



**US Army Corps  
of Engineers** ®  
Walla Walla District

# Ice Harbor Lock & Dam

**Powerhouse Capacity:** 603 Megawatts

**Location:** Snake River, River Mile 9.7, near Burbank, Wash.

**In-Service Date:** December 1961

**Normal Operating Pool:** 437.0-440.0 feet

**Spillway:** 590 feet, 10 gates

**Navigation Lock:** This is a single-lift lock, 86 feet wide by 675 feet long and a 100-foot vertical lift.

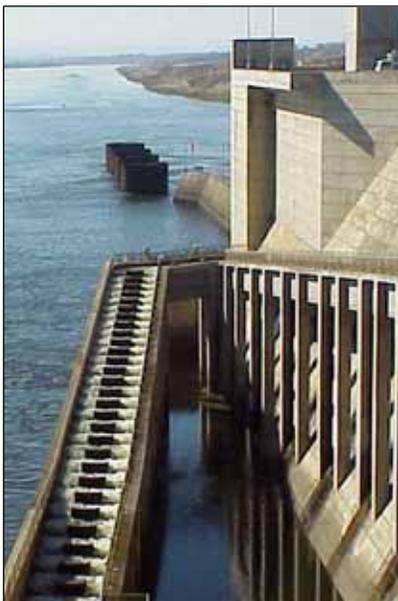
**Authorization:** The project was authorized by the River & Harbor Act of 1945.

**Progress:** Construction of the Ice Harbor Project began in January 1956. Generators 1 through 3 were put in operation in December 1961. Powerhouse units 4 through 6 were later installed, with all units producing power by January 1976. The entire project, including recreational facilities, is now complete. In 2005, a removable spillway weir or “fish slide” was installed to improve conditions for juvenile salmon passage at the dam. Research results conducted in 2005 indicated a 98 percent survival rate for smolts using the weir.

**Project:** This project consists of Ice Harbor Dam, powerhouse, navigation lock, two fish ladders, a removable spillway weir and a juvenile fish bypass facility. The project provides navigation, hydroelectric generation, recreation and incidental irrigation.



**Ice Harbor Dam:** Located at the upstream end of Lake Wallula, the dam is 2,822 feet long with an effective height of 100 feet. The dam is a concrete gravity type, with an earthfill embankment section at the north abutment. It includes a navigation lock with clear dimensions of 86 by 675 feet; and a ten-bay spillway that is 590 feet long, with ten 50-foot tainter gates.



**Reservoir:** Lake Sacajawea, created by Ice Harbor Dam, extends upstream about 32 miles to Lower Monumental Lock & Dam, and has a surface area of 9,200 acres.

**Generators:** The powerhouse has three 90,000-kilowatt units and three 111,000-kilowatt units – 603 megawatt total powerhouse capacity. During fiscal year 2007, 1.5 billion kilowatt hours of electricity were produced.

**Mooring Dolphins:** The Hard Rock Dolphin Mooring Facility consists of six mooring dolphins located one mile upstream from the dam. They were installed in 1973. These can be used to secure barges waiting to use the navigation lock, as well as to provide safe moorage for commercial river traffic in times of inclement weather.

**Lands:** There are 3,576 acres of project lands surrounding Lake Sacajawea. These project lands include fee lands that are federally-owned and managed by the Corps, as well as easement lands to which the Corps has specific rights or easements (*i.e.*, flowage or access). There are 3,517.3 acres of Corps-managed lands that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water-connected industrial development. The project maintains four habitat management areas, four developed recreation areas and three public access areas. Public boat launching facilities are available at seven locations around the lake. In 2007, visitation at Ice Harbor's recreation areas was 331,352.



**People:** More than 80 Walla Walla District employees work at the Ice Harbor Project. They serve as electricians, mechanics, lock operators, welders, riggers, painters, utilitymen, heavy equipment operators, park rangers, environmental resource specialists, biologists, administrative support staff, engineers and maintenance workers. Together, they ensure the safe and continuous operation of the project.

**Budget:** During fiscal year 2007, total expenditures were about \$9,256,732 million for the Ice Harbor Project.

**References:** Report of the Secretary of the Army on Civil Works Activities, Fiscal Year 2007, Department of the Army Corps of Engineers Extract Report of the Walla Walla District. Special Report: Ice Harbor Navigation Study, Hard Rock Mooring Facility, Walla Walla District, U.S. Army Corps of Engineers, 1990.

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