

45. Llobregat Basin Desalination Plant

MUNICIPALITY

El Prat de Llobregat

HEADING

The Llobregat desalination plant will come online in June 2009 and will provide 60 hm³ of drinking water per year. The quality and quantity of the water distributed will be increased, thus helping to guarantee supply.

DESCRIPTION OF PROJECT

The desalination plant of the Llobregat basin, located next to the mouth of the river, will complement the metropolitan area's supply sources. The new plant will produce a maximum flow of 200,000 m³ of drinking water per day and have one of the largest capacities of any desalination plant in the world.

Sea water is to be captured opposite the beach in the municipality of El Prat de Llobregat and subsequently pumped to the desalination plant, where it will be completely pre-treated, including flotation treatment, open sand filters, microfiltration and closed pressure filters, in addition to treatment with suitable chemical agents to ensure that the water is in the best possible condition when it reaches the filter membranes. For the desalination process, the plant will have ten high pressure pumps, ten energy recovery systems with pressure exchanger systems and ten semipermeable membrane supports that will produce demineralised water, which will become drinking water once it has undergone the subsequent refining and disinfection treatments.

The drinking water produced will be pumped into the water reservoirs of Font Santa, in Sant Joan Despí, and from there it will be distributed to the supply network.

In 2006, the project and work contract was awarded and the construction project drafted. In 2007, the pilot plant was built, enabling the adjustment of plant operation parameters and work was begun on the construction of the desalination plant, due to take 24 months. In 2008 most of the civil works were completed and the assembly work on the equipment and facilities began. It is expected to come into service in June 2009.

MAIN ECONOMIC AND TECHNICAL FIGURES

- Average flow treated by the plant will be 60 hm³/year, that is, 200,000 m³/day.
- Budget for construction of the desalination plant plus pipework to the Font Santa tanks, at Sant Joan Despí, is 230 million euros.
- The initiative has attracted 75% funding from European Union Cohesion Funds, also funding from the Ministry of the Environment and Rural and Marine Affairs.

PROJECT ADDRESS

www.atll.net

RESPONSIBLE

Tomàs Cazorra Pérez, Director of Works II, Aigües Ter-Llobregat.