

Urban Waste Water Treatment Plant in Cenicero – La Rioja

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The sanitation and water-treatment project for the Municipal District of Cenicero includes the unification of effluents by means of two pumping stations, a sewer and the building of a wastewater treatment plant (WWTP).

Location	Cenicero – La Rioja
Customer	Turism and Environment department La Rioja Regional Government
Construction period	12 months
Capacity	2.000 m³/day
Population	20.000 eq-inhabitants

The plant is equipped with one line to treat wastewater from Cenicero and another sludge line where the sludge generated during the treatment process is concentrated and dewatered.

The system implemented at the Cenicero WWTP is as follows:

Previously conditioned wastewater from the urban area and some wineries arrives at the plant through a sewer.

Once inside the plant, the water is pumped up to the treatment line, where it is first broken down and aerated to remove grease and sand. In the next stage in the line the remainder of the waste load is eliminated by means of biological treatment with prolonged aeration.

From the reactor, the water is then taken to decanters, where the sludge is separated out before the treated water is dumped into the river. The biological sludge extracted during the process is lead to a thickener pumped to be first concentrated and then dehydrated in a centrifuge. It is then ready to be used for agricultural purposes.

	Influent	Treated water
DBO ₅	600 mg/l	< 25 mg/l
SS	600 mg/l	< 35 mg/l
NTK	35 mg/l	< 5 mg/l
Sludge dryness		> 22%