2021 non-treaty Columbia River fisheries and upriver summer steelhead update

Staff reviewed a handout with additional background, pre-season planning process, actions, wild upriver summer impacts, temperatures, and stock status information during the August 27 Joint State Columbia River Salmon Fishery Policy Review Committee meeting.

Stock status updates

As of September 14, cumulative upriver summer A-/B-index steelhead passage since July 1 at Bonneville Dam (52,396) is the lowest on record since 1938, and the cumulative unclipped passage (19,915) is the lowest since clipped/unclipped counting began in 1994.

The *U.S. v. Oregon* Technical Advisory Committee (TAC) meets weekly and reviews information for the summer steelhead run. TAC most recently met on September 13. Based on AFF sampling and 5-year average run timing, total A-Index steelhead passage is expected to be 52,600 fish (hatchery = 33,400, and wild = 19,200). It is too early in the run to update the B-Index component, however it is likely that the total B-Index return will exceed the preseason forecast (7,600 total fish). To date total B-Index passage at Bonneville is estimated to be 5,300 fish. TAC expects to be able to provide an update for the B-Index component at its next meeting on September 20.

Table 1. Actual return in 2020, 2021 preseason forecast, and catalog of available weekly TAC run size updates for 2021. NA indicates not available.

<table>
<thead>
<tr>
<th></th>
<th>Total A/B</th>
<th>Wild A/B</th>
<th>A Total</th>
<th>A Wild</th>
<th>B Total</th>
<th>B-Wild</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Actual</td>
<td>107,591</td>
<td>33,410</td>
<td>75,392</td>
<td>28,132</td>
<td>32,199</td>
<td>5,278</td>
</tr>
<tr>
<td>2021 Forecast</td>
<td>96,800</td>
<td>28,500</td>
<td>89,200</td>
<td>27,500</td>
<td>7,600</td>
<td>1,000</td>
</tr>
<tr>
<td>TAC update 8/16</td>
<td>35,000</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>TAC update 8/23</td>
<td>35,000</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>TAC update 8/30</td>
<td>42,600</td>
<td>16,900</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>TAC update 9/7</td>
<td>47,900</td>
<td>17,300</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>TAC update 9/13</td>
<td>52,600</td>
<td>19,200</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
Current Columbia River Temperatures
Beginning in early June, Columbia River temperatures (as measured at Bonneville Dam) began to rise above the recent 10-year average (Figure 1). Above-average water temperatures continued through mid-August. Temperatures in June and most of July did not reach the levels observed in 2015 which was another drought year. However, several historically high ladder/forebay temperatures were observed during several days in August. Temperatures since the second half of August have continued to be at or below average.

Figure 1. Water temperature June – November as measured at the Bonneville Dam scrollcase gauge. Temperature was 68°F on September 14, 2021.

Steelhead in-season modifications (to date)
- Drano Lake (closed to angling for and retention of steelhead): Boat angling closure within a sub-area of Drano Lake near the Little White Salmon River mouth beginning August 25 and was further modified to close all angling within the same sub-area beginning September 4.
- Wind River: Closed to all angling above Shipherd Falls beginning September 16.
- Snake River (and WA tributaries):
  - Closed to angling for and retention of steelhead downstream of Lower Granite including the tributaries beginning September 3.
  - Reduced 1 steelhead limit upstream of Lower Granite Dam to achieve concurrency between Idaho/Oregon/Washington.
  - WDFW has reduced steelhead limit to 1 within the Grand Ronde.
  - Impacts are covered in a separate Biological Opinion.
- Deschutes River: Closed to all angling from the mouth to Moody Rapids through September 30 and closed to angling for and retention of steelhead from Moody Rapids upstream to Sherars Falls on September 1.
- John Day: Closed steelhead retention downstream of Tumwater Falls and to angling for and retention of steelhead upstream of Tumwater Falls on September 1.
- Umatilla and Walla Walla rivers: Closed to angling for and retention of steelhead on September 1.
- Late Fall Zone 4/5 commercial fishery was adopted to begin later than planned pre-season.
Other Actions

Hydrosystem: A 2021 Hydrosystem System Operations Request (SOR) was recently resubmitted to the Action Agencies by regional fish managers addressing concerns of zero flow operations at lower Snake River dams. A new provision of the 2020 Columbia River Systems Biological Opinion allows for zero flow operations at Federal projects in the Lower Snake River between October 15th and February 28th. This zero-flow operation completely stops the river from flowing during periods when power demand is high. This operation offers no biological benefit but does provide a power benefit.

Although most fish managers in the Basin signed on to both the 2020 and 2021 SORs, OR and WA included, all fish managers, including those who did not sign on to the SOR, agree that zero flow operations do not support normal ecological river functions and as such are not the preferred operation. Prior to 2020, zero flow operations were tethered to biological criteria and were limited to after December 1st, when fewer listed adult salmonids were observed ascending fish ladders in the lower Snake River. For the last two years (including 2021), the fish managers recommend implementing the 2005 negotiated operation, which limits this practice to after December 1st when few, if any, actively migrating anadromous fish are observed in Snake River dam fish ladders.

Pinniped Management: Co-managers this year have removed 34 pinnipeds (13 Steller sea lions (SSL) and 21 California sea lions (CSL)) at Bonneville Dam during the Spring 2021 management season. Pinniped management at Bonneville this fall began on September 13th and is planned to continue weekly through November 18th. Thus far, 3 SSL have been removed, with today (Thursday, the 16th) being the last day in this first fall management week. Of note is that fall management focuses solely on SSL, as CSL do not move that far up the river this time of year.

Pikeminnow Management: Our pikeminnow sport reward fishery began in April of this year and is likely to be extended through early October. Exploitation is targeted between 10-20% of the pikeminnow population in the Columbia River Basin, which has been achieved for almost all of the program’s 30-year history.