

# Weekly Fish and Water Operations Outlook 10/13/2020 – 10/19/2020

High pressure builds, resulting in a drying and warming trend for the week. Strongest north winds forecast for Wednesday, leading to elevated fire concerns. Minimum monthly average Delta Outflow requirement for October is 4,000 cfs and E/I may not exceed 0.65.

Tributary/ Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Clear Creek	<ul style="list-style-type: none"> <li>• Current Release: 200 cfs</li> <li>• Anticipated weekly range: 200 cfs</li> <li>• Temperature compliance target: 56°F at Igo (September 16 to October 31)</li> <li>• <a href="#">Northern CVP Water Temperature Reports</a></li> </ul>	<ul style="list-style-type: none"> <li>• Spring-run Chinook salmon spawning underway.</li> <li>• Adult fall-run Chinook salmon beginning entry to the Creek.</li> <li>• Late fall-run Chinook salmon and steelhead juveniles rearing through summer.</li> </ul>
Sacramento River	<ul style="list-style-type: none"> <li>• Shasta Storage: 2.15 MAF</li> <li>• Current Release: 6,000 cfs</li> <li>• Anticipated Weekly Range of Releases to Sacramento: 5,000-6,000 cfs</li> <li>• Temperature compliance targets: 56°F at Clear Creek</li> <li>• <a href="#">Northern CVP Water Temperature Reports</a></li> </ul>	<ul style="list-style-type: none"> <li>• Winter-run Chinook salmon eggs in gravel.</li> <li>• Juvenile winter-run Chinook salmon passage at Red Bluff Diversion Dam (BY20 total through 10/6/2020: 923,402; average historic passage (2005 – 2019) as of 10/12: 54.4%)</li> <li>• Late fall-run Chinook salmon and steelhead juveniles rearing through summer.</li> <li>• Green sturgeon adults and juveniles present.</li> <li>• Adult fall-run Chinook salmon starting spawning.</li> </ul>
Feather River	<ul style="list-style-type: none"> <li>• Oroville Storage: 1.60MAF</li> <li>• Current Release: 2,600 cfs</li> <li>• Anticipated Weekly Range of Releases to Feather: 2, 450 - 2,600 cfs (reduce below 2,500 cfs on 10/14 per CDFW Agreement)</li> <li>• Daily average temperature compliance targets: 60 ± 4°F at Fish Hatchery gage</li> <li>• <a href="#">Feather River Temperature</a></li> </ul>	<ul style="list-style-type: none"> <li>• Spring-run Chinook salmon adults are beginning to spawn.</li> <li>• Green sturgeon adults holding. A fifth adult sturgeon was acoustically tagged last week in the Yuba River.</li> <li>• Juvenile steelhead rearing through summer.</li> <li>• Adult fall-run Chinook salmon immigrating and holding.</li> </ul>
American River	<ul style="list-style-type: none"> <li>• Folsom Storage: 0.40MAF</li> <li>• Current Release: 1,500 cfs</li> <li>• Anticipated Weekly Range of Releases to American: 1,500 cfs</li> <li>• Temperature compliance target at Watt Avenue: 68°F after 7/1/20</li> <li>• 66 - 67°F at HZL</li> <li>• <a href="#">Water Forum Latest Conditions</a></li> </ul>	<ul style="list-style-type: none"> <li>• Juvenile steelhead rearing through summer/fall.</li> <li>• Adult fall-run Chinook salmon immigrating and holding.</li> </ul>

Tributary/ Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Stanislaus River	<ul style="list-style-type: none"> <li>• New Melones Storage: 1.52 MAF</li> <li>• Current Release to Stanislaus: 200 cfs to 1500 cfs, with start of Fall pulse flow this week</li> <li>• Anticipated Range of Weekly Releases to Stanislaus: 300 cfs</li> </ul>	<ul style="list-style-type: none"> <li>• Juvenile steelhead rearing through summer/fall.</li> <li>• Adult fall-run Chinook salmon immigrating and holding.</li> </ul>
Delta	<ul style="list-style-type: none"> <li>• Freeport: 7,500 to 9,500 cfs</li> <li>• Vernalis: 600 to 3,500 cfs</li> <li>• Delta Outflow index: 3,000 to 4,500 cfs</li> <li>• Combined Exports: 3,700 to 5,800 cfs</li> <li>• JPP: 3,400 to 4,300 cfs CC: 300 to 1,500 cfs</li> <li>• Expected OMR Index Values: -3,000 to -5,000 cfs</li> <li>• DCC: Open, w/ closure for Moke pulses 10/13 through 10/17</li> </ul>	<ul style="list-style-type: none"> <li>• Green sturgeon adult and juveniles present.</li> <li>• Adult fall-run Chinook salmon immigrating through Delta</li> </ul>

Table 2. Relevant Fish and Environmental Criteria and Status in 2019 Reclamation LTO Action and NMFS and USFWS Biological Opinions.

Species/run	Threshold	Current Status	Trend	Updated through
Green sturgeon	WY 2020 cumulative salvage = <b>74</b>	Salvage = <b>8</b>	Weekly trend: No change expected	10/12/2020
Natural winter-run Chinook salmon	10-year cumulative loss = <b>8,738</b>	Loss since 2/19/2020 * = <b>183 (2.1%)</b>	NA	10/12/2020
Hatchery winter-run Chinook salmon	10-year cumulative loss = <b>5,356</b>	Loss = <b>0 (0%)</b>	NA	10/12/2020
Natural steelhead	10-year cumulative loss = <b>11,864</b> December through March = <b>6,038</b> April 1 through June 15 = <b>5,826</b>	Loss* = <b>727 (6.1%)</b> Loss* = <b>402 (6.7%)</b> Loss* = <b>325 (5.6%)</b>	NA	10/12/2020

\* Cumulative loss for duration of 2019 Biological Opinion began upon signature of ROD, 2/19/2020.

Relevant Water Year 2020 Fish Criteria and Status for Listed Fish under the SWP Long-Term Incidental Take Permit.

Table 3a: Chinook Salmon

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
OMR Mgmt. triggered (8.3.2)	Jan. 1 - Jun. 30 (when $\geq 5\%$ of spring-run or winter-run in Delta)	In effect	- 5% of the Winter-run or Spring-run population in Delta	N/A	N/A	N/A	N/A
Winter-run yearly loss (8.6.1)	Nov. 1 - Jun. 30	Not in effect	- cum. loss of 10,002 unclipped (natural) Winter-run [1.17% of JPE] • - cum. loss of 110 clipped (hatchery) Winter-run [0.12% of JPE]	N/A	N/A	N/A	N/A
Winter-run discrete daily loss (8.6.2)	Nov. 1 - Dec. 31	Not in effect	11/1-11/30: loss of 6/day unclipped older juv. Winter-run 12/1-12/31: loss of 26/day clipped older juv. Winter-run	N/A	N/A	N/A	N/A
Winter-run relative daily loss (8.6.3)	Jan. 1 - May 31	Not in effect	1/1 - 1/31: 0.00635% loss of Winter-run JPE = TBD 2/1 - 2/28: 0.00991% = TBD 3/1 - 3/31: 0.0146% = TBD 4/1 - 4/30: 0.00507% = TBD 5/1 - 5/31: 0.0077% = TBD	N/A	N/A	N/A	N/A
Spring-run surrogate protection (8.6.4)	Feb. 1 - Jun. 30	Not in effect	- Feather CWT Spring-run surrogates cum. loss $>0.25\%$ for any release group <u>OR</u> • - Coleman or Nimbus Fall-run cum. loss $>0.25\%$ for	N/A	N/A	N/A	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
			any release group				

Table 3b: Delta Smelt

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Integrated Early Winter Pulse Protection ('First Flush') (8.3.1)	Dec. 1 - Jan. 31	Not in effect	- three-day Freeport daily flow running avg $\geq$ 25,000 <u>AND</u> - [three-day Freeport turbidity running avg $\geq$ 50 NTU <u>OR</u> Smelt Monitoring Team recommendation]	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Integrated Early Winter Pulse Protection ('First Flush') (8.3.1)	Dec. 1 - Jan. 31	Not in effect	- three-day Freeport daily flow running avg $\geq$ 25,000 <u>AND</u> - [three-day Freeport turbidity running avg $\geq$ 50 NTU <u>OR</u> Smelt Monitoring Team recommendation]	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Turbidity Bridge Avoidance (8.5.1)	Dec. 15 - Apr. 1	Not in effect	Occurs after the Integrated Early Winter Pulse protection or February 1 (whichever comes until April 1 ,(first  - avg. OBI turbidity $>$ 12 NTU	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Larval and/Juvenile Delta smelt Protection (8.5.2)	ongoing	In effect	- 5-day cum. salvage of juv. DS $\geq$ 1.67 [average 3-yr FMWT index + 1] <u>OR</u> - 3-day cum. salvage of juv. DS $>$ 11	<b>current 5-day salvage = 0</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

Table 3c: Longfin Smelt

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Early Adult Protection (8.3.3)	Dec. 1 - Feb. 28	Not in effect	- Cum. salvage > [most recent FMWT/10] = 1.2 fish <u>OR</u> - Smelt Monitoring Team determines high likelihood of LFS movement into high-risk areas	N/A	N/A	N/A	N/A
OMR Mgt. for Adults (8.4.1)	Dec. 1 - Feb. 28	Not in effect	- Smelt Monitoring Team recommendation	N/A	N/A	N/A	N/A
Larval and Juvenile longfin smelt Entrainment Protection (8.4.2)	Jan. 1 - Jun. 30	Not in effect	- LFS larvae or juveniles in >=4 SLS or 20 mm stations in central and south Delta, OR  - LFS catch/tow >5 larvae or juveniles in >=2 stations	N/A	N/A	N/A	N/A
High Flow OMR Off-Ramp for longfin smelt (8.4.3)	ongoing	In effect	- Sac. R. at Rio Vista >55,000, <u>OR</u>  SJR at Vernalis >8,000	Rio Vista = 3,000 to 6,500 cfs  SJ = 600 to 3,500 cfs	N/A	N/A	N/A

Table 3d: OMR

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
OMR Mgmt. Offramp (8.3.2)	Jun. 1 – Jun. 30	Not in effect	- >95% of the Winter-run and Spring-run populations have migrated past Chipps Island <u>AND</u> - Current daily average water temperature at Mossdale exceeds 22.2°C for 7 non-consecutive days in June <u>AND</u> - Current daily average water temperature at Prisoners Point exceeds 22.2°C for 7 non consecutive days in June. Current daily mean water temperature at CCF is greater than 25°C for three consecutive days	N/A	N/A	N/A	N/A