



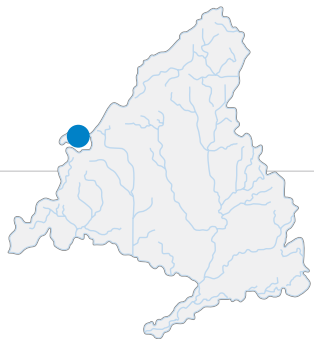
Alberche basin
La Aceña reservoir

La Aceña reservoir

This reservoir is located in Peguerinos, in the province of Ávila. It was built in 1991, so it is the latest one to be built. It is also the one at the highest altitude of those managed by Canal de Isabel II. Its waters come from the La Aceña river, a tributary of the Cofio river and, therefore, of the Alberche river.

Its purpose is to store and divert the waters of that river, supplying the DWTP located immediately downstream from the dam, and transfer the rest to the La Jarosa reservoir through two tunnels with a total length of 10 kilometres.

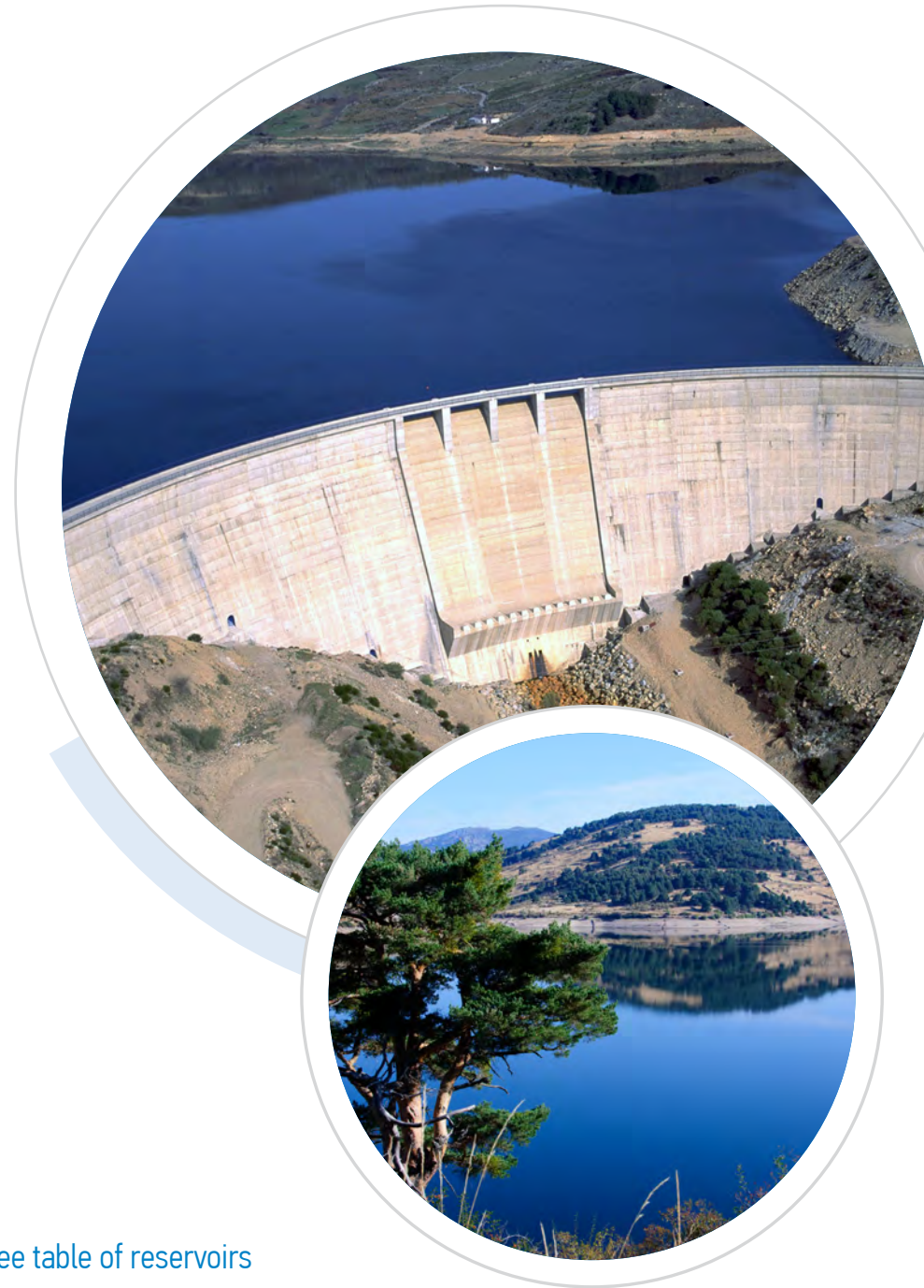
The dam is built in concrete. It is of arch-gravity type and curved shape. It is divided into 20 blocks by means of 19 vertical contraction joints. It has a height above the foundations of almost 66 metres, a crest length of 340 m and a width of 6 metres, so it has a 4-metre wide roadway and two pavements on both sides.



Capacity
23.7 hm³

Surface
115 ha

Type
**Curved
arch-gravity
dam**



 [See table of reservoirs](#)

Reservoir

Capacity:	23.7 hm ³
Average flow:	19 hm ³ /year
Basin surface:	48 km ²
Maximum reservoir surface:	115 ha
Length of banks:	10 km
Length of river at the reservoir:	3.2 km



Dam

Classification:	type A
Type:	arch-gravity. Curved shape
Height above foundations:	66 m
Crest length:	340 m
Crest width:	6 m
Face slope:	upstream: vertical downstream: 0.4
Volume of masonry:	150,000 m ³
Galleries:	1 perimeter 1 horizontal

Operating elements

Spillway

Number of spans: 4

Total length: 40 m

Operating mechanism: no

Spilling capacity: 318 m³/s

Outlets

Location: bottom

Number of ducts: 2

Operating mechanism: 2 sliding gates

Dimensions: upstream: 100 x 80 cm

Dewatering capacity: 46 m³/s

Monitoring elements

- 8 pendulums
- 4 pressure gauges
- 30 topographical bases for levelling and collimation
- 3 points of area gauging
- 3 resistance thermometers
- 13 joint opening meters

Automated monitoring elements

- Reservoir point gauge
- Thermometer
- Rain gauge
- 5 pendulums
- 3 liquid level gauges
- 4 piezometers
- 3 resistance thermometers
- 13 joint opening meters

 See tapping PDF

 See tapping video

Canal 
de Isabel II