



Municipal Drinking Water Purification Plant of Aramo – Quirós, Oviedo

1/2



Location	Oviedo - Asturias
Client	Ministry for the environment North hydrographic confederation
Duration	40 months
Capacity	1,500 l/s
Increase in capacity	from 1,500 l/s to 2,000 l/s
Contract amount	14,839,680 €
Date	2006

The work in this contract include: the treatment flow in the current drinking water treatment plant will be 1.5 m³/s, to be increased in the future to 2 m³/s. The pipes have sufficient capacity for the future enlarged flow.

- Pipes (by gravity under pressure):
 - Pipe to lower canal, 843 m and DN-700
 - By-pass pipes, 217 m and DN-700
 - Pipe to upper canal, 931 m and DN-1200

- Outlet Pipes (by gravity, free laminar):

- Plant outfall, DN-1000
- Mud removal, DN-300

Water line

- Measurement and regulation of flow of water from springs and the Alfllorios reservoir.
- Inlet.
- Screening of water from springs.
- Measurement and regulation of flow to treatment lines.
- Pre-ozonisation chambers (3 units).
- Fast mixing (3 units).
- Adjustment of pH.
- Flocculation (3 units).
- Laminar decanting with recirculation and thickening (3 units).
- Intermediate oxidising chambers (3 units).
- Fast filtering using sand (12 units).
- Sterilising with chlorine.
- Treated water pumping.
- Treated water tank (1 unit).
- Treated water flow measurement.



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2/2



Sludge line

- Filter washing water recovery tank.
- Pumping of filter washing water to plant inlet (3 units).
- Sludge recirculation.
- Purgings of decanters to outlet pipes.

Reagents dosing system

- Aluminium sulphate.
- Anionic polyelectrolyte.
- Caustic soda.
- Chlorine gas.
- Ozone.
- Liquid oxygen.

Auxiliary facilities

- Chlorine pumping.
- Coolant pumping for ozone production system.
- Neutralising of chlorine leaks.
- Pumps for irrigation, reagents and industrial water.
- Laboratory, workshop, spares, furniture and safety systems.
- Pumps for moving samples to laboratory.
- Sub-drainage system.
- Drainage system.
- Rainwater system.
- Mud removal collector.
- General drain collector for drinking water treatment station.
- Control and instrumentation system.
- Electrical installations.
- Access road.