

Smelt Monitoring Team
Tuesday, June 23, 2020
11:00 AM – 12:00 PM

Executive summary: In Water Year, WY 2020, larval and juvenile Delta Smelt have been detected in the Lower Sacramento River, Suisun Marsh, and Sacramento Deepwater Shipping Channel. One larval Delta Smelt (12 mm) was detected in larval sampling on April 13th at the Tracy Fish Collection Facility. The expected OMR Index values are -3,000 cfs to -5,000 cfs. Based on real-time spatial distribution, turbidity data, and available PTM scenarios Reclamation identified -5,000 cfs as an OMR Index value to manage annual larval and juvenile entrainment levels.

1. Introductions

CDFW, NMFS, DWR, BOR, USFWS, K&W

- 2. Group Introduction:** The Smelt Monitoring Team (SMT) is a technical team that evaluates up-to-date biological and technical issues regarding Delta Smelt. The objective of the Smelt Monitoring Team is to provide information to the Water Operations Management Team (WOMT), Reclamation and California Department of Water Resources on measures to reduce adverse effects from Delta operations of the Central Valley Project (CVP) and the State Water Project (SWP) on Delta Smelt.

3. Relevant Actions and Triggers:

Currently under larval and juvenile Delta Smelt protection of 2019 Biological Opinion:

“Reclamation and DWR to manage exports to limit entrainment to be protective of larval and juvenile Delta Smelt on or after March 15 of each year, if QWEST is negative, and larval or juvenile Delta Smelt are within the entrainment zone of the pumps based on real time sampling of spawning adults or young of life stages...

Reclamation coordinated with the Service on the Life Cycle Model entrainment module and proposes to operationalize results through the management of OMR reverse flows. When the secchi depth in the south Delta is less than one meter as determined by the weekly assessments based on EDSM and other available data, Reclamation will operate to OMR no more negative than -3,500 cfs. When the secchi depth in the south Delta is greater than 1 meter, Reclamation and DWR will operate to OMR no more negative than -5,000 cfs.”

End of OMR Management:

OMR criteria may control operations until June 30 or when the following species-specific off ramps have occurred, whichever is earlier:

- Delta Smelt: when the daily mean water temperature at CCF reaches 77°F for 3 consecutive days;

Currently under the **Incidental Take Permit for Long-Term Operation of the State Water Project** in the Sacramento-San Joaquin Delta (2081-2019-066-00) (relevant actions and triggers below):

Onset of OMR management 8.3: From onset of OMR Management (initiated as described in 8.3.1 through 8.3.3) to the end (8.8) Permittee shall maintain a 14-day average OMR index no more negative than -5000 cfs, except during OMR Flex operations (8.7) or if a more positive OMR index is required.

Longfin Smelt larvae and juvenile protections 8.4.2:

1. Detections at 4 of the 12 SLS/20-mm stations in south and central Delta, or,
2. Catch per tow > 5 at 2 of the 12 SLS/20-mm stations

High flow off-ramp for Longfin Smelt 8.4.3: OMR management for LFS as described in 8.4.1 and 8.4.2 are not required, or would cease if previously required, when river flows are >55,000 cfs in the Sacramento River at Rio Vista or >8,000 cfs in the San Joaquin River at Vernalis. If flows subsequently drop <40,000 cfs in the Sacramento River at Rio Vista or <5,000 cfs in the San Joaquin River at Vernalis, the OMR limit previously required as a part of 8.4.1 and 8.4.2 shall resume.

Delta Smelt larvae and juvenile protection 8.5.2: Cumulative 5 day salvage $\geq 1 +$ average of 3 years' prior FMWT indices (rounded down), Permittee shall restrict south Delta exports for 7 consecutive days to maintain a 7 day average OMR index no more negative than -5,000 cfs. If 5 day cumulative salvage threshold is met or exceeded, SMT should immediately convene to conduct a risk assessment (8.1.5.2) and determine future risk of entrainment and take of larval and juvenile DS. SMT may provide advice to further restrict south Delta exports to maintain a more positive OMR than -5000 cfs.

End of OMR management 8.8: OMR Management season through June 30, or until the species-specific off-ramps occur. LFS and DS offramp- Daily mean water temperature at Clifton Court (CCF) > 25°C for three consecutive days.

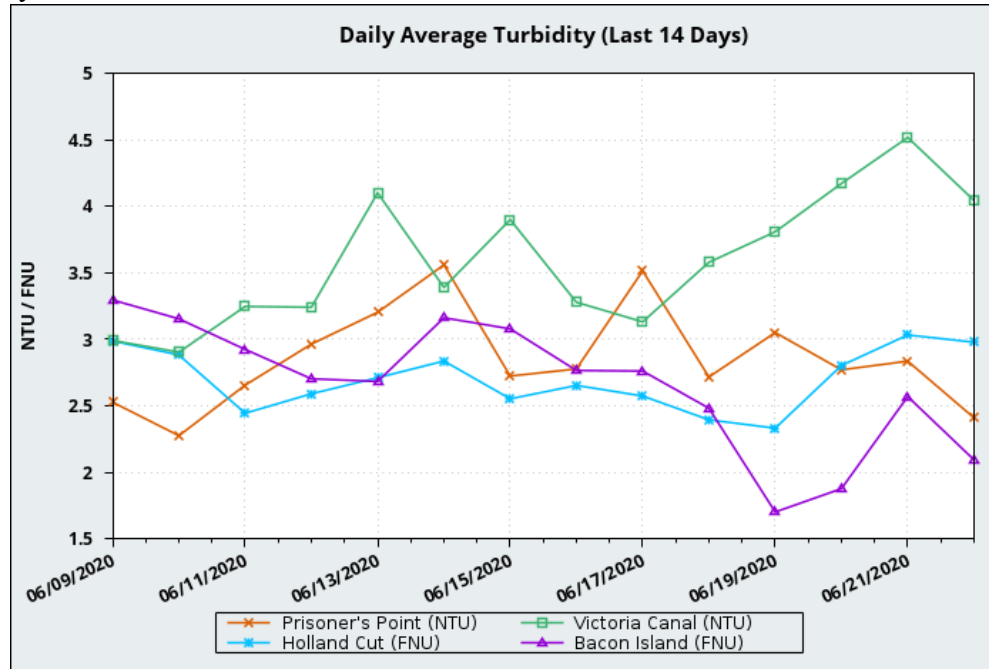
4. Operations

Tributary/Division	Projected Intended Operations and Ranges for week
Clear Creek	Whiskeytown Release: 150-450 cfs (ramping down from spring pulse flow) .End of second pulse flow. At 230 cfs today decreasing to the 6/26.

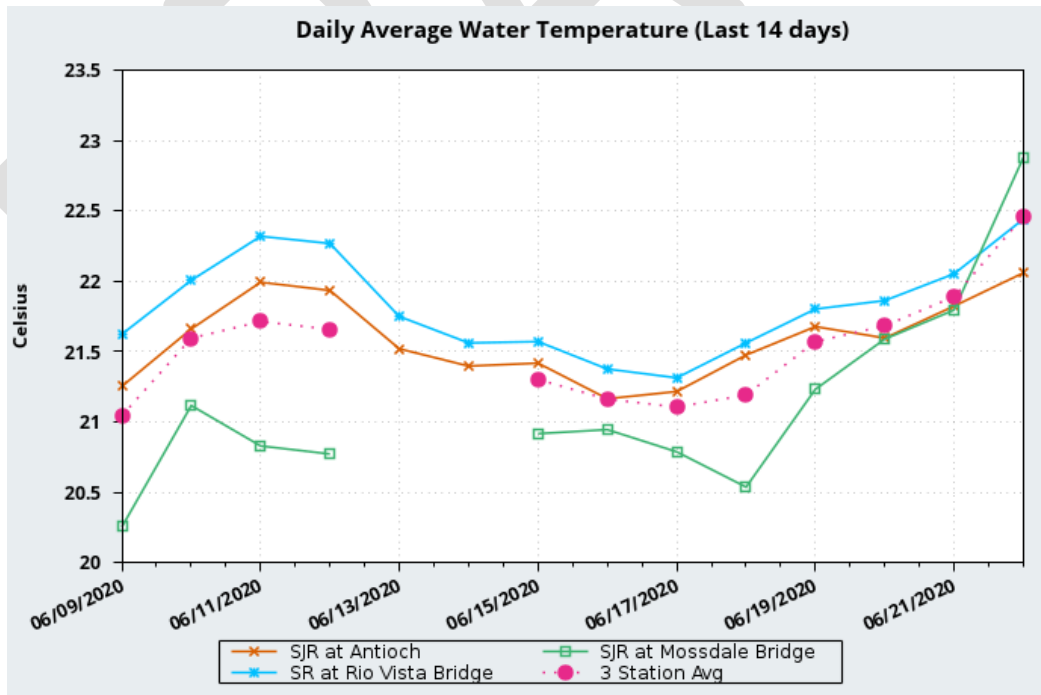
Sacramento River	<ul style="list-style-type: none"> • Shasta Storage: 3.28 MAF • Current Release: 12,000 cfs <p>Anticipated Weekly Range of Releases to Sacramento: 12,000 cfs to 12,500 cfs (As needed to support legal diversions on the Sacramento River and Delta demands)</p>
Feather River	<ul style="list-style-type: none"> • Oroville Storage: 2.26 MAF • Current Release: 3,300 cfs <p>Anticipated Weekly Range of Releases to Feather: 3,300 cfs to 4,500 cfs (As needed to support Delta water quality obligations and July exports)</p>
American River	<ul style="list-style-type: none"> • Folsom Storage: 0.76 MAF • Current Release: 3,000 cfs <p>Anticipated Weekly Range of Releases to American: 3,000 to 3,500 cfs (As needed to meet Delta water quality objectives)</p>
Stanislaus River	<ul style="list-style-type: none"> • New Melones Storage: 1.75 MAF • Current Release to Stanislaus: 1400 cfs <p>Anticipated Weekly Range of Releases to Stanislaus: 200 cfs to 1,400 cfs (As needed to meet D-1641 flow requirements at Vernalis)</p>
Delta	<ul style="list-style-type: none"> • Freeport: 12,000 to 13,500 cfs • Vernalis: 800 to 1,800 cfs • Delta Outflow index: 7,000 to 8,000 cfs • Combined Exports: 2700 to 4800 cfs • JPP: 2700 to 4200 cfs CC: 0 to 1700 cfs • Expected OMR Index Values:-3,000 to - 5,000 cfs • X2 position: > 81 km • QWEST: +500 cfs to +2,000 cfs <p>DCC: Open during summer</p>

Review of Environmental Conditions:

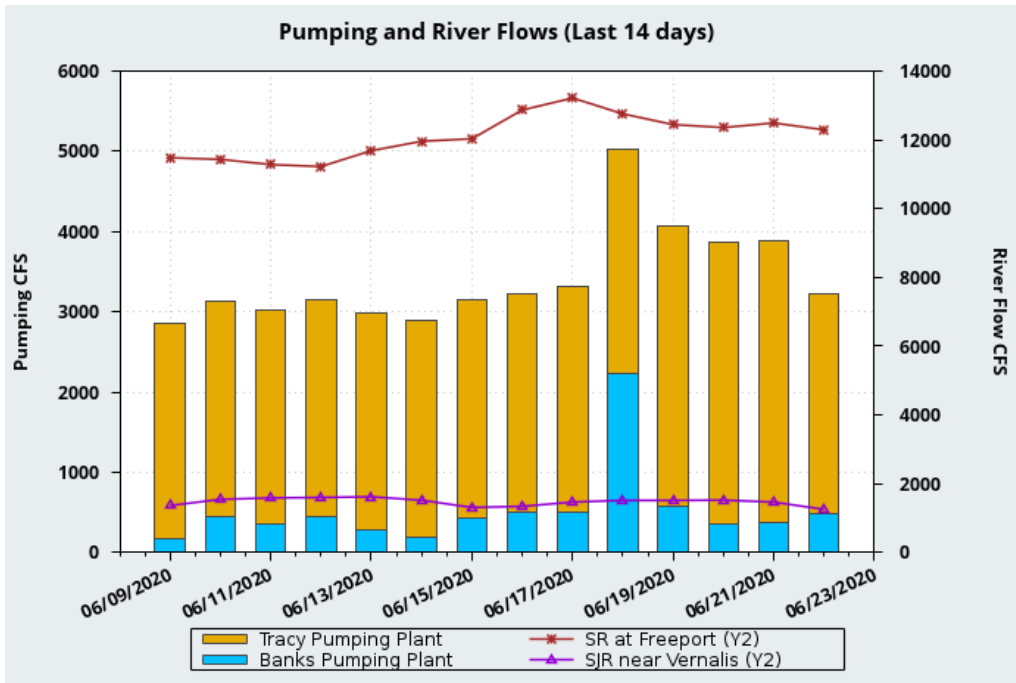
Turbidity:



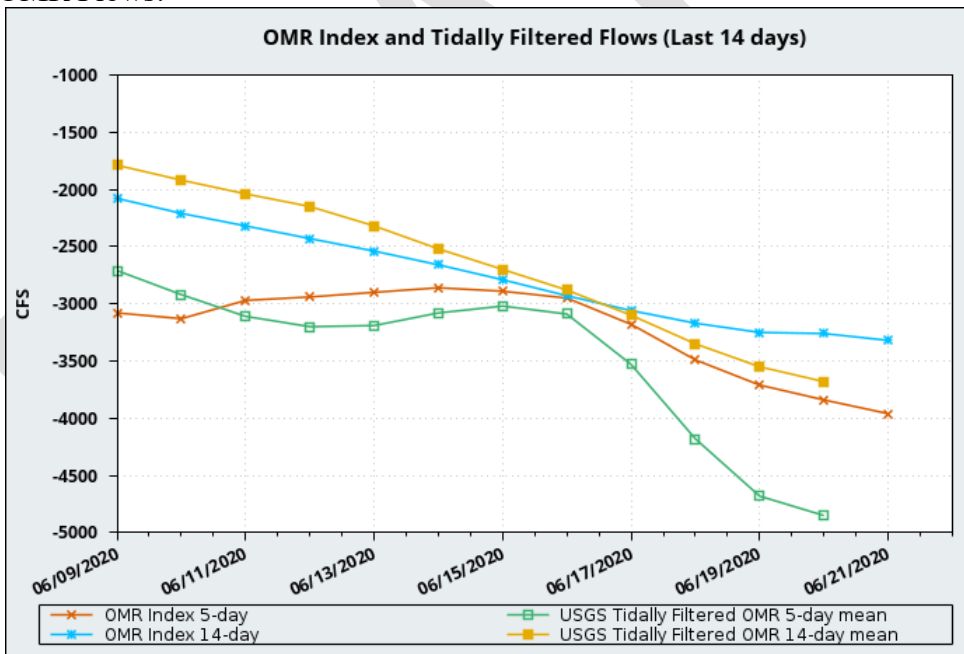
Temperature:

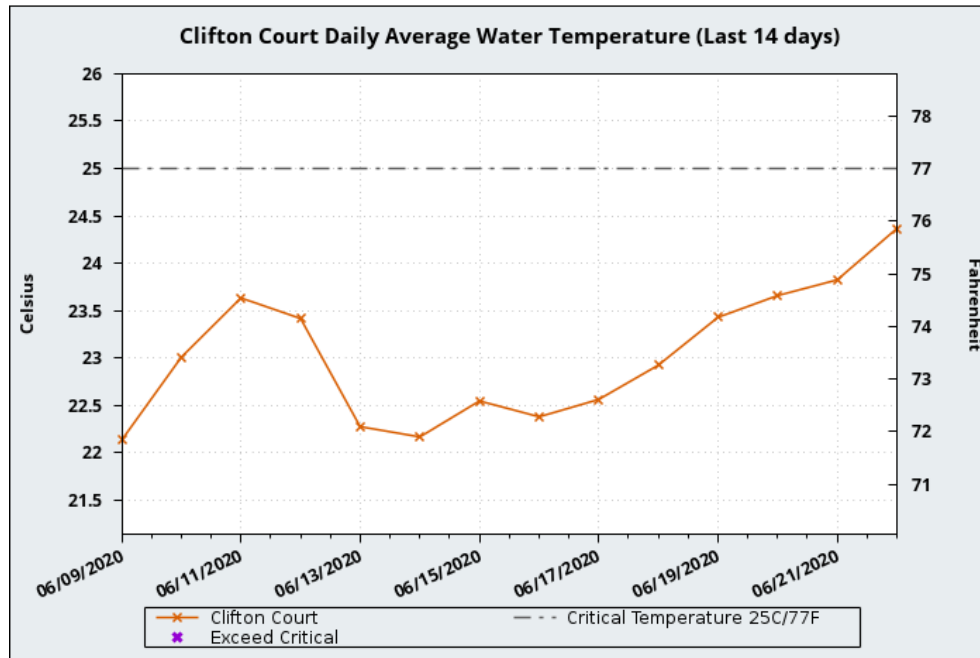


Pumping and Flows:



OMR Flows:





- As of June 22, the 3-station daily average temperature: 22.46°C
- Daily average turbidity at OBI on June 22 = 2.1FNU; Current turbidity = 1.3FNU
- Clifton Court daily average: 24.37°C; 75.87°F (0 days over 77°F, so off-ramp not triggered)
- Forecast for Antioch: sunny and clear; W/SW winds up to 22 mph; no precipitation

The data presented for conditions was accessed via SacPAS:

http://www.cbr.washington.edu/sacramento/data/delta_smelt.html

5. Fish Abundance, distribution, and lifestage:

A. Survey Updates:

B. 20 mm Survey 7 ran June 8-12:

- a. Unable to sample stations west of Chipps Island due to boat issues
 - i. In South and Central Delta: no Delta Smelt; no Longfin Smelt
 - ii. In confluence or lower Sacramento River 16 Longfin Smelt (mean size 28mm)

C. Survey 8 is out this week and will run June 22-26

D. Summer Tow Net was in the field last week; no update provided

-EDSM

- There was no abundance estimate for Week 11 (June 8-11), since no Delta Smelt were caught
- Finished 12th week of EDSM sampling last Friday (6/19); processing is still ongoing
 - 1. No Delta Smelt or Longfin Smelt detected
- Started 13th (and last) week of larval sampling yesterday

- Will switch back to Kodiak trawling on June 29th for EDSM Phase 3 (sampling of juveniles and sub-adults)
- https://www.fws.gov/lodi/juvenile_fish_monitoring_program/jfmp_index.htm.

E. Salvage Monitoring:

- CVP ended larval sampling on June 17
- SWP ended larval sampling on June 19
- No smelt were salvaged or detected in larval sampling this week
- No operational notes to provide for the last week

6. Evaluation:

A. Is OBI turbidity likely to exceed 12NTU during the next week? What conditions are likely to create this turbidity event?

Group Response: Turbidity at OBI is not expected to exceed 12 FNU in the next week. Daily average turbidity at Old River Bacon Island (Station ID: OBI) on 6/22/2020 was 2.1 FNU. The weather forecast does not predict precipitation events in the next seven days and the predicted West and southwest winds are not expected to raise turbidity past 12 FNU. The units of NTU were changed to FNU based on new information about the units recorded by the instruments (June 5th 2020 DWR Memorandum YSI Turbidity Measurement).

i. *Discussion: No discussion.*

B. After March 15 and if QWEST is negative, are larval or juvenile Delta Smelt within the entrainment zone of the CVP and SWP pumps based on surveys?

- *Group Response:* Larval and juvenile Delta Smelt have been detected in the Lower Sacramento, Suisun Marsh, and the Sacramento Deepwater Ship Channel. The Lower Sacramento River, Suisun Marsh, and Sacramento Deepwater Ship Channel are outside of the entrainment zone of the CVP and SWP pumps. However, the larval Delta Smelt observed at the CVP's Tracy Fish Collection Facility (TFCF) on 4/13/2020 indicates larval Delta Smelt may be present in the entrainment zone. Since this detection, no other larval, juvenile, or adult Delta Smelt have been seen in the entrainment zone of the CVP and SWP pumps. 20mm Survey 2 was cancelled due to COVID-19. 20mm Surveys have since been able to sample the South Delta. EDSM is not currently sampling the South Delta stratum. The rarity of Delta Smelt may limit the ability of salvage and surveys to detect Delta Smelt. In the Operations Outlook, QWEST is predicted to be positive between +500 cfs to +2,000 cfs and OMR Index values are bounded between -3,000 cfs to -5,000 cfs. The Delta Cross Channel Gates are open for the summer and create a positive response in QWEST and may facilitate outmigration.

i. *Discussion: Discussion:*

1. Should we make QWEST more specific?

- a. No, it is good to have a range in case conditions do change.

C. Based on real-time spatial distribution of Delta Smelt and currently available turbidity information, what is the OMR level between -3,500 and -5,000 cfs that manages weekly entrainment in the context of annual larval and juvenile entrainment levels?

-Group Response: Within the previous 30 days, Delta Smelt have been detected in the Sacramento Deep Water Ship Channel and in Suisun Marsh which are outside of the entrainment zone. However, the rarity of Delta Smelt may limit the ability of salvage and surveys to detect Delta Smelt. The 20 mm Survey #7 did record secchi depths at two South Delta stations (901 and 918) less than 1.0 m. Off ramp criteria were not met because Clifton Court Forebay temperatures have not reached the 77 °F threshold for temperature for three consecutive days. Based on real-time spatial distribution, turbidity data, and available PTM scenarios Reclamation identified -5,000 cfs as the OMR level to manage weekly entrainment in the context of annual larval and juvenile entrainment levels.

Discussion: Correct the Survey #8 mentioned, to Survey #7.

D. What do hydrodynamic models, informed by EDSM or other relevant data, suggest the estimated percentage of larval and juvenile DSM that could be entrained may be?

Group Response: Larval and juvenile Delta Smelt in the South Delta are at high risk of entrainment into the water export facilities. The expected OMR Index values are bounded between -3,000 cfs to -5,000 cfs. PTM results from 6/2/2020 suggest the low export scenario (-3500 cfs) results in <26%, and the high export scenario (-5000 cfs) results in <38% of particles injected into the Central Delta could arrive at the CVP and SWP after 21 days. The high export scenario results in <59% of particles being entrained into the Old and Middle River corridor. The modeled entrainment zone extends into Franks Tract under the OMR conditions in the Operations Outlook. These results leave a large number of the fates of injected particles unresolved. Under current OMR conditions particle movement may be limited due to the stagnant conditions in parts of the South Delta.

- i. *Discussion:* No discussion.

7. Delta Smelt (ITP-related)

- a. The SMT is not making a recommendation. Risk of entrainment for Delta Smelt is constant at all the OMR levels discussed on the call. Any Delta Smelt in South Delta are at high risk; outside the entrainment zone, smelt are at low risk.

Barker Slough Update

- Have not been detections at Station 716 this season. There is no evidence to suggest spawning has occurred here or individuals have moved into the area. No recommendation.

The Barker Slough visualization for data is now up on SacPas:

http://www.cbr.washington.edu/sacramento/data/delta_smelt.html

LONGFIN SMELT UPDATE:

- SMT is not making an operations recommendation for Longfin Smelt. Given our understanding of Longfin life history, the time of year, and the lack of detections, we expect that they have moved downstream. Temperatures have exceeded 21 degrees C at which point we rarely see Longfin.

8. Additional Considerations

-Do we have any catch data from tow net last week?

- a. Nothing has been posted online. At this life stage, there is not much fish identification work in the field. Felipe will reach out to Tim to see if he has an update.

-Next week's SMT meeting is 6/30 and the date of the off-ramp. Should we hold a call?

- b. Agreed not to hold the call unless otherwise requested. If there are concerns, i.e. if operations change drastically in a manner that needs SMT input, we can reach out via email.
- c. This will be the last SMT meeting of the season.

9. Next Meeting:

In the Fall of 2020

Weekly Advice for Longfin Smelt

23 June 2020

Summary of Risk

Current Lifestage(s) in the Delta: Juveniles

South Delta Entrainment Risk: Low

Advice: No OMR restrictions are warranted. Recent distribution data and abiotic conditions suggest that Longfin Smelt are not present within the hydraulic footprint of the export facilities. No Longfin Smelt were detected in the south or central Delta according to the most recently available data from 20mm Survey 7 and Enhanced Delta Smelt Monitoring (EDSM). Furthermore, daily average water temperature within the Delta has increased above levels at which Longfin Smelt are typically detected.

Basis for Advice

The 2020 [Incidental Take Permit for Long-Term Operation of the State Water Project in the Sacramento-San Joaquin Delta 2081-2019-066-00](#) (ITP) states that advice to Water Operations Management Team (WOMT) shall be based the following Conditions of Approval.

Larvae and Juveniles

8.4.2 Larval and Juvenile Longfin Smelt Entrainment Protection. From January 1 through June 30, when a single Smelt Larva Survey (SLS) or 20 mm Survey (20 mm) sampling period exceeds one of the following thresholds:

- LFS larvae or juveniles found in four or more of the 12 SLS or 20 mm station in the central Delta and south Delta (Stations 809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, 919), or
- LFS catch per tow exceeds five LFS larvae or juveniles in two or more of the 12 stations in the central Delta and south Delta (Stations 809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, 919).

Permittee shall restrict south Delta exports for seven consecutive days to maintain a seven-day average OMR index no more negative than -5000 cfs. Permittee shall also immediately convene the SMT to conduct a risk assessment (see Condition of Approval 8.5.1.2) to assess the risk of larval and juvenile LFS entrainment into south Delta export facilities, determine if an OMR flow restriction is warranted, and recommend an OMR flow limit between -1250 cfs and -5000 cfs. The SMT risk assessment and operational advice shall be reviewed by WOMT (Condition of Approval 8.1.3) via the Collaborative Real-time Decision-making process (Condition of Approval 8.1.4). Permittee shall operate to the export restriction and OMR flow target approved through Conditions of Approval 8.1.3 and 8.1.4. Each week the SMT shall convene to conduct a new risk assessment and determine whether to maintain, or offramp from, export restrictions based on the risk to LFS, or until the DS and LFS off-ramp has been met as described in Condition of Approval 8.8 (End of OMR Management).

From January 1 through June 30, DWR and CDFW SMT staff shall conduct weekly, or more often as needed, risk assessments (see Condition of Approval 8.5.1.2) to assess the risk of larval and juvenile LFS entrainment into the South Delta Export Facilities. As part of the risk assessment the SMT shall provide advice on the appropriate OMR flow targets to minimize LFS entrainment or risk of entrainment, or both. The SMT shall provide its advice to WOMT (Condition of Approval 8.1.3) and use the Collaborative Approach to Real-time Risk Assessment process described in Condition of Approval 8.1.4 to determine if OMR flow restriction is warranted and determine the OMR flow limit between -1250 and -5000 cfs. The OMR flow limit shall be in place until the next risk assessment conducted by the SMT determines that it is no longer necessary to minimize take or related impacts to LFS, or until the DS and LFS off-ramp has been met as described in the Condition of Approval 8.8 (End of OMR Management).

8.8 End of OMR management

Conditions of Approval in place to minimize take of Delta and Longfin Smelt shall remain in effect until June 30th or until daily mean water temperature at Clifton Court Forebay (CCF) is greater than 25°C for 3 consecutive days.

Discussion of Criteria

Larvae and Juveniles

8.4.2 Larval and Juvenile Longfin Smelt Entrainment Protection

Note: Regular field sampling was disrupted due to precautions in place to prevent the spread of COVID-19 and boat issues. 20 mm Survey 2 was canceled. 20 mm Surveys 3 and 4 sampled the 12 south and central Delta stations listed in Condition of Approval 8.4.2. 20 mm Survey 5 sampled 43 of the 47 regular stations. Station 901 (Franks Tract in central Delta) was not sampled due to excessive vegetation. Vessel related issues prevented sampling of all stations downstream of Chipps Island during 20 mm Survey 7.

SLS 6: (March 16 through 18) LFS larvae or juveniles were collected at 6 of the 12 relevant stations (809, 812, 815, 901, 902, 906). Catch per tow was greater than 5 at 3 of the 12 relevant stations (809, 812 and 901).

20 mm 1: (March 16 through 18) LFS larvae or juveniles were collected at 4 of the 12 relevant stations (809, 812, 815, 901). Average catch per tow was greater than 5 at 2 of the 12 relevant stations (809 and 812).

20 mm 3: (April 13 through 15) One LFS larvae (FL = 15 mm) was collected at station 809 in in the lower San Joaquin River. See the [20-mm webpage](#) for reported catch and more information.

20 mm 4: (April 27 through 29) One juvenile LFS (FL = 22 mm) was collected at station 901 (Franks Tract).

20 mm 5: (May 11 through 18) sampled 41 of the 47 regular stations and did not report any Longfin Smelt in the south or central Delta. Stations 901, 720, 724, 726, 703, and 346 were not sampled. 20 mm Survey 5 collected 635 Longfin Smelt in Suisun Bay, Suisun Marsh and near the confluence of the Sacramento and San Joaquin Rivers. Fork lengths ranged from 16 to 32 mm.

20 mm 6: (May 25 – 29) sampled 42 stations and collected 210 juvenile Longfin Smelt with fork lengths ranging from 22 to 39 mm. No Longfin Smelt were detected in the 12 south and central Delta stations listed in Condition of Approval 4.5.2.

20 mm 7: (June 8 – 12) sampled 26 stations including 11 in the south and central Delta. Sample processing is ongoing. No Longfin Smelt were collected in the south or central Delta. Six were collected near the confluence of the Sacramento and San Joaquin Rivers. See attachment “2020_20mm_Sur7_SmeltCatch_062220.pdf” for more details.

EDSM collected 1 juvenile Longfin Smelt in Suisun Bay on June 9th with a fork length of 28.5mm.

Salvage: Longfin Smelt salvage has not been observed since May 17th. Total salvage to date is 1360 for SWP and 1326 for CVP. Longfin Smelt larvae were detected at the federal facility on the March 27, 28, 29, 30 and April 3, 5, 6, April 9 through 16, April 18, and April 28. Larval LFS were detected at the state salvage facility on April 1, April 10, April 13, and April 29. See the table below for a summary of salvage and larval detections.

Table 1: Estimated salvage and larval detections at SWP and CVP for Water Year 2020. Note: Larval detections are reported as presence only.

DATE	State Daily Salvage	State Season Total	SWP Larvae Y or N	Federal Daily Salvage	Federal Season Total	CVP Larvae Y or N
3/17/2020	0	0	NC	4	4	N
3/24/2020	0	0	N	12	16	N
3/25/2020	0	0	N	8	24	N
3/27/2020	0	0	N	0	24	Y
3/28/2020	0	0	N	4	28	Y
3/29/2020	0	0	N	0	28	Y
3/30/2020	0	0	N	0	28	Y
4/1/2020	0	0	Y	8	36	N
4/3/2020	0	0	N	0	36	Y
4/5/2020	0	0	N	0	36	Y
4/6/2020	0	0	N	4	40	Y
4/9/2020	4	4	N	4	44	Y
4/10/2020	0	4	Y	8	52	Y
4/11/2020	0	4	N	48	100	Y
4/12/2020	2	6	N	100	200	Y
4/13/2020	6	12	Y	311.8	511.8	Y
4/14/2020	0	12	N	118.6	630.4	Y
4/15/2020	0	12	N	156.0	786.3	Y
4/16/2020	0	12	N	208.0	994.3	Y

4/17/2020	8	20	N	84.0	1078.3	N
4/18/2020	14	34	N	80.0	1158.3	Y
4/19/2020	8	42	N	0.0	1158.3	N
4/20/2020	0	42	N	12.0	1170.3	N
4/21/2020	4	46	N	28.0	1198.3	N
4/22/2020	8	54	N	0.0	1198.3	N
4/23/2020	12	66	N	16.0	1214.3	N
4/24/2020	28.0	94	N	12	1226.3	N
4/25/2020	94.0	188	N	8	1234.3	N
4/26/2020	218.0	406	N	12	1246.3	N
4/27/2020	230.0	636	N	0	1246.3	N
4/28/2020	58.0	694.0	N	12	1258.3	Y
4/29/2020	224.0	918.0	Y	16	1274.3	N
4/30/2020	118.0	1036.0	N	24	1298.3	N
5/1/2020	40.0	1076.0	N	4	1302.3	N
5/2/2020	24.0	1100.0	N	0	1302.3	N
5/3/2020	8.0	1108.0	N	4	1306.3	N
5/4/2020	18.0	1126.0	N	0	1306.3	N
5/5/2020	76.0	1202.0	N	0	1306.3	N
5/6/2020	76.0	1278.0	N	0	1306.3	N
5/7/2020	62.0	1340.0	N	0	1306.3	N
5/8/2020	12.0	1352.0	N	0	1306.3	N
5/9/2020	2.0	1354.0	N	4	1310.3	N
5/10/2020	0.0	1354.0	N	8	1318.3	N
5/11/2020	6.0	1360.0	N	4	1322.3	N
5/17/2020	0.0	1360.0	N	4	1326.3	N

8.8 End of OMR management. Daily average water temperature at CCF reached 24.4°C on June 22.

Current Conditions

As of June 22, 2020

Sacramento River flow at Freeport = 12,300 cfs. San Joaquin River flow at Vernalis = 1,250 cfs. X2 > 81 km. Qwest was approximately +1,400 cfs and is expected to remain positive. Daily average OMR Index = -3,700 cfs and is expected to remain stable. Daily average water temperature at Clifton Court Forebay was 24.4°C.

Attachments

2020_20mm_Sur7_SmeltCatch_062220.pdf

DRAFT

Table 1. Delta Smelt and Longfin Smelt catch per station from 2020 20-mm Survey 7, which was in the field 6/08/2020 – 6/12/2020. These data are preliminary and subject to change.

Year	Survey	Station	Date	# Tows Processed	Species	Total Catch	MinOfLength	MaxOfLength	AvgOfLength	
2020	7	328		0	Not Sampled	0				San Pablo Bay
2020	7	329		0	Not Sampled	0				
2020	7	334		0	Not Sampled	0				
2020	7	335		0	Not Sampled	0				
2020	7	336		0	Not Sampled	0				
2020	7	323		0	Not Sampled	0				
2020	7	340		0	Not Sampled	0				Suisun Bay & West
2020	7	342		0	Not Sampled	0				
2020	7	343		0	Not Sampled	0				
2020	7	344		0	Not Sampled	0				
2020	7	345		0	Not Sampled	0				
2020	7	346		0	Not Sampled	0				
2020	7	405		0	Not Sampled	0				
2020	7	411		0	Not Sampled	0				
2020	7	418		0	Not Sampled	0				
2020	7	501		0	Not Sampled	0				
2020	7	504		0	Not Sampled	0				
2020	7	519		0	Not Sampled	0				
2020	7	602		0	Not Sampled	0				
2020	7	606		0	Not Sampled	0				
2020	7	609		0	Not Sampled	0				
2020	7	610		0	Not Sampled	0				
2020	7	508	12-Jun-20	2	Longfin Smelt	3	27	31		Confluence
2020	7	513	12-Jun-20	3	Longfin Smelt	5	28	31		
2020	7	520	08-Jun-20	3	Longfin Smelt	6	25	34	28.33	
2020	7	801	10-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	804	08-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	703	10-Jun-20	3	No Longfin Smelt Catch	0				Sac. River System
2020	7	704	12-Jun-20	3	Longfin Smelt	2	23	28		
2020	7	705	11-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	706	12-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	707	12-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	711	11-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	716	11-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	718	11-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	719	11-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	720		0	Not Sampled	0				
2020	7	723	11-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	724		0	Not Sampled	0				
2020	7	726		0	Not Sampled	0				
2020	7	809	08-Jun-20	3	No Longfin Smelt Catch	0				Central & South Delta
2020	7	812	10-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	815	10-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	901		0	Not Sampled	0				
2020	7	902	09-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	906	10-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	910	09-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	912	09-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	914	09-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	915	09-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	918	09-Jun-20	3	No Longfin Smelt Catch	0				
2020	7	919	10-Jun-20	3	No Longfin Smelt Catch	0				