

CORPS OF ENGINEERS, NORTH PACIFIC DIVISION
REPORT FOR AUGUST 1999 CRWMG MEETING

Libby.

The reservoir began July at elevation 2432.94 feet. Outflows were varied between 22 – 25 kcfs between July 1 – 5 as we maintained incubation flows of 30 kcfs at Bonners Ferry for 18 days following the pulse. Outflows were then gradually ramped down to 8 kcfs by July 10 to attempt to refill the project as much as possible before the salmon flow augmentation began in August. Outflows remained at 8 kcfs through the end of July. The end of July elevation was 2456.94 feet. The July inflow was 28.5 kcfs, 139% of average.

Albeni Falls

The project reached full pool on June 22 and remained in the top ½ foot (2062' – 2062.5') range for the entire month of July. Outflows averaged 32.4 kcfs in July. The unregulated inflow to Lake Pend Oreille in July was 36 kcfs, 126% of average.

Dworshak.

Dworshak maintained about 1.5 kcfs (110% total dissolved gas) outflow between July 1 – 14. The Salmon Managers requested Dworshak start augmenting Lower Granite flows when flows dropped below the target of 54.5 kcfs. Dworshak flows were increased gradually starting on July 15 to gradually introduce 50-degree water downstream. Dworshak has a water temperature control system which is used to keep Lower Granite forebay water temperatures below 70 degrees. However, the Dworshak water temperature must also be warm enough so not to adversely affect juvenile fish downstream at the National Hatchery. Cold water retards growth of these fish. Between July 19 and 30, outflows were adjusted so total dissolved gas was at 110%. Flows were between 12.6 and 14 kcfs during this period. On July 31, EPA issued a dissolved gas waiver (Nez Perce asked EPA to issue it instead of them) to increase gas to as high as 120%. Flows were increased to about 19 kcfs. The Salmon Managers requested water temperature of 47 degrees. The project filled from 1580.6 feet at the beginning of July to 1593.4 feet on July 15. The project drafted to 1577.4 feet by the end of July. Inflow in July was 6.4 kcfs, 168% of average.

Lower Snake Projects.

Lower Granite July unregulated inflow was 48.9 kcfs, 115% of average. Target Lower Granite outflows were 100 kcfs (seasonal average) between April 10 and June 20. Target flows decreased to 54 kcfs between June 21 and August 31. Lower Granite outflows exceeded target outflows between 1 – 10 July. The rest of the month flows ranged between 44.4 and 54.4 kcfs with Brownlee drafting up to 1 foot/day and Dworshak staying within its' dissolved gas limit. All Lower Snake projects are still operating at Minimum Operating Pool (MOP) in a one-foot range in accordance with the 1998 Supplemental Biological Opinion.

Willamette Basin Projects.

Near average inflows in July kept many Willamette projects near their maximum conservation pool through the month. Exceptions were Fall Creek, Cottage Grove, Dorena, Fern Ridge and Green Peter. These projects drafted slightly during the month in order to maintain their minimum flows. The June minimum flow requirement at Salem was 6.0 kcfs, while the observed monthly average was 10.7 kcfs.

CORPS OF ENGINEERS, NORTH PACIFIC DIVISION
REPORT FOR SEPTEMBER 1999 CRWMG MEETING

Libby.

The reservoir began August at elevation 2456.94 feet. Inflows were extremely high in August. Since McNary target fish flows of 200 kcfs were being met in August without drafting Libby, no Libby draft was required. No Libby/Arrow swap was needed either. A peak reservoir elevation of 2458.97 feet was reached on 9 August. Outflows on August 1st were 8 kcfs and were increased to as high as 22.6 kcfs on August 11th to prevent against fill and spill scenario. Outflows for the month varied between 8 and 22.6 kcfs and averaged 15.6 kcfs. The elevation at the end of the August was 2455.63 feet. The August inflow was 14.7 kcfs, 151% of average.

Albeni Falls

Lake Pend Oreille reached full pool on June 22 and has remained in the top ½ foot (2062' – 2062.5') range for the entire months of July and August. Outflows averaged 14.8 kcfs in August. The unregulated inflow to Lake Pend Oreille was 12.05 kcfs, 111% of average.

Dworshak.

On July 31, EPA issued a dissolved gas waiver (Nez Perce asked EPA to issue it instead of them) to increase gas to as high as 120%. Outflows were increased to about 19 kcfs on 1 August and were maintained through 8 August. The Salmon Managers also requested water temperature of 47 degrees. Project outflows were gradually decreased over the month per the Salmon Managers, and reached 8 kcfs on 30 August. As flows gradually decreased, the Dworshak operators were required to continuously refine the water temperature by raising and lowering selector gates on the units. On 31 August, the Salmon Managers requested water temperature by increased to 50 degrees because the downstream hatchery was having trouble with fish growth with such cold water. The project drafted from 1577.4 feet at the beginning of August to 1526.6 feet by the end of August. Inflow in August was 1.86 kcfs, 112% of average.

Lower Snake Projects.

Lower Granite August unregulated inflow was 24.4 kcfs, 111% of average. Target flows were to 54 kcfs between June 21st and August 31st. Lower Granite outflows ranged between 27.3 and 48.8 kcfs and averaged 37.7 kcfs during the month of August.

Willamette Basin Projects.

Near average inflows in August kept many Willamette projects near their maximum conservation pool through the month. Exceptions were Fall Creek, Cottage Grove, Dorena, Fern Ridge and Green Peter. These projects drafted slightly during the month in order to maintain their minimum flows. The August minimum flow requirement at Salem was 6.0 kcfs (1-15 August) and 6.5 kcfs (16-31 August), while the observed monthly average was 8.0 kcfs.

CORPS OF ENGINEERS, NORTH PACIFIC DIVISION
REPORT FOR OCTOBER 1999 CRWMG MEETING

Libby.

The reservoir began September at elevation 2455.63 feet. For the first three days of the month, outflows were held near 14.7 kcfs and then were ramped down to 12 kcfs. Outflows remained flat at 12 kcfs for the remainder of the month except for a special operation requested by BPA transmission limiting Libby output to 240 MW (10 kcfs outflow was maintained) on September 16th. The elevation at the end of September was 2449.12 feet. The September inflow was 7.03 kcfs, 109% of average.

Albeni Falls

Lake Pend Oreille remained in the top ½ foot (2062 – 2062.5 feet) through the 17th of September. Throughout the month, outflows ranged from 8.9 to 20.3 kcfs with an average of 13.25 kcfs. Outflows were reduced to 10 kcfs on September 10th through the 13th to facilitate chemical treatment of Eurasian milfoil in the lake. Fall drawdown started on September 18th. Unit 3 was forced out of service and subsequent repairs to unit 3 and to other similarly affected units limited outflows for the remainder of the month. The lake elevation at the end of September was 2060.0 feet. September unregulated inflow was 6.05 kcfs, 65% of the average.

Dworshak.

The reservoir began September at elevation 1526.6 feet. On September 3rd, the Salmon Managers returned water temperature control to the hatchery and allowed the hatchery to work directly with the Dworshak operator to release the desired temperature water. The Salmon Managers requested Dworshak be drafted to 1520' on 12 September and flows were gradually reduced to obtain that elevation. Outflows were maintained at approximately 7.9 kcfs for the first 5 days of September, then were ramped down to 2.4 kcfs on the 6th, and were at 1.5 kcfs by the 14th. On September 20th through 24th, Dworshak ran the large unit at speed no load in order to accommodate BPA line maintenance request of 50 MW or less output without reducing outflows below 1.5 kcfs which is the 110% dissolved gas limit. The reservoir reached elevation 1520 feet on September 14th and ended the month at 1518.87 feet. Inflows to Dworshak were 1.09 kcfs, 91% of average

Lower Snake Projects.

Lower Granite September unregulated inflow was 20 kcfs, 88% of average. Lower Granite outflows ranged between 17.1 and 30.8 kcfs during the month of September and averaged 22.94 kcfs. On August 31st, the Salmon Managers submitted a SOR requesting Ice Harbor, Lower Monumental and Little Goose projects fill above minimum operating pool (MOP). Ice Harbor was the first to fill, followed by Lower Monumental and then Little Goose. Little Goose fill was completed on September 12th.

Willamette Basin Projects.

Fall drawdown operations for flood control began after labor day weekend on September 7th. The exception is Foster project which will stay full until October 15th and then commence drawdown. Projects below the rule curve at the start of drawdown will, in general, maintain releases until intersection with the rule curve and then draft at prescribed draft rates. The September minimum flow requirement at Salem was 7.0 kcfs while the observed monthly average was 9.1 kcfs.

