



## Civil works / Hydraulic Infrastructure

# Expansion of the wastewater treatment plant in Viladecavalls, Barcelona

### Client

Agència Catalana de l'Aigua

### Cost

€1,804,145

Excluding VAT

### Location

Barcelona

### Work period

January 2020 – October 2021

### CONSORTIUM

Acsa, SA Agricultores de la Vega de Valencia (SAV) and Depuración de Aguas del Mediterráneo (DAM)

### Scope

Works to expand the urban domestic part of the Viladecavalls Est. WWTP by means of an SBR (Sequencing Batch Reactor) system to adjust its treatment capacity from 900 to 2,200 m<sup>3</sup>/day.



## Description of the work

In order to adapt the Viladecavalls WWTP to the current and future needs of the region, this project increases the plant's treatment capacity to adjust it to the inflow rate of wastewater. The plant's capacity will be increased from 900 to 2,200 m<sup>3</sup>/day by means of expansion works and the remodelling of some existing elements.

The works carried out include:

- Construction of a new treatment line in parallel to the current one, which is discontinued. Implementation of an SBR (Sequencing Batch Reactor) process to obtain the effluent quality required by the Directive.
- In the new areas built for this purpose, the SBR is fitted with diffusers with all the associated equipment, including automatic air regulation valves. Two flotation decanters and sludge extraction pumps are also installed.
- Disassembly and refurbishment of existing facilities that remain. All sludge dewatering equipment (centrifuge, sludge pumps, screw collector and associated fittings) are replaced with new parts.
- A completely new iron chloride dosing system is

installed.

- The supernatant and floating pumps are replaced.
- The existing pre-treatment plant is dismantled and the building where it is housed is refurbished. With this adaptation, two new blowers can be installed, as well as all their associated valves and fittings.
- The head pumping is expanded by means of changing the existing pumps and doubling their number.
- A completely new outflow water treatment system with double filtration and chlorine dosing is installed and the industrial water pumps are replaced.
- A new compact pre-treatment system is installed to absorb the maximum inlet flow.
- The outlet flow meter is changed and two more are included, one at the head and one at the inlet to the SBR.
- A new bypass outlet pipe is installed.
- An automatic plant-wide control system is implemented.