about a week; it takes about 10 days for these hatchery fish to reach the Delta.

### **Operations**

San Joaquin R at Vernalis: Flows were about 10,675 cfs

Sacramento R Keswick Dam releases were 10,850 cfs

American River at Nimbus Dam: Yesterday (12/27) Releases went from 15,000 down to 12,300 cfs; we are ramping down again to about 10,000 today through tomorrow.

Stanislaus River at Goodwin Dam: Flows were 200 cfs; Jones added another 4,100 cfs

Sacramento R at Freeport: Flows were 63,000 cfs

Feather River: 1,750 cfs

San Luis Reservoir: On the federal side, levels were 714 TAF; three-quarters full now.

Old and Middle Rivers (OMR): Daily flow was -5,100 cfs, the 5-day average is close to -5,400 cfs, and the 14-day average is close to -6,500 cfs.

Are we currently meeting -5,000 cfs OMR? The forecast data will drive the schedule of pumping levels; we are staying close to 10,000 cfs combined exports; 5-6,000 cfs pumping on

the state side beginning January 1, and 4,200 cfs on the Federal side. The 5-day average OMR flow is close to -5,400 now (NMFS opinion uses 5 day + or - 25%). See DOSS advice below.

Clifton Court Forebay: Inflows were 8,660 cfs.

### **Turbidity**

Slightly below 12 NTU at Prisoners Point; Victoria down to about 6.6 NTU; Holland is 4.15 NTU. These are 3-day averages. The criteria from the FWS delta smelt biological opinion is that all three stations must be at a 3-day average of 12 NTU for an OMR action to be triggered.

### **Weather**

A new storm is coming today and tonight that will last through Wednesday or Thursday. The bulk of it will come in tonight. The forecast for Verona shows 58,000 cfs on Thursday from the storm event. Today's storm is the largest; tapering off tomorrow in the Valley.

### **Second Trigger**

Action item from 12/14/10 notes, NMFS to send out summary of the DOSS subgroup findings on clarification of the second trigger used in RPA action 4.2.3.

### **Other Business**

- 1) Posting notes: Bruce sent four draft meeting notes from the last four conference calls to the DOSS group. We have so far received comments from only one person on the DOSS team. If anyone has more, please give them to Bruce or Barbara. We will send out last week's (12/21) notes today for comment.
- 2) Holiday schedule: It is difficult getting fish monitoring information from the fish facilities on weekends and holidays. DOSS gets daily faxes from CVP, and have requested to be put on daily fish data sheet from SWP. We need daily salvage numbers to calculate loss densities; salvage reports are running 3-5 days behind. Data for 12/23-12/24 is up to only 12/21. CVP and SWP do not update over the weekend. DFG is about 3 days behind on their website and reports in a different format (i.e., reporting total salmon loss, instead of older juveniles, or by race). DWR staff will forward data for this weekend and will help to work out better exchange of real-time reporting.
- 3) Smelt Working Group: There was a conference call, but no update was available. There is a question about whether turbidity at one location is high and others are low. After the first storm pulse, most of the water released was from flood control; this is not overland flow into the rivers, so the water is not as turbid as a natural event. Prisoners Point is near the confluence of two rivers. Delta widespread: Holland (interior delta; 3-4NTU) and Victoria Canal (south delta - closer to pumps; 6 NTU) are not high yet. Turbidity has not yet entered the interior of the Delta; we have only seen a few spikes.

## **DOSS Advice for NMFS and WOMT (12/28)**

DOSS met this morning and the fish monitoring data indicate that winter run Chinook are moving into the Delta; however, the daily loss and loss density are still below the criteria in the NMFS OCAP BiOp. The forecast for this week is a new storm today that will increase river flows by Thursday. DOSS' advice to NMFS and WOMT is to begin managing exports to maintain Old and Middle River (OMR) flows at no more negative than -5,000 cfs on Saturday, January 1st. Project operators plan to reduce exports at the SWP beginning on Thursday. Currently, the 5-day running average of OMR is -5,405 cfs and the combined CVP/SWP exports are 12,760 cfs.

## **Next Meeting**

Conference call: 1/4/11 from 9:00 to 11:00 a.m.