

48. Hydraulic barrier against salt water encroachment to preserve the Llobregat aquifer

MUNICIPALITIES

El Prat de Llobregat and Barcelona

HEADING

Through the injection of regenerated water from the Baix Llobregat water treatment plant a hydraulic barrier is being built against salt water encroachment to preserve the Llobregat aquifer.

DESCRIPTION OF PROJECT

One of the main uses of regenerated water from the Baix Llobregat treatment plant is as a hydraulic barrier against salt water encroachment to preserve the Llobregat aquifer. The design discharge for this use is 15,000 m³/day, divided into two stages: the first 5,000 m³/day and the second, the rest of the flow.

The regeneration plant treatments used to form the barrier against salt water encroachments are coagulation-flocculation, decantation, filtration, disinfection process, ultrafiltration and inverse osmosis.

The results of the first stage have been satisfactory and have succeeded in reducing the salinity of the aquifer. During 2008 works associated with the second phase began (conduction and wells), with a budget of 7.5 million euros. In November 2009 tests on the treatment began and it should come into operation during 2010.

ECONOMIC AND TECHNICAL DATA

Design discharge: 15,000 m³/day (5,000 m³/day in the first stage)

Total investment: € 14 M (€ 7.5 M in the second phase, of which works were started in 2008 and the first tests done in 2009)

PROJECT ADDRESS

www.amb.cat

RESPONSIBLE

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