



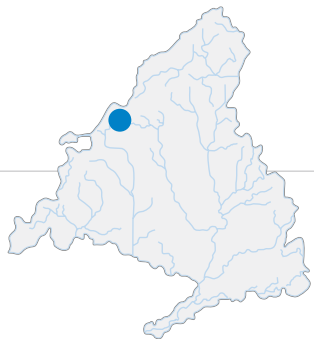
Guadarrama basin  
Navalmedio reservoir

## Navalmedio reservoir

The Navalmedio reservoir is located on the river of the same name, which is a tributary of the Guadarrama river. It was built in 1969 and regulates its own basin of around nine square kilometres. However, its main function is to transfer the waters from the Navalmedio river to the Navacerrada reservoir.

This dam was built at the same time as those in Navacerrada and La Jarosa, which share the same design. It has two closure elements: the main dam and a smaller one that bounds a saddle on the left bank. The crests of both walls are connected by an access road that runs next to the reservoir.

The main dam has a length of 170 m and a height of 47 metres, while the saddle dam has a length of 225 metres and a height of 7 metres above the channel. The spillway, located on the dam, is formed by two seven metre-wide spans that are closed with gates.



Capacity  
**0.7 hm<sup>3</sup>**

Surface  
**8 ha**

Type  
**Straight gravity dam**



 [See table of reservoirs](#)

## Reservoir

Capacity:	0.7 hm <sup>3</sup>
Average flow:	7 hm <sup>3</sup> /year
Basin surface:	9 km <sup>2</sup>
Maximum reservoir surface:	8 ha
Length of banks:	1.2 km
Length of river at the reservoir:	0.6 km

## Dam

Classification:	type A
Type:	gravity. Straight
Height above foundations:	47 m
Crest length:	170 m
Crest width:	8 m
Face slope:	upstream: 0.05 downstream: 0.75
Volume of masonry:	56,200 m <sup>3</sup>
Galleries:	2 horizontal



## Operating elements

### Spillway

Number of spans:	2
Total length:	14 m
Operating mechanism:	sector gate height: 3.00 m
Spilling capacity:	160 m <sup>3</sup> /s

### Outlets

Location:	bottom
Number of ducts:	2
Operating mechanism:	double sliding gates and hollow jet valve
Dimensions:	80 x 60 cm Ø 30 cm
Dewatering capacity:	9 m <sup>3</sup> /s 1 m <sup>3</sup> /s

## Monitoring elements

- 1 pendulum
- 19 joint meters
- 36 topographical bases for levelling and collimation
- 5 points of area gauging
- 3 pressure gauges

## Automated monitoring elements

- Reservoir point gauge
- Thermometer
- Rain gauge
- 1 pendulum
- 5 liquid level gauges
- 3 pressure gauges

 See tapping PDF

 See tapping video

Canal   
de Isabel II