



Bonneville Dam and Lake Bonneville

Quick Facts

- ▶ Stream: Columbia River (RM 146.1)
- ▶ Location: Cascade Locks, OR
- ▶ Owner: U.S. Army Corps of Engineers, Portland District
- ▶ Authorized Purposes: Hydropower, Navigation (1935 Rivers and Harbors Act)
- ▶ Other Purposes: Fish & Wildlife, Recreation, Water Quality
- ▶ Type of Project: Run-of-river

Dam

- ▶ Completed: 1938; 1981 (powerhouse 2)
- ▶ Height: 171 ft
- ▶ Length: 2,477 ft
- ▶ Features: 2 powerhouses, spillway, navigation lock, fish passage facilities
- ▶ Forebay Elevation Normal Operating Range: 71.5–76.5 ft msl
- ▶ Spillway Capacity (max): 1,600,000 cfs

Powerhouse

- ▶ Generation Capacity:
 - Powerhouse 1 = 518 MW, 10 Units
 - Powerhouse 2 = 532 MW, 8 Units
- ▶ Hydraulic Capacity:
 - Powerhouse 1 = 136,000 cfs
 - Powerhouse 2 = 152,000 cfs



Bonneville Dam was authorized by Congress for power and navigation in the 1935 Rivers and Harbors Act. The first powerhouse, spillway, and navigation lock were completed in 1938, and the second powerhouse in 1981. The lock was expanded in 1993.

Bonneville Lock and Dam was placed on the National Register of Historic Places in 1986 and declared a National Historic Landmark in 1987.



Hydropower

Bonneville Dam has 18 turbine units and a total generating capacity of over 1,200 megawatts - enough to power 900,000 homes.

Bonneville Dam, Lake Bonneville, and associated facilities are operated for Hydropower, Navigation, Fish & Wildlife, Recreation, and Water Quality.

Navigation

The Bonneville navigation lock was rebuilt in 1993 to accommodate larger tows. Bonneville is the first of eight locks encountered in the Columbia-Snake Inland Waterway, a 465-mile river highway that allows barge transport of commodities between the Pacific Ocean and Lewiston, ID. About 10 million tons of cargo pass through the Bonneville lock annually.

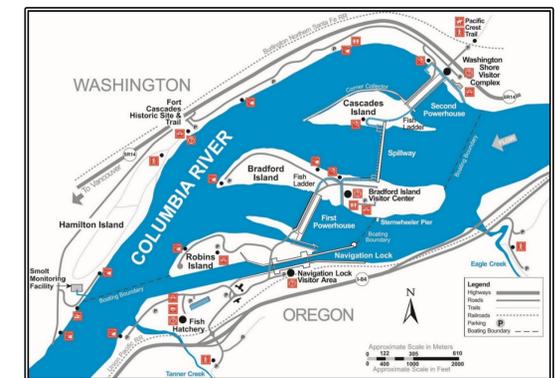


Water Quality

Water quality is monitored and managed consistent with Clean Water Act and state standards for the health of aquatic species. During spill for juvenile fish passage at the four Lower Columbia and four Lower Snake River projects, the Corps implements a Water Quality Program to manage total dissolved gas.

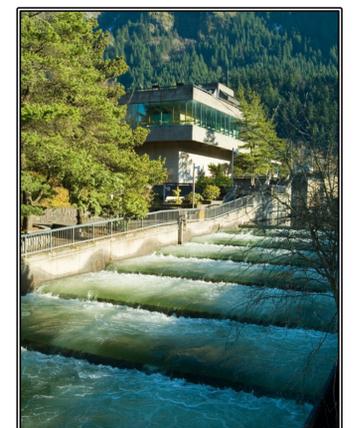
Recreation

Recreation opportunities are provided at two visitor areas, a fish hatchery, and several trail systems, parks, and designated recreation areas. Popular activities include boating, fishing, windsurfing, kiteboarding, hiking, wildlife viewing, camping, and more.



Fish & Wildlife

Multiple fish ladders provide a passage route for upstream-migrating fish, including adult salmon and steelhead, lamprey, sturgeon, shad, and others. Passage routes operated for downstream-migrating fish are the corner collector, spillway, juvenile bypass system, and sluiceway.



The Bonneville Hatchery on Tanner Creek—one of the oldest hatcheries in Oregon—is funded by the Corps and operated by the Oregon Dept of Fish & Wildlife to mitigate for the loss of spawning habitat that occurred when the reservoir was created.

Surrounding lands are managed to provide 200 acres for waterfowl and non-game species habitat, and 682 acres for wildlife habitat at Steigerwald Lake near Camas, WA.

