

FURTHER REVIEW

Franklin D. Roosevelt Lake



GRAND INDEED

U.S. BUREAU OF RECLAMATION

By Charles Apple | THE SPOKESMAN-REVIEW

When Woody Guthrie sang that the Grand Coulee Dam was the “biggest thing built by the hand of a man,” he wasn’t far off.

One of the largest structures ever built, the Grand Coulee Dam on the Columbia River stands 550 feet high and just under a mile wide and contains 12 million cubic yards of concrete.

The Grand Coulee Dam began generating power on March 22, 1941 — 86 years ago.

‘ROLL ALONG, COLUMBIA, YOU CAN RAMBLE TO THE SEA’

1918
Rufus Woods, publisher of the Wenatchee Daily World, and two associates begin pushing for a project to dam the Columbia River at Grand Coulee to transform the area for apple farming.

APRIL 1926
After years of talk, lobbying, studies and debate, the U.S. Army Corps of Engineers releases a report on the feasibility of dams on the Columbia and Snake rivers that would aid in power generation. Sales of electricity from a hydroelectric plant at Grand Coulee could pay for its construction costs, the report says.

OCTOBER 1932
Woods pitches the project to President Herbert Hoover, arguing that building a dam would create thousands of jobs for those thrown out of work by the Great Depression. Hoover turns Woods down on the grounds that largely rural central Washington has no need of hydroelectric power.

MARCH 1933
Franklin D. Roosevelt becomes president. Roosevelt is open to the idea of a Grand Coulee project but balks at the estimated \$450 million cost. He supports a smaller, 290-foot-tall “low dam” and signs off on \$63 million in funding while the state of Washington kicks in \$377,000.

JULY 16, 1933
A ceremonial first stake is driven in at the site for the low dam. Construction begins shortly afterward. Early on the to-do list: relocation of Native American burial grounds and construction of fish ladders.

AUG. 4, 1934
Roosevelt visits the construction site.

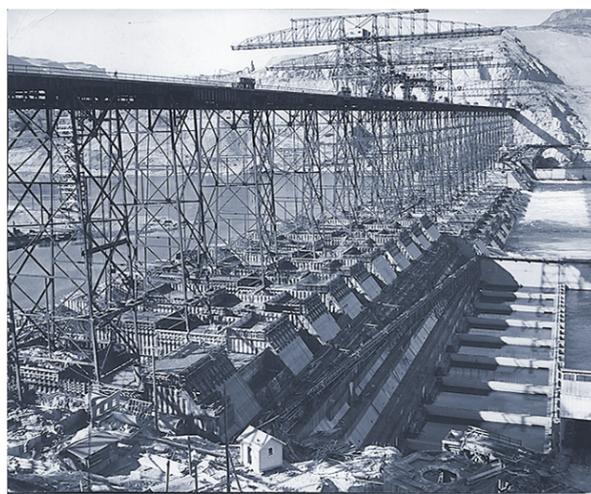
JUNE 1935
It’s decided to revert to the original plan for a 550-foot-tall “high” dam. Plans are revised and construction contracts are rewritten.

DEC. 6, 1935
The first concrete is poured for the dam.

JANUARY 1936
A bridge downstream from the dam site is finally opened after delays caused by high water. This speeds up construction.

DEC. 15, 1936
Spectators arrive to see the bare riverbed created by two cofferdams that divert water from the construction site.

DECEMBER 1939
The west powerhouse is completed.



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The Grand Coulee Dam under construction in 1939.

MARCH 22, 1941
Eight thousand people gather to watch Chief Jim James of the Sanpoil Tribe press a button to put the dam’s first two generators online for the first time, sending 10,000 kilowatts of electricity into the regional transmission network. The generators operate at only half their capacity because there simply isn’t enough water yet behind the dam.

MAY 1941
Folk singer Woody Guthrie is hired to write songs for a documentary about the dam. Guthrie is charmed by the area and, over the course of one month, writes 26 songs inspired by the Columbia River and the dam. The film would be delayed by World War II and wouldn’t be released until 1949.



LIBRARY OF CONGRESS
Woody Guthrie

OCT. 4, 1941
The first of the project’s 18 primary generators goes online. The primary generators can produce up to 108,000 kilowatts and cost about \$2.6 million each, built by the Newport News Shipbuilding and Dry Dock Company.

JUNE 1, 1942
The first water flows over the dam’s spillway, signaling the reservoir is officially full. The reservoir has flooded 70,500 acres, including 11 towns and 21,100 acres of Native American

reservations. About \$10.5 million was spent acquiring property for the reservoir. About 3,000 residents had to be relocated.

JAN. 31, 1943
Work on the dam is officially complete.

FEBRUARY 1943
With the war holding up work on additional power generators, two generators meant for California’s Shasta Dam project are brought to Grand Coulee for temporary use.

1948
Work begins on smaller dams upstream of Grand Coulee Dam that would form the irrigation aspect of the overall project. These are part of the Columbia Basin Project. Irrigation operations begin in the early 1950s.

1950
The last of the dam’s 18 generators finally goes online.

1952
Not only has the power generated by the dam’s power stations been put to good use, but demand also grows for more power — especially when water flow is low in the fall and winter months. Congress authorizes a study on the feasibility of adding a third power plant. In order to allow for this; however, flow of the Columbia River would have to be affected past the Canadian border.

FEBRUARY 1959
The two nearby construction villages that had sprung up — Mason City and Engineer’s Town — are combined and incorporated as the city of Coulee Dam.

JANUARY 16, 1961
President Dwight D. Eisenhower and Canadian Prime Minister John Diefenbaker sign the Columbia River Treaty, providing for three dams in British Columbia and one in Montana. Among the benefits of these dams: The power generating ability of Grand Coulee could be expanded.

SEPT. 16, 1964
Congress ratifies the Columbia River Treaty.

JUNE 14, 1966
President Lyndon B. Johnson signs an appropriation bill funding a third power plant for the dam.

1973
The first two of six new generators go online. The final two won’t become operational for another nine years.

Sources: U.S. Dept. of the Interior/Bureau of Reclamation, National Park Service, GrandCouleeDam.org, Smithsonian magazine, PBS’ American Experience, the Nation, NSEnergyBusiness.com, WorldAtlas.com, power-technology.com, HistoryLink.org

LARGEST HYDROELECTRIC POWER STATIONS IN THE U.S.

Ranked by gigawatts of total power generating capacity

6.81 GW	Grand Coulee Dam WASHINGTON — Began operating: 1941
3 GW	Bath County Pumped Storage Station VIRGINIA — Began operating: 1985
2.62 GW	Chief Joseph Dam BRIDGEPORT, WASH. — Began operating: 1958
2.52 GW	Robert Moses Niagara Power Plant LEWISTON, N.Y. — Began operating: 1961
2.16 GW	John Day Dam THE DALLES, ORE. — Began operating: 1949
2.08 GW	Hoover Dam NEVADA — Began operating: 1936
2.04 GW	The Dalles Dam THE DALLES, ORE. — Began operating: 1957

550 feet Height of the dam. That’s five feet shy of the height of the Washington Monument.

100 million Man hours it took to build the dam over eight years.

77 Fatalities during construction of the original part of the dam.

21 billion Number of kilowatt hours Grand Coulee produces a year.

670,000 acres Amount of land irrigated with water pumped from Grand Coulee.

0 Number of salmon fish ladders that are part of Grand Coulee Dam.