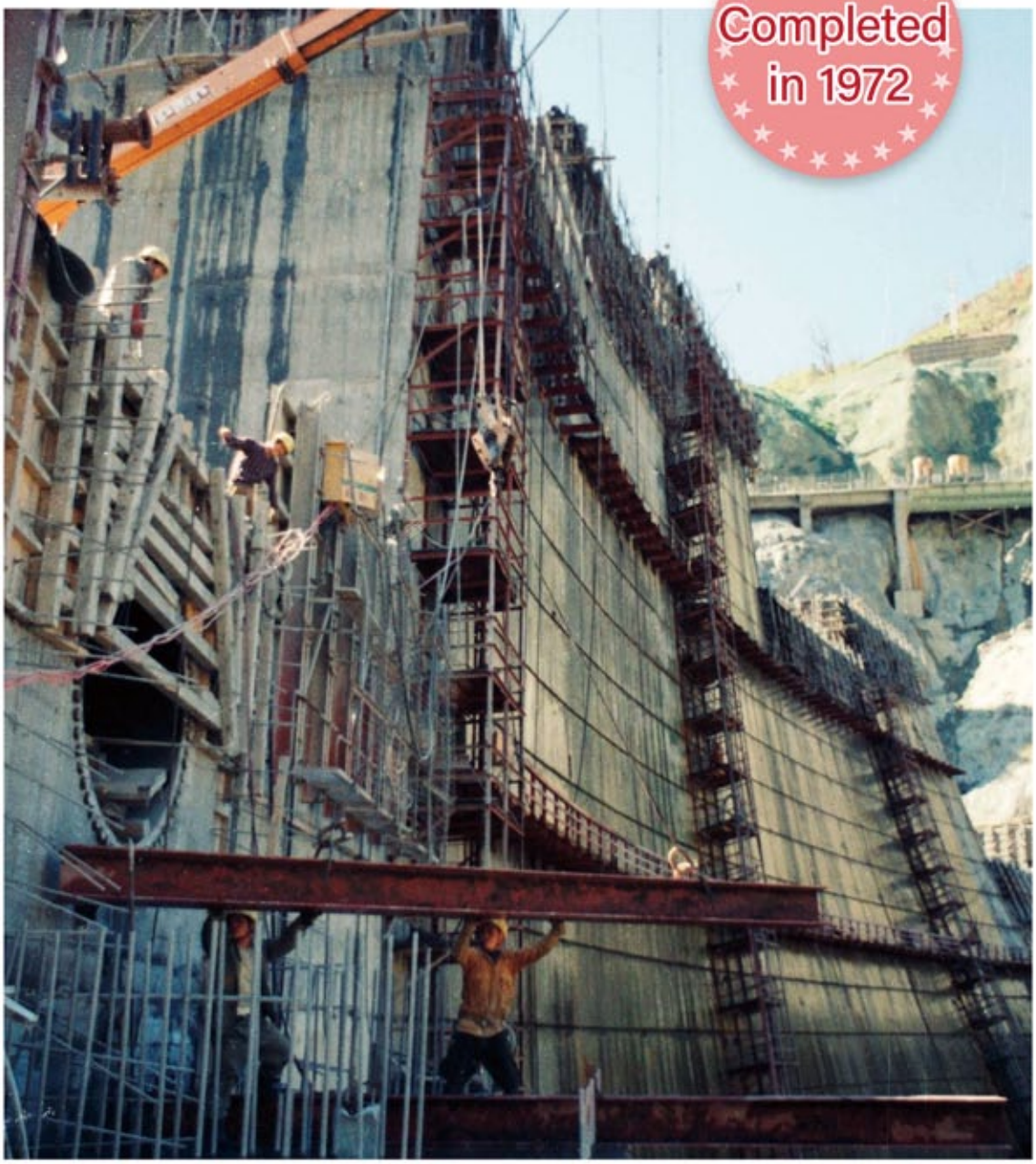
Translation here
CHECK

Hoheikyo Dam construction process

Completed in 1972



Translation here
CHECK

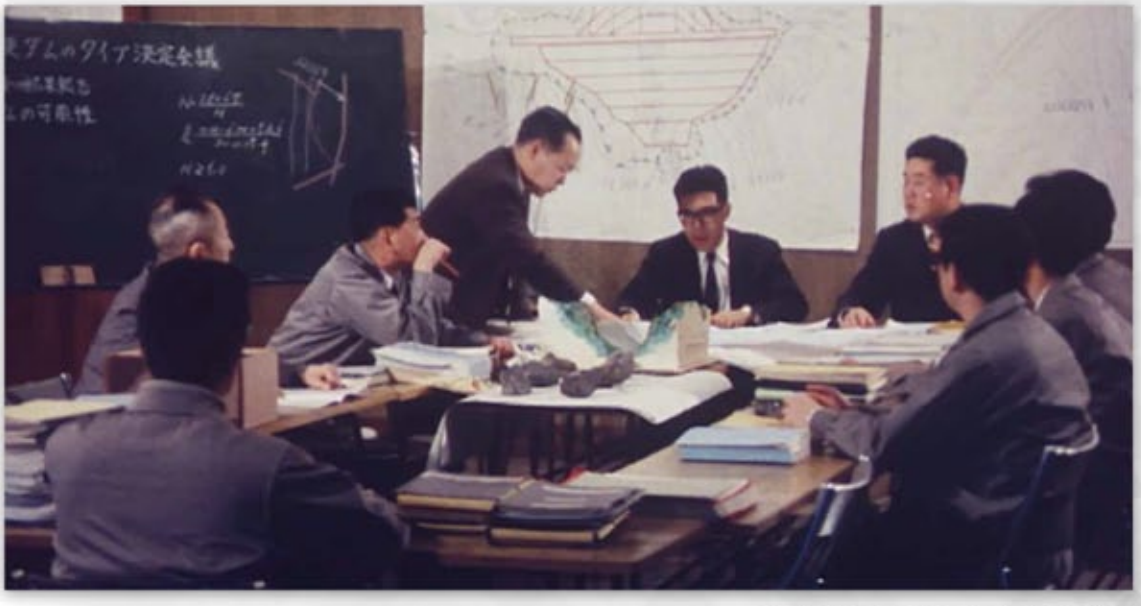
Field surveys

Snowfall and aerial photo-based thawing surveys necessary for dam construction were conducted.

Snowfall survey

A concrete arch structure was chosen based on detailed data obtained in hydrological*, topographic, geological and other surveys.

*Hydrological survey: survey on precipitation, water level, flow rate, water quality and other characteristics as a basic survey for the dam project

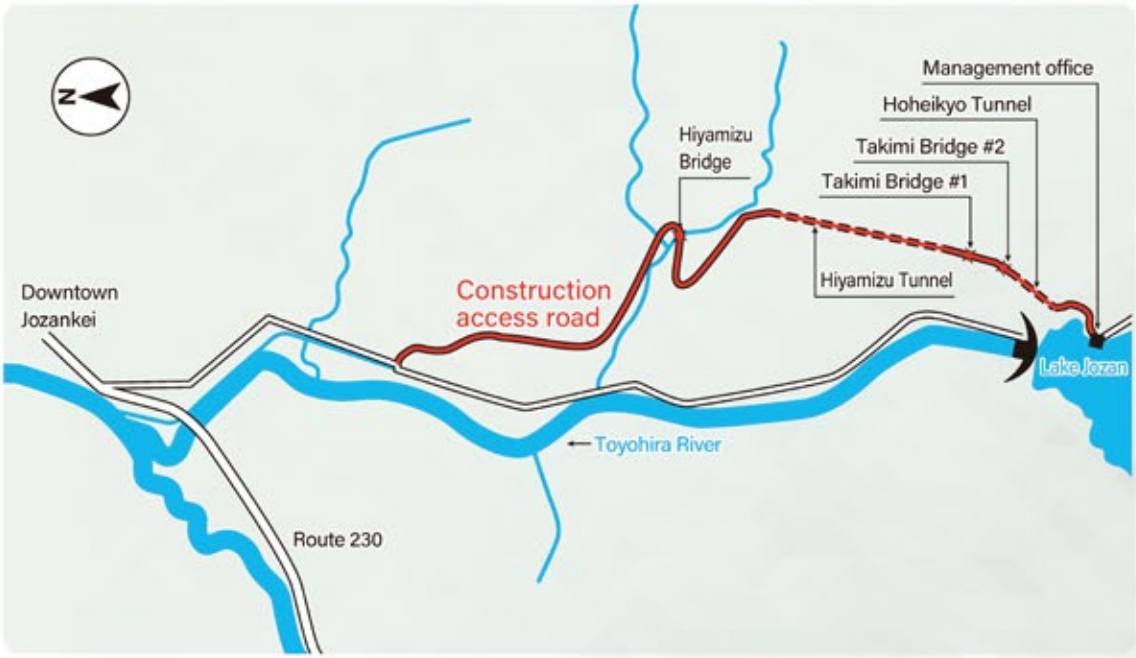


Dam type selection meeting

Translation here
CHECK

Construction access road

A construction access road was built for the construction of equipment and facilities necessary for dam construction. This road is still used today as a management road.



Road construction

Translation here
CHECK

Diversion work

A temporary drainage tunnel (diversion work) was constructed to divert the Toyohira River during dam construction.

Excavation of the temporary drainage tunnel

Water flow in the temporary drainage tunnel

Translation here
CHECK

Foundation excavation

The riverbed and sides of the dam body were excavated and the weak rock bed was removed to expose the hard, solid rock bed that would support the dam.

Blasting

Riverbed excavation

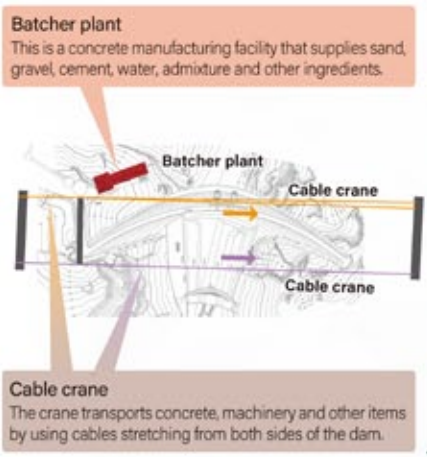
Loading of excavated sediment

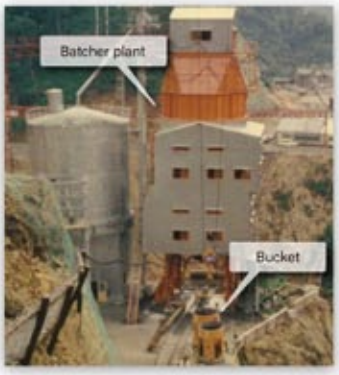
Translation here
CHECK

Dam body concrete placement

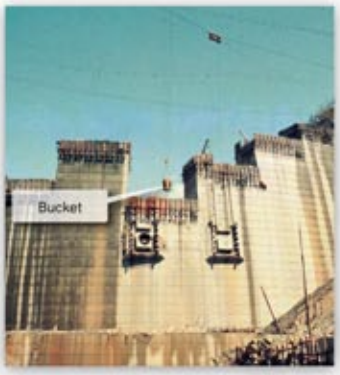
Dam body concrete placement* began in August 1969.
Concrete in buckets was transported on the steep slope using cable cranes from a batcher plant (concrete manufacturing facility).

*Work to pour concrete at designated positions after mixing and transportation





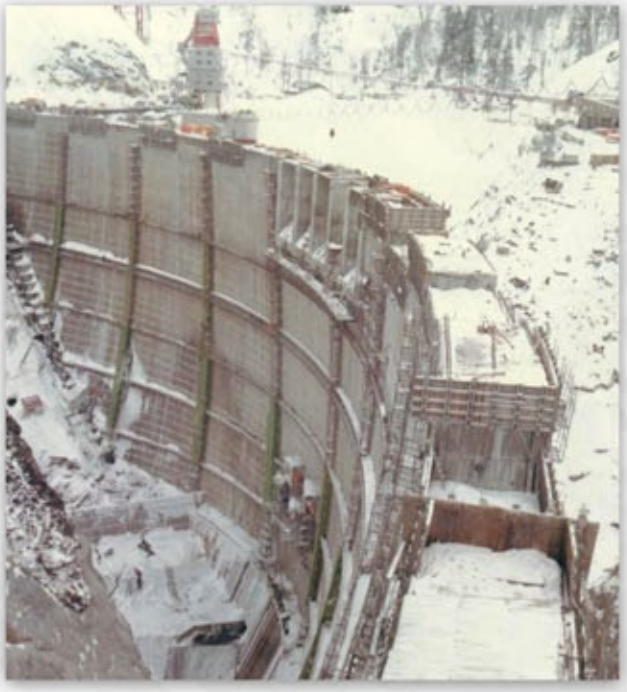
Bucket (3 m^3) hanging from a concrete transport line



The upstream side of the dam in May 1971

Start of placement using buckets on August 6, 1969

Dam body concrete placement



The nearly completed dam in December 1971

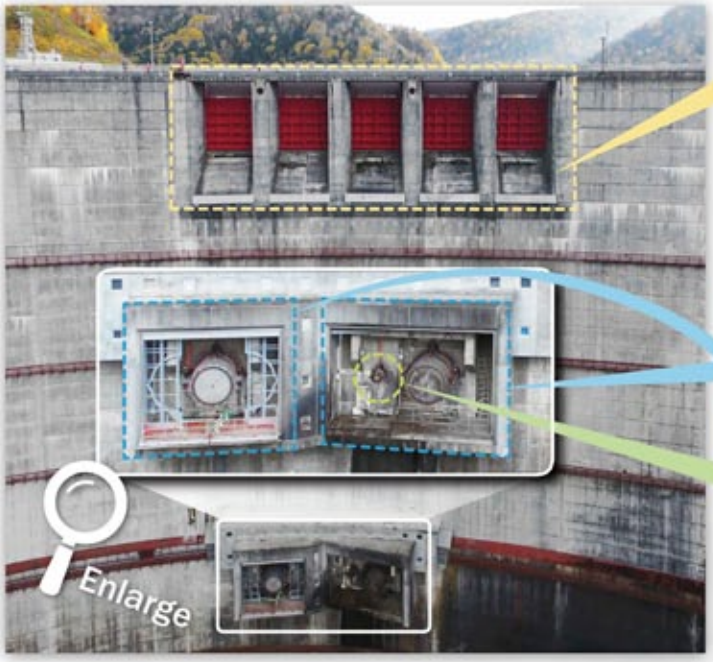
The placement of 285,010 m^3 of concrete for the dam body was completed in June 1972.

Translation here
CHECK

Discharge facilities

A regular spillway for flood control[1] and a pipe for sightseeing discharge[2] were installed.
An emergency spillway for discharge during floods[3] was installed at the dam crest.

[1]Of the flood water stored in a reservoir, only a certain amount is released to the lower reaches.
[2]Sightseeing discharge is conducted between June and October every year.
[3]Water overflowing from the dam during floods is discharged.



Emergency spillway (steel roller gate)
x 5 (W 6 x H 6.3 m)
Max. discharge volume: 880 m^3/s

Roller gate
With rollers attached to it, the gate can be raised or lowered even when high water pressure is applied.

Regular spillway (Howell-Bunger valve)
x 2 (2.1 m in diameter)
Max. discharge volume: 140 m^3/s

Sightseeing discharge pipe (Howell-Bunger valve)
x 1 (0.45 m in diameter)
Max. discharge volume: 2 m^3/s

Howell-Bunger valve
With the cone at its tip, it disperses the flow of discharged water.

Bar arrangement of the discharge pipe

Translation here
CHECK

Closure of the diversion work /test filling

The diversion work (temporary drainage tunnel) was closed after the completion of the dam, and test filling* commenced on March 18, 1972.

*The storage of water on a trial basis to confirm the safety of the area around the dam body, reservoir and other facilities

Commencement of test filling on March 18, 1972

Discharge of water after test filling

Translation here
CHECK

Dam management

The construction of Hoheikyo Dam began in 1967 and ended in 1972. September 2022 marked the 50th anniversary of dam operation.