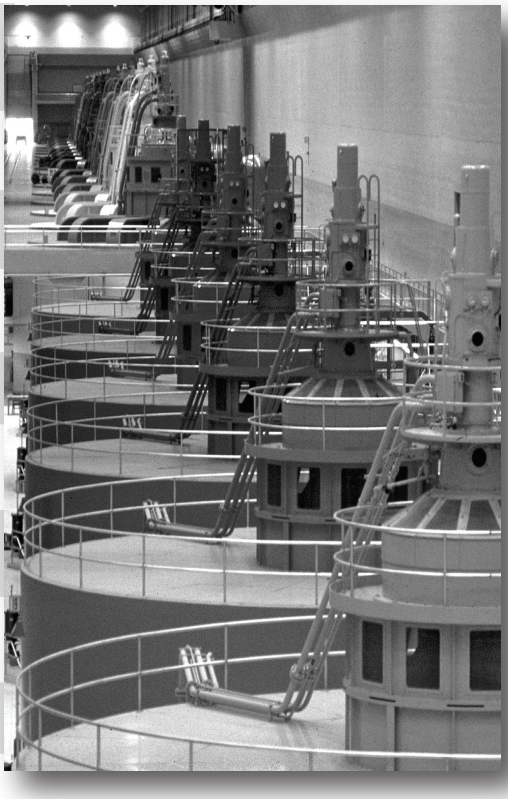
The Dalles Lock and Dam *Fact Sheet*

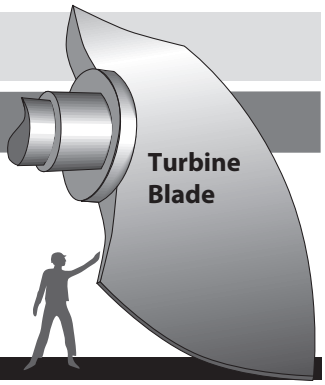
The Dalles Lock and Dam is located 192 miles upstream from the mouth of the Columbia River. It is one of the top ten largest hydropower dams in the United States! In addition to supplying hydropower to the Pacific Northwest Region, The Dalles Dam provides a reliable water source for navigation, irrigation, flood mitigation and recreation.

Location Map
The Dalles Dam

The Powerhouse

Construction: began 1952	Units 1-14 Completed 1957 *(Phase I)* Units 15-22 Completed 1973 *(Phase II)*
Turbine Generators: (rated capacity)	Units 1-14 = 94.4 MW Units 15-22 = 104 MW
Turbine/Generator Speed:	Units 1-14 = 85.7 rpm Units 15-22 = 80 rpm
Type of Turbine:	Kaplan Adjustable Turbine Each runner is 280 inches in diameter
Generator Voltage:	13,800 volts
Transmission Voltage:	Line 1-2 = 115 KV Lines 3-6 = 230 KV
Water Discharge at 100% Capacity:	312,000 cfs = 2,333,922 g/s
Average Yearly Power Produced from 2010 - 2012:	7,273,579 hours
Fishway Units: 2	16.3 MW each. Fish units are generators providing water outflow for fish ladders.
Total Cost at Completion: (Approximately)	$378 million
Total Generation Capacity:	2,160 MW operating at 115%

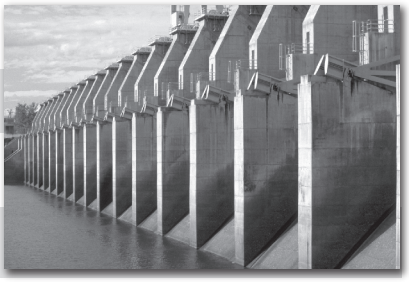




US Army Corps of Engineers®
Portland District

MW = Megawatts (million watts)
KV = Kilovolts (thousand volts)
cfs = Cubic Feet/Second
g/s = Gallons/Second
m = Meters
rpm = Rotations/minute

The Spillway

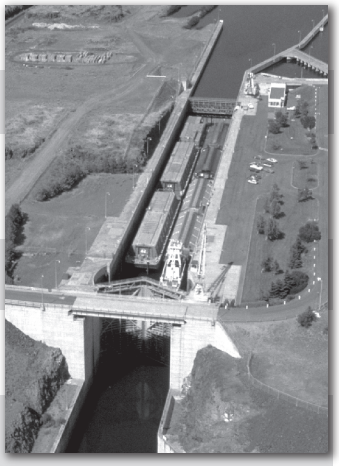


Overall Length:	1,447 ft (441 m)
Width of Gravity Section:	239 ft (72.8 m)
Tainter Gates:	23 gates: 50 ft x 42.5 ft (15.2 m x 13 m)
Design Capacity:	2,290,000 cfs: 17,130,389 g/s
Pool Elevation: at sea level	AVG: 158 ft (48 m); MIN: 155 ft (47 m); MAX: 160 ft (48 m)

The Fish Ladders

Forebay Water Flow Rate (volume):	North Ladder: 160 cfs East Ladder: 140 cfs
Entrance Water Flow Rate:	North Ladder: 1,200 cfs East Ladder: 1,500 cfs
Ladder Slopes:	1 on 16
Depth of Ladders:	6 ft to 8 ft (1.8 m to 2.4 m)
Width/Length:	North Ladder: 24 ft x 1761 ft (7.3 m x 536.8 m) East Ladder: 30 ft x 1801 ft (9.1 m x 549 m)

Navigation Lock

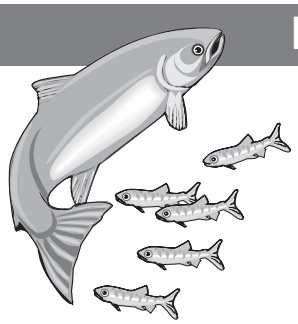


Fill/Empty Time:		20 minutes to fill or empty
Width/Length:		86 ft x 675 ft; (26.2 m x 205.7 m)
Lift:	**AVG:**	88 ft (26.8 m)
	MIN:	84 ft (24.3 m)
	MAX:	90.5 ft (27.6 m)
Depth Over Sill:		15 ft minimum (4.6 m)
Gallons Dispersed Per Lockage:		39,298,993 on average
2012 Average Total Lockages Per Day:		6 commercial vessels

People often ask, "What does The Dalles mean?". The earliest origins of the word have been traced to French-Canadian voyagers who traded with the local Native American tribes. The word, dalle, was used to describe the natural geological features of this section of the river which reminded them of a gutter or trough. This is because the Columbia ran through stretches of narrow basalt rock cliffs at an amazingly swift pace. Eventually, these long and short narrows became known as The Dalles.

Fish Passage

Average Elevation gained up the fish ladders ..... 88 ft (26.8m)



The fish ladders are necessary so that adult fish can get past The Dalles Dam to return to their spawning grounds.

The best months to see fish climbing the fish ladders are:

Chinook Salmon	April - October
Coho Salmon	September - October
Sockeye Salmon	June and July
Steelhead Trout	August - October
American Shad	June and July
Lamprey	July and August