English 英語版

Yunishigawa Dam

Highlights at the Yunishigawa Dam

❶ : Concrete gravity dam

The Yunishigawa Dam is a concrete gravity dam and the widest dam along the Kinu River.

❷ : Dam without gates

The emergency spillway has no gate. Flood water is discharged through openings.

❸ : Simple structure

The simple design shortened construction time.

❹ : Rapid dam body construction

The concrete body was constructed in a brief period of 19 months thanks to more efficient construction.

Yunishigawa Dam Management Branch Office

Kinugawa Integrated Dam Control Office
Kanto Regional Development Bureau
Ministry of Land, Infrastructure,
Transport and Tourism

Address:

Nishikawa 416 Nikko City,
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About Yunishigawa Dam

General Information

●Construction started in 1982 and ended in 2012.
●It controls flood water, supplies water for irrigation, domestic and industrial purposes.

Type：Concrete gravity dam
Geology：Lapilli tuff
Height ：119m
Length：320m
Volume of dam body：
1,060,000㎥
Elevation of the dam top：
EL.690m

Specifications of reservoir

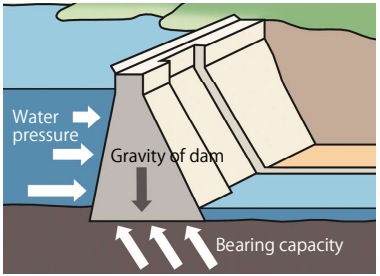
Catchment area：102㎢
Water surface area ：1.98㎢
Normal water level：EL. 684m
Minimum operating level：
EL.613m
Total storage capacity：
75mil.㎥
Effective storage capacity：
72mil.㎥
Flood control capacity：30mil.㎥
Design flood discharge：850㎥/s
Maximum discharge：100㎥/s
Control volume：810㎥/s
Effective water level：71m

EL.(elevation) is based on Tokyo Peil, the Japanese measuring system of elevation. In Tokyo Peil, mean sea level in Tokyo Bay is equal to 0 (zero) m.

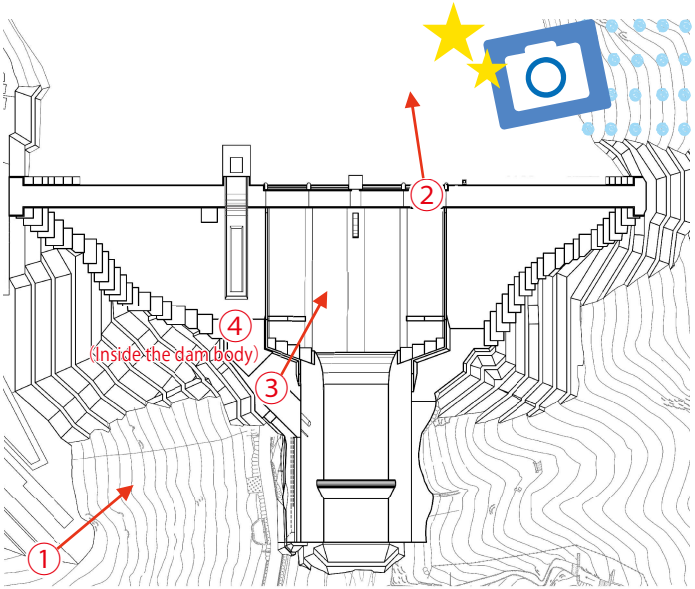
Let's visit other types of dams in the area

Yunishikawa Dam is a concrete gravity dam.

●Concrete gravity dams are the most common type of dams in Japan.
●Please visit other dams in the nearby area including Ikari Dam (concrete gravity dam), Kawaji Dam and Kawamata Dam (concrete arch dam).



Views of Dam



①Dam body viewed from the observatory

②Reservoir viewed from the crest

③Tour participants can look up at the dam body from the toe

④Inspection gallery accessible during tour

About Outlet Gates

●Emergency spillway

Free overflow type crest
〔Discharge capacity〕1,800 ㎥ /s

●Regular spillway

1 roller gate
〔Discharge capacity〕 100 ㎥ /s

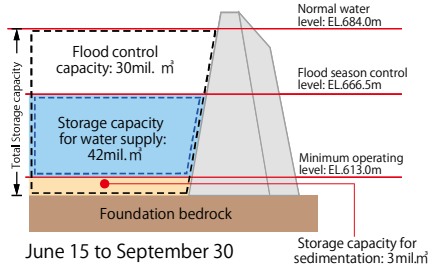
●Large and small discharge conduits for water supply

Large discharge conduit
1 jet flow gate
〔Discharge capacity〕 30 ㎥ /s

Small discharge conduit
1 jet flow gate
〔Discharge capacity〕 0.54 ㎥ /s

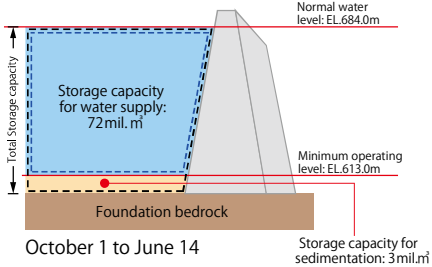
Changing Water Levels in Dam

Flood season



June 15 to September 30

Non-flood season



October 1 to June 14

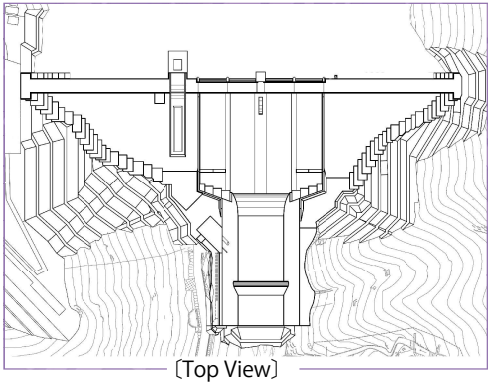
●Water level is kept low to store water inflowing during a typhoon

Flood Season Control Level

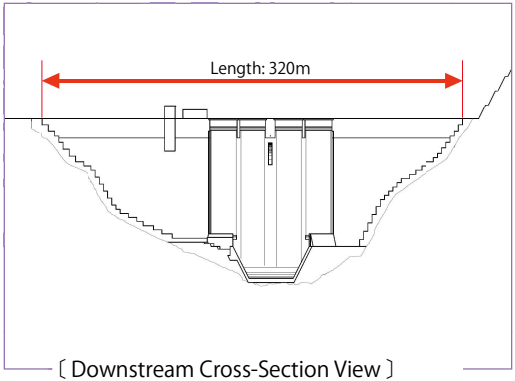
●Stores water to supply it to the downstream area

Normal Water Level

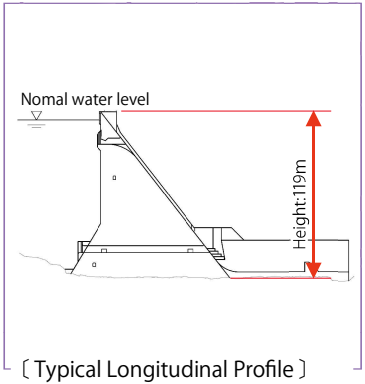
Plans of Dam



〔Top View〕



〔Downstream Cross-Section View〕



〔Typical Longitudinal Profile〕