Fall / Winter Update to the 2003 Water Management Plan

Introduction

The Fall / Winter update is part of the annual Water Management Plan (WMP). It is intended to supplement the WMP with information about fall and winter operations that is not available when the WMP is written in September, before any information is available about fall/winter water supply conditions.

Current Conditions

This water year (October 2002 – September 2003) has started off dryer than normal and indications are that the Columbia River Basin may continue to experience below average water conditions this year.

- Information regarding precipitation and runoff in early October is limited to an El Nino/Southern Oscillation (ENSO) forecast. This year, the October Southern Oscillation Index (SOI) was negative, indicating an El Nino event for the year. During an El Nino condition, precipitation is often below average in the Columbia River Basin.
- The NOAA long-term forecast called for drier-than-average conditions in the Pacific Northwest during fall 2002. This was reflected in the Corps' early season forecast for flood control operations at Dworshak Reservoir.
- The November April – July forecast for the North Fork Clearwater Basin was 2.09 Maf. Average runoff is 2.7 Maf for this basin.
- The November April-August forecast for Libby is 5.3 Maf. Average runoff for Libby inflow is 6.5 Maf.
- Precipitation conditions through October and November 2002 remained dry, resulting in this being one of the driest Octobers on record. The National Weather Service reported that October precipitation was: 30 percent of normal (1971-2000) at the Columbia River above Coulee, 44 percent of normal at the Snake River above Ice Harbor, and 33 percent at Columbia above the Dalles.
- Snowpack is also low for this time of year. As of November 29th, current snowpack in the Columbia River basin is from 84 percent to 7 percent of normal for this time of year.
- Water held in reservoir storage was near normal, however, there was reduced availability of water from Lake Pend Oreille due to drafting this project to elevation 2055 this year, as opposed to elevation 2051 last year.

Chum Spawning Flows

The action agencies started the chum spawning operation on November 5. The NMFS BiOp states that a chum operation will commence "If the best hydrologic data available by early October indicate that precipitation, runoff, and reservoir storage are likely to support the operation from the start of spawning (late October or early November) until the end of emergence...".

Neither Hardy nor Hamilton Creeks were flowing in late October, and, as described above, hydrologic conditions in October were indicating dry conditions for the fall and winter. Also chum salmon were not observed in the area until November 5. Based on the current hydrologic conditions and presence of fish, the TMT agreed to begin the chum operation several days later than the November 1 start date specified in NOAA Fisheries' Biological Opinion.

The alternative operation chosen was to initiate a stable tailwater elevation in the Ives Island area beginning with an initial targeted daytime tailwater elevation was 11.1 feet November 5. This elevation was increased to 11.3 feet on November 6. The elevation was increased to 11.5 feet on November 13. The alternative operation did not meet the detailed specifications of SOR 2002-02 submitted by the fisheries managers, but this stepwise increase in elevation has coincided with fish observations in the area, and an increase in local precipitation. However, the seasonal precipitation through November remained about 30% of normal and an early season water supply forecast for the Libby Reservoir Basin is predicting a below average volume runoff (81.7%).

The action agencies intend to recommend the November 1 start date be modified to a planning date for future years, and that the start of the chum operation be contingent on the presence of chum salmon in the Ives Island Area. This recommendation will be made in the 2004 implementation plan.

Bonneville Corner Collector Construction

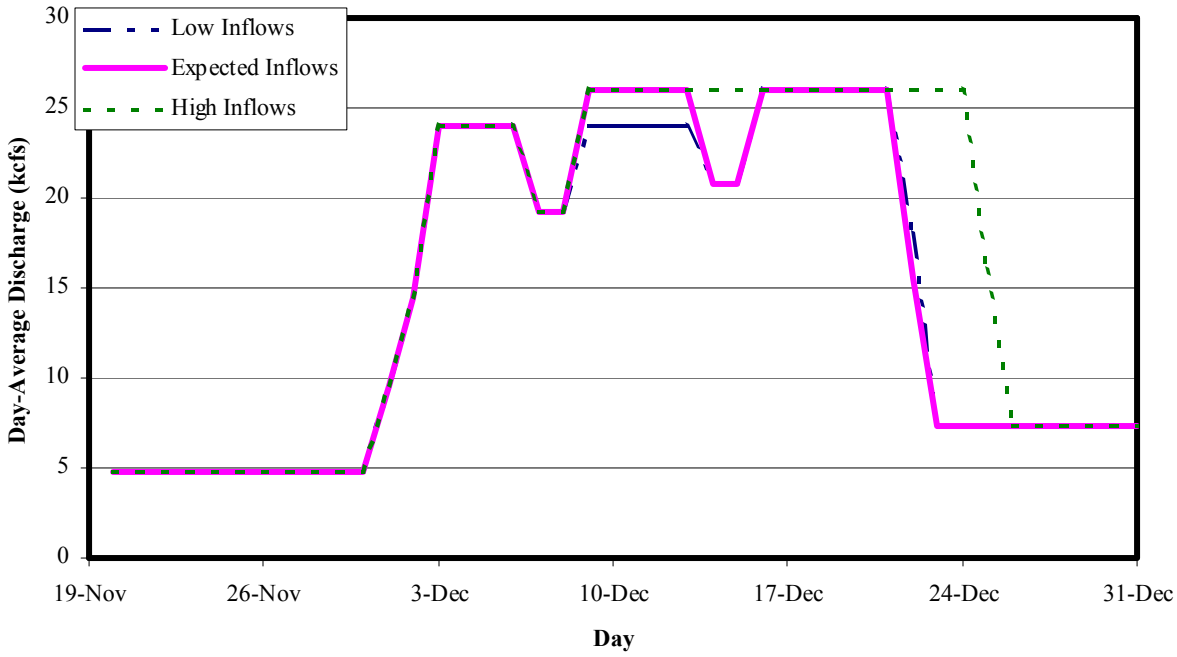
Construction of the Bonneville powerhouse corner collector will commence this fall. The in-water work period has been extended to start November 15 in order to aid construction. Starting November 15 Bonneville powerhouse 1 will become the priority powerhouse. Also Bonneville powerhouse 2 will be limited to operating the 4 northern most units when flows permit. In addition during construction it is desired to not operate the spillway. Periods of reduced flow maybe necessary for short periods during possible blasting operations. A tailwater limit of less than 14 feet during the day Monday through Saturday and a tailwater limit of less than 15.5 ft the rest of the time have been placed through October 31 to facilitate construction. This tailwater limit will increase incrementally as construction work progresses. Contract completion is scheduled for December 19, 2003.

Burbot Spawning Flows *(Non-BiOp Action)*

SOR 2002-B1, dated September 25, 2002, requested flows for burbot spawning in the lower Kootenai River from December 15, 2002 – January 31, 2003 between 4.0 and 10.6 kcfs. Specifically, the SOR requested that flows from Libby during that period remain below 7.3 kcfs.

BPA proposed an operation at Libby that provided a 50% probability of being able to meet the requested flow levels in December, starting approximately December 22. (See proposed operation below.) Parties to the SOR understood that the ability to provide the requested flows during the month of January would be contingent on flood control operations and temperatures. BPA analysis indicated the cost to increase the probability of providing the requested flows ranged from $300,000 - $1,500,000. Given BPA's financial situation and the uncertainty around the January operation, the proposed operation is shown below.

BPA Proposed Libby Operation for December 2002
(assumes 2 day ramp down)



Flood Control

Projects will be operated for flood control in accordance with the Columbia River Treaty Flood Control Operating Plan. The BiOp has requested that an SOI forecast at Libby be used in November and December as guidance for in-season management. The SOI forecast at Libby will not be used for flood control operations decisions in 2003. The Corps will use the regression forecasts (Wortman-Morrow) that have been in use since 1983 to determine operational flood control drafts in 2003.

Spring Creek Hatchery Release *(Non-BiOp Action)*

U.S. Fish and Wildlife Service typically releases between 7 and 8 million tule fall chinook fry from the Spring Creek National Fish Hatchery upstream of Bonneville Dam in March. In 2003 the action agencies plan to operate Bonneville with a powerhouse 2 priority, to operate all units with fish screens, and to operate the bypass facility in order to provide project passage for this hatchery release.

Vernita Bar spawning operation *(Non-BiOp Action)*

The final official fall chinook redd survey was conducted on November 24, 2002. A total of 638 redds were counted, including 37 redds above the 65 kcfs elevation. Therefore, as provided in the Vernita Bar Settlement Agreement, the Critical Elevation was set at 70 kcfs. Flow will be measured at the USGS gauge downstream of Priest Rapids Dam. This protection level will be in effect through emergence in spring 2003.