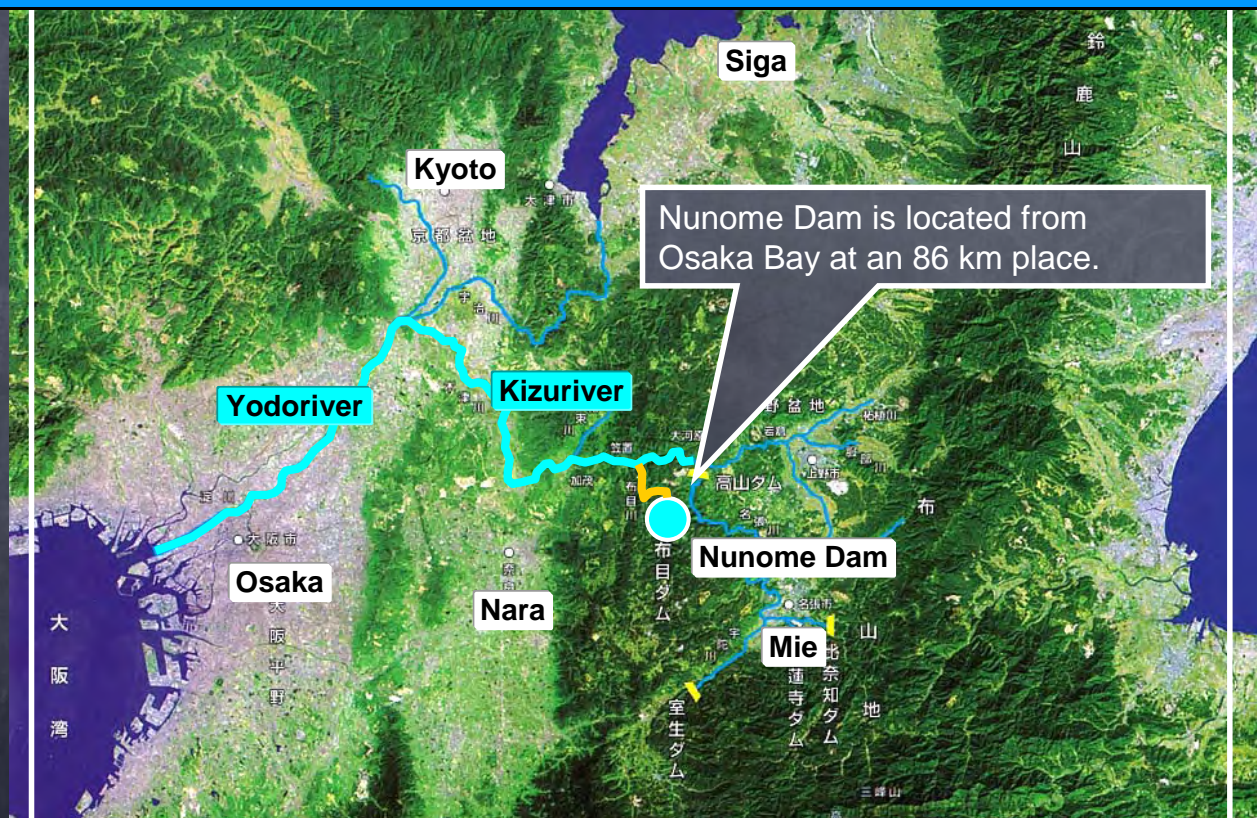


NUNOME DAM



The position of Nunome Dam



Purpose of Nunome Dam

【 SPECIFICATION 】

Type : Concrete Gravity Dam
 Height: 72.0m
 Catchments Area : 75km²
 Operation Start : 1990

【 Purpose 】

- **Additional Water Utilization (water for water supply)**
 Nara city: 1.1263m³/s
 Yamazoe village: 0.0097m³/s

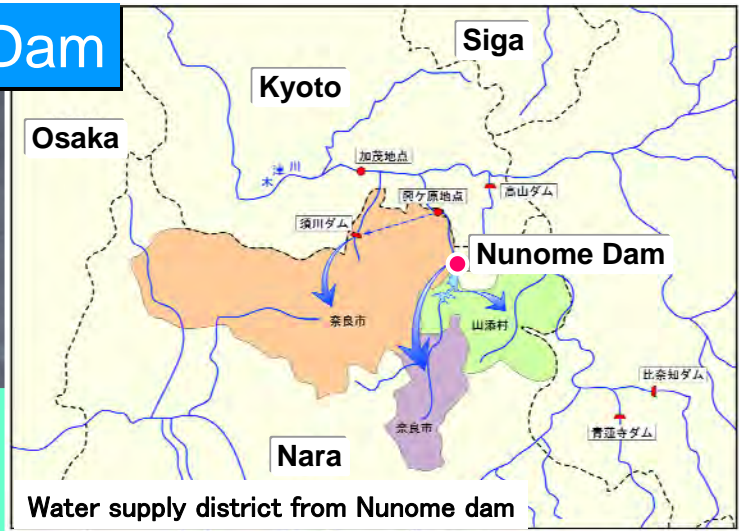
Source: 2008 fiscal year
 Water service business annual report of the Nara
 Waterworks Bureau

● Flood Control

The flood of 460m³/s becomes 150m³/s in the dam lower stream at a dam point.
 That is, 350m³/s is stored in a dam.

● Discharge for flow Maintenance

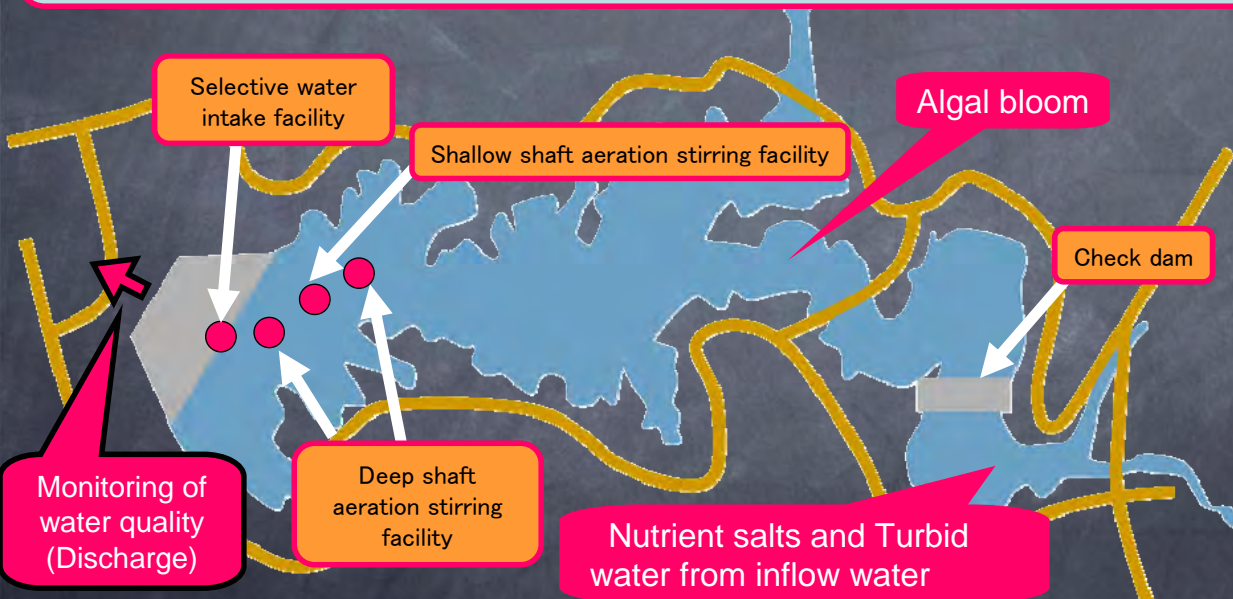
Preservation of the environment and maintenance of normal function of the downstream.



Flood Control: 17 times

Water Quality Preservation

- Selective water intake facility
- Shallow shaft aeration stirring facilities: Control of plankton algae
- Deep shaft aeration stirring facilities : Supply oxygen for bed area of reservoir and Control of hydrogen sulfide
- Check dam : Sedimentation of nutrient salts (Phosphorus and Nitrogen of inflow water from upstream)



We are dealing with the facilities operation in cooperation with the related organization.

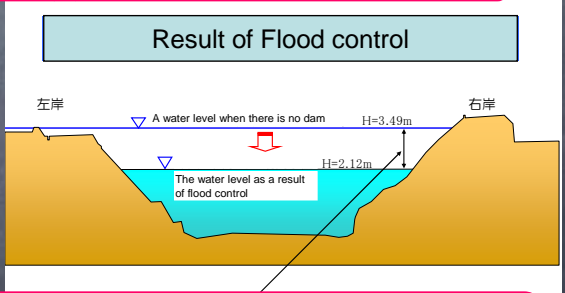
Recent Flood Control



Typhoon No.18 of autumn of last year
Downstream of Nunome Dam
(Okugahara Town, Nara City)

After it begins to manage, inflow water 190m³/s is the maximum.

0.6km downstream of dam result of flood control



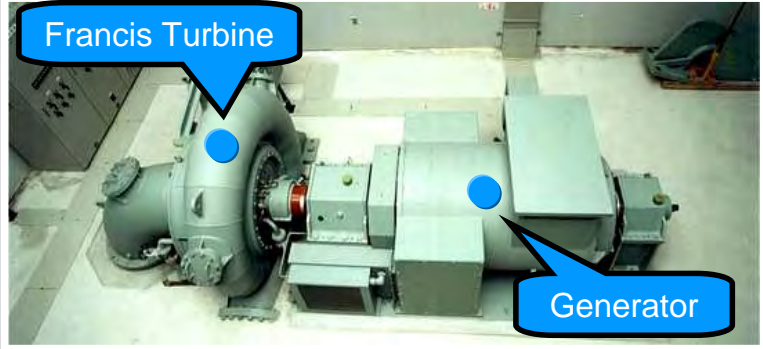
The water level of the river in the downstream of a dam achieved the effect of about 1.37m decrease by the flood control operation of the dam.

Power station incorporated in or adjacent to a Dam

- Hydroelectric power has been carried out by water discharged from dam.(5,000MWh/one year)
- About 950MWh/one year is used for management.
- Trade surplus electricity.
- The income of about 50 million yen during year is obtained by selling the surplus electricity.

Annual Power Generation(MWh)	
1,992	5,620
1,993	5,455
1,994	3,469
1,995	3,589
1,996	3,507
1,997	4,404
1,998	6,596
1,999	4,522
2,000	4,175
2,001	4,799
2,002	4,155
2,003	5,523
2,004	4,858
2,005	4,704
2,006	5,059
2,007	4,959
2,008	5,381
2,009	5,820
Total	86,595
Mean Annual	4,811

Cut Down on Management expense.
Cut Down on CO2.



Reservoir area vision

Tour of Japan



CATCH LINE

Forest and person's communications spaces by river

Fishing Tournament (check dam upstream)



Marathon rally



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Tour of reservoir area (Facility description)

Elementary school kid of Nara city

Educational Program to children about tap water



Schoolchild's visitor to the dam achieved 40,000 people in May, 2010



Commemoration photography of 40,000 people achievement

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