

奈良保ダム

Naramata dam

●Purpose of dam

●Flood control

During the floods period (1st July to 30th September), the dam diminishes the high water discharge in the lower course area, by controlling the flow at about 360m³/s, out of the high water discharge of 370m³/s during floods, at the dam site, in coordination with the other dams in the uppercourse of the Tone River.

●Maintenance of normal functions of the river
Naramata dam maintains and improves the normal functions of the river, such as the vested water supply in the Tone River, in coordination with the other dams in the upper course of the Tone River.

●Water supply

Water for irrigation

The dam supplies water for irrigation to the farmland in the Toso canal, and the amount of water is 0.69m³/s in average during the summer irrigation period (26th April to 30th September), and is 0.08m³/s in average during the winter irrigation period (1st October to 25th April).

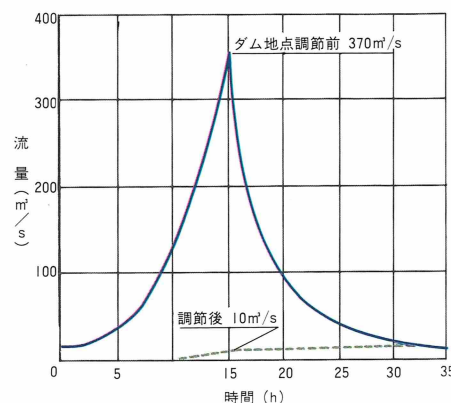
Water for town use

Ensure 8.695m³/s of water (maximum) for town-use water, for Tokyo metropolis and neighbor prefectures.

●Power generation

Naramata power station, in Gunma Prefecture, generates up to 12,400kw of electricity, with a maximum water flow of 11m³/s.

Flood control



Water supply for metropolis and prefectures

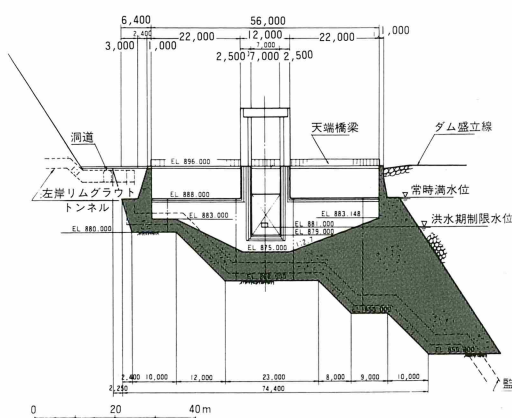
用水名	農業用水	水道用水	工業用水
都県名			
群馬		2.435	0.65
茨城		0.179	
埼玉		0.951	
千葉	0.69	2.41	
東京		2.07	
合計	0.69	8.045	0.65

Stoage capacity distribution of reservoir

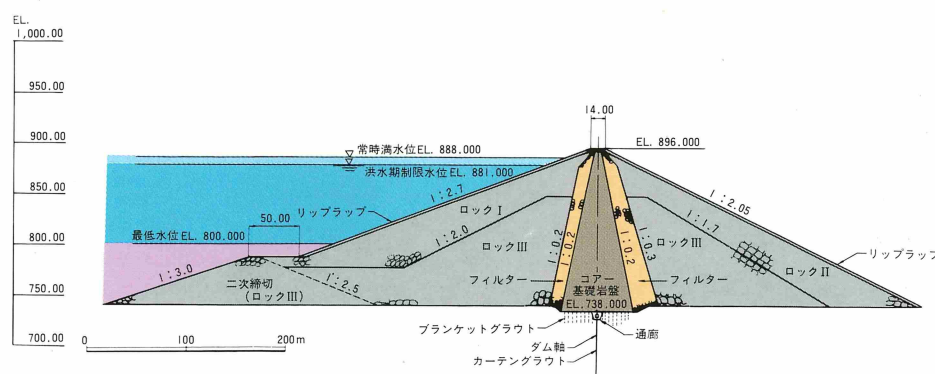


Dam structure

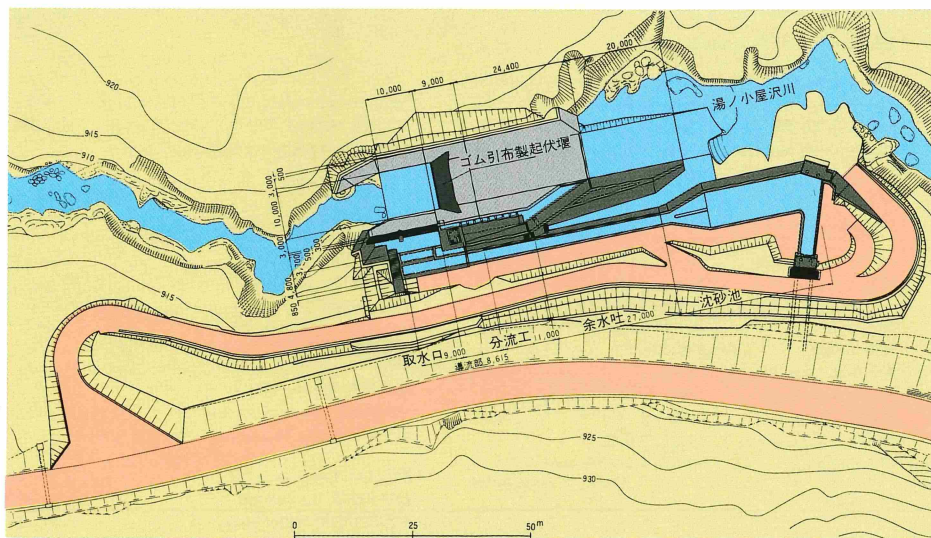
Front view of overflow section



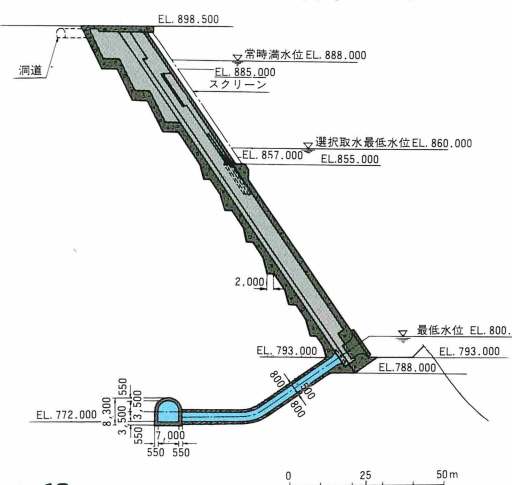
Typical cross section of dam



General plane figure of diversion works intake weir.



Cross section of water supply facility



●Creating the environment in the dam surroundings

The environmental service in Naramata dam surroundings offers spaces to rest, relax, and for the leisure of the citizens, who have better living conditions and more free time. Also, it's expected increase the activity of the water resources region.

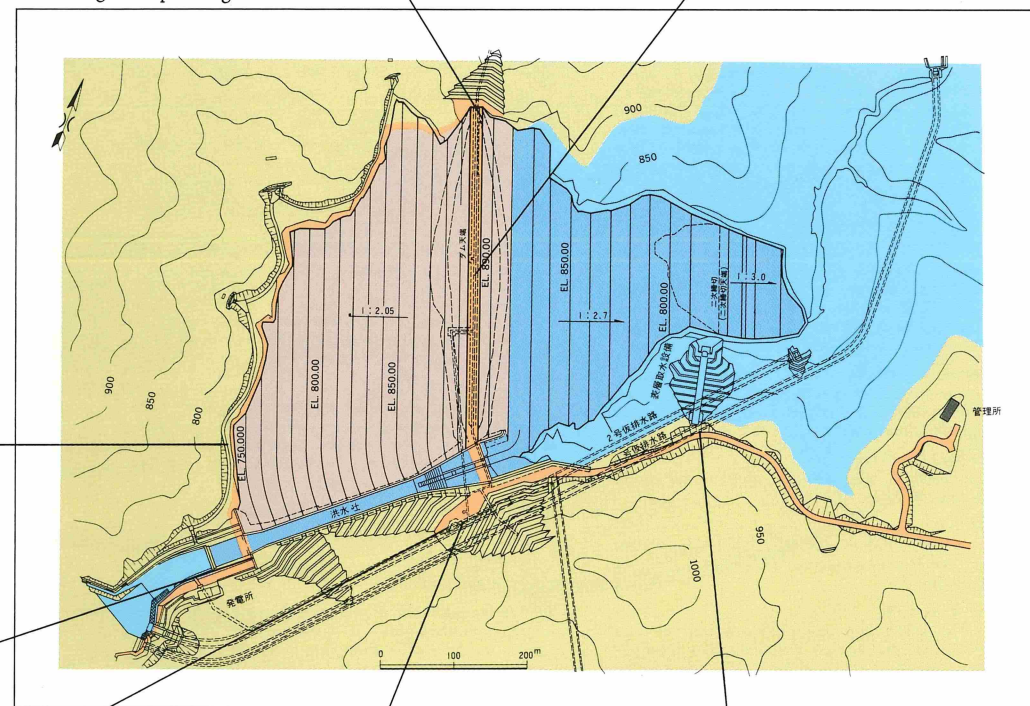
In the dam and the surroundings, there are squares, promenades, and a reference room which looks like a mushroom. These are tourist attractions in Okutone.

◎Promenade

The stone promenade has about 700 steps, and it can be climbed from the right bank, in the top of the dam, to the downstream left bank square. The dam can be seen closely. Two rest places are arranged in the halfway.

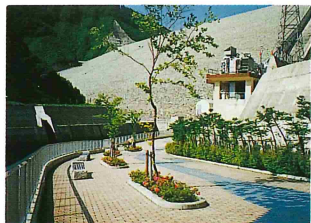


Dam site general plane figure



◎Downstream left bank square

When coming through the square entrance, the dam appears huge and imposingly. The tile painting in the square pavement represents the scene of going up, from the Pacific ocean, to the Tone River dams.



◎Left bank square

Left bank square, located at the side of "spillway", is the main saucer in Naramata dam. There are a reference room which is the central spot in the square, a parking area for visitors, a service center (stands, snacks), and a public lavatory.



◎Naramata dam reference room

There is the reference room which looks like a mushroom. It's established to deepen the visitor's understanding of the roles and importance of dams and of the water and water resources developments. In the reference room, the nature of Okutone, the construction of Naramata dam and its roles, and the water resources developments, are explained in detail to the visitors, by means of images, panels and models.



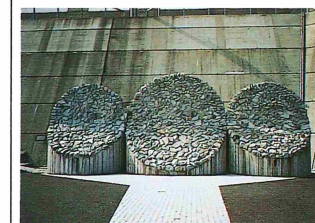
◎Monument of construction square

The monument commemorating the completion of the Naramata dam construction work is in the center of the square. Above the monument, a bronze statue of a worker who is constructing "bedding materials" to tell the life of the rockfill dam.



◎Right bank square

The square is arranged in the right bank of the dam top. The three circles in the dam front represents the universe and the relationship between human, water and nature, and the cloud is a geometric circle.



◎Dam top sidewalk

In the both sides of the 520m-long sidewalk on the dam top, there are balustrades made from massive rock. From the sidewalk, in the midst of the road, the lakes and the downstream landscape can be seen, as well as the stone benches drawing an up and down scenic landscape.



利根川の水源を訪ね、奥利根を探訪。

Trace the Tone River to its source and visit Okutone

- ① Go up the Tone River from Maebashi to Okutone basin

Numata
Numata is one of the main towns in the north Gunma Prefecture. It is well known as the gateway to the sightseeing of Oze and Nikko.

Numata was a under castle town and prospered as the residence of the Houjou family, the Sanada family, and the Toki family, in which the history of the old days are still alive. Places of scenic beauty and historic interest can be visited, such as the historic famous grave related to the Sanada family.

- ◎ Ruins of Numata castle · Numata park
The beautiful park which have a flower bed and a belfry symbol.

◎ Kashouzan Mirokuji temple
Temple, on northern Numata city, stands on the south mountain side of the Mt. Kashouzan (1,322m high), where old cryptomeas are growing thick. The Mt. Kashouzan is famous as one of the three great mountains in the Kanto region, together with the Mt. Takao and Mt. Furumine.

◎ Tan-bara plateau
There is a plateau which expands in the east foot of the Mt. Hotaka in the north of Numata city suburb. Here, visitors can enjoy hiking, camping, skiing, and playing tennis, and more-over skunk cabbage blooms in season.

- ② Going up the Katashina River which is a branch of the Tone River
Romantic road

The world-wide famous Romantic road (die Romantische Strasse) is an old main road which goes to "Füssen in Alps", from Wuerzburg, in Germany. The Japanese Romantic road is a road 230km long, which goes to Nikko through Karuizawa, Kusatsu, Numata, the Tone village, and Katashina from Komoro in Nagano Pref. Both are charming in history and literature. The natural scene along this road is not inferior to that of the original one.

- ③ Going up the Tone River to Minakami from Numata

◎ Suwakyou-gorge
It is located at the outskirts of Minakami hot spring town. Promenades of 3.5km are continuing along the Tone River. Visitors can enjoy the clear beauty from Sasafue Bridge, the harmony of mountain streams and the Tanigawa mountain range.

◎ Minakami hot spring
It is the center of a hot spring villages. And it's scattered along the Tone River valley in the background at Mother Nature of the Tanigawa-dake mountain.

◎ Tanigawa hot spring
The quiet hot spring located in the southern foot of the Tanigawa-dake mountain.

◎ Unose hot spring
Located near the confluence of the Tone River and the Yunohiso River. The former name of the Unose hot spring was Ouana hot spring.

◎ Yubiso hot spring
It is located along the Yubiso River, which is the tributary of the Tone River. It's said that the name Yubiso was based on the calling name of the discoverer, Oze Sadaji, who was a soldier defeated in battle in the Kamakura era, as "Yu-no-hisomura", which means "The village where the hot spring hides".

In rapppore with literature in nature

◎ Literary monument of Dazai Osamu
It stands in the road that goes along the entrance of the Tanigawa hot spring.

◎ Song monument of Wakayama Bokusui
Stands at the foot of the Minakami bridge.

◎ Literary monument of Yosano Akiko
Stands at the foot of the Sasafue bridge, in the Suwa valley. Also, there are scattered monuments for Kitahara Hakushu, Hayashi Fusao, Yoshii Isamu, and Saijou Yaso.

- ④ From Yubiso, going up the Yubiso River which is the of the Tone River.

◎ Tanigawa-dake mountain
The Tanigawa-dake mountain is the main peak of the Mikuni range of mountains.
The height above sea level is 1963m. The mountain has deep swamps and rock walls, such as the Ichinokura-sawa, which has fascinated the many climbers.
As the visitors climb the Tenjin-daira by a rope way, the spreading plateau where alpine plants are blooming can be seen, and the charm of the mountains can be enjoyed in all aspects.

◎ Ichinokura-sawa
It lies between the Ichinokura ridge and the South ridge, and the climb route from the Ichinokura-sawa is counted in Japanese, as one of three great craggy places, together with the Hodaka-dake mountain and the Tsurugi-dake mountain, in the Japanese northern Alps.

- ⑤ Going up the Tone River from Yubiso to Fujiwara dam

◎ Fujiwara dam · Fujiwara lake
Fujiwara dam is a gravity type dam completed in 1958, and the lake area is about 1.7km², growing in north and south directions. It is located in the lowermost course of the four Okutone lakes.

◎ Fujiwara village (The Heike family's refuge)
The descendant of the Oushu-Fujiwara family's, Hidechira · Yasuhiro, who was defeated by the Yoritomo's Oushu attack, found refuge in this village. It is the origin of the name Fujiwara, that the descendent reveal the identify at the family name.

◎ Urami waterfall
There are promenades in the back sides of the waterfalls, and the view from the back side has a different effect.

◎ Takarakawa hot spring
There is a legend that Yamato-takeru, one of the Japanese gods, went to this spring as a white colored hawk and healed his disease there. The most wonderful open-air bathes in Japan are located there.

- ⑥ Going up from Fujiwara lake to Sudagai dam

◎ Sudagai dam · "Dougen lake"
It is a "gravity type dam", with the first complete underground power station in Japan. The lake is about 1.3km², with a forked form. The lake of left side leads to the Tone River, where there is the Yagisawa dam, and the lake of right side leads to the Naramata River.

- ⑦ Going up from Dougen lake to Naramata dam

◎ Naramata dam · Naramata lake
It is newest dam of the four dams in Okutone, and it is a rockfill type, with a beautiful landscape. Going up the lake, which is about 2.0km² extent, leads to the Oze ridges, where there is a important mountain, the Mt. Shibutsu.

- ⑧ Going up the Yunokoyasawa River, which is a tributary just below the Naramata dam.

◎ Yunokoya hot spring
Located in the inner part of the Minakami hot spring village, many aficionados come to practice climbing, and there is abundant hot spring water, which is praiseworthy by the people.

◎ Teruha gorge
It is a valley with almost unexplored waterfalls. It was named by Mizuhara Shuu-oushi and there are twelve large and small falls, such as the Tsumino-taki fall and Higurashino-taki, and the scenery is particularly beautiful on Autumn, during the season of the red leaves.

- ⑨ Crossing the the Konroku ridge leads to the Hatomachi ridge which is the entrance of the Oze.

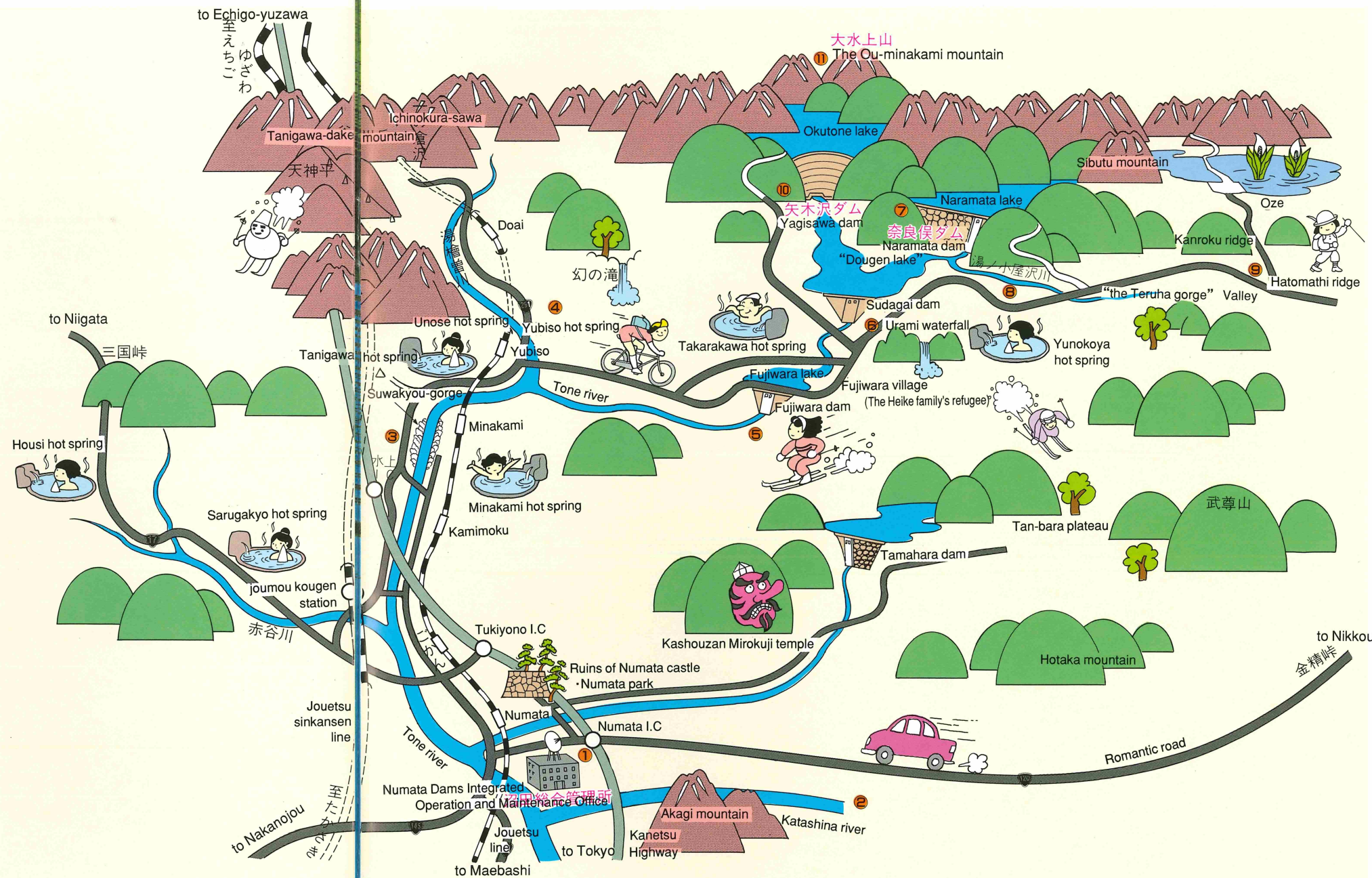
◎ Oze
The Oze is a rich repository of Mother Nature and has different landscapes, with mountains, lakes and marshes, marshy areas, swamps, and forests. There are many plants and animals difficult to be seen elsewhere, such as alpine plants and marsh plants.

- ⑩ Going up to Yagisawa dam from Dougen lake

◎ Yagisawa dam · Okutone lake
The arch type dam located at the entrance into the Tone River source. The Okutone lake is the biggest lake of the four lake in Okutone, the extent being about 5.1km². The lake is surrounded by a virgin forest, having an atmosphere of an unexplored region.

- ⑪ Leaving to the Tone River source from Okutone lake

◎ The Ou-minakami mountain, which is the water resource of the Tone River
Going up 322km from the Tone River mouth, in Choshi city, the Ou-minakami mountain is reached, and it is just the origin of the Tone River. The Ou-minakami mountain is located in the Jou-etsu border region, and the steepness of the mountain range delayed the discovery of the origin of the river, until 1925. The water from this mountain has been blessing the people in the overall Kanto region.



交通のご案内 Transportation

Numata Dams Integrated Operation and Maintenance Office

◎ Train

■ Ueno station → Jouetsu line (approx. 2 hours and 5 min.) → Numata station Car (4km/10min. approx.) → Numata Dams Integrated Operation and Maintenance Office

■ Tokyo station → Jouetsu shinkansen line (approx. 1 hour and 20min.) → Joumou kougen station → Car (14km/30min. approx.) → Numata Dams Integrated Operation and Maintenance Office

◎ Car

■ Kanetsu-nerima I.C. → Kanetsu Highway (126km/1hour and 30min. approx.) → Numata I.C. (front of the exit ramp) → Numata Dams Integrated Operation and Maintenance Office

Yagisawa dam

◎ Train

■ Ueno station → Jouetsu line (2hours and 20min. approx.) → Minakami station Car (27km/40min. approx.) → Yagisawa dam

■ Tokyo station → Jouetsu shinkansen line (1hour and 20min. approx.) → Joumou-kougen station → Car (37km/60min. approx.) → Yagisawa dam

◎ Car

■ Kanetsu-nerima I.C. → Kanetsu Highway (141km/1hour and 40min. approx.) → Minakami I.C. → Car (32km/45min. approx.) → Yagisawa dam

Naramata dam

◎ Train

■ Ueno station → Jouetsu line (2hours and 20min. approx.) → Minakami station Car (24km/40min. approx.) → Naramata dam

■ Tokyo station → Jouetsu shinkansen line (1hour and 20min. approx.) → Joumou-kougen station → Car (34km/60min. approx.) → Naramata dam

◎ Car

■ kanetsu-nerima I.C. → Kanetsu Highway (141km/1hour and 40min. approx.) → Minakami I.C. → Car (20km/45min. approx.) → Naramata dam