

### III. RESERVOIR REGULATION

SYSTEM OPERATION	PROJECT OPERATION	Mica	Revelstoke	Keenleyside	Libby				
Bonnars Ferry	Duncan	Kootenay Lake	Birchbank	Hungry Horse	Columbia Falls	Kerr			
Albeni Falls	Grand Coulee	PUDs	Yakima	Jackson-Palisades	Ririe	American Falls	Little		
Wood	Owyhee	Boise	Malheur	Payette	Weiser	Powder	Brownlee	Dworshak	Spalding
Lower Snake	Mill Creek	Willow	John Day	Upper Deschutes	Chief Joseph-Bonneville				
Vancouver	Willamette								

The reservoir system in the Northwest is made up of Federal, municipal, public, and privately owned dams and reservoirs. Regardless of ownership major projects are operated in accordance with the Pacific Northwest Coordinating Agreement. This agreement coordinates the seasonal operation of the system projects for the best use of their collective reservoir storage, and along with some of the other agreements that affect project operation. In this chapter, however, the regulation of the system as a unit is described followed by the regulation of the operation of individual projects, and the effects upon key gages, in downstream order and chronologically from the beginning of the operational year.

#### A. SYSTEM OPERATION

The 1 January 2005 water supply forecast (WSF) for the Columbia River at The Dalles for January through July was 85.6 Maf, or 79.8 percent of the 1971-2000 average. The water supply forecast fell to a low of 70.7 Maf or 60.6% of normal in March, then ended up at 79.8 Maf or 78.8% of normal in June. The seasonal precipitation for the water year was below average above The Dalles at 89 percent of average. The actual January through July volume at The Dalles was 81.35 Maf, 76 percent of the 1971-2000 average. The peak unregulated flow at The Dalles in 2005 was estimated at 448,672 cfs on 22-May 2005 and a regulated peak flow of 286,500 cfs on 18-May 2005.

The Columbia River was operated to meet chum needs below Bonneville Dam from 8 November 2004 through 5 May 2005. U.S. reservoirs were operated to target the 10 April flood control elevation per the NMFS 2004 BiOp for juvenile fish needs, but low inflow from January through March prevented this from happening. For 2005 Libby Dam released the volume of water requested by the U.S. Fish and Wildlife Service to meet downstream Kootenai River white sturgeon needs. The U.S. storage projects targeted full by 30 June 2005 per the Biological Opinion. Libby, Dworshak, Hungry Horse and Grand Coulee were all within 2.5 feet from full on June 30. Projects were then drafted to the NMFS 2004 BiOp draft limits for 31 August. Libby, Grand Coulee and Hungry Horse all reached their end of August BiOp elevations of 2439 feet, 1278 feet and 3540 feet. Dworshak reached the draft limit in September.