



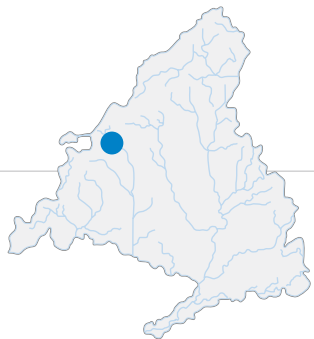
Guadarrama basin  
La Jarosa reservoir

## La Jarosa reservoir

This reservoir was built in 1969 in the stream of the same name to address the needs of the municipalities in the north-western area of the Madrid province, since their potential for development was severely hindered by lack of water, especially during the summer months. It regulates a basin of about eighteen square kilometres and receives flow from the Cofio river through a transfer that originates in the La Aceña reservoir.

The design of its dam is identical to that of Navacerrada and Navalmedio. It has the same typical cross-section and layout of galleries, spillway and bottom outlet. Even the finish of the crest is the same in all three cases.

There are two closure elements in the reservoir: the main dam, with a length of 213 metres and a height of 57 metres, and a smaller dam, with a height of 8.6 metres over the channel, which is used as the boundary for a saddle on the left bank.



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

Surface  
**61 ha**

Type  
**Straight  
gravity dam**



 [See table of reservoirs](#)

## Reservoir

Capacity:	7.2 hm <sup>3</sup>
Average flow:	7 hm <sup>3</sup> /year
Basin surface:	18 km <sup>2</sup>
Maximum reservoir surface:	61 ha
Length of banks:	4.4 km
Length of river at the reservoir:	1.2 km



## Dam

Classification:	type A
Type:	gravity. Straight
Height above foundations:	57 m
Crest length:	213 m
Crest width:	8 m
Face slope:	upstream: 0.05 downstream: 0.75
Volume of masonry:	110,000 m <sup>3</sup>
Galleries:	2 horizontal

## Operating elements

### Spillway

Number of spans:	3
Total length:	21 m
Operating mechanism:	sector gate height: 3.00 m
Spilling capacity:	240 m <sup>3</sup> /s

### Outlets

Location:	bottom
Number of ducts:	2
Operating mechanism:	double sliding gates and hollow jet valve
Dimensions:	80 x 100 cm Ø 60 cm
Dewatering capacity:	16 m <sup>3</sup> /s 4 m <sup>3</sup> /s

## Monitoring elements

- 1 pendulum
- 11 joint meters
- 44 topographical bases for levelling and collimation
- 5 points of area gauging
- 3 piezometers

## Automated monitoring elements

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

 See tapping PDF

 See tapping video

Canal   
de Isabel II