Purpose

Howard A. Hanson Dam is a U.S. Army Corps of Engineers flood control dam located near the headwaters of the Green River in King County. It's primary purpose is flood control in the winter and fish enhancement in the summer. Because the dam is located in a closed watershed, public access is not permitted.

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Why was the Dam built?

Before Howard A. Hanson Dam was constructed, floodwaters of the Green River periodically spread almost unimpeded across the Green River Valley. Over the past 70 years the Valley has flooded more than 30 times, heavily damaging lands and buildings. People still remember the flood of December 1959 when houses were flooded up to the second floors, and much irreplaceable topsoil was washed into Puget Sound. After a tour of the devastated area, the state's governor was heard to say: "We regard water as one of this state's greatest assets, but I never quite realized until today how terribly destructive it can be." It was not until 1961, when Howard A. Hanson Dam went into operation, that the long and disastrous history of major flooding in the Valley was ended.

Citizens of the area didn't start in 1959 to look for ways to control the Green River - flood control measures had been discussed at least as far back as 1928. Community leaders and citizens eventually organized and, in 1936 at public and Congressional request, the Army Corps of Engineers' Seattle District started a search for the best site for a flood control project on the Green River.

Delayed by World War II, site selection was not made until 1949 when Eagle Gorge was recommended to Congress for a dam and storage reservoir. Six years later, the first funds were made available. Eventually, a total of $37 million was appropriated for the project by Congress, $1.5 million contributed by Washington State, and $500,000 by King County.

Construction, including 13 miles of railroad relocation, began in February 1959. Although completion was not scheduled until April 1962, the dam went into operation on Christmas day, 1961. With major flooding under control, the Green River Valley has become attractive to industry, raising its economic worth substantially. As of October 1996, Howard A. Hanson Dam had prevented flood damages amounting to more than $694 million.

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The Dam In Operation

The dam spans eagle gorge, a ravine with nearly vertical rock walls. A reservoir behind the dam collects excess runoff from 220 square miles of the 483-square-mile green river drainage area. During winter the reservoir is kept nearly empty and the river flows through a gate-controlled tunnel at the dam's left abutment. After storms, the tunnel gates control the flow by holding excess water in the reservoir and releasing it in quantities that stay within the capacity of the downstream

quantities that stay within the capacity of the downstream channel. Water in the reservoir is released as soon as possible to make storage space for the next storm runoff. This cycle of holding and releasing flood water is repeated as often as necessary. If an extreme flood situation should occur, water can be released over the spillway through two gates, preventing overflow of the dam. Use of the spillway has not yet been required.

The probability of flooding greatly diminishes by March, and the dam begins its second major function - water conservation. The reservoir is allowed to fill gradually, and the water collected is used to augment low flows during summer seasons. This assures a sufficient water level for successful fish migration and spawning, while enhancing sport fishing for steelhead trout, and coho and chinook salmon on the Green River and in Puget Sound.

The dam is operated and maintained by corps personnel at Mud Mountain Dam.

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Dam in Protected Area

The river has supplied the primary water needs for Tacoma since early in the century. The city maintains a diversion facility three miles downstream from Howard A. Hanson Dam which serves as a collection and purification point. The dam is surrounded by the protected Tacoma watershed. The watershed area was designated under a 1914 agreement between the city of Tacoma and the U.S. Forest Service, and is not open to the public.

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Inspections

Periodic inspections of Howard A. Hanson Dam are conducted by the Corps to ensure its structural and operational safety. In addition, instrumentation monitors seismic conditions, underground water levels, and any settlement of the structure.

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Dam Named to Honor Civic Leader

Originally called Eagle Gorge Dam, the structure was renamed by Act of Congress on July 28, 1958 to honor the man primarily responsible for its existence. Howard A. Hanson, a Seattle attorney and state legislator, was a leader of civic and governmental groups seeking construction of the project. He campaigned long and hard, and was largely instrumental in obtaining funding commitments. He died in 1957, before work to build the dam began.

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Project Location and Information

- **Height Above Bedrock:** 235 ft (71.6 m)
- **Length at Crest:** 450 ft (137.2 m)
- **Total Length, Including Spillway and Abutments:** 675 ft (205.7 m)
- **Thickness:** Base 960 ft (292.6 m), Crest 23 ft (7 m)
- **Concrete Spillway:** Capacity 107,000 cubic ft per sec (3030 cubic m per sec)
- **2 Spillway Tainter Gates (each):** 45 x 30 ft (13.7 x 9.1 m)
- **Outlet Tunnel**, Concrete Lined, Horseshoe Shape 19 ft wide x 900 ft long
- **2 Tunnel Tainter Gates:** 10 x 12 ft (3.05 x 3.7 m)
- **Reservoir Length:** 7 miles (11.3 km) Green River, 4 miles (6.4 km) North Fork
- **Reservoir Capacity:** 106,000 acre-ft (130,753,000 cubic m)

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