Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 12/21/10, 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.htm

DWR: Angela Llaban, Mike Ford, Andy Chu, Cynthia LeDoux-Bloom
FWS: Nick Hindman
NMFS: Barbara Rocco, Bruce Oppenheim
DFG: Dan Kratville, Joe Johnson
Reclamation: Thuy Washburn, Josh Israel
SWRCB and EPA: not present

Agenda

1) Fish Monitoring
2) Water Project Operations
3) Weather Forecasts
4) Winter-Run Juvenile Production Estimate
5) Science Panel Review

Fish Monitoring (12/14 to 12/20/10)

Knights Landing: flows increased from 12,854 to 20,588 cfs, turbidity increased; the catch went from 7 on Wednesday (12/15) to 94 fish on Saturday (12/18); total for week was 155 fish of which 39 were fall run, 25 spring run, 89 winter run, and 2 late fall; and there were 17 ad-clipped caught. Winter run has increased quite a bit; they are entering the Delta now. CPUE (defined as the number of fish caught per day/number hours fished per day of sampling effort): peaked on Saturday (12/18) at 32.96, the highest this year for winter run and late-fall run. We started to see ad-clipped showing up about 5 days after release but they are tapering off now.

Tisdale Weir: Flows increase from 13,400 cfs on Wednesday (12/15) to 28,800 cfs on Monday (12/20). Turbidity went from 5.35 NTU on Wednesday (12/15) to 16.8 NTU on Sunday (12/19). It dropped slightly to 14.3 NTU by Monday (12/20). The catch averaged about 18 fish per day over a 6-day period; a total of 110 fish were caught from Wednesday (12/15) through Monday (12/20). Of those, 42 were fall run, 41 were spring run, 13 were winter run, and 2 were late-fall run; there were 12 ad-clipped fish caught. Water temperatures remained at approximately 50–52°F over the 6-day period. CPUE: peaked on 12/20 at 14.2 for fall and spring run; peaked on 12/19 at 2.55 for winter and late-fall run.

Moulton Weir: Flows ranged from 17,836 cfs on Saturday, 12/18, to 29,145 cfs on Monday, 12/20. Turbidity increased with flows from 10.23 NTU on Wednesday (12/15) to 47.5 NTU on Monday (12/20). Total catch of 103 fish peaked at 42 on Thursday (12/16), of which 11 were fall run, 8 were spring run, 33 were winter run (average of 5.5/day), and 2 were late-fall run; 49 were ad-clipped (average of 8.2/day) most likely from Coleman Fish Hatchery late-fall release on 12/9. This catch peaked on Thursday (12/16) with 33 fish; it was down to 0 on Monday

(12/20). Catch averaged 17.2 salmon/day over the 6-day period. CPUE: peaked on Saturday (12/18) with 6.07 for fall and spring run; peaked on Friday (12/17) with 6.21 for winter and late-fall run. Water temperatures ranged from 50 to 51.8°F over the 6-day period.

Mossdale Trawl: No species of concern caught.

Sacramento KDTR at Sherwood Harbor: 15 fish caught of which 10 were fall run, 2 were winter run, 1 was spring run, and 2 were unidentified ad-clipped fish. Fork length ranged from 34 to 117 mm.

Chipps Island trawl: From 12/15 through 12/18, 78 fish were caught of which 26 were delta smelt, 13 were Chinook with 11 being ad-clipped, 39 were late-fall run. Fork length ranged from 51 to 172 mm.

Beach Seines: 229 fish were caught of which 159 were fall run, 1 was late-fall run, 36 were winter run, 32 were spring run, and 1 was ad-clipped. Water temperature ranged from 10.1 to 12.5°F.

Salvage Data (12/12-12/19/10)

CVP –salvaged 8 winter run for loss of 5 this week; total cumulative loss for the year to date is 69. 4 late fall (not clipped) salvaged at CVP on 12/15 for a loss of 3.

SWP: 2 steelhead salvaged on Sunday (12/19); season total is 6 not clipped. No salmon were reported, and nothing unusual in how the SWP salvages fish were reported by DWR. The SWP typically lags behind the CVP in observed salmon salvage when the season first starts. This is most likely due to the higher predation rate in Clifton Court Forebay. DWR operators checked with the facility operator and could not find anything to indicate that the salvage number was incorrect.

Winter-Run Juvenile Production Estimate (JPE)

The official DFG estimate of the 2010 winter-run population was issued in a December 8, 2010, letter to NMFS. The 2010 estimated total winter-run Chinook is 1,596 adults, including fish collected for the hatchery.

This is the lowest estimate in 10 years. NMFS will calculate the JPE entering the Delta for incidental take at the pumps using two methods this year: 1) the current method, 2) revised method using a new Goldsim model application that accounts for uncertainty. We will then compare the results and present them to Reclamation and the Winter-run Satellite Project Work Team. The estimate should be available by the end of January.

Operations

San Joaquin R at Vernalis: Close to 8,500 cfs on 12/19; forecasted to reach 10,000 cfs this week.

Delta Outflow: 80,000 cfs by now because of precipitation;

E/I = 22%

Sacramento River at Keswick Dam: 15,000 cfs beginning on 12/24, will ramp down; 12/27 will be down to 8,000 cfs

American River: 20,000 cfs; will maintain at this level.

Stanislaus R: 1,500 cfs; making cuts today down to 1,100 cfs; flow went up because of inflows into the reservoir, usually at 200 cfs.

Sacramento River–Verona: 60,000 cfs today, but predicted to be down to 44,000 cfs by end of week.

Freeport: There was an increase in flow; running close to 68,000 cfs on Sunday (12/19)

San Luis Reservoir: federal storage 686 TAF; Holding 75,000 ac on the state side

Delta: Turbidity at Mossdale on the San Joaquin R. is 5.5 NTU; 5.7 NTU at Prisoners Point on 12/19; Holland Tracts was 2.3 NTU, Victoria was 4.39 NTU (3-day average)

Old and Middle Rivers: Flows projected at -6,200 cfs (12/19); 14-day average is close to -7,000 cfs; 5-day = -6,776 cfs.

Feather River: 1,750 cfs

Weather

Rain is coming again tonight into tomorrow (12/21-12/22). Rain levels could be close to a few inches in the valley. Rain is also hitting southern California and there's another storm coming that will begin on Friday (12/24). A series of storms is coming in on and off. DWR is still tracking precipitation based on 1982–83 series. The ground is pretty saturated at this point.

Temperature: Tonight will be warmer; Christmas may be colder; the snow level could be down to about 2,000 ft. We will see more runoff tonight.

It looks like the Sacramento River will peak today and then taper off. The San Joaquin will increase more with the coming storm tonight, which is more to the south; the Sacramento side will most likely increase if we get the projected rain here.

Freemont Weir: Water is spilling over the weir crest today; upstream at Tisdale Weir water is already spilling over.

Fish Density

Older juvenile loss density at pumps: Both facilities combined daily loss totals were between 0 and 4.6; the highest was on Monday, 12/13. Since 12/16, loss numbers have been low. Loss density was 0.22 fish/TAF on 12/13 and then it dropped; therefore, the first trigger for winter run in the NMFS opinion has not been met.

Spring-Run Surrogate Release

Release at Coleman NFH today – Coleman should be releasing 74,000 late-fall-run Chinook on 12/21/10. These are the first release group of late-falls for the spring-run surrogates. Increased flow and turbidity conditions are optimum for higher survival downstream to the Delta.

Flush study
Also today, the first flush study will begin in the Delta. A DFG boat is scheduled for that study; it will be in the Delta all night collecting data.

Second OMR Trigger

Action item from 12/14/10. NMFS to send out summary of the DOSS subgroup findings.

Annual Review

All of the reports/presentations (including the final SOG report and presentation) from the joint annual review of the NMFS/FWS OCAP Opinions are posted online:

http://www.deltacouncil.ca.gov/delta_science_program/events/workshop_OCAP_2010.html

The annual review report was issued on December 14, 2010. DOSS plans to address the comments; the agencies will review the recommendations and meet to decide which to incorporate; most of the comments were favorable. The panel liked what the Sacramento River Temperature Task Group and Clear Creek Technical Team were doing for temperature control; however, suggested that DOSS group could include some better forecasting and models. OMR flows = panel thought that management of OMR and the impact on fish entrainment was uncertain. There was no strong objection to it but they were looking for providing more flexibility in how DOSS operates. Original proposal: Should DOSS use an indicator equation instead of measured data? With all the issues, DOSS is leaning toward using an equation for operations, which is consistent with the federal plan from last year (flux from tides barometric pressure, etc., affects operations; results received 3 days later). DOSS sent a letter responding to the report to the Delta Science Program that said it would try to finalize any proposed adjustments to implementing the recommendations by mid-January. WOMT will want to discuss this. We think the language was pretty strong in favor of using an indicator equation.

Should DOSS make a recommendation to WOMT? Possible to have a subgroup try to put something together. DOSS needs to look at the recommendation concerning the second trigger. Don't know whether DOSS needs to go through all the recommendations from the panel to give to WOMT. DOSS may not have the time to do this and it is more concerned with real-time operations this year.

OMR: See pages 19–23 of the report that summarizes what we are discussing. In terms of efficiency of project operations, this will surely be discussed in the near future.

OMR transition language: DOSS is supposed to have some kind of language about how to do OMR transitions. Transition language in the past was based on using OMR flows; we are now

talking about using an indicator equation instead. If we agree to adopt an equation, there are recommendations about how to do transitions for 5 and 14 days. Reclamation and DWR were silent on whether an OMR equation had been modeled to compare to gauge flows. A number of equations are being considered to guide operations.

DOSS should bring it up to WOMT today and get feedback on how to proceed. DOSS should advise WOMT to get started on this ASAP. At -6,500 cfs now; there would be a reduction to get to -5,000 cfs. We need to stop using "measured data" for operations. Putting aside fish monitoring data, natural fluctuations cause huge variations in the tide, which causes huge variations in OMR. DOSS would like to have a smooth average instead of fluctuating up and down because of the weather.

DOSS Advice: WOMT needs to get OMR language in place by 12/30; agencies need to agree on what review panel recommendations to adopt. Bigger issue is overall – should projects use equations instead of measured data. The use of a predicted equation needs to be dealt with and transition language needs to be resolved; reverse the priority of those two items. DOSS will give a "heads up" to WOMT today that this needs to be done. No concern with fish-monitoring data.

Other Business

1) Smelt working group: The group had a meeting, but there were no issues of concern to discuss. There is a little concern about turbidity; outflow is high right now so there is currently no concern of delta smelt being entrained. All delta smelt are at the Sacramento/San Joaquin R confluence or upstream on the Sacramento River and Deep Water Ship Channel.

2) Holiday schedule: DOSS need to continually monitor the daily salvage information for fish loss and density. Bruce (NMFS) will monitor this on a daily basis until 12/29, and then Steve Hillyer (NMFS) will monitor after. DWR and Reclamation will provide contact numbers for weekend operations.

Next Meeting

Conference call: 12/28/10 from 9:00 to 11:00 a.m.