



Weekly Fish and Water Operations Outlook

10/31/2023 – 11/06/2023

Water Project Operational Intent for Week

- Monthly Delta Outflow and Rio Vista flow for November greater than 4,500 cfs; E/I ratio not to exceed 0.65.

Forecasted Weather

- Milder daytime temperatures this week; overnight temperatures remain cool; light precipitation chances for northern portion of Sacramento Valley; below normal high temperatures in the extended period.

Tables

Table 1: Anticipated weekly operational ranges by tributary. Environmental and fish conditions updated by respective watershed groups at varying intervals that may not coincide with the weekly range of Water Operations

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Clear Creek	<ul style="list-style-type: none"> • Current Release: 200 cfs • Anticipated Weekly Range of Releases: 200 cfs 	<ul style="list-style-type: none"> • Fall-run Chinook salmon adults are beginning to spawn. A few redds and carcasses have been observed. • Spring-run Chinook salmon eggs are incubating in the gravel (very few redds this year). • Adult O. mykiss are migrating into the creek and juveniles are rearing. • O. mykiss juveniles are rearing. <p><i>(Updated 10/30/2023)</i></p>

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Sacramento River	<ul style="list-style-type: none"> • Shasta Storage: 3.159 MAF • Current Release: 6,500 cfs • Anticipated Weekly Range of Releases: 5,000 cfs to 6,500 cfs. 	<ul style="list-style-type: none"> • Fall-run Chinook salmon are migrating into tributaries, holding, and spawning. • Late-fall run Chinook adults are moving upstream and holding in the river awaiting spawning in Dec-Jan. • Some (5%) Winter-run fry remain in redds, most have emerged. • Length-at-date spring run fry are being captured at RBDD, and genetic analysis, conducted for run assignment. • O. mykiss juveniles are rearing. • Adult green sturgeon are holding. • Green sturgeon juveniles are rearing. <p><i>(Updated 10/30/2023)</i></p>
Feather River	<ul style="list-style-type: none"> • Oroville Storage: 2.431 MAF • Current Release: 2,100 cfs • Anticipated Weekly Range of Releases: 1,750 to 2,100 cfs. 	<ul style="list-style-type: none"> • Fall-run Chinook salmon adult spawning has likely begun. • O. mykiss juveniles are rearing. Adults are migrating upstream. • Adult green sturgeon are still holding in the Low Flow Channel. • Spring-run adults have likely completed spawning. <p><i>(Updated 10/31/2023)</i></p>
American River	<ul style="list-style-type: none"> • Folsom Storage: 559 TAF • Current Release: 2,500 cfs • Anticipated Weekly Range of Releases: 2,000 cfs to 2,500 cfs 	<ul style="list-style-type: none"> • O. mykiss juvenile are rearing. • Adult fall-run Chinook are migrating upstream, holding, and have begun spawning. <p><i>(Updated 10/31/2023)</i></p>

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Stanislaus River	<ul style="list-style-type: none"> • New Melones Storage: 1.889 MAF • Fall attraction pulse flow finishing • Base flow anticipated 250 cfs 	<ul style="list-style-type: none"> • O. mykiss - Adult and juveniles present • Fall-run Chinook salmon are migrating upstream and beginning to spawn • Fall-run Chinook salmon adult observations are low this year compared to other years, with only 840 fall-run Chinook salmon passing through the Stanislaus Weir. <p><i>(Updated 10/31/2023)</i></p>
Delta	<ul style="list-style-type: none"> • Freeport: 8,000 to 10,500 cfs • Vernalis: 1,500 to 3,500 cfs • Delta Outflow index: 4,000 to 12,000 cfs • Combined Exports: 1,200 to 9,380 cfs • JPP: Current 900 cfs, Range 900 cfs to 2,700 cfs • CCF: Current 300 cfs, Range 300 cfs to 6,680 cfs • Expected Daily OMR Index Values: 0 cfs to -6,000 cfs • DCC Gates: Closed on 10/30, Opening 11/3 ; gate maintenance opening tests during week. • X2 is at 76 km • Tides: Transitioning from Spring to neap; Last Quarter Moon on 11/5 	<ul style="list-style-type: none"> • Adult O. mykiss present • Adult and juvenile Green Sturgeon present • Delta Smelt sub-adults and adults are present in the north delta arc and downstream of the confluence. • Longfin Smelt sub-adults and adults have been detected at Chipps Island. <p><i>(Updated 10/31/2023)</i></p>

Table 2a-b: WY 2024 relevant Fish and Environmental Criteria and Status in 2019 Reclamation LTO Action Cumulative loss for the duration of 2019 Biological Opinion began upon signature of ROD, 2/19/2020.

Table 2a: WY 2024 Salmonid Current Loss and Delta Smelt Abiotic Conditions. Additional Real-Time OMR Restrictions and Performance Objectives (4.10.5.10.2, 4.10.5.10.3) and Onset of OMR Management (4.10.5.10.1). Genetic identification of salmon is not used in calculating loss, but results are included in the Assessment as they become available. * TBD – no draft JPE produced, ITL and performance thresholds are TBD currently

Species/run	Threshold	Current Status	Weekly Trend	Updated
Green sturgeon	WY 2024 salvage = 74	WY 2024 salvage = 0 (0%)	No change expected	10/30/2023
Natural winter-run Chinook Salmon	WY 2024 loss = TBD* (50% of 1.17% of JPE)	WY 2024 loss = 0 (0%)	No change expected	10/30/2023
Natural Steelhead	Dec 1 – Mar 31 = 707; (50% of 1,414) Apr 1 – June 15 = 776 (50% of 1,552)	WY 2024 loss = 0 Dec 1 – Mar 31 = 0 (0% of the 50% threshold) Apr 1 – June 15 = 0(0% of the 50% threshold)	No change expected	10/30/2023
Sacramento River Hatchery winter-run Chinook salmon	WY 2024 loss = TBD* (50% of 0.12% of JPE)	WY 2024 loss = 0 (0%)	No change expected	10/30/2023
Battle Creek Hatchery winter-run Chinook salmon	WY 2024 loss = TBD* (1% of JPE)	WY 2024 loss = 0 (0%)	No change expected	10/30/2023
Proposed Action Hatchery yearling spring-run Chinook salmon surrogates	> 0.5% of each release group	WY 2024 loss = 0 (0%)	No change expected	10/30/2023
Delta Smelt	After Dec. 1: Running 3-day avg. flows at Freeport >25,000 cfs Running 3-day avg. turbidity at Freeport =>50 FNU	Freeport 3-day avg. Flow = Not relevant Turbidity = Not relevant	Not relevant	10/16/2023

Species/run	Threshold	Current Status	Weekly Trend	Updated
Delta Smelt	Daily avg. Turbidity at OBI=> 12 FNU	OBI Daily Average = Not relevant	Not relevant	10/16/2023
Delta Smelt	Daily avg. Temperature at CCF > 25°C for three consecutive days	CCF daily avg. Temperature = Not relevant	Not relevant	10/16/2023

Table 2b. 10-Year Salmonid Cumulative Loss

Species/run	Threshold	Current Status	Updated
Natural winter-run Chinook salmon	Loss = 8,738	Cumulative loss = 368.95 (4.2%)	10/30/2023
Hatchery winter-run Chinook salmon	Loss = 5,356	Cumulative loss = 6.71 (0.13%)	10/30/2023
Natural steelhead	Loss = 6,038 (Dec 1 – Mar 31) Loss = 5,826 (Apr 1 – June 15)	Cumulative loss = 1576.46 (26.1%, Dec 1 – Mar 31) 976.75(16.8%, Apr 1 – June 15)	10/30/2023

Table 3a: Relevant Water Year 2024 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 ≥ 5% of spring-run or winter-run in Delta)	Not in effect	-5% of the Winter-run or Spring-run population in Delta	N/A	N/A	9/29/23	Will be updated when in effect
Winter-run yearly loss (8.6.1)	Nov. 1 - Jun. 30	Not in effect	TBD based on WY 2023 JPE)	N/A	N/A	10/30/23	In effect beginning 11/1/23

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
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 unclipped older juv. Winter-run	N/A	N/A	10/30/23	In effect beginning 11/1/23
Mid and late season Winter-run daily loss threshold (8.6.3)	Jan 1 – May 31	Not In effect	TBD	N/A	N/A	9/29/23	Will be updated when in effect
Spring-run surrogate protection (8.6.4)	Feb. 1 - Jun. 30	Not in effect	TBD	N/A	N/A	9/29/23	Will be updated when in effect

Table 4: Fish monitoring gear efficiency and disruptions. Status Categories: [1] Active (ongoing sampling), [2] Partial Interruption (some sampling interruptions), [3] Interrupted (sampling fully suspended), [4] Not Active (sampling not scheduled)

Monitoring survey	Region	Notes (as of 10/31/2023)	Status
SWP regular counts, CWT reading	Delta	Active	1
SWP larval sampling	Delta	Not Active	4
CVP regular counts, CWT reading	Delta	Active	1
CVP larval sampling	Delta	Not Active	4
Smelt Larval Survey	Delta	Not Active	4
LEPS	Delta	Not Active	4
20mm Survey	Delta	Not Active	4
Fall Mid-water Trawl	Delta	Active	1

Monitoring survey	Region	Notes (as of 10/31/2023)	Status
Summer Townt Survey	Delta	Not Active	4
Bay Study	Delta	Active	1
DJFMP- Chipps and Sacramento Trawls	Delta	Active	1
DJFMP- Seines	Delta	Active	1
EDSM	Delta	Active	1
EMP	Delta	Active	1
Mossdale	Delta	Active	1
USGS Flow monitoring	Delta	Active	1
Red Bluff Diversion Dam Rotary Screw Trap (RST)	Sacramento River	Active	1
Knights Landing RST	Sacramento River	Active	1
Tisdale RST	Sacramento River	Active	1
GCID RST	Sacramento River	Not Active	4
Yuba River (Hallwood) RST	Yuba River	Not Active*	1
Redd dewatering and stranding surveys	Sacramento River	Active	1
Sacramento Carcass and Redd Surveys	Sacramento River	Active	1
Lower Sacramento RST	Sacramento River	Active	1
Feather River (upper DWR) RST	Feather River	Active	1
Feather River (lower CDFW) RST	Feather River	Active	1
SJRRP CDFW Field Monitoring	San Joaquin River	Active	1
SJRRP USBR Field Monitoring	San Joaquin River	Active	1
Stanislaus Fish Weir	Stanislaus River	Active	1

Monitoring survey	Region	Notes (as of 10/31/2023)	Status
American River Carcass/Redd Surveys	American River	Active	1
Caswell RST	Stanislaus River	Active	1
Wallace Weir	Cache Slough	Not Active	4
Butte Creek RST/Diversion Trap	Butte Creek	Not Active/Active	4/1

*Data has not been received yet