**Weekly Fish and Water Operations Outlook 10/26/2021 – 11/01/2021**

Over-running from weekend weather system continues on Monday and Tuesday with showers to the east and south of Sacramento and heavy snow over the Sierras. But, overall atmospheric river (AR) conditions on decline. By midweek, warmer and drier conditions return.

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| **Tributary/ Division** | **Anticipated Weekly Ranges** | **Related Environmental and Fish Conditions** |
| Clear Creek | * Current Release: 200 cfs * Anticipated weekly range: 200 cfs | * Adult spring-run Chinook Salmon spawning, eggs and alevin in gravel * Juvenile and adult Steelhead present |
| Sacramento River | * Shasta Storage: 1001 TAF * Current Release: 6,000 cfs * Anticipated Weekly Range of   Releases to Sacramento: 6,000 to 4,500 cfs | * Winter-run Chinook Salmon eggs and alevin in gravel, juveniles present * Adult spring-run Chinook Salmon spawning, eggs in gravel * Fall-run Chinook Salmon holding * Green Sturgeon adults and juvenile present * Adult steelhead present |
| Feather River | * Oroville Storage: 881 TAF * Current Release: 2,300 cfs * Anticipated Weekly Range of Releases: 2,300 to 950 cfs * Daily temperature targets: 51°F (±4°F) at Fish Hatchery | * Fall-run Chinook Salmon holding and spawning. Eggs in gravel. * Juvenile and Adult steelhead present * Adult spring-run Chinook Salmon spawning, eggs and alevin in gravel   (*updated 10/25/21*) |
| American River | * Folsom Storage: 289 TAF * Current Release: 550 cfs * Anticipated Weekly Range of Releases to American: 550 cfs | * Fall-run Chinook Salmon holding and spawning.  Eggs are in gravel. * Juvenile and adult steelhead expected to be present.   *(updated 10/21/21)* |
| Stanislaus River | * New Melones Storage: 827 TAF * Current Release to Stanislaus: Changing rapidly – Fall Pulse Flow * Anticipated Range of Weekly Releases to Stanislaus: 450 to 1,200 cfs | * Juvenile and adult *O. mykiss* expected to be present * Adult fall-run Chinook Salmon present * Adult Chinook Salmon spawning observed   (*updated 10/20/2021*) |
| Delta | * Freeport: 10,000 to 40,000 cfs * Vernalis: 500 to 2,500 cfs * Delta Outflow index: 10,000 to 60,000 cfs * Combined Exports: 2,700 to 10,880 cfs * JPP: 1,700 cfs to 4,200 cfs * CCF: 1,000 to 6,680 cfs * Expected OMR Index Values: -2,000 to -12,000 cfs * DCC Gates: Closed 10/25. May remain closed through weekend. Further operation for salinity possible. | * Juvenile winter-run Chinook Salmon 97-99% yet to enter Delta, 1-3% in Delta, 0% exited Delta past Chipps Island * YOY spring-run Chinook Salmon: have not yet emerged * Juvenile Steelhead: 100% yet to enter Delta, 0% in Delta, 0% exited Delta past Chipps Island * Adult fall-run Chinook Salmon entering Delta and migrating upstream towards spawning grounds * Adult steelhead present * Adult and juvenile Green Sturgeon present * Juvenile Delta Smelt expected to be present in the Deep Water Ship Channel and Lower Sacramento River.   (*updated 10/26/2021*) |

Table 2a-b: WY 2022 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-b: WY 2022 Salmonid Current Loss and Delta Smelt Abiotic Conditions. Additional Real-Time OMR Restrictions and Performance Objectives (4.10.5.10.2) and Onset of OMR Management (4.10.5.10.1).

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| --- | --- | --- | --- | --- |
| **Species/run** | **Threshold** | **Current Status** | **Weekly**  **Trend** | **Updated** |
| Green sturgeon | WY 2022 salvage = 74 | WY 2022 salvage = 0 (0%) | No change expected | 10/24/2021 |
| Natural winter-run Chinook Salmon | WY 2022 loss =  TBD \* | WY 2022 loss = 0 | No change expected | 10/24/2021 |
| Natural Steelhead | Dec 1 – Mar 31 = 707 (50% of 1,414)  Apr 1 – June 15 = 776 (50% of 1,552) | Dec 1 – Mar 31 = 0 (0%)  Apr 1 – June 15 = 0 (0%) | No change expected | 10/24/2021 |

\* TBD – no draft JPE produced, ITL and performance thresholds are TBD currently

Table 2b. 10-Year Salmonid Cumulative Loss

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| --- | --- | --- | --- |
| **Species/run** | **Threshold** | **Current Status** | **Updated** |
| Natural winter-run Chinook salmon | Loss = 8,738 | Cumulative loss = 204.9 (2.3%) | 10/24/2021 |
| Hatchery winter-run Chinook salmon | Loss = 5,356 | Cumulative loss = 0 (0%) | 10/24/2021 |
| Natural steelhead | Loss = 6,038 (Dec 1 – Mar 31)  Loss = 5,826 (Apr 1 – June 15) | Cumulative loss =  443.19 (7.3%, Dec 1 – Mar 31)  374.8 (6.4%, Apr 1 – June 15) | 10/24/2021 |

Table 3a-c: Relevant Water Year 2021 Fish Criteria and Status for Listed Fish under the SWP Long-Term Incidental Take Permit.

Table 3a: Chinook Salmon

|  |  |  |  |  |  |  |  |
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| 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 | NA | NA | **10/4/21** |  |
| Winter-run yearly loss  (8.6.1) | Nov. 1 - Jun. 30 | Not in effect  (Based on JPE  Value) | TBD (Based on JPE guidance) | NA | NA | **10/4/21** |  |
| 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. Winter-run  12/1-12/31: loss of 26/day unclipped older juv. Winter-run | NA | NA | **10/4/21** |  |
| Spring-run surrogate protection  (8.6.4) | Feb. 1 - Jun. 30 | Not in effect: | TBD (based on the number of fish released) | NA |  | **10/4/21** |  |
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Table 3d: OMR

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Action | Timeframe | Current Action Status | Threshold(s) | **Current**  **Relevant Data** | **Weekly Trend** | **Last Updated** | **Comments** |
| OMR Mgmt.  Offramp (8.3.2) | 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 exceeds22.2°C for 7 nonconsecutive  days in June  AND    - Current daily average water temperature at Prisoners Point exceeds 22.2°C for 7 non-consecutive days in June.  - Current daily mean water temperature at CCF is greater than 25°C for three consecutive days | N/A |  | **10/4/21** |  |

Table 4. Fish monitoring gear efficiency and disruptions: COVID-19 impacts.

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| --- | --- | --- |
| **Monitoring Survey** | **Notes (as of 10/26/2021)** | **Status \*** |
| **Delta** |  |  |
| SWP regular counts, CWT reading, and larval sampling | Active (No disruptions) | 1 |
| CVP regular counts, CWT reading, and larval sampling | Active (No disruptions) | 1 |
| Smelt Larval Survey | Not Active | 4 |
| 20mm Survey | Not Active | 4 |
| Spring Kodiak Trawl | Not Active | 4 |
| Fall Mid-water Trawl | Active (No disruptions) | 1 |
| Summer Townet Survey | Not Active | 4 |
| Bay Study | Active (No disruptions) | 1 |
| DJFMP- Chipps and Sacramento Trawls | Active (No disruptions) | 1 |
| DJFMP- Seines | Active with one disruption: not sampling San Joaquin Seines (due to low water) | 2 |
| EDSM | Active (No disruptions) | 1 |
| EMP | ? | ? |
| Mossdale | Active (No disruptions) | 1 |
| USGS Flow monitoring | Active (No disruptions) | 1 |
| **Sacramento River** |  |  |
| Red Bluff Diversion Dam screw trap | Active (No disruptions) | 1 |
| Knights Landing screw trap | Monitoring interrupted (cones pulled) | 3 |
| Tisdale screw trap | Awaiting update – may also be interrupted. | ? |
| GCID screw trap | Monitoring interrupted (cones pulled) | 3 |
| Redd dewatering and stranding surveys | Not Active | 4 |
| Sacramento Carcass and Redd Surveys | Active | 1 |
| **Feather River** |  |  |
| Feather River screw trap | Not Active (anticipate starting mid to late November 2021) | 4 |
| **San Joaquin River** |  |  |
| SJRRP CDFW Field Monitoring | Active (No disruptions) | 1 |
| SJRRP USFWS and USBR Field Monitoring | Active (No disruptions) | 1 |
| Stanislaus Fish Weir | Active (No disruptions) | 1 |

\* Status: Weekly categories include:

[1] Active (ongoing sampling)

[2] Partial Interruption (some sampling interruptions)

[3] Interrupted (sampling fully suspended), and

[4] Not Active (sampling not scheduled)