DRAFT Data Assessment Team (DAT) Conference Call Notes
04/30/2015 at 11:00 a.m.

Participants: Geir Aasen (DFW), Rhiannon Mulligan, Norman Lee and Farida Islam (DWR), Leigh Bartoo (FWS), Lucinda Shih (CCWD), Owen Lu and RG Fernando (MWD)

Sacramento River Fish Monitoring

Graphical summaries of the monitoring data collected at the Sacramento River and at other locations can be found at http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm. In addition, the biweekly passage reports of juvenile salmonids sampled at the Red Bluff Diversion Dam are available at http://www.fws.gov/redbluff/rbdd_jsmp.html

Preliminary Rotary Screw Trap (RST) Report				
Species*	**FWS Red Bluff Diversion Dam RST (Estimated Passage)**	**Glenn-Colusa Irrigation District (GCID) RST (Catch)**	**DFW Tisdale Weir RST (Catch)**	**DFW Knights Landing RST (Catch)**
Date	**4/09/2015-4/22/2015**	**4/16/2015-4/24/2015**	**4/15/2015-4/24/2015**	**4/16/2015-4/29/2015**
CHNF	36,101	51	1	0
CHNLF	774			
CHNW	804	2		0
CHNS	41,442	213	14	9
Ad-Clipped CHN	Not Reported			
SH	3,469	6	1	
Ad-Clipped SH	Not Reported	2	1	
GST	Not Reported		Not Reported	Not Reported
*Chinook race based on length (Frank Fisher model); CHNF=Fall run, CHNLF=Late-fall run, CHNW=Winter run, CHNS= Spring run, SH = Steelhead, GST= Green Sturgeon. Species are unmarked unless noted as adipose-fin clipped (ad-clipped). Data subject to revision.				

GCID has informed that the trap was pulled on 4/24/2015 due to heavy debris. Also, NMFS has informed DOSS members that "GCID has exceeded their spring-run Chinook salmon incidental lethal take limit. They have been asked to pull their traps until a decision has been reached about how they should proceed." Sampling is suspended until further notice. DAT members will be notified when any further updates are received.

Hatchery Release:

From 4/21 to 4/26 Mokelumne River Hatchery released 2.25million chinook salmon smolts at their San Joaquin River acclimation pen site above the Antioch Bridge. Approximately 450k per day. These fish are 25% CWT.

Delta Fish Monitoring

Preliminary FWS Trawl and Seine Catch Report from 04/19/2015-04/25/2015				
Species*	**Beach Seines**	**Mossdale Trawl***	**Sacramento Trawl**	**Chipps Island Trawl**
CHNF	1		4	106
CHNLF				
CHNW				
CHNS	9		5	204
Ad-Clipped CHN	1		1	85
SH		2	1	1
Ad-Clipped SH				
DSM				
LFS				
SPLT	52			2
*Chinook race based on length (Frank Fisher model); CHNF=Fall run, CHNLF=Late-fall run, CHNW=Winter run, CHNS= Spring run, SH = Steelhead, DSM=Delta Smelt, LFS=Longfin Smelt, SPLT = Splittail. Species are unmarked unless noted as adipose-fin clipped (ad-clipped). Data subject to revision.				

* Mossdale Trawls (CDFW, Region 4), 2 RBT & no other species of management concern

Information about the Delta fish monitoring data from FWS can be found at http://www.fws.gov/stockton/jfmp/.

Salvage Monitoring

Preliminary DFW Salvage Report for Salmonids from 04/20/2015-04/26/2015								
	Central Valley Project (CVP)				State Water Project (SWP)			
Species	Adipose-Fin Clipped (Ad-Clipped)		Non-Adipose Fin Clipped (Non-Clipped)		Adipose-Fin Clipped (Ad-Clipped)		Non-Adipose Fin Clipped (Non-Clipped)	
	Salvage	Loss	Salvage	Loss	Salvage	Loss	Salvage	Loss
CHNF								
Total to Date			12	9	41	180	4	17
CHNLF								
Total to Date	72	55			64	285	6	26
CHNW								
Total to Date	16	11	36	31	46	203	17	75
CHNS	4	3	12	10			4	20
Total to Date	4	3	34.5	29			6	30
CHNU								
Total to Date								
SH	4						1	
Total to Date	116		4		407		31	

Notes:

-Chinook race based on length (Delta model); CHNF=Fall run, CHNLF=Late-fall run, CHNW=Winter run, CHNS=Spring run, CHNU= Unknown race (Chinook greater than the length-at-date criteria or fork length not measured), SH =Steelhead.
-Salvage and loss estimates are rounded to the nearest whole fish.
-Documentation on how to calculate salvage and Chinook loss can be found at ftp://ftp.delta.dfg.ca.gov/salvage/Salmon%20Loss%20Estimation/.
-Steelhead loss: SWP steelhead loss = salvage × 4.33 and CVP steelhead loss = salvage × 0.68.
-Total to date is the total since 10/1/13 (the start of water year 2014).
-Data subject to revision.

Preliminary DFW Salvage Report for Smelt and Other Species from 04/20/29/2015-04/26/2015				
	CVP		SWP	
Species	Salvage	Total to Date	Salvage	Total to Date
DSM		64		4
LFS	8	20	8	20
SPLT		12		637
GST				
WST				

Notes: on 4/23 the first Delta Smelt Larva was sampled at SWP. SWP continues to sample juvenile longfinsmelt in the 20mm range. As of the 26th SWP has 48 salvaged longfin smelt.

-DSM=Delta Smelt, LFS=Longfin Smelt, SPLT=Splittail, GST=Green Sturgeon, WST=White Sturgeon.
-Salvage estimates are rounded to the nearest whole fish.
-Total to date is the total since 10/1/13 (the start of water year 2014).
-Data subject to revision.

Smelt Monitoring

Lauren Damon (DFW) provided the 20-mm Survey 3 smelt catch tables for circulation via e-mail. Rhiannon Mulligan(DWR) provided the following additional update from the Smelt Working Group 4/27/15 meeting notes posted on website:

The 2014 Fall Midwater Trawl Annual Index for Delta Smelt is 9. This is the lowest reported fall index since the beginning of this survey in 1967, and approximately one half of the previous lowest indices of 17 (2009) and 18 (2013).

20-mm Survey #3 was in the field the week of April 13. Processing is ongoing. A total of 20 Delta Smelt was collected at stations 719 (18, 12-23mm) and 723 (2, 18mm).

20-mm Survey #4 is in the field this week.

Spring Kodiak Trawl #4 was in the field the week of April 6. A single ripe male (66 mm) Delta Smelt was caught at station 719. Upon verification, a previously reported 27mm Delta Smelt from the same station turned out to be a Wakasagi Smelt. SKT #5 is in the field starting May 4.

http://www.dfg.ca.gov/delta/projects.asp?ProjectID=20mm.

Smelt Working Group

Leigh Bartoo (FWS) provided the following update :

The Working Group agreed that given present distribution, current salvage, and Delta conditions, there was no indication that the projected combined exports of approximately 1500 cfs for the week (potentially resulting in daily average OMR flows of approximately - 2000 cfs) need to be modified for the protection of Delta Smelt adults and larvae. The Working Group is following guidance for entrainment protections from both Action 2 (adult Delta Smelt) and Action 3 (juvenile Delta Smelt). The Working Group also agreed that given their present distribution, existing constraining conditions were sufficient to protect longfin smelt from entrainment in the southern Delta. The Working Group will continue to monitor Delta Smelt survey and salvage data and Delta conditions and will meet again Monday, May 4, 2015 at 10 am.

The Smelt Working Group notes and FWS determinations are posted at http://www.fws.gov/sfbaydelta/cvp-swp/smelt_working_group.cfm.

Delta Operations for Salmonids and Sturgeon (DOSS) Working Group

Barb Byrne(NMFS) provided the following via the DAT reflector:

DOSS Advice: None

DOSS Feedback on "mid-step" exports (with associated flex in I:E ratio):

No major red flags with proposal, given current/expected OMRs and expected short duration of increased exports; discussion highlights below.

- Current -1800 cfs OMR expected to get more negative (~2,800) with midstep exports
- That change in OMR does create conditions with a "medium to high" entrainment risk vs. a "medium entrainment" risk
- However, DOSS noted that -2,800 OMR is still in the ballpark of the most restrictive OMR level in IV.2.3 (2,500 cfs)
- The HORB is expected to keep most SJ steelhead out of Old River, though it's possible that some could go through the 8 open culverts in the barrier
- DOSS encouraged that any increased exports be taken at the CVP rather than the SWP facility

DOSS Feedback on Entrainment Risk (same as last week):

Entrainment risk of fish from the Sacramento River into the Interior Delta (same as last week except for tidal conditions)

DOSS noted that generally, there is an increased risk of entrainment into the interior Delta during spring tides, compared to during neap tides, at any OMR level. During a spring tide, tidal conditions extend further upstream and may, for example, create conditions at Georgiana Slough (e.g. reverse flows) that are associated with routing into Georgiana Slough, a route to the interior Delta. Currently, the Delta is in a neap tide, heading into a spring tide (full moon is on Monday).

Entrainment risk of fish in the Interior Delta into the CVP/SWP facilities (same as last week)

- -1,200 to -2,000 cfs has a medium risk of entrainment **(current risk level)**
- -2,000 to -3,500 cfs has a medium to high risk of entrainment **(risk level expected under mid-step exports)**
- -3,500 to -5,000 cfs has a high risk of entrainment

Delta RPA Actions affecting operations during April:

Action IV.1.2 (DCC gate operations):

- DCC gates are closed

Action IV.2.3 (OMR Management)

- Daily OMR limits in effect is -5,000 cfs; OMR is not currently controlling.

Action IV.2.1 (I:E ratio)

- 1:1 I:E ratio is in effect; exports are limited to this ratio or 1500 cfs, whichever is greater.
- April Drought ops Plan acknowledges that the I:E ratio might be flexed; flex expected to be requested as part of the "midstep exports" request.

DOSS estimates of the current distribution of listed Chinook, as a percentage of the population, are based on recent monitoring data and historical migration timing patterns. The table below reflects current distribution.

Location	Yet to Enter Delta (Upstream of Knights Landing)	In the Delta	Exited the Delta (Past Chipps Island)
Young-of-year (YOY) winter-run Chinook salmon (naturally produced)	>95% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: few stragglers upstream, 10% in the Delta, 90% exited the Delta)		
YOY winter-run Chinook salmon (hatchery-produced)	>95% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: few stragglers upstream, 10% in the Delta, 90% exited the Delta)		
YOY spring-run Chinook salmon[A]	Few stragglers only to 5% (last week: same)	20% - 30% (last week: 40%)	70% - 80% (last week: 60%)
Yearling spring-run Chinook salmon[B]	>95% out of Delta; Generally done migrating with the exception of a few stragglers. (last week: same)		
Hatchery steelhead[C]	>95% out of Delta; Generally done migrating with the exception of a few stragglers. (Last week: <5% upstream, <5% in the Delta, >95% exited the Delta)		
Sacramento River steelhead (naturally-produced)	Limited catch data		
San Joaquin River steelhead[D]	<5% (last week: 5%)	10% - 15% (last week: 25%)	80% - 85% (last week: 70%)

[A] Chipp Island Trawl data of spring-run is difficult to interpret now that the 75% unmarked fall-run productions are likely masking the wild spring-run Chinook catch.

[B] No yearling spring-run Chinook salmon have been caught in 2014 monitoring. In general, very few yearling spring-run Chinook salmon are observed because of their relatively large size and strong swimming (and associated gear avoidance) abilities.

[C] Difficult to assess now that all hatchery releases are in the system (CNFH, Feather River Fish Hatchery, and

Mokelumne Fish Hatchery released as usual; Nimbus Hatchery released their steelhead in the spring of 2014 because of expected unsuitable hatchery water temperatures during the summer of 2014). Percentages are intended to capture distribution of steelhead that migrate out; not those that may residualize.

[D] Have observed a few juvenile steelhead in monitoring data. Distribution estimates are also based on 10 years of historical data from Mossdale Trawls (on the San Joaquin River) and RST data from Caswell Park (on the Stanislaus River), as well as on recent flow and water temperature conditions.

DOSS notes and related documents are posted at http://www.westcoast.fisheries.noaa.gov/central_valley/water_operations/doss.html.

Operations: Norman Lee(DWR-OCO) provided the following update:

Preliminary Summary for 4/30/2015			
SWP		**CVP**	
Clifton Court Inflow (cfs)	750*	Jones Pumping Plant (cfs)	800
SWP San Luis Reservoir Share (TAF) as of Midnight	898	CVP San Luis Reservoir Share (TAF) as of Midnight	378
San Luis Reservoir Total (TAF) as of Midnight	1,276	American – Nimbus Reservoir Releases (cfs)	1,000
Feather – Oroville Reservoir Releases (cfs)	1,800	Sacramento – Keswick Reservoir Releases (cfs)	7,000
		Stanislaus – Goodwin Reservoir Releases (cfs)	
DELTA OPERATIONS			
Outflow (cfs)	~6,400	Delta Cross Channel (DCC) Gates	Closed
Total Delta Inflow (cfs)	~7,555	OMR (cfs)	-1941
X2 (km)	>81	5-day average (cfs)	-1869
Export/Inflow (%)	20%(14-day avg)	14-day OMR (cfs)	-1850

*Clifton Court is expected togo down to 500 cfs tomorrow (5/1/2015).

A summary of daily operations can also be viewed at http://www.water.ca.gov/swp/operationscontrol/docs/delta/deltaops.pdf.

Next Conference Call: DAT will convene next week on 5/7/15.