

Delta Operations for Salmonids and Sturgeon (DOSS) Group

02/09/10 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. DOSS notes and advice can be found at: <http://swr.nmfs.noaa.gov/ocap/actions.htm>

Attendees: Mike Ford, Carol Stroble & Andy Chu (DWR), Nick Hindman, Craig Anderson & Leigh Bartoo (FWS), Jeff Stuart, Barbara Byrne, & Bruce Oppenheim (NMFS), Thuy Washburn (USBR), Greg Wilson (SWRCB), Matt Nobriga (DFG)

Agenda: review fish monitoring & delta conditions

Fish Monitoring:

Knights Landing (KL) from 2/1 to 2/8:

Last weeks summary shows the non-clipped winter-run catch per unit effort (CPUE) decreased to less than 1.0 (average for the week). Total non-clipped winter-run caught for the week was 4 fish. Total non-clipped fall-run Chinook catch decreased from 2,702 last week to 318 this week, and CPUE dropped to 21 (average for the week). In addition, only 6 non-clipped spring-run Chinook, and 1 non-clipped steelhead were observed in the trap, indicating decreased movement of salmonids into the Delta.

FWS data (for 1/31 – 2/6):

Mossdale Kodiak Trawl: No species of concern

Sacramento Kodiak Trawl: 81 fall run, 1 spring-run, 1 winter-run, 2 ad-clipped Chinook, & 5 ad-clipped steelhead

Chippis Island Midwater Trawl: 2 winter-run, 4 late-fall, 4 ad-clipped Chinook, 6 ad-clipped steelhead, 4 splitail, 38 longfin smelt, 6 delta smelt

Beach Seines: Numbers of salmonids increased from last week at monitoring locations located throughout the lower Sacramento River and central delta. Indicating last week's pulse past KL is now being seen in the beach seine catch in the Delta. 622 fall run, 7 spring-run, 4 winter-run (2 at KL 75 mm and 81 mm, and 2 at Koket 85 mm by Walnut Grove below the DCC), 2 ad-clipped Chinook, 10 ad-clipped steelhead (spread out from Garcia Bend to Isleton on the lower Sacramento River), 1 splitail, and 2 delta smelt (from Sandy Beach near Rio Vista), where delta smelt have been consistently collected during the past month).

Mill and Deer Creeks: (Colleen Harvey, DFG, 2/8): The Mill Creek trap fished for 4 days and captured 69 fall-run Chinook fry (33-42 mm fl.), 4 spring-run Chinook yearlings (96-117 mm fl.), and one non-clipped steelhead smolt (208 mm fl.) Flows ranged from 235 to 2,390 cfs.

The Deer trap also fished for 4 days and captured 64 fall-run Chinook fry (33-50 mm fl), no spring-run Chinook yearlings, and one non-clipped steelhead (189 mm fl.). Flows ranged from 285-3,130 cfs. The traps were not fished for 3 days last week due to high flows.

CVP and SWP Fish Salvage Facilities (1/31 to – 2/7): Winter-run Chinook were salvaged at both facilities almost every day. Winter-run non-clipped loss was 39 at the CVP and 77 at the SWP for the week. The cumulative combined total since October 1st for non-clipped winter-run is 265 fish. The draft incidental take level for winter-run is 22,897 pending NMFS final calculation of the juvenile production entering the Delta. Spring-run Chinook loss is determined from surrogate releases of uniquely marked Coleman late-fall Chinook (see summary table below from DWR). Steelhead salvage increased from the previous week at both facilities. Non-clipped steelhead salvage was 53 at the CVP and 44 at the SWP. The cumulative combined non-clipped steelhead salvage year-to-date is 133. The steelhead take limit is 3,000 non-clipped fish. The clipped or hatchery steelhead are also increasing. The total combined for clipped steelhead is 868 year-to-date, however, there is no take limit for hatchery steelhead. The CVP also salvaged 4 adult delta smelt on 2/3, and 8 on 2/6 for a season loss of 24.

Spring-run Surrogates: There have been 2 hatchery releases on 12/28 and 1/14 of Coleman late-fall Chinook salmon. These releases are designed to provide an index of the wild spring-run yearlings migrating from the upper Sacramento River. These hatchery fish are released at Battle Creek and are 100% ad-clipped and code wire tagged (CWT). The CWTs that have been recovered and read from the fish facilities to date are reported below.

Coleman Hatchery Late-Fall Chinook and Livingston Stone Hatchery Winter-run Chinook Loss at the Delta Fish Facilities, 2009/2010 (revised 2/8/2010)

| Release Date | CWT race | Release Site | Loss | Release Number | % Loss | Level of concern | Take Limit | Date of First Loss | Date of Last Loss |
|--------------|----------|----------------|---------------|----------------|--------|------------------|------------|--------------------|-------------------|
| 12/16/2009 | LF | Battle Cr | 669.305 | 904699 | 0.074 | n/a | n/a | 12/26/2009 | 2/3/2010 |
| 12/28/2009 | LF | Battle Cr | 56.73 | 75676 | 0.075 | 0.5% | 1.0% | 1/22/2010 | 2/2/2010 |
| 1/14/2010 | LF | Battle Cr | 435.015 | 174386 | 0.249 | 0.5% | 1.0% | 1/24/2010 | 2/3/2010 |
| 2/10/2010 | W | Redding | 0 | 198100 | 0.000 | 0.5% | 1.0% | * | * |
| | | Lost tag | 0.00 | | | | | | |
| | | Unknown | 692.18 | | | | | | |

For Chinook lost 10/1/2009 thru 2/7/2010

SWP Tags read 10/1/2009 through 2/3/2010

CVP Tags read 10/1/2009 through 2/3/2010

***Livingston Stone NFH winter-run release**

LF = late-fall run Chinook, W = winter-run Chinook

The data indicate that as of 2/8 there have been 56 surrogates lost from the 12/28 release group and 435 lost from the 1/14 release. The incidental take limit is set at 1.0% of these release groups. As of today, 0.075% and 0.249% of the 2 releases have been estimated to be lost, respectively. Therefore, the 0.5 % criterion in the NMFS BiOp for spring-run Chinook surrogate loss has not been met.

DOSS concluded the fish monitoring data shows that listed salmon and steelhead have entered the delta, but are being entrained at the export pumps in relatively low numbers. Older juvenile

loss densities (*i.e.*, winter-run, spring-run and late-fall) are under 2 fish/TAF right now, so no triggers for operations advice have been hit.

For fish data at other monitoring sites see:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>

Smelt Working Group (SWG) Matt Nobriga reported: The SWG met for a long time on Monday and reviewed recent delta smelt salvage and loss at the pumps. The SWG is currently in Action 1, Part B of the 2008 Biological Opinion. Due to the increased salvage over the past week, the SWG was concerned that the projects would surpass the incidental take limit for adults before the end of the season. The Spring Kodiak trawl data suggest some adults are close to being ready to spawn. Therefore, the SWG recommended to FWS that a more restrictive OMR flow limit of – 2,000 cfs be targeted to keep adults away from the pumps and in the mainstem of the San Joaquin River. There was a WOMT call on Monday afternoon in order to meet the court ordered 48 hour notice. FWS advised WOMT to target – 4,000 cfs OMR flow starting on Thursday 2/11. The target could be modified even lower (less negative, to -3,000 and -2,000) if more delta smelt were taken at the pumps.

Green Sturgeon update: No update.

1) Other Compliance Standards: Old and Middle River (OMR) flow update from 2/6 to 2/9

| | Current (2/9) | NMFS Limit | FWS limit (2/11) |
|--------------------------|----------------------|-------------------|-------------------------|
| 14-Day Running Average = | -4200 cfs | -5000 cfs | -4000 |
| 5-Day Running Average = | -5146 cfs | -5,000 (± 25%) | |

Previously, the 14 day OMR flow was running about -4500 cfs on 2/5 before the weekend. On Friday (2/5), the Federal court in Fresno issued a TRO (temporary restraining order) which blocked the implementation of NMFS RPA action IV.2.3 requiring restrictions on OMR flows (-5000 cfs). The TRO is in place for 14 days (until 2/19), or until an extension to the TRO can be issued. On Sat (2/6) salvage of delta smelt at the fish export facilities spiked, On Monday (2/8) the FWS recommended to WOMT that an OMR flow of -4000 cfs be targeted starting on Thurs (2/11) to prevent more take of delta smelt. The CVP had increased pumping on Friday (2/5/10) by 500 cfs due to the issuance of the TRO by the court. Previous to the increase, DWR and USBR operated according to a “Gentleman’s agreement” between the agencies to “share” water when exports are controlled by OMR criteria. DWR is “ahead” based on last month’s pumping schedule. The SWP stayed at 3,000 cfs export pumping on Saturday and Sunday (2/6/10 to 2/7/10) in order to comply with the State’s CESA permit for longfin smelt. Combined exports were 7,200 cfs over the weekend (2/6/10 to 2/7/10), but are projected to decrease due to the FWS and DFG restrictions to protect delta smelt and longfin smelt, respectively. The 14-day OMR running average stayed close to -5,000 cfs through the weekend, despite the many changes in exports.

2) Turbidity: Turbidity is decreasing at Prisoners Point, but increasing at Victoria Canal. The delta smelt turbidity trigger (3 day average of 12 NTU at all 3 locations) has not yet been triggered. The SWG determined that ambient conditions are past Action 1 and into Action 2, therefore, turbidity is no longer a hard trigger. DOSS will discontinue review of this trigger next

week, as it is no longer necessary. Water temperatures: on 2/8, the three-station average was 11.6 degrees C; approaching temperatures for delta smelt spawning to commence. Temperature data on OCO website is found beneath the Water Quality monitoring data.

| | Last week | This week |
|-------------------|-----------|-----------|
| Prisoners Point = | 39.7 NTU | 25.0 NTU |
| Holland Cut = | 14.8 NTU | 18.4 NTU |
| Victoria Canal = | 6.5 NTU | 10.1 NTU |

3) Water operations: Current reservoir releases are at, or near minimum release levels: Keswick 3,250 cfs, Oroville 1,350 cfs, and Nimbus 1,550 cfs. Inflows to the Delta are holding steady this week. Outflow increased to 37,200 cfs. Flows at Vernalis (San Joaquin River) increased to 2,040 cfs, due to increased releases on the Stanislaus River to meet the D-1641 monthly flow criterion. Sacramento River inflow at Freeport (Sacramento River) remained about the same as last week at 38,012 cfs. The X2 salinity point has moved upstream 2.6 kilometers to 58.9 kilometers. The E/I standard increased to 18.8%. The 14 day average OMR is -5,170 cfs and the 5 day average is -5,515 cfs.

No advice to NMFS for the week of 2/8 to 2/13. The consensus of the DOSS technical team was that the FWS recommendation to WOMT to restrict OMR flow to be no more negative than -4,000 cfs by Thursday (2/11/10) would also be protective of salmonids and sturgeon in keeping them away from the pumps since listed species are now being salvaged daily (*i.e.*, new FWS OMR limit is more restrictive than the NMFS RPA IV.2.3).

Next Mtg: 02/16/10 at 9:00 am