BUREAU OF RECLAMATION

Weekly Fish and Water Operations Outlook

3/31/2026 - 4/6/2026

Water Project Operational Intent for Week

In March - Total combined Delta exports do not cause OMRI to be more negative than –5,000 cfs on a 14-day average basis. Per D-1641, X2 requirements and a maximum E/I ratio of 0.35 are effective in March.

In April – SWP exports are constrained by ITP COA 8.12.1. Both projects' exports are also constrained during the April-May pulse flow period by Footnotes 17 and 18 of Decision 1641. Per D-1641, X2 requirements and a maximum E/I ratio of 0.35 continue to be effective in April.

Biological Context

The DCC gates remain closed to protect migrating salmonids.

Forecasted Weather

High temperatures will begin to fall on Tuesday with light rain possible. Chances of isolated thunderstorms through Thursday. Around 4-6 inches of snow is expected in mountain areas, mainly above 6,000 feet elevation. By Friday, we will begin to dry out and warmer temperatures in the low to mid 80s will return.

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: 275 cfs • Anticipated Range of Weekly Releases: 250 cfs to 275 cfs	• Spring run, fall run, and late fall run Chinook Salmon juveniles are rearing and out-migrating • Adult spring run Chinook are entering the creek and migrating upstream • Adult O. mykiss/steelhead are spawning, their eggs are incubating, and juveniles are rearing and out-migrating • (Updated 03/30/2026)
Sacramento River	• Shasta Storage: 4.088 MAF • Current Release: 4,000 cfs • Anticipated Weekly Range of Releases: 4,000 cfs	• LAD juvenile spring-run and fall-run Chinook salmon are emerging and migrating downstream • Most winter-run Chinook salmon have migrated downstream past RBDD. • Late fall-run Chinook Salmon are migrating upstream. Some are preparing to spawn, while others are actively spawning. Early eggs are in the gravel. • (Updated 03/30/2026)
Feather River	• Oroville Storage: 3.076 MAF • Current Release: 1,750 cfs • Anticipated Weekly Range of Releases: 1,050 cfs to 3,000 cfs • Daily temperature maximum: 55 °F at Fish Hatchery	• Fall-run Chinook Salmon spawning is complete. Juveniles emerging and migrating downstream. • Spring-run Chinook Salmon juveniles are migrating downstream. • Adult O. mykiss are migrating upstream. • Sturgeon are migrating into the river. • (Updated 03/9/2026)
American River	• Folsom Storage: 811 TAF • Current Release: 1,100 cfs • Anticipated Weekly Range of Releases: 1,100 cfs	• Fall-run Chinook Salmon spawning has ended. • Fry are emerging and beginning to migrate downstream. • (Updated 03/2/2026)

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Stanislaus River	• New Melones Storage: 1.884 MAF • Current Release: 700 cfs • Anticipated Range of Weekly Releases: 700 cfs to 1,100 cfs	• Adult fall-run Chinook Salmon spawning has ended. • Fall-run juveniles are emerging and likely migrating downstream. • Spring-run fry are emerging and moving downstream. • (Updated 3/23/2026)
Delta	• Freeport: 11,000 cfs to 13,000 cfs • Vernalis: 1,800 cfs to 2,300 cfs • Delta Outflow index: 7,000 to 12,000 cfs • Combined Exports: 4,100 to 5,900 cfs • JPP: 3,500 cfs • CCF: 600 cfs to 2,400 cfs • Expected Daily OMR Index Values: -3,500 cfs to – 5,000 cfs • Rio Vista Flows: 7,000 cfs to 11,000 cfs • DCC Gates: Closed • X2 at 72 km • Qwest daily: -1,800 cfs • Qwest 7-day average: -1,000 cfs • Qwest Forecasted Daily Range: 300 cfs to -1,500 cfs • JPF: 90 cfs to - 1,900 cfs • Tides: Transition from Neap to Spring; Full Moon on April 1.	• LAD spring-run and winter-run Chinook salmon juveniles are being observed by monitoring surveys. • 163,349 unmarked Delta smelt were released in fall 2025. A total of 44 adult and 30 juvenile Delta smelt have been observed in Suisun Marsh, the lower Sacramento River, the SDWSC, and at CVP salvage facilities. The most recent observations were of two adults caught by EDSM in Suisun Marsh on 3/24/26 and 3/18/26. An adult was detected in salvage at the TFCF on 3/6/2026. • A total of 303 sub-adult and adult Longfin Smelt have been observed in the Chipps Island Trawl for WY2026, with the last detection being on 03/12/2026. • 20mm 1 (3/16 - 3/20) preliminarily detected a total of 2 larval Longfin Smelt at the lower San Joaquin River stations 809 and 812. SLS 6 (3/9 - 3/11), preliminarily detected 66 larval Longfin Smelt in San Pablo Bay, Suisun Bay and Marsh, the Confluence, and the Sacramento and San Joaquin rivers. SLS 5 (2/23-2/25) detected 1,104 larval Longfin Smelt, primarily west of the Confluence. • (Updated 03/30/2026)

Table 2: WY 2026 Salmonid Current Loss and Delta and Longfin Smelt Abiotic Conditions.

Species/run	Threshold	Current Status	Weekly Trend	Updated
Green sturgeon	Annual ITL= 14 3-year rolling average ITL= 5	salvage = 6	Occasional salvage possible	1/20/26
Winter-run Chinook Salmon juveniles (JPE= 1,057,452 (genetically confirmed unclipped); 130,096 (LSNFH Sacramento River); 5,186 (LSNFH Battle Creek))	Genetically confirmed unclipped Annual ITL = 5,922; loss threshold= 10,575 LSNFH releases (Annual ITL and loss threshold) Sacramento River = 1,301 Battle Creek = 52	Confirmed Natural-Origin Genetic loss= 45.43(0.43%) LSNFH loss = 621 (4.78%)	Continued salvage at increased rate *LAD WR was salvaged but genetically identified as Spring-Run	3/30/26
Central Valley Steelhead	[1]Clipped = 3565 [2]Unclipped = 5914	Hatchery Loss = 1474 (23.27% of threshold) Natural-origin loss = 213 (3.43%)	Salvage of clipped and unclipped fish is likely to continue in the upcoming week.	03/30/26
Spring-run Chinook salmon surrogate releases	Yearling: Annual ITL: 0.5% of 75,119 = 376; 60,873 = 304; 57,109=286 Loss Threshold: 1% of 75,119 = 751 60,873 = 609 57,109 = 571 Young of Year= TBD	Yearling loss = 257.32 Group 1 (75,119) Loss: 0 Group 2 (60,873) Loss: 261.57 Group 3 (57,109) Loss: 35.06 0 (0.00% of annual loss threshold) spring-run surrogate YOY (Feather River Spring-Run) N/A	Salvage is possible in the upcoming week.	03/30/26

Species/run	Threshold	Current Status	Weekly Trend	Updated
First Flush (onset of Entrainment Management Season)	Freeport flows ≥ 25,000 cfs AND Freeport turbidity ≥ 50 FNU	See Table 3b First flush conditions were met on 12/23/25 and implemented by CVP on 12/25/25-1/7/26.	N/A	12/29/25
Delta smelt adults	JPF < 0 AND daily average turbidity ≥ 12 FNU in OMR corridor UNTIL Average water temperatures at Jersey Point or Rio Vista ≥ 12°C (53.6°F) for 3 consecutive days	Not active Jersey Point temp: 12.05 °C on 2/10 12.09 °C on 2/11 12.13 °C on 2/12	N/A	3/16/26
Delta smelt larvae and juveniles	After onset of spawning, if JPF < 0 AND turbidity is ≥12 FNU in the south Delta	Active, not triggered Daily JPF: –1,732 cfs (as of 3/29) Avg turbidity in south Delta: (as of 3/16/26) 5.0 FNU	Turbidity in south Delta is low	3/30/26
Longfin smelt adults	If JPF < 0 and assessment indicates annual loss will exceed 5% of adult population abundance	Active, not triggered Daily JPF: –1,732 cfs Annual loss of adult LFS: 0	No WY26 salvage to date	3/30/26
Longfin smelt larvae and juveniles	If JPF < 0 and population model indicates need to reduce entrainment to avoid population decline	Active, not triggered Daily JPF: – 1,732 cfs	No WY26 salvage to date	3/30/2026

[1]Based on combined releases and estimated survival across Coleman, Feather River, Nimbus, and Mokelumne hatcheries.

[2]No operational threshold for unclipped steelhead. Incidental Take Limit from NMFS 2024 Biological Opinion.

Table 3a-e: Relevant Water Year 2026 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
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	3/30/26	N/A
Winter-run Annual Loss (8.4.3)	July 1 - Jun. 30	In Effect – JPE was finalized on 1/8/26.	Natural-origin Winter-run Loss Threshold: 5,287.26 Hatchery-origin Winter-run Loss Threshold: 156.12 Battle Creek Loss threshold: 6.22	Confirmed Genetic WR Annual Loss = 45.43 Hatchery origin Winter-run Loss = 57.91 Battle Creek Winter-run Loss = 2.33	Salvage of natural- and hatchery-origin winter-run is likely in the next week based on seasonal migration timing and loss over the previous week.	3/30/26	All LAD WR have been processed for rapid genetics to the date. No further salvage from hatchery group has occurred.
Natural-origin Winter-run Early Season Weekly Loss Thresholds (8.2.1)	Nov. 1- Dec. 31	Not in Effect	Dec 1-Dec 31 = 231.64	N/A	N/A	1/5/26	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Natural-origin Winter-run Weekly Loss (8.4.4)	Jan 1 – June 30	In Effect – JPE finalized on 1/8/26.	Week 13 (3/26-4/1): 0.0147 x 0.5 x 5,287.26 = 38.86 Upcoming: Week 14 (4/2-4/8): 0.0000 x 0.5 x 5,287.26 = 0.00	7 day rolling sum on 3/30/26: 0	Salvage of natural winter-run is possible in the next week based on seasonal migration timing	3/30/26	N/A
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	Yearling Releases: Group 1: 0.25% of 75,119 = 187.80 Group 2: 0.25% of 60,873 = 152.18 Group 3: 0.25% of 60,873 = 142.77 YOY Releases: Group 1: 0.25% of 2,034,278 = 5,085.70 Group 2: 0.25% of 740,784 = 1,851.96 Group 3: 0.25% of 488,217 = 1,220.54	Confirmed Yearling loss: Group 1: 0 Group 2: 261.65 Group 3: 35.08 Confirmed YOY Loss: Group 1: 0 Group 2: 0 Group 3: 0	Spring-run surrogate salvage possible in the next week	3/30/26	No salvage of clipped CHN SR surrogates from any of these groups at Delta Fish Facilities recently.

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. (Triggered on 12/23/25, in effect 12/25/25 – 1/7/26)	three-day Freeport (FPT) daily flow running avg>= 25,000 AND [three-day Freeport turbidity running avg >=50 NTU OR Smelt Monitoring Team recommendation]	N/A	N/A	1/20/26	N/A
Adult Delta Smelt Entrainment Protection (“Turbidity Bridge Avoidance”) (8.3.2)	After First Flush or Dec. 20 until 3-day average temperatures at Jersey Point (SJJ) or Rio Vista (RVB) exceed 12 °C (53.6 °F)	Not Active	Occurs after First Flush 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)	N/A	N/A	2/23/26	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Larval and Juvenile Delta smelt Protection (8.4.1)	After Adult Delta smelt Entrainment Protection ends	COA 8.4.1: Active, not triggered	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) action reinstated	SLS/20mm Secchi depth for 12 south Delta stations = 1.34 m (20mm 1) Rio Vista: 10,545 cfs Vernalis: 1,949 cfs	Flows expected to continue to decrease, turbidity expected to remain stable or decrease	3/30/26	20mm 2 is on the water 3/30/26-4/2/26

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	COA 8.3.3: Not Active	Cum. salvage > (Age 1+ LFS Index/20) +1 = 125	N/A	N/A	3/23/26	N/A
Larval and Juvenile Longfin Smelt Entrainment Protection (8.4.2)	Jan. 1 – Jun. 30	COA 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 avg QWEST = -1,031 cfs 20mm 1 catch at: 809 = 2 812 = 0 Rio Vista: 10,545 cfs Vernalis: 1,949 cfs	QWest expected to decrease, larval presence expected to remain stable or decrease at 809/812	3/30/26	20mm 2 is on the water 3/30 - 4/2

Table 3d: White Sturgeon

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
White Sturgeon Entrainment Protection Action (8.4.7)	Year-round	Active; not triggered Flow Conditions: Not met Survey Conditions: Met on 3/16/26 by 20mm catch of 14mm white sturgeon in Sac River	YOY WS detected in one of the listed north or central Delta survey stations in the last 90 days Mean total exports for the last 90 days ≥ 14,296.76 + (-0.41)*(90-day average Vernalis flow	YOY WS detections= 1 on 3/16/26 90-Day Avg Vernalis flows = 3,336cfs 90-Day Avg Exports = 6,085cfs	YOY detections possible Flow/ Exports conditions unlikely to meet criterion	3/30/26	Flow Conditions not met WY 2026 salvage = 0

Table 3e: 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)	Not 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	7-day avg QWEST = 2,800 cfs X2 = 55 km Daily avg turbidity: OSJ: 7.85 FNU HOL: 5.52 FNU OBI: 5.59 FNU Cumulative Loss of yearling SR surrogates: 224.05	N/A	2/23/2026	N/A

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: Daily mean water temperature is > 22.2 C at Mossdale and Prisoners Point for 7 days (can be non-consecutive).	N/A	N/A	N/A	N/A
Spring Outflow (COA 8.12.1)	April 1 – May 31	Not in effect	Critical year: ratio of Vernalis flow to SWP and CVP combined exports shall be 1 to 1. Dry year: ratio of Vernalis flow to SWP and CVP combined exports shall be 2 to 1. Below Normal year: ratio of Vernalis flow to SWP and CVP combined exports shall be 3 to 1. Above Normal/Wet year: ratio of Vernalis flow to SWP and CVP combined exports shall be 4 to 1	N/A	N/A	N/A	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), [5] Unknown (information unconfirmed).

Monitoring survey	Region	Notes (as of 3/31/2026)	Status
SWP regular counts, CWT reading	Delta	Active	1
CVP regular counts, CWT reading	Delta	Active	1
Smelt Larval Survey	Delta	Not Active	4
LES	Delta	Active	1
20mm Survey	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 (20mm began March 30)	1
EMP	Delta	Active	1
Mossdale Trawls	Delta	Active (USFWS)	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
Mill Creek RST	Mill Creek	Active	1
Deer Creek RST	Deer Creek	Active	1
Yuba River (Hallwood) RST	Yuba River	Active	1
Butte Creek Carcass Surveys	Butte Creek	Not Active	4
Butte Creek RST	Butte Creek	Active	1
Yolo Bypass Rotary Screw Trap	Yolo Bypass	Active	1
Yolo Bypass Beach Seine	Yolo Bypass	Active	1
Yolo Bypass Fyke Trap	Yolo Bypass	Active	1

Monitoring survey	Region	Notes (as of 3/31/2026)	Status
Redd dewatering and stranding surveys	Sacramento River	Active	1
Sacramento Carcass and Redd Surveys (fall-run Chinook Salmon)	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 (fall-run Chinook Salmon)	Sacramento River	Active	1
Sonar, telemetry (sturgeon)	Feather River	Active	1
Egg mats (sturgeon)	Feather 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 (steelhead)	San Joaquin River	Not Active	4
Tuolumne Carcass Survey	Tuolumne River	Not Active	4
Merced Carcass Survey	Merced River	Not Active	4
Tuolumne RST	Tuolumne River	Active	1
American River Carcass Survey	Sacramento River	Not Active	4

* Qualitative larval sampling efforts for both the CVP and SWP have concluded and have been removed from the list as of 10/7/25.