



Weekly Fish and Water Operations Outlook

12/23/2025 – 12/29/2025

Water Project Operational Intent for Week

This week, CVP and SWP operations for D-1641 are primarily governed by the maximum allowable Export-to-Inflow ratio of 0.65. The First Flush triggers are likely to be met late this week with an accompanying water project action (to be determined).

Biological Context

The DCC gates are expected to remain closed through April to protect migrating salmonids.

Forecasted Weather

A series of atmospheric rivers will impact Central Valley weather this week with widespread moderate to heavy rain through Friday. High snow elevations are in effect through Tuesday, gradually falling lower with the potential for major holiday travel impacts. Gusty winds Monday through Thursday.

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	<ul style="list-style-type: none"> • Current Release: 275 cfs 	<ul style="list-style-type: none"> • Spring-run Chinook Salmon juveniles are emerging, rearing, and out-migrating • Fall-run Chinook Salmon eggs are hatching and some juveniles emerging. • Adult <i>O. mykiss</i>/steelhead are entering the creek and migrating upstream. • Adult Late-fall run Chinook Salmon are entering and spawning • (Updated 12/22/2025)
Sacramento River	<ul style="list-style-type: none"> • Shasta Storage: 2.797 MAF • Current Release: 4,000 cfs • Anticipated Weekly Range of Releases: 4,000 cfs to 15,000 cfs 	<ul style="list-style-type: none"> • Spring-run Chinook Salmon Juveniles are emerging and migrating downstream • Winter and spring-run Chinook juveniles being caught in low and decreasing numbers. Fall-run Chinook juveniles beginning to outmigrate in slowly increasing numbers. • LAD juvenile spring-run Chinook salmon are migrating and being caught in decreasing numbers at RBDD. • All Winter-run Chinook have emerged and are migrating downstream past RBDD. • Fall-run Chinook Salmon adults have completed spawning activities. Eggs are in the gravel. • Late fall-run Chinook Salmon are migrating upstream from ocean, preparing to spawn, and some are actively spawning. • (Updated 12/9/2025)

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Feather River	<ul style="list-style-type: none"> • Oroville Storage: 1.978 MAF • Current Release: 1,750 cfs • Anticipated Weekly Range of Releases: 1,750 cfs • Daily temperature maximum: 55 +/- 4°F at Fish Hatchery 	<ul style="list-style-type: none"> • Fall-run Chinook Salmon spawning is mostly complete, some limited activity still in the HFC. Eggs in gravel & incubating. • Spring-run Chinook Salmon adults have completed spawning and eggs are incubating in the gravel. Juveniles are beginning to emerge. • Adult O. mykiss are migrating upstream. • Green Sturgeon holding at the outlet and Sunset Pumps. • (Updated 12/16/2025)
American River	<ul style="list-style-type: none"> • Folsom Storage: 464 TAF • Current Release: 11,000 cfs • Anticipated Weekly Range of Releases: 11,000 cfs to 20,000 cfs 	<ul style="list-style-type: none"> • Fall-run Chinook Salmon adult spawning is past the peak and is slowing down for the season. • Eggs are incubating in the gravel. • (Updated 12/08/2025)
Stanislaus River	<ul style="list-style-type: none"> • New Melones Storage: 1.658 MAF • Current Release: 200 cfs • Anticipated Range of Weekly Releases: 200 cfs to 400 cfs 	<ul style="list-style-type: none"> • Adult fall-run Chinook Salmon are spawning. • Eggs are incubating in the gravel. • Spring-run fry are emerging and moving downstream. • Fall-run fry are also likely moving downstream with the increases in flow. • (Updated 12/23/2025)

Tributary/Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Delta	<ul style="list-style-type: none"> Freeport: 25,000 cfs to 70,000 cfs Vernalis: 2,500 cfs to 8,500 cfs Delta Outflow index: 22,000 to 60,000 cfs Combined Exports: 4,000 to 13,600 cfs JPP: 2,000 to 4,300 cfs CCF: 2,000 cfs to 9,000 cfs Expected Daily OMR Index Values: -2,000 cfs to - 8,500 cfs Rio Vista Flows: 22,000 cfs to 68,000 cfs DCC Gates: Closed X2 > 81 km Qwest daily: -1,400cfs Qwest 7-day: -1,900 cfs Expected Daily JPF: -350 cfs to 11,200 cfs Tides: Transition from Spring to Neap; First Quarter Moon on Dec. 27. 	<ul style="list-style-type: none"> LAD Spring-run and Winter-run Chinook salmon juveniles are migrating into the Delta. Winter-run are being seen by the monitoring programs. A total of 25 adult and 21 juvenile Delta smelt have been observed in Suisun Marsh, the lower Sacramento River and the Sacramento DW Ship Channel. The most recent observation was of 2 juvenile smelt in Suisun Marsh on 12/21. 163,349 unmarked Delta smelt have been released in fall 2025. The final release of 24,606 cultured Delta smelt occurred on 12/16. Unclipped fall-run and spring-run sized fish are being salvaged at Federal facility Clipped late-fall run sized fish are being salvaged at Federal and State facilities. (Updated 12/23/2025)

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 = 14 3-year rolling average = 5	salvage = 6	Occasional salvage possible	12/23/25
Winter-run Chinook Salmon juveniles (JPE= TBD)	Genetically confirmed unclipped = TBD LSNFH releases = TBD	Confirmed loss= 0 LSNFH loss = 0	Salvage is possible in the upcoming week.	12/23/25

Species/run	Threshold	Current Status	Weekly Trend	Updated
Steelhead Juveniles	Sacramento River origin = TBD San Joaquin River origin – TBD	Sacramento origin = 0 San Joaquin origin = 0	Salvage is unlikely in the upcoming week.	12/23/25
Spring-run Chinook salmon surrogate releases	Yearling: 1% of 75,119 = 751 60,873 = 609 Young of Year= TBD	Yearling loss = 0 Young of Year loss = 0	Salvage is possible in the upcoming week.	12/23/25
First Flush (onset of Entrainment Management Season)	Freeport flows \geq 25,000 cfs AND Freeport turbidity \geq 50 FNU	See Table 3b	Likely to occur this week	12/22/25
Delta smelt adults	JPF < 0 AND daily average turbidity \geq 12 FNU in OMR corridor UNTIL Average water temperatures at Jersey Point or Rio Vista \geq 12°C (53.6°F) for 3 consecutive days	Not relevant	Turbidity may increase through next week	12/22/25
Delta smelt larvae and juveniles	After onset of spawning, if JPF < 0 AND turbidity is \geq 12 FNU in the south Delta	Not relevant	N/A	12/22/25
Longfin smelt adults	If JPF < 0 and assessment indicates annual loss will exceed 5% of adult population abundance	Not relevant	No WY26 salvage to date	12/22/25

Species/run	Threshold	Current Status	Weekly Trend	Updated
Longfin smelt larvae and juveniles	If JPF < 0 and population model indicates need to reduce entrainment to avoid population decline	Not relevant	No WY26 salvage to date	12/22/25

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	Not 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	12/23/25	Possible for COA 8.3 (Onset of OMR Management) to be in effect this week due to hydrological conditions that may trigger COA 8.3.1 (First Flush)
Winter-run Annual Loss (8.4.3)	July 1 - Jun. 30	In Effect	Natural-origin Winter-run Loss Threshold: TBD Hatchery-origin Winter-run Loss Threshold: TBD Battle Creek Loss threshold: TBD	Confirmed Genetic WR Annual Loss = 0 Hatchery origin Winter-run Loss = 0 Battle Creek Winter-run Loss = 0	Possible, but unlikely, to observe salvage of natural winter-run based on historical salvage.	12/23/25	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Natural-origin Winter-run Early Season Weekly Loss Thresholds (8.2.1)	Nov. 1- Dec. 31	In Effect	Dec 1-Dec 31 = 231.64	No salvage of unclipped Older Juvenile observed at delta fish facilities for WY 2026	N/A	12/22/25	N/A
Natural-origin Winter-run Weekly Loss (8.4.4)	Jan 1 – June 30	Not 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)]	N/A	N/A	12/23/25	Winter-run JPE Sub-team has been meeting and discussing the JPE
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: 0.25% of 75,119 = 187.80 Group 2: 0.25% of 60,873 = 152.18	N/A	Yearling natural spring-run salvage possible in next week	12/15/25	Group 1 of CNFH LF released on 11/17/25. CWT code: 05 68 10 Group 2 released on 12/22/25. CWT code: 05 68 13

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	Active, not triggered	- three-day Freeport (FPT) daily flow running avg \geq 25,000 AND [three-day Freeport turbidity running avg \geq 50 NTU OR Smelt Monitoring Team recommendation]	3-day FPT flow = 17,417 cfs 3-day FPT turbidity = 15.89 FNU	Action expected to trigger later this week	12/21/25	N/A
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	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)	Daily avg turbidity: OSJ: 3.67 FNU HOL: 1.85 FNU OBI: 2.06 FNU Vernalis Daily Avg Flow: 5,822 cfs	Turbidity not anticipated to increase over 12 FNU in Old River Vernalis flows increasing but unlikely to hit offramp	12/22/25	N/A

Action	Timeframe	Current Action Status	Threshold(s)	Current Relevant Data	Weekly Trend	Last Updated	Comments
Larval and Juvenile Delta smelt Entrainment 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 >55,000 cfs or Vernalis flows >8,000 cfs (temporary offramp); <40,000 cfs (Rio Vista) or <5,000 (Vernalis) action reinstated	N/A	N/A	10/14/25	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 = 125	Cum. Salvage = 0	N/A	12/22/25	August – December Index = 2479.2
Larval and Juvenile Longfin Smelt Entrainment Protection (8.4.2)	Jan. 1 – Jun. 30	Not active	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 >55,000 cfs or Vernalis flows >8,000 cfs (temporary offramp); <40,000 cfs (Rio Vista) or <5,000 (Vernalis) reinstated	N/A	N/A	10/14/25	N/A

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: Not Met	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 \geq $14,296.76 + (-0.41)*(90\text{-day average Vernalis flow})$	YOY WS detections= None in last 90 days 90-Day Avg Vernalis flows = 1,220cfs 90-Day Avg Exports = 8,510cfs	YOY detections possible Flow/ Exports conditions unlikely to meet criterion	11/25/25	Survey and 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	<ul style="list-style-type: none"> • 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	N/A	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	<p>Smelt: Daily mean water temperature at Clifton Court Forebay (CLC) is > or equal to 25°C for 3 consecutive days</p> <p>Salmonids: Daily mean water temperature is > 22.2 C at Mossdale and Prisoners Point for 7 days (can be non-consecutive)</p>	N/A	N/A	N/A	N/A
Spring Outflow (COA 8.12.1)	April 1 – May 31	Not in effect	<p>Critical year: ratio of Vernalis flow to SWP and CVP combined exports shall be 1 to 1.</p> <p>Dry year: ratio of Vernalis flow to SWP and CVP combined exports shall be 2 to 1.</p> <p>Below Normal year: ratio of Vernalis flow to SWP and CVP combined exports shall be 3 to 1.</p> <p>Above Normal/Wet year: ratio of Vernalis flow to SWP and CVP combined exports shall be 4 to 1</p>	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 12/23/2025)	Status
SWP regular counts, CWT reading	Delta	Active	1
CVP regular counts, CWT reading	Delta	Active	1
Smelt Larval Survey	Delta	Active	1
LES	Delta	Not Active	4
20mm Survey	Delta	Not Active	4
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 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	Not Active	4
Tisdale RST	Sacramento River	Not Active	4
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	Not Active	4

Monitoring survey	Region	Notes (as of 12/23/2025)	Status
Yolo Bypass Beach Seine	Yolo Bypass	Active	1
Yolo Bypass Fyke Trap	Yolo Bypass	Active	1
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	Not Active	4
Feather River (upper DWR) RST	Sacramento River	Active	1
Feather River (lower CDFW) RST	Sacramento River	Not Active	4
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	Active	1
American River Carcass Survey	Sacramento River	Active	1

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