BUREAU OF RECLAMATION

Weekly Fish and Water Operations Outlook

1/7/2025 – 1/13/2025

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 4,500 cfs in November and December,
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.

In addition, OMR management season has begun, so the 14-day averaged OMR index cannot be more negative than –5,000 cfs according to both the Federal Biological Opinions and State ITP for joint project operations.

Biological Context

The 14-day averaged OMRI cannot be more negative than –5,000 cfs. No other ESA protections have been "triggered" at this time.

Forecasted Weather

Dry conditions prevail this week. A few High Sierra showers or snow flurries are possible through early Tuesday. Gradual warming temperatures for the Valley.

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 shown.

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Clear Creek	• Current Release: 200 cfs • Anticipated Weekly Range of Releases: 200 cfs.	• Fall-run Chinook Salmon eggs incubating and juveniles are emerging. • Late fall-run Chinook Salmon adults are migrating into Clear Creek and spawning • Spring-run Chinook Salmon juveniles are rearing and emigrating. • O. mykiss adults are migrating and spawning. (Updated 1/6/2025)
Sacramento River	• Shasta Storage: 3.546 MAF • Current Release: 15,000 cfs • Anticipated Weekly Range of Releases: 12,000 cfs to 18,000 cfs.	• Spring-run Chinook Salmon fry are beginning to emerge and migrate downstream. • Fall-run adults have completed spawning, fall-run fry downstream passage counts are increasing daily. • Late-fall adults are commencing spawning and holding in the watershed. • Winter-run fry are still migrating past RBDD in relatively low numbers. • Small numbers of late fall-run pre-smolts, late fall-run juveniles from last spring, spring-run and fall-run smolts, and O. mykiss juveniles are also passing RBDD at this time. (Updated 1/6/2025)

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Feather River	• Oroville Storage: 2.411 MAF • Current Release: 1,750 cfs • Anticipated Weekly Range of Releases: 1,750 cfs • Daily temperature maximum: 55 degrees F at Fish Hatchery	• Spring-run Chinook Salmon spawning is complete, juveniles are emerging and are migrating downstream. • Fall-run Chinook Salmon spawning is complete. Juveniles are emerging and migrating downstream. • Adult O. mykiss present and migrating upstream. (Updated 1/6/2025)
American River	• Folsom Storage: 368 TAF • Current Release: 1,750 cfs • Anticipated Weekly Range of Releases: 1,750 cfs	• Fall-run Chinook Salmon adults are spawning and redds are being observed. • Eggs are in gravel and incubating. (Updated 1/6/2025)
Stanislaus River	• New Melones Storage: 1.860 MAF • Current Release: 200 cfs • Anticipated Range of Weekly Releases: 200 cfs.	• Juvenile and adult O. mykiss are present. • Adult fall-run Chinook Salmon spawning is nearly complete, eggs are incubating. • Redds and carcasses are observed in river. (Updated 1/6/2025)

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Delta	• Freeport: 43,000 to 58,000 cfs • Vernalis: 1,300 to 1,400 cfs • Delta Outflow index: 40,000 to 55,000 cfs • Combined Exports: 5,700 to 5,900 cfs • JPP: 4,200 cfs • CCF: 1,500 cfs to 1,700 cfs • Expected Daily OMR Index Values: -4,900 to -5,100 cfs • DCC Gates: Closed on 11/18. • X2 = 57 km • Tides: Transition from Neap to Spring; Full Moon on 1/13	• Yearling and YOY Chinook Salmon are migrating into the Delta. • In the last 4 weeks adult Delta smelt have been detected in Cache Slough, the Lower Sacramento, the Lower San Joaquin, Suisun Marsh, and Suisun Bay • One marked adult Delta smelt was detected in salvage at TFCF on 12/17/24. • A total of 48,672 individual adult Delta smelt have been released so far in WY2025. 24 marked Delta smelt have been detected. • Larval longfin smelt have been detected in the Central and South Delta, Sacramento River, Suisun Marsh, Suisun Bay, and the Confluence. • Juvenile longfin smelt have been detected in Suisun Marsh, Suisun Bay, Grizzly Bay, the Lower Sacramento River, and at Chipps Island. • Adult longfin smelt have been detected in Suisun Marsh, Central and South Delta, Sacramento River, and Chipps Island. Adult LFS have also been detect in salvage at the CVP. (Updated 1/6/2025)

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%)	No change expected	1/06/2025
Natural winter-run Chinook Salmon	See Table 3a	See Table 3a	See Table 3a	1/06/2025
Natural Steelhead	50% threshold – 1500 75% threshold - 2250 100% threshold - 3000	WY 2025 loss = 17.32 (1.1% of 50% threshold)	Likely to see more salvage	1/06/2025
Steelhead Weekly Loss Threshold	7-day rolling sum of steelhead salvage exceeds loss of 120 fish	No exceedances	No change expected	1/06/2025
Sacramento River Hatchery winter-run Chinook salmon	See Table 3a	See Table 3a	See Table 3a	1/06/2025
Battle Creek Hatchery winter-run Chinook salmon	See Table 3a	See Table 3a	See Table 3a	1/06/2025
Proposed Action Hatchery yearling spring-run Chinook salmon surrogates	See Table 3a	See Table 3a	See Table 3a	1/06/2025
Delta Smelt	See Table 3b	See Table 3b	See Table 3b	1/06/2025
Longfin Smelt	See Table 3c	See Table 3c	See Table 3c	1/06/2025

Table 2b. 10-Year Salmonid Cumulative Loss

Species/run	Threshold	Current Status	Updated
Natural winter-run Chinook salmon	Loss = 8,738	Cumulative loss = 4577.9 (52.4%)	12/17/2024
Hatchery winter-run Chinook salmon	Loss = 5,356	Cumulative loss = 11.04 (0.21%)	12/17/2024
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)	12/17/2024

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 2025. Final JPE letter is expected in January. A JPE surrogate is currently being used for COA 8.4.4 until the final JPE is issued.

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Onset of OMR Management (8.3)	Jan. 1 - Jun. 30	In effect	Begins January 1 or earlier if COA 8.3.1, COA 8.3.2, or COA 8.3.3 are in effect (see Table 3b)	N/A	N/A	1/6/25	N/A
Winter-run Annual Loss (8.4.3)	July 1 - Jun. 30	In effect	-Natural-origin Winter-run Loss Threshold: 0.5% of JPE -Hatchery-origin Winter-run Loss Threshold: 0.12% of JPE	TBD (based on JPE)	N/A	11/12/24	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
2024 Winter-run Early Season Natural-origin Discrete Daily Loss (8.17)	Nov. 1 - Dec. 20 (or when ROD is signed)	Not in effect	12/1-12/31: loss of 26/day unclipped older juv. Chinook Salmon	N/A	N/A	1/6/25	N/A
Natural-origin Winter-run Early Season Weekly Loss Thresholds (8.2.1)	Nov. 1- Dec. 31	Not in Effect	N/A	1 LAD WR was observed on 12/17/24 which counted towards the 7-day loss; however, genetics confirmed it as NOT a winter-run.	N/A	1/6/25	COA 8.2.1 was in effect beginning 12/22/24 but no longer in effect beginning 1/1/24.
Natural-origin Winter-run Weekly Loss (8.4.4)	Jan 1 – June 30	In effect	Thresholds based on Table 4, Column E of 2024 SWP ITP: [Annual Loss Threshold (based on JPE surrogate) x 50% of Annual Loss Threshold x Winter-run in Delta (based on Column E)]	1/1/25 - 1/7/25 Threshold: 0.56 1/8/25 - 1/14/25 Threshold: 0.56	7-day rolling sum from 1/1/25 - 1/7/25: 0	1/6/25	1 LAD WR was observed with loss of 2.60 on 1/2/24 that counted towards the 7-day loss threshold; however, genetics confirmed the fish as NOT a WR

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Spring-run Protection Action and Surrogate Annual Loss (8.4.5)	Natural-origin: Oct. – June 30 Hatchery-origin: Nov. 1 – June 30	Natural-origin: In effect Hatchery-origin: In effect	Group 1: 1,747.23 (0.25% of 698,892 fish released) Group 2: 193.39 (0.25% of 77,355 fish released)	Current Loss for Group #1 through 1/5/25: 947.01 (53.82% of the loss threshold) Current Loss for Group #2 through 1/5/24: 29.76 (12.70% of the loss threshold)	Likely to see more salvage	1/6/25	No natural-origin Chinook Salmon spring-run salmon have been salvaged yet in WY 2025. The second group was released on 12/13/24.

Table 3b: Delta Smelt

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
First Flush Action (8.3.1)	Dec. 1 – last day of February	Not active Action triggered on Dec. 16, active from Dec. 19 through Jan 1, 2025	- three-day Freeport (FPT) daily flow running avg>= 25,000 AND [three-day Freeport turbidity running avg >=50 NTU OR Smelt Monitoring Team recommendation]	FPT 3-day avg. Flow = Not relevant Turbidity = Not relevant	N/A	1/6/2025	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Adult Delta Smelt Entrainment Protection ("Turbidity Bridge Avoidance") (8.3.2)	After IEWPP or Dec. 20 until 3-day average temperatures at Jersey Point (SJJ) or Rio Vista (RVB) exceed 12 °C (53.6 °F)	Active; not triggered	Occurs after the Integrated Early Winter Pulse protection or December 20 (whichever comes first) until 3-day average temperature offramp at Jersey Point (SJJ) or Rio Vista (RVB) > 12 °C (53.6 °F) -OBI, OSJ, and HOL turbidity>12 FNU -Vernalis flow >10,000 cfs (temporary offramp); <8,000 cfs (reinstated)	OSJ Turbidity = 24.8 FNU HOL Turbidity = 5.78 FNU OBI Turbidity = 6.24 FNU 3-d SJJ temp = 10.89 °C 3-d RVB temp = 10.37 °C Vernalis Flow = 1,300 to 1,400 cfs	Turbidity variable	1/6/25	N/A
Larval and Juvenile Delta smelt Protection (8.4.1)	After Adult Delta smelt Entrainment Protection ends	Not active	SLS/20mm Secchi depth for 12 south delta stations <= 1m -Rio Vista flows >55,0000 cfs or Vernalis flows >8,000 cfs (temporary offramp); <40,000 cfs (Rio Vista) or <5,000 (Vernalis) reinstated	Current 5-day salvage = Not relevant Secchi depth = Not relevant	N/A	N/A	N/A

Table 3c: Longfin Smelt

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Adult LFS Protection (8.3.3)	Dec. 1 - end of February	Active; not triggered	-Cum. salvage > (Age 1+ LFS Index/20) +1 = 181 fish	Cum LFS salvage greater than 60mm = 8	No change expected	1/7/25	N/A
Larval and Juvenile Longfin Smelt Entrainment Protection (8.4.2)	Jan. 1 – Jun. 30	Active; not triggered	-7-day average QWEST < +1,500 cfs, AND LFS larvae or juveniles in most recent SLS or 20 mm survey at 809 & 812 > 50; OR cumulative salvage > 50 or 75% avg annual salvage 2009-present -Rio Vista flows >55,0000 cfs or Vernalis flows >8,000 cfs (temporary offramp); <40,000 cfs (Rio Vista) or <5,000 (Vernalis) reinstated	7-day average QWEST = +6,268 cfs Larval/juvenile (>20mm) 809 + 812 catch (SLS 1) = 18 Cumulative juvenile (>20mm) salvage = 0 Rio Vista Flow = 36,000-52,000 cfs Vernalis Flow = 1,300 to 1,400 cfs	No change expected	1/7/25	SLS 2 on the water 1/13/25

Table 3d: OMR

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
OMR Storm Flex (8.5)	Start of OMR – Onramp of Larval and Juvenile DS Protection Action (8.4.1) or last day of February (whichever occurs first)	In Effect	-Delta is in excess -QWEST is > +1,500 cfs -X2 is < 81 km - Daily average turbidity at OSJ, HOL, and OBI are <12 FNU -Higher level of outflow available for diversion due to storm flows -Measurable amount of precipitation has occurred -None of COA's are controlling operations (8.2.1, 8.3.2, 8.3.3, 8.4.2, 8.4.3, 8.4.4, 8.4.5, 8.4.7) -Cumulative loss at CVP and SWP of yearling CNFH LFR Chinook salmon (as yearling CHNSR surrogates) is < 0.5% with any of the release groups	N/A	N/A	1/6/25	Based on storm conditions

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
End of OMR Management (8.6)	Jun. 1 – Jun. 30	Not in effect	Smelt: -Daily mean water temperature at Clifton Court Forebay (CLC) is > or equal to 25 C for 3 consecutive days Salmonids: -Current daily average water temperature is > 22.2 C at Mossdale and Prisoners Point for 7 days (can be non-consecutive).	N/A	N/A	11/12/24	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 1/7/2025)	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	Not Active	4
20mm Survey	Delta	Not Active	4
Fall Mid-water Trawl	Delta	Active	1
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

Monitoring survey	Region	Notes (as of 1/7/2025)	Status
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 (Inactive from 12/14-12/16)	1
Tisdale RST	Sacramento River	Active	1
GCID RST	Sacramento River	Not Active	4
Mill Creek RST	Mill Creek	Active	1
Deer Creek RST	Deer Creek	Inactive	4
Yuba River (Hallwood) RST	Yuba River	Active	1
Butte Creek Carcass Surveys	Butte Creek	Active	1
Butte Creek RST	Butte Creek	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	Sacramento River	Active	1
Feather River (lower CDFW) RST	Sacramento River	Active	1
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)