



US Army Corps  
of Engineers®  
Walla Walla District

# FACT SHEET

## LOWER GRANITE LOCK AND DAM

ALMOTA • WASHINGTON



### Authorization

The project was authorized by the River and Harbor Act of 1945.

### Progress

Construction began in July 1965 and was completed in 1984. The main dam is complete, as well as relocations and modifications to the Camas Prairie Railroad Bridge, state highways and county roads. The installation of the first three power-generating units was complete in 1975. Power came online for additional units four through six in 1979. Final modifications to the City of Lewiston's water intake were completed in August 1987.

### Lower Granite Dam

This congressionally authorized project consists of Lower Granite Dam, navigation lock, powerhouse, a fish ladder and associated facilities. The project provides hydropower, navigation, flood risk management, fish and wildlife habitat, recreation and incidental irrigation. The dam, located at the upstream end of Lake Bryan, is about 3,200 feet long with an effective height of 100 feet. The dam is a concrete gravity type, with an earthfill right abutment embankment. It includes a navigation lock with clear dimensions of 86 by 674 feet; and an eight-bay spillway that is 512 feet long, with eight 50-foot by 60-foot radial gates.

### Generators

The powerhouse has six 135,000-kilowatt units. In calendar year 2023, Lower Granite generated 1.55 million megawatt hours of electricity.

### Reservoir

The lake created by the dam extends upstream on the Snake River about 40 miles to Lewiston, Idaho, more than 460 river miles from the Pacific Ocean.

### Adult Fish Passage

There is one fish ladder for passing migratory fish with entrances on both shores and a fish channel through the dam that connects to the south shore ladder. Modifications to improve adult Pacific lamprey passage include passage structures and installation of metal plating to assist lamprey upstream. Record hot weather in recent years created thermal barriers to adult fish migration. After testing a temporary solution in 2014 and 2015, the Walla Walla District constructed two permanent "intake chimneys" in 2016 to pump water from deep in the reservoir to cool the adult fish ladder and the adult fish trap built into the fish ladder.

## Juvenile Fish Programs

As the first collector dam on the Snake River, Lower Granite is a primary component of the Juvenile Fish Transportation Program. Transport began in the late 1960s as a research program on how to bypass juvenile salmon and steelhead around U.S. Army Corps of Engineers (USACE) dams and reservoirs of the Snake and Columbia Rivers. The 10-year average collection of outgoing juvenile salmon and steelhead for 2014 to 2023 at Lower Granite was approximately 4.3 million fish with approximately 2.7 million of those transported via truck and barge below Bonneville Dam. A spillway weir was installed in 2001, resulting in improved in-river passage conditions for juvenile salmonids via the spillway. Additionally, improvements were made to the dam's juvenile fish bypass system between 2014 and 2019.

The upgrades include "daylighting" the below-ground fish-transportation piping from the dam to the juvenile fish facility by replacing it with an above-ground flume; remodeling gateway orifice openings and the transportation channel inside the dam; replacing the dewatering unit and diverting excess water to new piping and valves that will enhance adult fish ladder attraction, emergency facility water supply, and fish trap water supply; and constructing a new bypass outfall pipe. These upgrades improved juvenile fish survival and increased operational reliability of the bypass and collection system.



## Levees

The District constructed about 8 miles of levees around Lewiston to help protect lives and property from potentially destructive high-water conditions. Since construction, the levees have prevented more than \$39.3 million in potential flood damages.

## Navigation

In calendar year 2023, 1,306,811 tons of cargo passed through the navigation lock; the majority of the cargo consisted of grains, fertilizer, wood chips, and other forest products.



## Lands

There are about 13,000 acres of project lands surrounding Lower Granite Lake. These project lands include fee lands that are federally owned and managed by USACE or are managed by lessees, as well as easement lands to which USACE has specific rights or easements (i.e., flowage or access). Most of these lands are used for wildlife habitat, wildlife mitigation, public recreation, and water-connected industrial development. There are 12 public boat launching facilities. In fiscal year 2023, Lower Granite recreation areas hosted 2,043,556 visits.

## People

More than 80 Walla Walla District employees work at the Lower Granite project. They serve as operators, electricians, mechanics, welders, riggers, painters, utility workers, heavy equipment operators, environmental resource specialists, biologists, park rangers, administrative support staff, engineers and maintenance workers. Together, they manage the safe and continuous operation of the project.

## Recreation

Lower Granite project lands provide opportunities for all sorts of recreational activities, including fishing, hunting, hiking, birding, camping, swimming and horseback riding. The Lower Granite Visitor Center offers a fish viewing room along with movies, interactive displays, guided tours, and a friendly and helpful staff. Amenities within the parks include boat launches, campsites, shelters, fire rings, picnic tables, restrooms, and playgrounds.

## U.S. ARMY CORPS OF ENGINEERS – WALLA WALLA DISTRICT

201 North 3<sup>rd</sup> Avenue; Walla Walla, WA 99362  
509-527-7020 cenww-pa@usace.army.mil  
[www.nww.usace.army.mil](http://www.nww.usace.army.mil)  
April 2024



U.S. ARMY



US Army Corps  
of Engineers®