



— BUREAU OF —
RECLAMATION

Weekly Fish and Water Operations Outlook 10/18/2022 – 10/24/2022

FORECASTED WEATHER: Warmer through remainder of week; cooler, with a chance of rain, this weekend

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"> • Spring-run Chinook salmon spawning is winding down. • Fall-run Chinook Salmon are entering the Creek and spawning is ramping up. <p><i>(Updated 10/3/22)</i></p>
Sacramento River	<ul style="list-style-type: none"> • Shasta Storage: 1.458 MAF • Current Release: 3,900 cfs • Anticipated Weekly Range of Releases: 3,900 cfs 	<ul style="list-style-type: none"> • Spring-run Chinook salmon adults have mostly completed spawning. Eggs are in gravel. • Winter-run Chinook juvenile salmon are present in upper river and are both emerging from redds and migrating downstream. Approximately 25% of the juveniles remain in the redds the rest have emerged into the river and are slowly migrating downstream • Fall-run Chinook salmon spawning is underway and will last into early December. Carcass surveys for fall-run are underway. • Fall-run counts into the tributaries are low due to warm weather conditions and low flows. <p><i>(Updated 10/17/22)</i></p>

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Feather River	<ul style="list-style-type: none"> Oroville Storage: 1.174 MAF Current Release: 2,400 cfs Anticipated Weekly Range of Releases: 2,400 cfs to 2,300 cfs Daily temperature maximum: 51 F at Fish Hatchery 	<ul style="list-style-type: none"> Adult Fall-run Chinook Salmon are just beginning to spawn, some still migrating upstream and some holding Adult Spring-run Chinook Salmon are spawning, eggs in gravel. Approximately 15-20 green sturgeon present from Sunset Pumps to Boyd's Pump. Adult and juvenile steelhead present. <p>(Updated 10/11/22)</p>
American River	<ul style="list-style-type: none"> Folsom Storage: 320 TAF Current Release: 1,400 cfs Anticipated Weekly Range of Releases: 1,400 cfs to 1,300 cfs 	<ul style="list-style-type: none"> Adult fall-run Chinook Salmon are present and spawning. Juvenile and adult O. mykiss are present. <p>(Updated 10/4/22)</p>
Stanislaus River	<ul style="list-style-type: none"> New Melones Storage: 604 TAF Current Release: 300 cfs Anticipated Range of Weekly Releases: 300 cfs to 1,200 cfs. (Fall pulse began 10/13) 	<ul style="list-style-type: none"> Juvenile and adult O. mykiss are present. Adult fall-run Chinook salmon are present and holding. <p>(Updated 10/4/22)</p>
Delta	<ul style="list-style-type: none"> Freeport: 5,500 to 7,000 cfs Vernalis: 800 to 3,500 cfs Delta Outflow index: 3,500 to 6,300 cfs Combined Exports: 1,200 to 2,300 cfs JPP: 900 cfs to 1,800 cfs CCF: 300 cfs to 500 cfs Expected Daily OMR Index Values: -500 to -2,000 cfs DCC Gates: Closed as of 10/17. Expected operations: Closed during the week and open on weekends but may need flexibility to change if necessary. 	<ul style="list-style-type: none"> Adult spring-run Chinook Salmon entering Delta and migrating upstream towards spawning grounds Adult O. mykiss present Adult and juvenile Green Sturgeon present Delta Smelt sub-adults are present in the north delta arc and downstream of the confluence. Longfin Smelt sub-adults and adults are downstream of the confluence. <p>(Updated 10/17/22)</p>

Table 2a-b: WY 2023 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 2023 Salmonid Current Loss and Delta Smelt Abiotic Conditions. Additional Real-Time OMR Restrictions and Performance Objectives (4.10.5.10.2) and Onset of OMR Management (4.10.5.10.1). * TBD – no draft JPE produced, ITL and performance thresholds are TBD currently

Species/run	Threshold	Current Status	Weekly Trend	Updated
Green sturgeon	WY 2023 salvage = 74	WY 2023 salvage = 0 (0%)	No change expected	10/17/2022
Natural winter-run Chinook Salmon	WY 2023 loss = TBD * (50% of 1.17% of JPE)	WY 2023 loss = 0	No change expected	10/17/2022

Species/run	Threshold	Current Status	Weekly Trend	Updated
Natural Steelhead	Dec 1 – Mar 31 = 707 (50% of 1,414) Apr 1 – June 15 = 776 (50% of 1,552)	WY 2023 loss = 0 Dec 1 – Mar 31 = 0 (0%) Apr 1 – June 15 = 0 (0%)	No change expected	10/17/2022
Sacramento River Hatchery winter-run Chinook salmon	WY 2023 loss = TBD* (50% of 0.12% of JPE)	WY 2023 loss = 0 (0%)	No change expected	10/17/2022
Battle Creek Hatchery winter-run Chinook salmon	WY 2023 loss = TBD * (50% of 0.12% of JPE)	WY 2023 loss = 0 (0%)	No change expected	10/17/2022
Proposed Action Hatchery yearling spring-run Chinook salmon surrogates	> 0.5% of each release group	WY 2023 loss = 0 (0%)	No change expected	10/17/2022
Delta Smelt	Daily avg. Turbidity at OBI=> 12 FNU	OBI daily Avg Turbidity = Not relevant	Not relevant	10/17/2022
Delta Smelt	Daily avg. Temperature at CCF > 25°C for three consecutive days	CCF daily avg. Temperature = Not relevant	Not relevant	10/17/2022

Table 2b. 10-Year Salmonid Cumulative Loss

Species/run	Threshold	Current Status	Updated
Natural winter-run Chinook salmon	Loss = 8,738	Cumulative loss = 264.2 (3.0%)	10/17/2022
Hatchery winter-run Chinook salmon	Loss = 5,356	Cumulative loss = 6.71 (0.13%)	10/17/2022
Natural steelhead	Loss = 6,038 (Dec 1 – Mar 31) Loss = 5,826 (Apr 1 – June 15)	Cumulative loss = 530.2 (8.8%, Dec 1 – Mar 31) 474.5 (8.1%, Apr 1 – June 15)	10/17/2022

Table 3a-d: Relevant Water Year 2023 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 <i>(when ≥ 5% of spring-run or winter-run in Delta)</i>	Not in effect	-5% of the Winter-run or Spring-run population in Delta	N/A	N/A	10/17/22	N/A
Winter-run yearly loss (8.6.1)	Nov. 1 - Jun. 30	Not in effect (based on JPE)	TBD (based on JPE)	N/A	N/A	10/17/22	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 unclipped older juv. Winter-run	N/A	N/A	10/17/22	N/A
Mid and late season Winter-run daily loss threshold (8.6.3)	Jan 1 – May 31	Not in effect	N/A	N/A	N/A	10/17/22	N/A
Spring-run surrogate protection (8.6.4)	Feb. 1 - Jun. 30	Not in effect	TBD (based on the number of fish released)	N/A	N/A	10/17/22	N/A

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, triggered on Dec 17, last day of action was 1/2/22	- three-day Freeport daily flow running avg $\geq 25,000$ AND [three-day Freeport turbidity running avg ≥ 50 NTU OR Smelt Monitoring Team recommendation]	N/A	N/A	10/17/22	N/A
Turbidity Bridge Avoidance (8.5.1)	Dec. 15 - Apr. 1	Offramped	Occurs after the Integrated Early Winter Pulse protection or February 1 (whichever until April 1) comes first -avg. OBI turbidity > 12 NTU	N/A	N/A	10/17/22	N/A
Larval and/Juvenile Delta smelt Protection (8.5.2)	ongoing	In effect, not triggered	- 5-day cum. salvage of juv. DS ≥ 1 [average 3-yr FMWT index + 1] OR, - 3-day cum. Salvage of juv. DS > 11	N/A	N/A	10/17/22	N/A

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	Offramped	-Cum. salvage > [most recent FMWT/10] =1 fish (Sept.-Oct. Index) OR -Smelt Monitoring Team determines high likelihood of LFS movement into high-risk areas	N/A	N/A	10/17/22	N/A
OMR Mgt. for Adults (8.4.1)	Dec. 1 -Feb. 28	Offramped	-Smelt Monitoring Team recommendation	N/A	N/A	10/17/22	N/A
Larval and Juvenile Longfin Smelt Entrainment Protection (8.4.2)	Jan 1 – Jun 30	Offramped	-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 >=2stations	N/A	N/A	10/17/22	N/A
High Flow OMR Off-Ramp for Longfin Smelt (8.4.3)	Based on the status of 8.3.3, 8.4.1, & 8.4.2	In effect, not triggered	-Sac. R. at Rio Vista >55,000, OR SJR at Vernalis >8,000	Rio Vista = 2,000 to 4,500 cfs SJ = 800 to 3,500 cfs	N/A	10/17/22	N/A

Table 3d: OMR

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
OMR Mgmt. Offramp (8.8)	Jun. 1 – Jun. 30	Not in effect	->95% of the Winter-run and Spring run populations have migrated past Chipps Island AND -Current daily average water temperature at Mossdale and Prisoners Point. • Days exceeded: Criteria met as of 6/16/2022	N/A	N/A	10/10/22	N/A

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 10/11/2022)	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
Spring Kodiak Trawl	Delta	Not Active	4
Fall Mid-water Trawl	Delta	Active	1
Summer Towntnet Survey	Delta	Not Active	4
Bay Study	Delta	Active	1
DJFMP- Chipps and Sacramento Trawls	Delta	Active (sampling four days a week starting in February)	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 screw trap	Sacramento River	Active	1
Knights Landing screw trap	Sacramento River	Active	1

Monitoring survey	Region	Notes (as of 10/11/2022)	Status
Tisdale screw trap	Sacramento River	Active	1
GCID screw trap	Sacramento River	Active	1
Yuba River (Hallwood) screw trap	Yuba River	Not Active	4
Redd dewatering and stranding surveys	Sacramento River	Not Active	4
Sacramento Carcass and Redd Surveys	Sacramento River	Active	1
Lower Sacramento Rotary Screw Trap	Sacramento River	Active	1
Feather River (upper DWR)	Sacramento River	Not Active	4
Feather River (lower CDFW)	Sacramento River	Active	1
SJRRP CDFW Field Monitoring	San Joaquin River	Active	1
SJRRP USFWS and USBR Field Monitoring	San Joaquin River	Not Active	4
Stanislaus Fish Weir	San Joaquin River	Active	1