

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

Libby.

Lake Koocanusa was at elevation 2449.12 feet on October 1. October outflows were a 14.7 kcfs the first 2 days of the month and then flows were ramped down to a flat 12 kcfs between 4 and 30 November. The elevation of Lake Koocanusa was 2439.78 feet at the end of October. Libby inflow in September was 5.1 kcfs, 92% of average.

Albeni Falls.

Lake Pend Oreille started it's winter drawdown on 17 September and by the beginning of October had drafted to near elevation 2060 feet. On October 8 the Corps decided to evacuate Lake Pend Oreille to elevation 2051 feet for the 1999-2000 winter. The evacuation was temporarily stopped on October 19 at elevation 2055 feet. On November 1 the Corps reached a final decision to evacuate Lake Pend Oreille to elevation 2053 feet in 1999-2000. The lake was within the 2053.0 to 2053.5 foot range by November 10. October unregulated inflow was 7.79 kcfs, 79% of average.

Dworshak.

The reservoir began October at elevation 1518.87 feet. The project has been at minimum flow since 14 September. The end of October elevation was 1519.18 feet. The inflow to Dworshak in October was 1.02 kcfs, 69% of average.

Lower Snake Projects.

Lower Granite October unregulated inflow was 23.4 kcfs, 88% of average. Lower Granite outflows ranged between 17.1 and 31.2 kcfs during the month of October and averaged 22.9 kcfs. On Monday, 15 November, Lower Granite returned to it's normal operating range 733' – 738'.

Willamette Basin Projects.

Fall drawdown operations continued in October with all projects drafting toward minimum flood control pool. The exception was the Foster project that did not begin to draft from full pool until 15 October. By the end of October, Cottage Grove and Dorena were near minimum flood control pool. The rest of the projects were following the drawdown schedules. Average flow at Salem for the month of October was 10.7 kcfs.

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

Libby.

Lake Koocanusa was at elevation 2439.78 feet on November 1. Libby outflows ranged between 8 kcfs and 12 kcfs between 1 and 15 November. The flows during that period were all flat (no load shaping). Libby load shaped 16 – 22 November. There were several different flow ranges during that period. For 1 days flows ranged between 8 and 20 kcfs. For 6 days flows ranged between 10 and 20 kcfs. Between 23 and 30 November, the project was at full load, 25 kcfs. The elevation of Lake Koocanusa was 2435.83 feet at the end of November. Libby inflow in November was 12.4 kcfs, 255% of average. Precipitation in November was 4.53 inches in the Kootenai Division that was 157% of normal.

Albeni Falls.

Lake Pend Oreille started its winter drawdown on 17 September and by the beginning of October had drafted to near elevation 2060 feet. On October 8 the Corps decided to evacuate Lake Pend Oreille to elevation 2051 feet for the 1999-2000 winter. The evacuation was temporarily stopped on October 19 at elevation 2055 feet. On November 1 the Corps reached a final decision to evacuate Lake Pend Oreille to elevation 2053 feet in 1999-2000. The lake was within the 2053.0 to 2053.5 foot range by November 10 and will be operated in this range through the end of December. November unregulated inflow was 14.45 kcfs, 118% of average.

Dworshak.

The reservoir began November at elevation 1519.18 feet. The project has been at minimum flow since 14 September. The end of November elevation was 1526.86 feet. The inflow to Dworshak in November was 3.2 kcfs, 135% of average. Precipitation in November in the Clearwater Division was 4.1 inches, 125% of normal.

Lower Snake Projects.

Lower Granite November unregulated inflow was 28.4 kcfs, 96% of average. Lower Granite outflows ranged between 16 and 42 kcfs during the month of November and averaged 22.9 kcfs.

Willamette Basin Projects.

Fall drawdown operations were continued for the month of November and progressing nicely until the Thanksgiving day storm hit on the 24-25th of November in the Willamette Basin. The storm unexpectedly sagged south to generate more precipitation than forecast. The Santiam Basin took the hardest hit with up to 7.5 inches at Detroit. Releases out of projects were shut off or reduced significantly as soon as possible to reduce flooding. The heavy rainfall generated fast rises in local runoff precipitating some control points going above bankfull or flood stage. Unregulated flow was the main cause. Jefferson on the mainstem Santiam went above flood stage (55,000 cfs) and crested at 82,000 cfs. Harrisburg on the mainstem Willamette went above bankfull (42,000 cfs) and crested at 55,000 cfs. Foster project filled to 85 percent full and was on the cusp of special curve regulation. Green Peter and Detroit reservoir filled 63 and 46 percent full. Cougar and Blue filled to 29 and 38 percent full. Hills Creek and Lookout Point filled to 19 and 23 percent full. All other projects experienced minor rises in flood control storage. All projects were began drafting as soon as flows receded. Most projects should be at minimum flood control pool by the end of the first week of December pending no rain. The exceptions will be Green Peter and Detroit that may take longer.

CORPS OF ENGINEERS, NORTH PACIFIC DIVISION
REPORT FOR JANUARY 2000 CRWVG MEETING

Libby.

Lake Koocanusa was at elevation 2435.83 feet on December 1. Libby outflows averaged 23.6 kcfs in the month of December. The project was at full load almost the entire month except for a couple weekends and over Christmas and New Years. After coordination with NMFS and USFWS, the project attempted to draft below its upper rule curve elevation of 2411' by the end of the month in hopes of facilitating a burbot study in January. Idaho Fish and Game had requested a flow of 6,000 cfs from January 1 through February 4. After coordination with the Corps and in light of the higher than normal inflows in the fall and expected high volume runoff forecast, Idaho Fish and Game revised their request to 12,000 cfs for 10 to 14 days in late January – early February. The end of December elevation was 2408.1 feet. Libby inflow in December was 6.1 kcfs, 165% of average. Precipitation in December was 2.67 inches in the Kootenai Division that was 83 % of normal. Precipitation October – December was 9.3 inches, 118% above normal. The January final volume forecast for April – August is 6.81 Maf (106.7% of normal). The end of January target flood control elevation is 2372.1 feet.

Albeni Falls

Lake Pend Oreille started its winter drawdown on 17 September and by the beginning of October had drafted to near elevation 2060 feet. On October 8 the Corps decided to evacuate Lake Pend Oreille to elevation 2051 feet for the 1999-2000 winter. The evacuation was temporarily stopped on October 19 at elevation 2055 feet. On November 1 the Corps reached a final decision to evacuate Lake Pend Oreille to elevation 2053 feet in 1999-2000. The lake was within the 2053.0 to 2053.5 foot range by November 10 and was operated in this range through the end of December. The current operating range is 2053' – 2054 as it is assumed all kokanee spawning activity is over. December unregulated inflow was 11.0 kcfs, 93% of average.

Dworshak.

The reservoir began December at elevation 1526.86 feet. The project was at minimum flow 14 September through 6 January. The end of December elevation was 1537.86 feet, about 20 feet below the end of December upper rule curve elevation of 1558'. The inflow to Dworshak in December was 3.9 kcfs, 123% of average. Precipitation in December in the Clearwater Division was 4.6 inches, 127% of normal. The January final volume forecast is 2970 kaf for April - July. The end of January target elevation is 1530.6'. In response to the forecast that was released on 6 January, Dworshak outflows were increased on 6 January.

Lower Snake Projects.

Lower Granite December unregulated inflow was 31.6 kcfs, 95% of average. Lower Granite outflows ranged between 18 and 37 kcfs during the month of December and averaged 25.7 kcfs.

Willamette Basin Projects.

Inflows for the month of December were at or near average for the projects and Salem. Average flow at Salem for the month of December was 54 kcfs as compared to an average of about 47 kcfs. The early part of December was spent evacuating stored floodwaters from the Thanksgiving Day Flood. Upon evacuation of stored floodwaters, a storm centered mainly in the northern part of the basin occurred during the middle of December and produced moderate rises in inflows. Detroit and Green Peter filled to 20 percent of flood control storage with a smaller percentage at Lookout Point. Flood waters were evacuated within approximately 10 days.

The early part of January has been unseasonably dry with inflows lower than the monthly average. System storage is in good shape with all reservoirs are currently at or near minimum flood control storage.