## Weekly Fish and Water Operations Outlook 10/12/2021 – 10/18/2021

Strong north winds (with accompanying fire weather danger) on Monday and Tuesday. A slight warming trend begins Wednesday into this weekend. No significant precipitation is forecast for week.

| Tributary/<br>Division | Anticipated Weekly Ranges  | Related Environmental and Fish Conditions  |
|------------------------|--|--|
| Clear Creek            | <ul><li>Current Release: 200 cfs</li><li>Anticipated weekly range: 200 cfs</li></ul>   | <ul> <li>Adult spring-run Chinook Salmon spawning, eggs and alevin in gravel</li> <li>Juvenile and adult Steelhead present</li> </ul>  |
| Sacramento<br>River    | <ul> <li>Shasta Storage: 1,025 MAF</li> <li>Current Release: 6,800 cfs</li> <li>Anticipated Weekly Range of Releases to<br/>Sacramento: 6,800-6,000 cfs</li> </ul>   | <ul> <li>Winter-run Chinook Salmon eggs and alevin in gravel, juveniles present</li> <li>Adult spring-run Chinook Salmon spawning, eggs in gravel</li> <li>Fall-run Chinook Salmon holding</li> <li>Green Sturgeon adults and juvenile present</li> <li>Adult steelhead present</li> </ul> |
| Feather River          | <ul> <li>Oroville Storage: 793 TAF</li> <li>Current Release: 1,250 cfs</li> <li>Anticipated Weekly Range of Releases: 1,250 to 950 cfs</li> <li>Daily temperature targets: 51°F (±4°F) at Fish Hatchery</li> </ul> | <ul> <li>Fall-run Chinook Salmon holding</li> <li>Juvenile and Adult steelhead present</li> <li>Adult spring-run Chinook Salmon spawning, eggs and alevin in gravel</li> </ul>   |
| American River         | <ul> <li>Folsom Storage: 223 TAF</li> <li>Current Release: 550 cfs</li> <li>Anticipated Weekly Range of Releases to<br/>American: 550 cfs</li> </ul>   | <ul> <li>Fall-run Chinook Salmon holding</li> <li>Juvenile and adult steelhead expected to be present.</li> </ul>  |
| Stanislaus<br>River    | <ul> <li>New Melones Storage: 837 TAF</li> <li>Current Release to Stanislaus: 200 cfs</li> <li>Anticipated Range of Weekly Releases to<br/>Stanislaus: 200 to 1,500 cfs</li> </ul>                                 | <ul> <li>Juvenile and adult steelhead expected to be present</li> <li>Adult fall-run present</li> </ul>  |
| Delta                  | <ul><li>Freeport: 6,000 to 8,000 cfs</li><li>Vernalis: 200 to 500 cfs</li></ul>  | Juvenile winter-run Chinook Salmon 99-100% yet to enter Delta, 0-1% in Delta, 0% exited Delta past Chipps Island   |

| Tributary/<br>Division | Anticipated Weekly Ranges  | Related Environmental and Fish Conditions   |
|------------------------|--|---|
|                        | <ul> <li>Delta Outflow index: 2,750 to 3,750 cfs</li> <li>Combined Exports: 1,000 to 3,200 cfs</li> <li>JPP: 1,700 cfs (anticipated range 2,700 to 800 cfs)</li> <li>CCF: 200 to 500 cfs</li> <li>Expected OMR Index Values: -2,000 to -3,500 cfs</li> <li>DCC Gates: Closed 10/11. Further operation for Rio Vista flow and salinity possible.</li> </ul> | <ul> <li>YOY spring-run Chinook Salmon: have not yet emerged</li> <li>Juvenile Steelhead: 100% yet to enter Delta, 0% in Delta, 0% exited Delta past Chipps Island</li> <li>Adult fall-run Chinook Salmon entering Delta and migrating upstream towards spawning grounds</li> <li>Adult steelhead present</li> <li>Adult and juvenile Green Sturgeon present</li> <li>Juvenile Delta Smelt expected to be present in the Deep Water Ship Channel and Lower Sacramento River.</li> </ul> |

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).

| Species/run                          | Threshold   | Current Status           | Weekly Trend       | Updated    |
|--------------------------------------|---|--------------------------|--------------------|------------|
| Green sturgeon                       | WY 2022 salvage = 74  | WY 2022 salvage = 0 (0%) | No change expected | 10/11/2021 |
| Natural winter-run Chinook<br>Salmon | WY 2022 loss = TBD *  | WY 2022 loss = 0         | No change expected | 10/11/2021 |
|                                      | Dec 1 – Mar 31 = 707 (50% of 1,414)<br>Apr 1 – June 15 = 776 (50% of 1,552) | 1 – June 15 = 0 (0%)     | No change expected | 10/11/2021 |

<sup>\*</sup> TBD – no draft JPE produced, ITL and performance thresholds are TBD currently

Table 2b. 10-Year Salmonid Cumulative Loss

| Species/run                        | Threshold    | Current Status   | Updated    |
|------------------------------------|--------------|--|------------|
| Natural winter-run Chinook salmon  | Loss = 8,738 | Cumulative loss = 204.9 (2.3%)   | 10/11/2021 |
| Hatchery winter-run Chinook salmon | Loss = 5,356 | Cumulative loss = 0 (0%)   | 10/11/2021 |
| Natural steelhead                  |              | Cumulative loss = 443.19 (7.3%, Dec 1–Mar 31) 374.8 (6.4%, Apr 1– June 15) | 10/11/2021 |

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

| Action                                       |   | Current<br>Action Status                 | Threshold(s)  | Current<br>Relevant Data | Weekly Trend | Last Updated | Comments |
|--|---|--|---|--------------------------|--------------|--------------|----------|
| OMR Mgmt.<br>triggered (8.3.2)               | Jan. 1 -Jun. 30<br>(when ≥ 5% of<br>spring-run or<br>winter- run in<br>Delta) | Not in effect                            | -5% of the<br>Winter-run or<br>Spring-run<br>population in<br>Delta   | N/A                      | N/A          | 10/4/21      | N/A      |
| Winter-run<br>yearly loss (8.6.1)            | Nov. 1 -Jun. 30   | Not in effect<br>(Based on JPE<br>Value) | TBD (Based on<br>JPE guidance)  | N/A                      | N/A          | 10/4/21      | N/A      |
| Winter-run<br>discrete daily<br>loss (8.6.2) | Nov. 1 -Dec. 31   | Not in effect                            | 11/1-11/30: loss<br>of 6/day<br>unclipped older<br>juv. Winter-run<br>12/1-12/31: loss<br>of 26/day<br>unclipped older<br>juv. Winter-run | N/A                      | N/A          | 10/4/21      | N/A      |

| Action             |                 | Current<br>Action Status |                | Current<br>Relevant Data | Weekly Trend | Last Updated | Comments |
|--------------------|-----------------|--------------------------|----------------|--------------------------|--------------|--------------|----------|
| Spring-run         | Feb. 1 -Jun. 30 | Not in effect            | TBD (based on  | N/A                      | N/A          | 10/4/21      | N/A      |
| surrogate          |                 |                          | the number of  |                          |              |              |          |
| protection (8.6.4) |                 |                          | fish released) |                          |              |              |          |

Table 3d: OMR

| Action                       | Timeframe        | Current<br>Action Status |  | Current<br>Relevant<br>Data | Weekly<br>Trend |         | Comments |
|------------------------------|------------------|--------------------------|--|-----------------------------|-----------------|---------|----------|
| OMR Mgmt.<br>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                         | NA              | 10/4/21 | NA       |

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

| Monitoring Survey                                    | Notes (as of 10/12/2021) | Status* |
|--|--------------------------|---------|
| Delta  | N/A                      | N/A     |
| SWP regular counts, CWT reading, and larval sampling | Active (No disruptions)  | 1       |
| CVP regular counts, CWT reading, and larval sampling | Active (No disruptions)  | 1       |

| Monitoring Survey                     | Notes (as of 10/12/2021)                                   | Status* |
|---------------------------------------|--|---------|
| 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       |
| 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       |
| 20mm Survey                           | Not Active   | 4       |
| Sacramento River                      | N/A  | N/A     |
| Red Bluff Diversion Dam screw trap    | Active (No disruptions)                                    | 1       |
| Knights Landing screw trap            | Active (No disruptions)                                    | 1       |
| Tisdale screw trap                    | Active (No disruptions)                                    | 1       |
| GCID screw trap                       | Active (No disruptions)                                    | 1       |
| Redd dewatering and stranding surveys | Not Active   | 4       |
| Sacramento Carcass and Redd Surveys   | Not Active   | 4       |
| Feather River                         | N/A  | N/A     |
| Feather River screw trap              | Not Active (anticipate starting mid to late November 2021) | 4       |
| San Joaquin River                     | N/A  | N/A     |
| SJRRP CDFW Field Monitoring           | Active (No disruptions)                                    | 1       |
| SJRRP USFWS and USBR Field Monitoring | Active (No disruptions)                                    | 1       |

| Monitoring Survey                            | Notes (as of 10/12/2021) | Status* |
|--|--------------------------|---------|
| Stanislaus Fish Weir                         | Active (No disruptions)  | 1       |
| Stanislaus, Merced, Tuolumne Carcass Surveys | Active (No disruptions)  | 1       |

<sup>\*</sup> 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)