



Columbia River at
Hanford Reach

Columbia River Facts

The Columbia River basin comprises some 260,000 square miles, from its headwaters in British Columbia, Canada, to its mouth at Astoria, Ore., bordering Washington and Oregon.

The basin includes parts of seven states, 13 federally recognized Indian reservations, and one Canadian province. Nineteen percent of the watershed is in Washington.

The average annual flow for the Columbia River at The Dalles, Oregon is approximately 190,000 cubic feet per second (cfs) (1 cfs = 448.8 gallons per minute).

The river's annual discharge rate fluctuates with precipitation and ranges from 120,000 cfs in a low water year to 260,000 cfs in a high water year.

After dams were constructed along the river for flood control and power production, the flow regime of the river changed. Records kept since 1878 show that flows were much higher in the spring and lower in winter before dam construction. In addition, the velocity of the water moving down the river was significantly greater before dam construction began in the 1930s. In 1917, Washington adopted a water code to help manage water allocations from surface water bodies in the state, including the Columbia River.

Since the water code was adopted, the state has allocated 768 surface water and 1,379 groundwater rights on the mainstem Columbia River.

These Columbia River water users have the right to take approximately 13,000 cfs in instantaneous withdrawals from April through October, when most crops are grown in the basin.

The total annual withdrawal from the mainstem Columbia River during the growing season is about 4.7 million-acre feet of water. (1 acre-foot = 325,851 gallons, enough water to cover a single square acre of land 12 inches deep.)

The Bureau of Reclamation is the single largest water user on the Columbia River mainstem and is allocated about two-thirds of the water from the river. In Washington, the Department of Ecology is considering 87 new water-right requests to take an additional 1,650 cfs of water from the mainstem Columbia River.

Pending applications for new water withdrawals located within Washington State for the mainstem of the Columbia River total approximately 1,650 cfs (87 applications as of September, 2002).

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