



**aqualia**  
infraestructuras

# **BUTARQUE STORM WATER** **TANK**

The Butarque Storm Water Tank was finalized at the end of 2010.

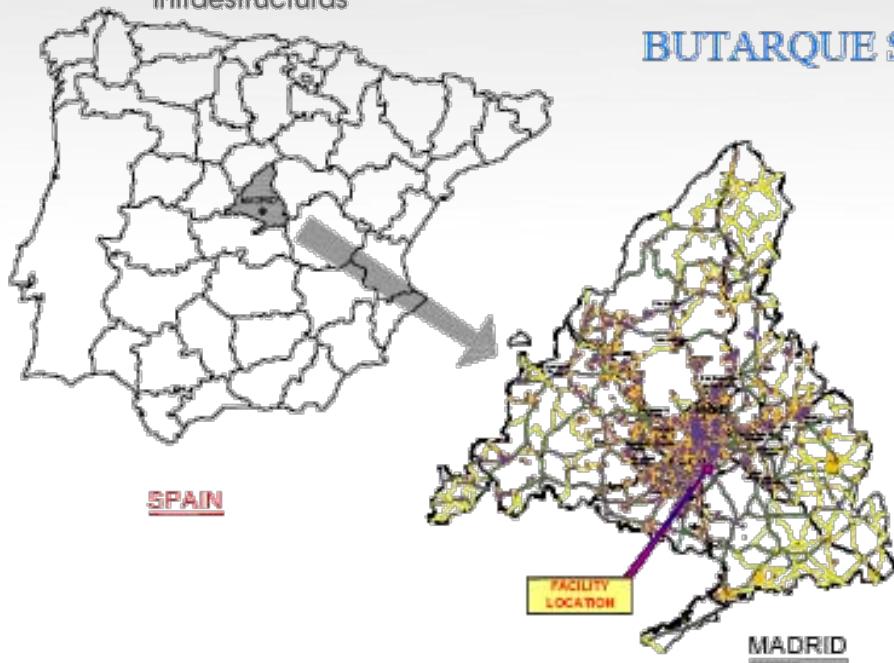
It was built by **aqualia infraestructuras** and it is considered one of the **biggest** infrastructures of this type in **Europe**.

Photo taken during the visit of Alberto Ruiz Gallardon, **Mayor of Madrid**, in November 2010.

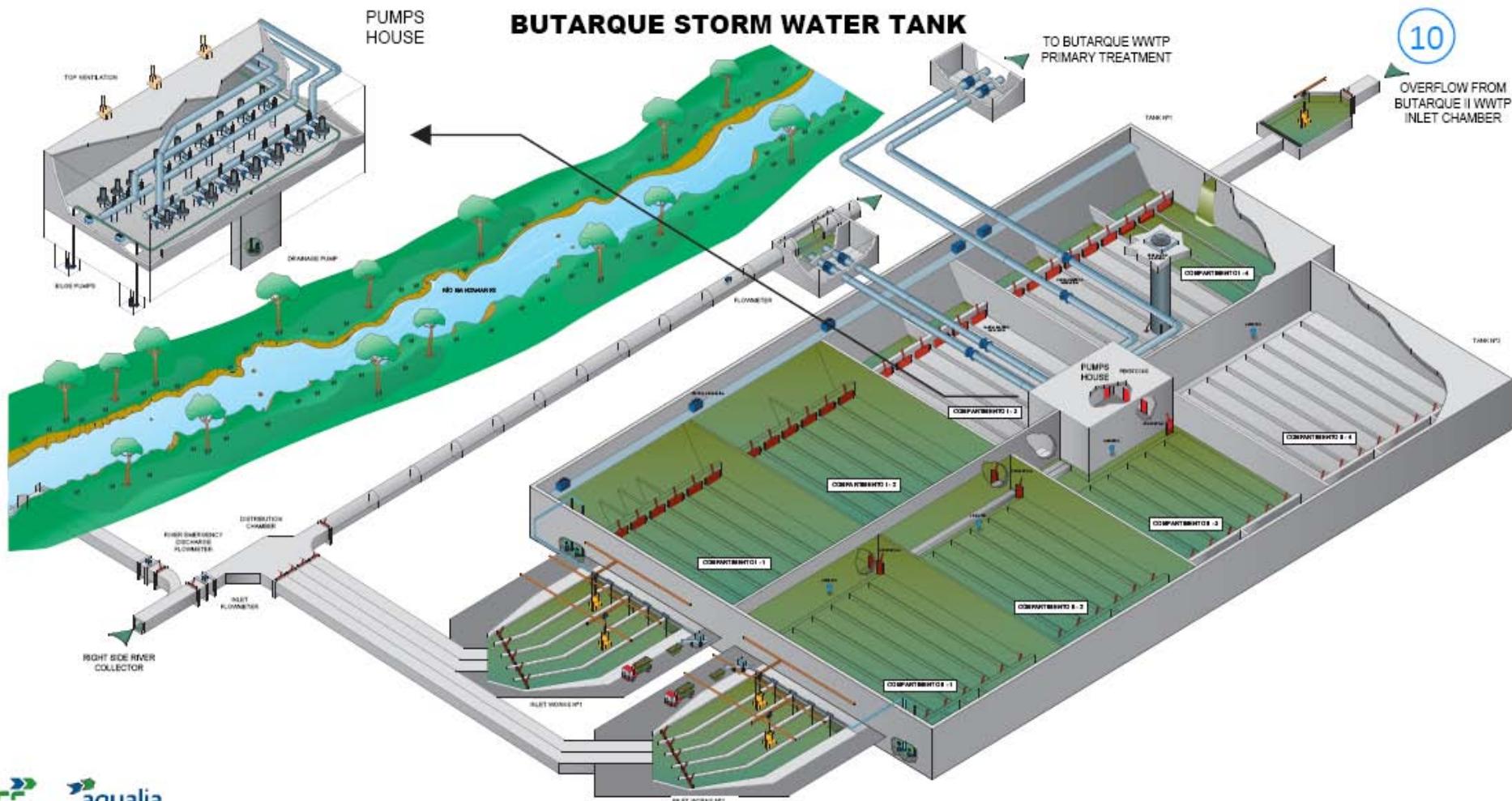


- Storage capacity: up to **400.000 m<sup>3</sup>**
- Inlet flow: up to **80 m<sup>3</sup>/s**
- Total investment: **90 million EURO**
- Earth movement: **2,5 million m<sup>3</sup>** of earth excavated
- Used concrete: **90.000 m<sup>3</sup>**

## BUTARQUE STORM WATER TANK



# GENERAL OVERVIEW



# MAIN COLLECTORS

## BUTARQUE STORM WATER TANK

(3)



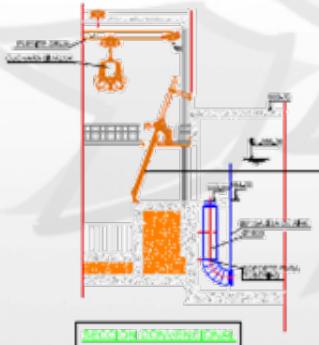
## - Inlet works: 2 units

- 10 Hydraulic actuated penstocks: 5 in each inlet work area
- 4 Clamshell buckets to remove gross debris before the screens (5 in each inlet work area)
- 10 Automatic screens: 5 in each inlet work area. 8m wide, 4m high and 50mm opening
- 30 pipes Ø1000mm for filling of the tank from the inlet works

# INLET WORKS. Automatic screens



SECCION V-V



SECCION H-H



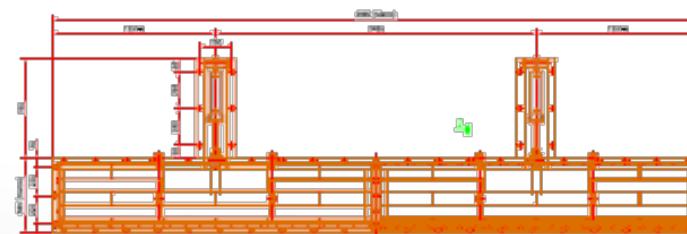
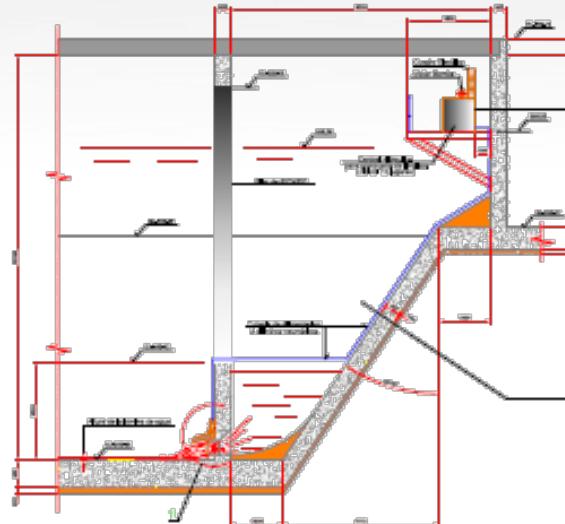
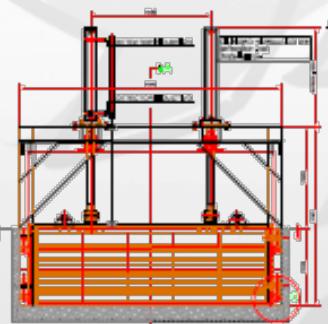
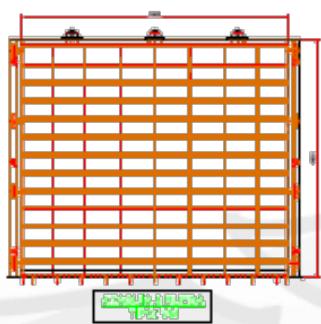
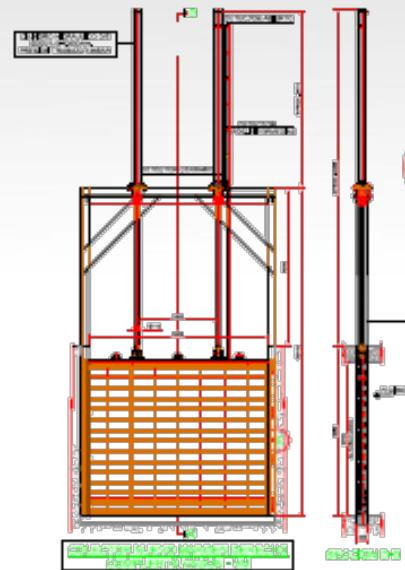
SECCION I-I

- **The tank: 2 bodies 200.000 m<sup>3</sup> each**
  - 55 flap hydraulic actuated gates for the automatic cleaning of the tank: 4,8 m wide and 0,4 m high for the two bodies of the tank
  - 2 flap hydraulic actuated gates for the automatic cleaning of the tank: 1 m wide and 0,4 m high for the two bodies of the tank

# PENSTOCKS. Storm Water Tank Cleaning System

8

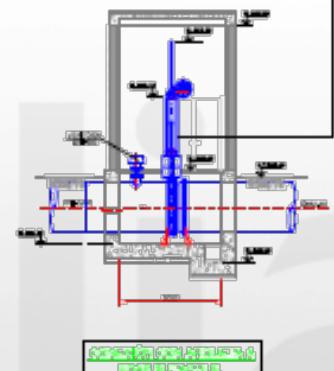
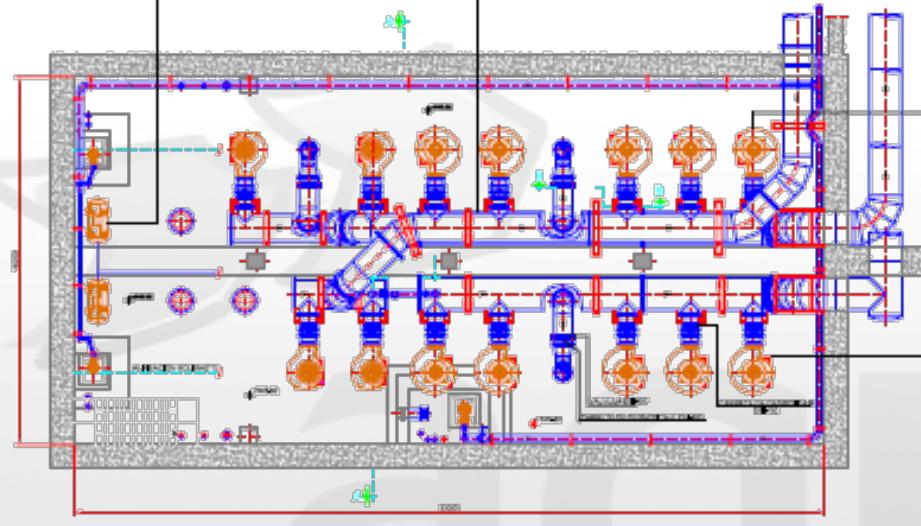
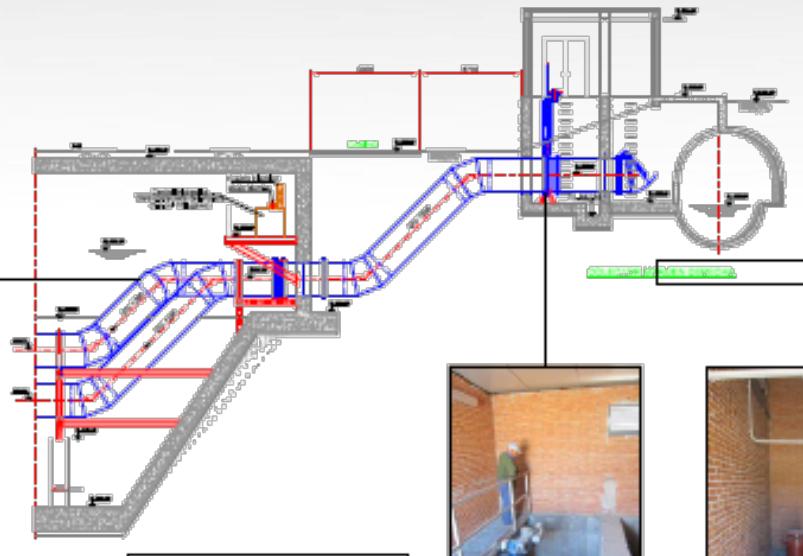
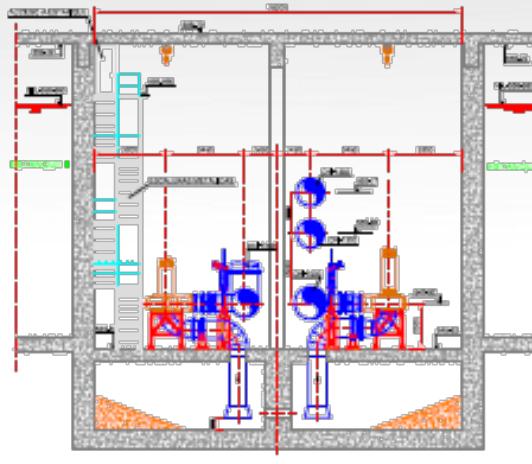
## BUTARQUE STORM WATER TANK



## - The Pumps House

- 12 (10 + 2R) submersible dry installed pumps .  
Unitary flow: 1050 l/s at 22 m.w.c. Water pumped to Butarque WWTP new primary treatment through 2 collectors Ø1400 mm.
- 5 (4 + 1R) submersible dry installed pumps.  
Unitary flow: 1083 l/s at 12 m.w.c. Water pumped to the main collector through 2 collectors Ø1200 mm
- 3 drainage pumps

# PUMPS HOUSE

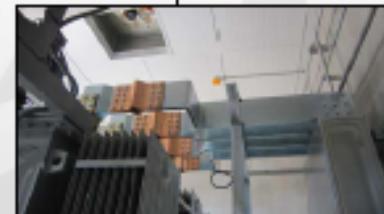
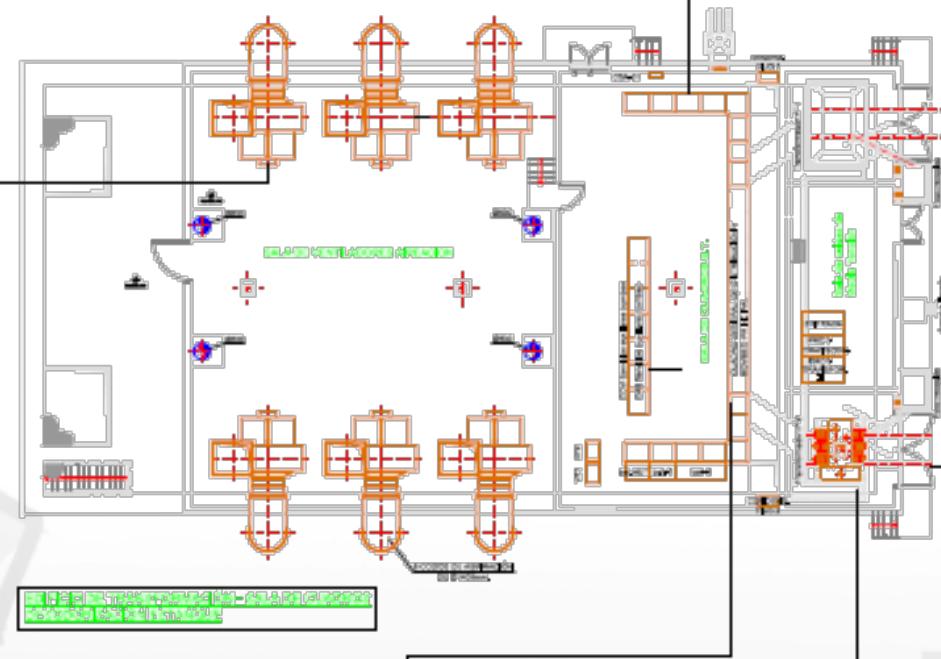


PUMPS HOUSE - RIGHT RIVER BANK CONNECTIONS

## - The Transformers Building

- 6 extraction fans. Unitary flow 100.000 m<sup>3</sup>/h, 75Kw.
- 2 transformers 45KV/420V, 3500 KVA's each.
- 1 emergency generator 250 mVA (200 mW)

# TRANSFORMERS BUILDING





**THANK YOU**

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