



# Kawamata Dam

## Highlights at the Kawamata Dam



### ① : Tall dam body

The dam height (117m) is taller relative to its length (131m) than other concrete arch dams in Japan.



### ② : Beautiful arch shape

The dam body is narrower on the upper side (crest), forming a beautiful curve.



### ③ : Bedrock

Concrete arch dams are constructed on solid bedrock. Thus, there is bedrock beneath the Kawamata Dam.



### ④ : Setoaikyo Canyon

Kawamata Dam is located at the scenic site Setoaikyo Canyon. Many tourists visit the site in the autumn when the leaves are changing. You can see the dam in front from the suspension bridge built downstream of the dam.

## Kawamata Dam Management Branch Office

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

### Address:

Kawamata 646-1 Nikko City,  
Tochigi 321-2717  
Tel. 0288-96-0281



# About Kawamata Dam

## General Information

- Construction started in 1957 and ended in 1966.
- It controls flood water, supplies water for irrigation and generates electricity.



Type : Concrete arch dam  
 Geology : Quartz trachyte  
 and welded tuff  
 Height : 117m  
 Length : 131m  
 Volume of dam body :  
 167,500 m<sup>3</sup>  
 Elevation of the dam top :  
 EL.980m

## Specifications of reservoir

Catchment area : 179.4km <sup>2</sup>	Flood control capacity : 24.5mil.m <sup>3</sup>
Water surface area : 2.59km <sup>2</sup>	Design flood discharge : 1,350 m <sup>3</sup> /s
Normal water level : EL. 976m	Maximum discharge : 350 m <sup>3</sup> /s
Minimum operating level : EL.930m	Control volume : 1,000 m <sup>3</sup> /s
Total storage capacity : 87.6mil.m <sup>3</sup>	Effective water level : 46m
Effective storage capacity : 73.1mil.m <sup>3</sup>	

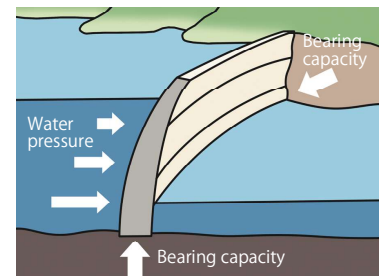
EL.(elevation) is based on Tokyo Peil, the Japanese measuring system of elevation. In Tokyo Peil, mean sea level in Tokyo Bay is equal to 0 (zero) m.

## Let's visit other types of dams in the area



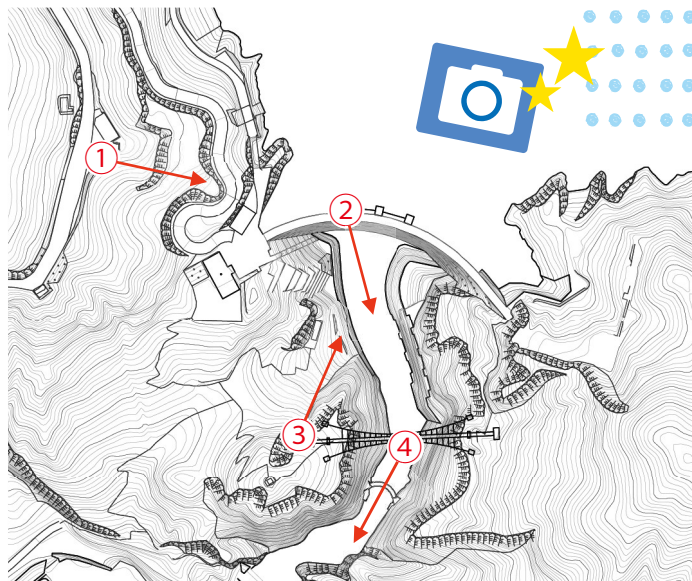
## Kawamata Dam is a concrete arch dam.

- Concrete arch dams require less construction material than concrete gravity dams.
- Please visit other dams in the nearby area including Kawaji Dam (concrete arch dam), Ikari Dam and Yunishigawa Dam (concrete gravity dam).





## Views of Dam



① View of the Kawamata Dam from the rest area



② Suspension bridge seen from the crest



③ "Angel bell" and Kawamata Dam



④ Setoaikyo Canyon seen from the suspension bridge

## About Outlet Gates

### ● Emergency spillway



6 roller gates  
[Discharge capacity] 1,250 m<sup>3</sup>/s

### ● Regular spillway



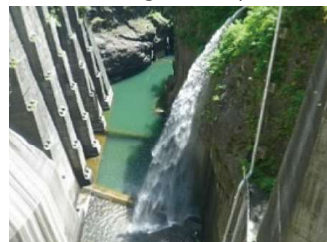
2 high-pressure roller gates  
[Discharge capacity] 550 m<sup>3</sup>/s

### ● Auxiliary discharge facility



1 Howell-Bunger valve  
[Discharge capacity] 57 m<sup>3</sup>/s

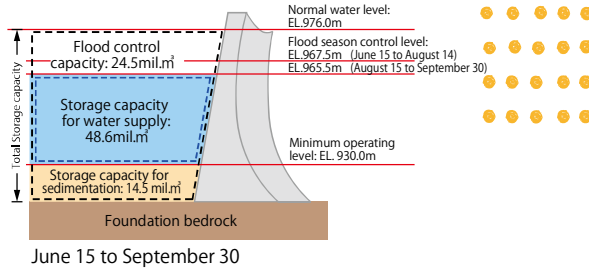
### ● Maintenance discharge Facility



1 jet flow gate  
[Discharge capacity] 0.453 m<sup>3</sup>/s

# Changing Water Levels in Dam

## Flood season

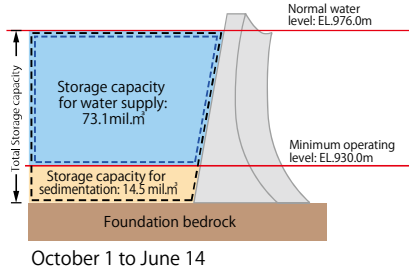


● Water level is kept low to store water inflowing during a typhoon

Flood Season Control Level



## Non-flood season

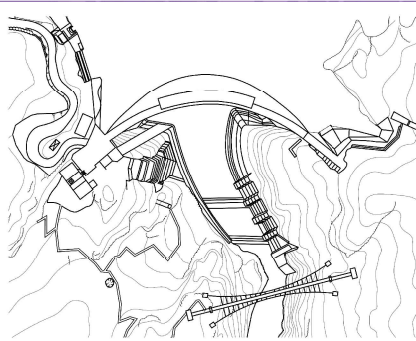


● Stores water to supply it to the downstream area

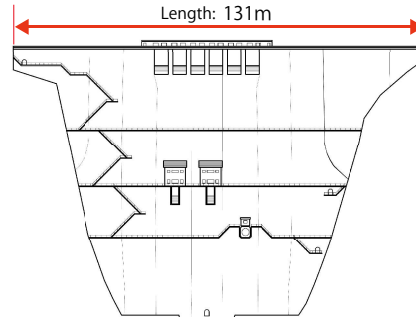
Normal Water Level



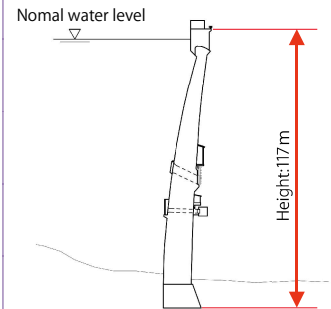
# Plans of Dam



[ Top View ]



[ Downstream Cross-Section View ]



[ Typical Longitudinal Profile ]