BUREAU OF RECLAMATION

Weekly Fish and Water Operations Outlook

10/29/2024 – 11/4/2024

Water Project Operational Intent for Week

Both (CVP and SWP) water projects are operating to the following D-1641 standards:

1. Monthly average Delta Outflow (and Rio Vista flow) not less than 4,000 cfs in October and 4,500 cfs in November,
2. E/I ratio no greater than 0.65, and
3. Daily Chlorides at Contra Costa Intake (at Rock Slough) no greater than 250 mg/l.

Biological Context

No ESA biological protections "controlling" water project operations have been "triggered" at this time.

Forecasted Weather

Light rain and high elevation snow to start the week, turning to windy conditions on Tuesday. Another weather system with showers, winds and high elevation snow moving in late Wednesday through early Saturday.

Tables

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

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Clear Creek	• Current Release: 300 cfs • Anticipated Weekly Range of Releases: 200 cfs to 300 cfs.	• Fall-run Chinook Salmon actively spawning and their eggs incubating. • Spring-run Chinook Salmon eggs are incubating. • O. mykiss adults are migrating into the creek. (Updated 10/28/2024)
Sacramento River	• Shasta Storage: 2.616 MAF • Current Release: 6,800 cfs • Anticipated Weekly Range of Releases: 4,500 cfs to 6,800 cfs.	• Winter-run adult spawning is complete, winter-run fry remain in gravel • Spring-run adults have completed spawning, spring run eggs/fry remain in the gravel • Fall-run adults are actively spawning, fall-run eggs/fry are in the gravel • Late-fall adults are migrating upstream from the ocean and holding in the watershed • Winter-run fry are migrating past RBDD in relatively low numbers considering this is the typical peak passage time period. • Small numbers of late-fall pre-smolts, late-fall juveniles from last spring, spring-run, fall-run smolts and O. Mykiss juveniles also passing RBDD at this time. (Updated 10/29/2024)

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Feather River	• Oroville Storage: 1.727 MAF • Current Release: 2,250 cfs • Anticipated Weekly Range of Releases: 1,750 to 2,250 cfs • Daily temperature maximum: 51 +/- 4 degrees F at Fish Hatchery	• Spring-run Chinook spawning is complete, eggs are incubating in gravel. • Fall-run Chinook salmon adults are migrating upstream and spawning. • Adult O. mykiss present and migrating upstream. (Updated 10/28/2024)
American River	• Folsom Storage: 409 TAF • Current Release: 1,500 cfs • Anticipated Weekly Range of Releases: 1,500 cfs to 2,000 cfs	• Fall-run Chinook salmon adults are migrating upstream and spawning. (Updated 10/14/2024)
Stanislaus River	• New Melones Storage: 1.796 MAF • Current Release: 600 cfs • Anticipated Range of Weekly Releases: 200 cfs after Nov 7.	• Juvenile and adult O. mykiss are present. • Adult fall-run Chinook Salmon are spawning. (Updated 11/04/2024)
Delta	• Freeport: 8,000 to 9,000 cfs • Vernalis: 1,300 to 2,700 cfs • Delta Outflow index: 3,300 to 4,500 cfs • Combined Exports: 4,500 to 6,800 cfs • JPP: 1,800 cfs to 3,500 cfs • CCF: 1,000 cfs to 5,000 cfs • Expected Daily OMR Index Values: -3,500 to -5,700 cfs • DCC Gates: Opened on 10/11. • X2 > 81 km • Tides: Transition from Neap to Spring; First Quarter Moon on 11/8.	• No update (Updated 10/8/2024)

Table 2a-b: WY 2025 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 2025 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.

Species/run	Threshold	Current Status	Weekly Trend	Updated
Green sturgeon	WY 2025 salvage = 74	WY 2025 salvage = 0 (0%)	No change expected	10/28/2024
Natural winter-run Chinook Salmon	WY 2025 loss = TBD * (50% of 1.17% of JPE)	WY 2025 loss = 0	No change expected	10/28/2024
Natural Steelhead	Dec 1 – Mar 31 = 707 (50% of 1,414) Apr 1 – June 15 = 776 (50% of 1,552)	WY 2025 loss = 0 Dec 1 – Mar 31 = 0 (0%) Apr 1 – June 15 = 0 (0%)	No change expected	10/28/2024
Sacramento River Hatchery winter-run Chinook salmon	WY 2025 loss = TBD* (50% of 0.12% of JPE)	WY 2025 loss = 0 (0%)	No change expected	10/28/2024
Battle Creek Hatchery winter-run Chinook salmon	WY 2025 loss = TBD * (50% of 0.12% of JPE)	WY 2025 loss = 0 (0%)	No change expected	10/28/2024
Proposed Action Hatchery yearling spring-run Chinook salmon surrogates	> 0.5% of each release group	WY 2025 loss = 0 (0%)*	No change expected	10/28/2024
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	10/28/2024
Delta Smelt	Daily avg. Turbidity at OBI=>12 FNU	OBI Daily Average = Not relevant	Not relevant	10/28/2024

Species/run	Threshold	Current Status	Weekly Trend	Updated
Delta Smelt	Daily avg. Temperature at CCF > 25°C for three consecutive days	CCF daily avg. Temperature = Not relevant	Not relevant	10/28/2024

Table 2b. 10-Year Salmonid Cumulative Loss

Species/run	Threshold	Current Status	Updated
Natural winter-run Chinook salmon	Loss = 8,738	Cumulative loss = 4575.3 (52.36%)	10/28/2024
Hatchery winter-run Chinook salmon	Loss = 5,356	Cumulative loss = 11.04 (0.21%)	10/28/2024
Natural steelhead	Loss = 6,038 (Dec 1 – Mar 31) Loss = 5,826 (Apr 1 – June 15)	Cumulative loss = 4951.27 (82%, Dec 1 – Mar 31) 2923.28 (50.2%, Apr 1 – June 15)	10/28/2024

Table 3a-d: Relevant Water Year 2025 Fish Criteria and Status for Listed Fish under the SWP Long-Term Incidental Take Permit.

Table 3a: Chinook Salmon

* No draft WR JPE for WY 2-25. Final JPE letter is expected in January.

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	10/7/24	N/A
Winter-run yearly loss (8.6.1)	Nov. 1 - Jun. 30	Not in effect	TBD (based on JPE)*	N/A	N/A	10/7/24	N/A

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. Chinook Salmon	N/A	N/A	10/28/24	N/A
Mid and late season Winter-run daily loss threshold (8.6.3)	Jan 1 – May 31	Not in effect	TBD (based on JPE)*	N/A	N/A	10/7/24	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	10/7/24	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	Triggered 12/31/2022, -2000 OMR action will last through 1/16/2023	- three-day Freeport daily flow running avg>= 25,000 AND [three-day Freeport turbidity running avg >=50 NTU OR Smelt Monitoring Team recommendation]	FPT flow: 75,692 cfs FPT turbidity: 128.2 FNU	Dynamic and elevated	1/9/23	Data from 1/8/23

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Turbidity Bridge Avoidance (8.5.1)	Dec. 15 - Apr. 1	In effect, triggered	Occurs after the Integrated Early Winter Pulse protection or February 1 (whichever comes first) until April 1 -avg. OBI turbidity>12 FNU	OBI = 17.83 FNU	Elevated	1/17/23	Data from 1/16/23
Larval and/Juvenile Delta smelt Protection (8.5.2)	ongoing	In effect, not triggered	- If 5-day cum. salvage of juv.DS >= 1[average 3-yrFMWT index + 1], then –5000 OMR - If DS in SLS/20mm or 3-d temp at Jersey Point >= 12C, and SLS/20mm Secchi for 12 south delta stations <= 1m, then –3500 OMR	Current 5-day salvage = 0 3-day SJJ temp = 10.74 SLS 1 avg Secchi = 26 cm	No change expected	1/17/23	Data from 1/16/23

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	Off-ramped	-Cum. salvage > [most recent FMWT/10] =40 fish (Sept.-Dec. Index) OR -Smelt Monitoring Team determines high likelihood of LFS movement into high-risk areas	Cum salvage total = 12	No change expected	1/17/23	Salvage at CVP on 1/1/23 and 1/14/23 and 1/15/23

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
OMR Mgt. for Adults (8.4.1)	Dec. 1 -Feb. 28	Off-ramped	-Smelt Monitoring Team recommendation	N/A	N/A	12/27/22	N/A
Larval and Juvenile Longfin Smelt Entrainment Protection (8.4.2)	Jan 1 – Jun 30	In effect, not triggered	-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	SLS #1: 0 larvae in central and south Delta	None expected	1/17/23	SLS 1 was in the field 1/3 - 1/6
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	Triggered, not controlling	-Sac. R. at Rio Vista>55,000, OR SJR at Vernalis >8,000	Rio Vista = 3,500 – 4,500 cfs SJ = 1,500 to 2,700 cfs	N/A	10/21/24	N/A

Table 3d: OMR

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
OMR Storm Flexibility (8.7)	Jan 1 – Jun 30	Not in Effect	-Delta is in excess -QWEST is > 0 -Measurable amount of precipitation has occurred -None of COA's are controlling operations (8.3.1, 8.3.3, 8.4.1, 8.4.2, 8.5.1, 8.5.2, 8.6.1, 8.6.2, 8.6.3, 8.6.4) -Cumulative salvage at CVP and SWP of yearling CNFH LFR Chinook salmon (as yearling CHNSR surrogates) is < 0.5% with any of the release groups -Risk Assessments conducted by the SaMT/SMT determines no changes in spawning, rearing, foraging, sheltering, or migration behavior as a result of OMR Flex operations beyond those are likely to occur.	N/A	N/A	10/14/24	Based on storm conditions
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.	N/A	N/A	10/14/24	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 1/17/2023)	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	Active	1
LEPS	Delta	Active	1
20mm Survey	Delta	Not Active	4
Spring Kodiak Trawl	Delta	Active	1
Fall Mid-water Trawl	Delta	Not Active	4
Summer Townet 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	Active	1
Butte Creek Carcass Surveys	Butte Creek	Active	1
Butte Creek RST	Butte Creek	Active	1

Monitoring survey	Region	Notes (as of 1/17/2023)	Status
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	Sacramento River	Not Active	4
Feather River (lower CDFW) RST	Sacramento River	Not Active	4
Feather River Carcass Survey	Sacramento River	Active	1
SJRRP CDFW Field Monitoring	San Joaquin River	Active	1
SJRRP USFWS and USBR Field Monitoring	San Joaquin River	Active	1
Stanislaus Fish Weir	San Joaquin River	Active	1
Stanislaus River Carcass Survey	San Joaquin River	Active	1
American River Carcass Survey	Sacramento River	Active	1

Preference (i.e., a y-intercept of 0.5)