# 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 not less than 6,000 cfs for January 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 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: 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) |
| 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) |
| 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 |
| 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 |
| 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 |  |
| 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 |  |
| 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 |

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 |  |
| 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 |
| 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 12/31/2024) | 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 |
| 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)