**Weekly Fish and Water Operations Outlook 10/5/2021 – 10/11/2021**

Warm again on Monday, changes quickly Tuesday with a cooling trend into next weekend. Chances of mountain showers with breezy winds from mid-week through next weekend.

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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 Steelhead rearing * Adult Steelhead in system |
| Sacramento River | * Shasta Storage: 1.058 MAF * Current Release: 6,800 cfs * Anticipated Weekly Range of   Releases to Sacramento: 6,800 cfs | * Winter-run Chinook Salmon eggs and alevin in gravel, fry rearing * Juvenile winter-run Chinook Salmon passage at Red Bluff Diversion Dam (RBDD; BY21 through 9/23/2021: 199,008 fish; average historic passage (2011 – 2020) as of 10/03: 40.0%) * Juvenile winter-run Chinook Salmon detected at GCID, Tisdale, and Knight’s Landing RSTs * Adult spring-run Chinook Salmon spawning, eggs in gravel * Fall-run Chinook Salmon holding * Green Sturgeon adults and juvenile present * Adult Steelhead in system |
| Feather River | * Oroville Storage: 789 TAF * Current Release: 1,250 cfs * Anticipated Weekly Range of Releases: 1,250 to 950 cfs * Daily temperature targets: 51°F (±4°F) at Fish Hatchery | * Fall-run Chinook Salmon holding * Juvenile Steelhead rearing * Adult Steelhead in system * Adult spring-run Chinook Salmon spawning, eggs and alevin in gravel |
| American River | * Folsom Storage: 228 TAF * Current Release: 550 cfs * Anticipated Weekly Range of Releases to American: 550 cfs | * Fall-run Chinook Salmon holding * Juvenile Steelhead expected to be rearing * Adult Steelhead in system |
| Stanislaus River | * New Melones Storage: 841 TAF * Current Release to Stanislaus: 200 cfs * Anticipated Range of Weekly Releases to Stanislaus: 200 to 1,500 cfs | * Juvenile Steelhead expected to be rearing * Adult Steelhead in system |
| Delta | * Freeport: 6,000 to 8,000 cfs * Vernalis: 200 to 500 cfs * Delta Outflow index: 2,500 to 3,500 cfs * Combined Exports: 1,00 to 3,200 cfs * JPP: 800 to 2,700 cfs * CCF: 200 to 500 cfs * Expected OMR Index Values: -2,000 to -3,500 cfs * DCC Gates: Closed 10/4. Further operation for water quality and Rio Vista flow possible. | * Juvenile winter-run Chinook Salmon: X-X% yet to enter Delta, X-X% in Delta, X-X% exited Delta past Chipps Island * YOY spring-run Chinook Salmon: X-X% yet to enter Delta, X-X% in Delta, X-X% exited Delta past Chipps Island * Juvenile Steelhead: X-X% yet to enter Delta, X-X% in Delta, X-X% exited Delta past Chipps Island * Adult fall-run Chinook Salmon entering Delta and migrating upstream towards spawning grounds * Adult Steelhead in system * Adult and juvenile Green Sturgeon present * Juvenile Delta Smelt expected to be present in the Deep Water Ship Channel and Lower Sacramento River. |

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 | 10/3/2021 |
| Natural winter-run Chinook Salmon | WY 2022 loss =  TBD \* | WY 2022 loss = 0 | No change expected | 10/3/2021 |
| 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 | 10/3/2021 |

\* 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%) | 10/3/2021 |
| Hatchery winter-run Chinook salmon | Loss = 5,356 | Cumulative loss = 0 (0%) | 10/3/2021 |
| 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) | 10/3/2021 |

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 exceeds 22.2°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 10/5/2021)** | **Status \*** |
| **Delta** |  |  |
| SWP regular counts, CWT reading, and larval sampling | Ongoing | 1 |
| CVP regular counts, CWT reading, and larval sampling | Ongoing | 1 |
| Smelt Larval Survey | Not Active |  |
| 20mm Survey | Not Active |  |
| Spring Kodiak Trawl | Not Active |  |
| Summer Townet Survey | Not Active |  |
| Bay Study | Ongoing |  |
| DJFMP- Chipps and Sacramento Trawls | Ongoing, no disruptions |  |
| DJFMP- Seines | Not sampling SJ seines due to low water |  |
| EDSM | Ongoing, no disruptions |  |
| EMP | ? |  |
| Mossdale | Currently no disruptions, may need to sample every other week due to low water |  |
| USGS Flow monitoring |  |  |
| **Sacramento River** |  |  |
| Red Bluff Diversion Dam screw trap | No disruptions |  |
| Knights Landing screw trap | No disruptions |  |
| Tisdale screw trap | No disruptions |  |
| Redd dewatering and stranding surveys | ? |  |
| Sacramento Carcass and Redd Surveys | ? |  |
| **Feather River** |  |  |
| Feather River screw trap | Not Active – start mid to late November |  |
| **San Joaquin River** |  |  |
| SJRRP CDFW Field Monitoring | No disruptions |  |
| SJRRP USFWS and USBR Field Monitoring | No disruptions |  |

\* 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)