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Bureau of Reclamation Historic Dams, Irrigation Projects, and Powerplants Managing Water in the West

Hungry Horse Dam Montana



At 564 feet high, Hungry Horse is one of the largest concrete arch dams in the United States.
Bureau of Reclamation

Hungry Horse Dam, on Montana's Flathead River, has a name as charming as the timbered high country in which it stands. Just 15 miles from the west entrance of Glacier National Park and 44 miles from the Canadian border, Hungry Horse Dam knows the kind of winters that fur trappers experienced in the region in the early 1800s. When the snow flies in Montana, it can be a dangerous situation for man or beast, including horses. That's what happened to Jerry and Tex, two freight horses working the Montana oil rush in the winter of 1900-01. They wandered away and weren't found until a month later, belly-deep in snow and skinny as lodgepole pines. Nursed back to health, Jerry later pulled a fire wagon in Kalispell, and Tex did the same for a mercantile company. And so the name *Hungry Horse* stuck.

In 1953, Hungry Horse Dam was completed on the South Fork of the Flathead River, in a scenic spot surrounded by more than 25 mountain peaks. The dam took five years to build as construction shut down every winter, and crews labored to clear thousands of trees from the site, a job accomplished by chaining a huge, 4½-ton steel ball to a couple of tractors and pulling it through dead timber and over stumps left by loggers. One contractor built an iron drag shaped like an umbrella to gather the timber into a pile for burning. When Hungry Horse

Reservoir inundated a fire lookout tower, the Bureau of Reclamation rebuilt it elsewhere, along with U.S. Forest Service roads, bridges, and buildings.

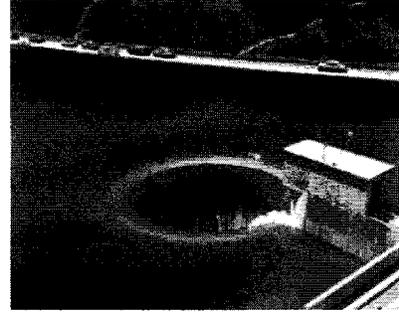
At 564 feet high, Hungry Horse is one of the largest concrete arch dams in the United States, and its morning-glory spillway, with water cascading over the rim and dropping 490 feet, is the highest in the world. Hungry Horse was built not for irrigation, as were so many other Reclamation dams, but to provide water storage that could be used to increase hydroelectric power production at Grand Coulee and Bonneville dams, downstream on the Columbia River. Hungry Horse, its reservoir, and the four generators in its powerplant (which produce about one billion kilowatt hours of power a year) also provide flood control and electricity to the surrounding area, including the towns of Kalispell, Whitefish, and Columbia Falls.

As early as 1921, the U.S. Geological Survey began studies of the Hungry Horse Dam site, but it wasn't until 1943, with the nation in need of all the power it could find for war production plants, that organized support materialized. The Corps of Engineers initially proposed raising the level of Flathead Lake to store more water for downstream powerplants, but local opposition to damming the pristine lake, the largest freshwater lake in the American West, turned the focus to the nearby South Fork of the Flathead River.

On June 5, 1944, Congress authorized the project and, despite its link to wartime production, pre-construction work did not begin until August 1945, just as World War II was ending. Two outfits were hired to clear more than 20,000 acres of trees from the reservoir site in what the workers dubbed "Operation Highball," named for the heavy steel balls, eight-feet in diameter, used to clear timber. The General-Shea-Morrison Company of Seattle won the contract to build the dam and powerplant, and set to work in April 1948. The company, as Eric A. Stene writes, erected a construction camp, complete with houses and dormitories for

workers, a warehouse, schoolhouse, grocery store, and hospital. To permit nighttime work, General-Shea-Morrison strung floodlights across the steep, narrow canyon where Hungry Horse Dam took shape.

As Boyles Brothers Drilling Company constructed the morning-glory spillway, which acts like a giant drain in the reservoir, work on the dam proceeded simultaneously, with General-Shea-Morrison pouring the first concrete on September 7, 1949. When November arrived, work on the dam shut down for the winter, as it would again in the winter of 1950-51 and again in 1951-52. When spring came round, work resumed until the final block was finished on October 4, 1952. Three days earlier, President Harry S. Truman threw the switch to begin operating the Hungry Horse Powerplant, then attended a dedication ceremony at Flathead County High School in Kalispell.



The glory hole spillway, in which water cascades over the rim and drops 490 feet, is the highest in the world.
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Hungry Horse Dam is on the South Fork of the Flathead River, 20 miles northeast of Kalispell, MT. From Kalispell, take U.S. 2 north. Turn right onto MT 40/U.S. 2 through Columbia Falls. At the little town of Hungry Horse, where one of the huge balls used to clear the forest is on display along the side of the road, turn right onto National Forest Develop Rd. 895 and proceed four miles on a scenic road to the dam. Cars may drive over the dam and proceed around the reservoir. Cars may drive over the dam and proceed around the reservoir. A visitor center at the dam, which includes historic photographs and a video, is open from 9:00am-4:00pm. Wednesday-Sunday, from June-August.

For more information on Hungry Horse Dam, click here for Bureau of Reclamation's [Hungry Horse Dam](#) website. For recreational opportunities at the reservoir, including trout fishing, click here: [Recreation.gov: Hungry Horse Dam](#) or here for recreation in the [Flathead National Forest](#) or [Glacier National Park](#).

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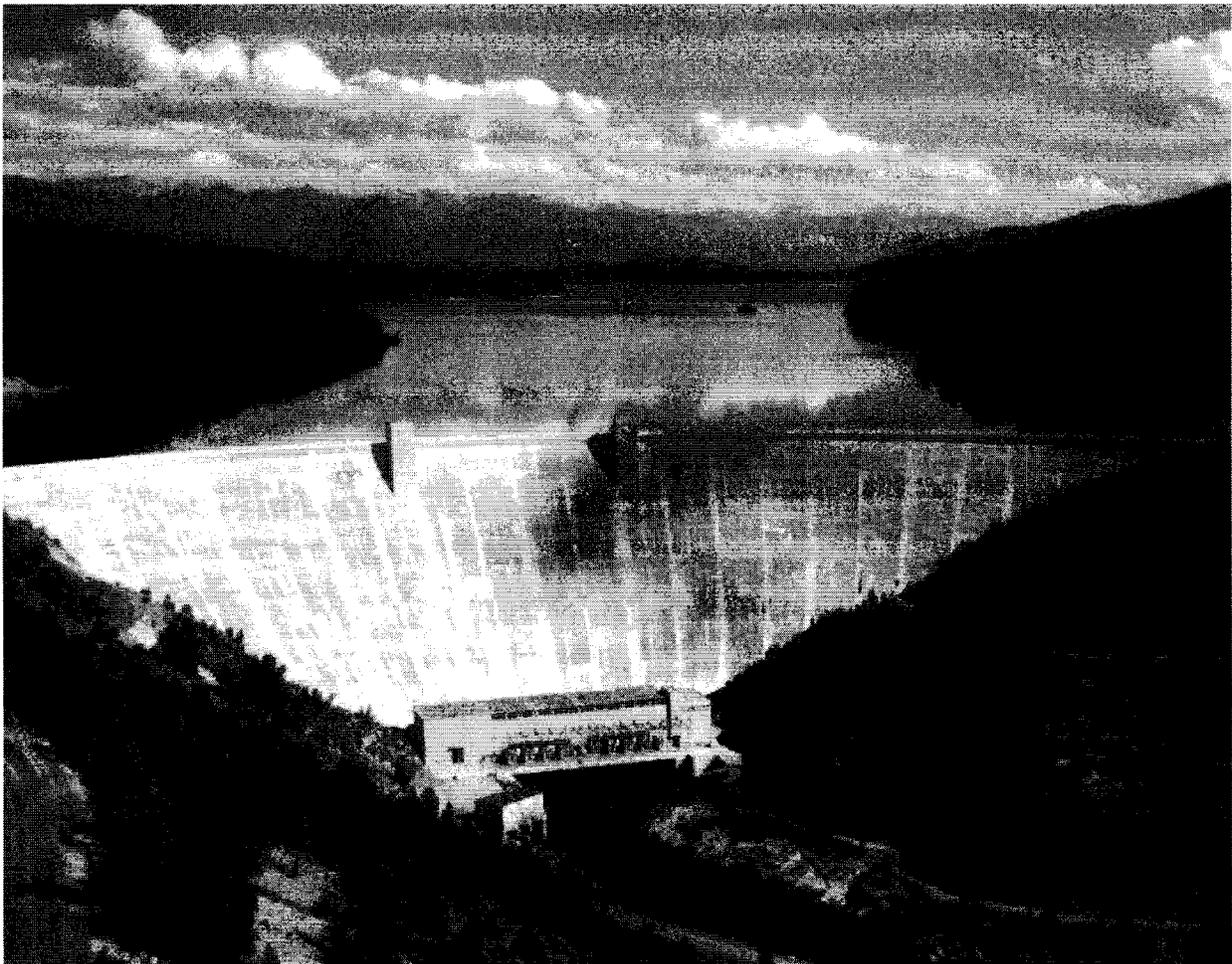
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Hungry Horse Dam

Hungry Horse Dam looking to modernize its 1950s-era power plant

VINCE DEVLIN vdevlin@missoulian.com Dec 17, 2015



Provided by Bureau of Reclamation
Hungry Horse Dam

HUNGRY HORSE – The four generating units in the power plant at Hungry Horse Dam are original, and have been in service since the dam opened in 1953.

They've already been in use far beyond their intended lifespan, according to the Bureau of Reclamation, and were last upgraded in the 1990s.

The bureau, which operates the dam and power plant, is seeking public comments to identify issues and concerns that should be addressed in an Environmental Assessment for a proposed modernization of the plant.

The assessment is scheduled to be published next summer.

"We're in the pre-scoping period," Lynn Brougher, a public affairs officer with the Bureau of Reclamation, said. "It's during this time that we'll determine what actually will be included" in the modernization.

Presently, the bureau proposes two alternatives – the "no action" plan required in all such proposals and against which other proposals are measured, and a second alternative.

The latter would "upgrade the power plant, overhaul and modernize the four generating units, conduct major maintenance on the penstocks and selective withdrawal system, refurbish the dam outlet works tubes and spillway, and upgrade the domestic water system."

"There's a whole list of things they're thinking about," Brougher said. "The environmental assessment process will determine exactly what will be included."

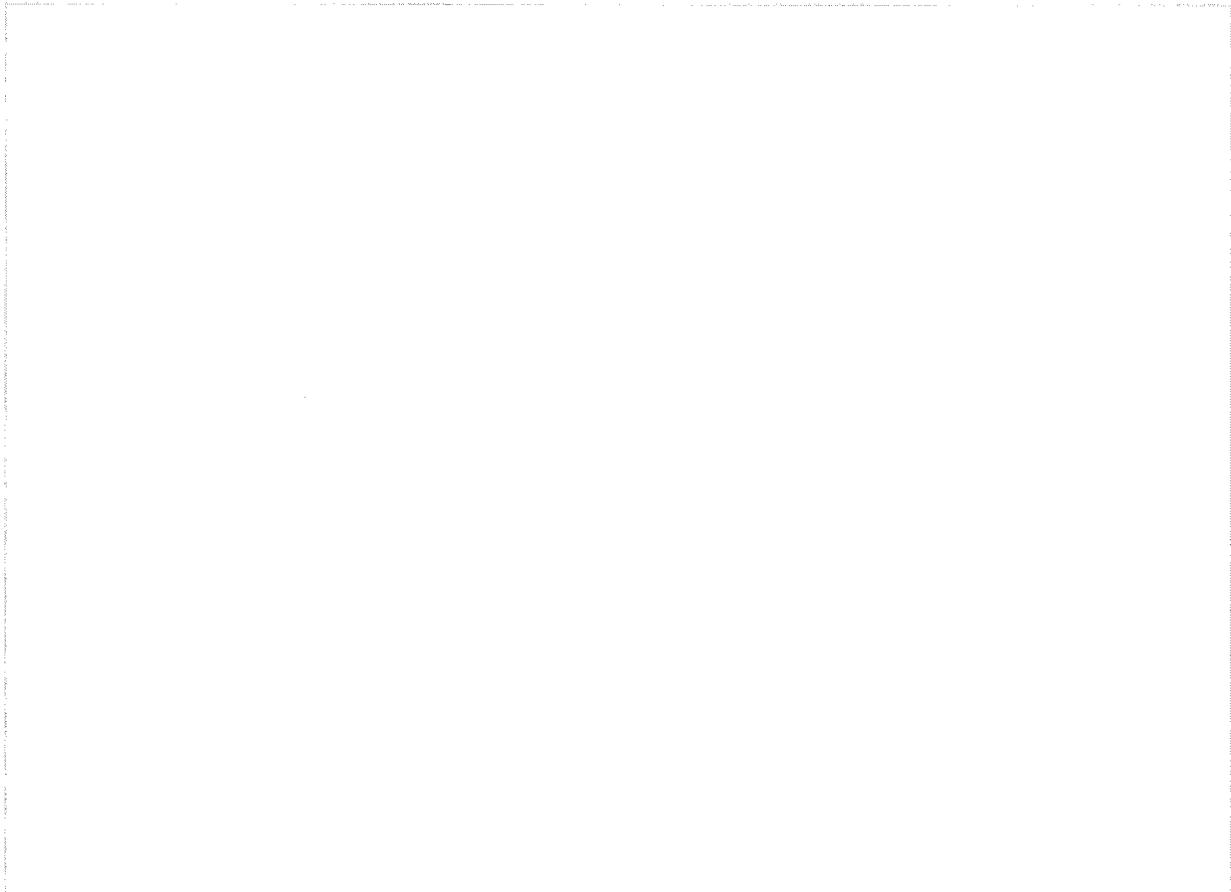
Under the "no action" alternative, the power plant would continue to operate under existing protocols, and the bureau says maintenance and repair costs, production outages and time needed to obtain replacement parts would continue to grow based on the aging technology and the scarcity or unavailability of parts.

If the power plant is modernized, Brougher said the condition of the components in the generators would be assessed, and those components needing it would be replaced, refurbished or upgraded, depending on their condition.

“The proposed modernization and overhaul project will alleviate safety-related concerns, potential limitations on plant operations, and increased risk to sustained long-term operation of the plant,” according to the bureau.

The Bureau of Reclamation produces the power at the dam; the Bonneville Power Administration markets it.

Preliminary comments should be submitted by Jan. 31 to Chris Vick, Bureau of Reclamation, Pacific Northwest Regional Office, 1150 Curtis Road, Suite 100, Boise, ID 83706. Vick can also be contacted at cvick@usbr.gov or by calling (208) 378-6547.





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