

Grand Coulee Dam

A Project of the Bureau of Reclamation

When was Grand Coulee Dam built and by whom?

The U.S. Bureau of Reclamation began construction of Grand Coulee Dam in 1933 as the key structure in its multipurpose Columbia Basin Project. It has since become the linchpin in harnessing the second largest river in the United States. It took nine years to build the dam, but even more years of battling and political maneuvering before construction started. While it was recognized early in the century that the Columbia Basin had rich farmland that only needed water to flourish, the method for providing that water caused much controversy. A Spokane group insisted upon a 134-mile gravity-flow canal from Lake Pend Oreille to the Basin, while a Wenatchee/Central Washington group favored building a big dam on the Columbia at Grand Coulee. The battle raged for 13 years. At its conclusion, President Franklin D. Roosevelt authorized \$60 million to get the dam project started.

In Grand Coulee, life changed dramatically and quickly once work on the dam began in 1933. Not only did the undertaking of this massive project forever change the shape of the river, but overnight it created towns where nothing but sagebrush, sand and rocks had previously existed. Thousands came to Grand Coulee looking for work in the midst of the Depression. They worked around the clock to finish the dam by 1942.

Feeding a lot of workers

Mason-Walsh-Atkinson-Kier (MWAK), the company that built the foundation of the dam, also constructed a city where many of the workers lived.

Logistics

Workers stayed in houses and dormitories nearby. Houses were built for the engineers and many of those are still in existence today.

There was a cookhouse capable of feeding 1,000 men.

The MWAK mess hall had an ice cream plant with two 25-ton ice machines.

Coffee was made in a 250-gallon urn.

A mechanical dishwasher could clean 25,000 dishes an hour

Breakfast for 950

3,000 pancakes

25 gallons of syrup

200 pounds of bacon

1,000 eggs

75 gallons of coffee

How many dams are on the Columbia River?

Altogether, a total of 11 dams have been built on the river in the United States, as it winds its way from the Canadian border toward the Pacific Ocean; Grand Coulee Dam is the keystone of the Columbia River system dams. [Click here](#) to learn more about the Columbia River system dams. Five other dams in the Big Bend region of the river also offer facilities for visitors--Chief Joseph Dam on Highway 17 in bridgeport; Wells Dam, south of Brewster on Highway 97; Rocky

Reach Dam, north of Wenatchee on Highway 97; Wanapum Dam, six miles south of the I-5 crossing of the Columbia; and Priest Rapids Dam on Highway 243.

All About Grand Coulee Dam

How big is Grand Coulee Dam?

Grand Coulee Dam dwarfs the Great Pyramids of Egypt and generates more power than a million locomotives. An engineering wonder, it is also the country's largest hydroelectric project.

Grand Coulee Dam is one of the largest concrete structures in the world, containing almost 12 million cubic yards of concrete. It towers 550 feet above bedrock (as high as the Washington Monument) and is 500 feet wide at its base. There is enough concrete in the dam to build two standard six-foot-wide sidewalks around the world at the equator.

How is the electricity produced?

Electricity is generated by unseen torrents of water rushing through the turbines within the dam's hydroelectric plants. There are three powerhouses at Grand Coulee Dam with a total rated capacity of 6809 megawatts, making this dam the largest hydroelectric producer in the United States.

What is the dam's main purpose?

Actually, Grand Coulee Dam has three important functions:

Irrigation

Power production

Flood control

Although electricity was not foreseen as a primary function when the dam was built, today the production of electrical energy is one of Grand Coulee Dam's most important jobs. Recreation is another important function, facilitated by the Lake Roosevelt National Recreation Area.

How many acres does Grand Coulee Dam help irrigate?

Water supplied by Grand Coulee Dam irrigates more than 670,000 acres of rich farmland in the Columbia Basin annually. [Learn more](#) about the Columbia Basin.

Water from Lake Roosevelt (behind the dam) is lifted 280 feet up a hillside to flow into the Banks Lake reservoir, where it starts a journey that eventually covers an area more than twice the size of the state of Delaware. Each of the six conventional pumps in Grand Coulee's Pump-Generator Plant is powered by a 65,000-horsepower motor and will pump 1,600 cubic feet of water per second, or 781,128 gallons per minute.

In addition, six pump-generators, each having a 65,000-horsepower rating can pump 1,948 cubic feet of water per second. One of these 12 units can fill the water needs of a city the size of Chicago, Illinois.

"Now the world holds seven wonders that the travelers always tell,
Some gardens and some towers, I guess you know them well.
But now the greatest wonder is in Uncle Sam's fair land,
It's the big Columbia River and the big Grand Coulee Dam."

Woody Guthrie