

Water and Sewerage

Water for human welfare

CESEL S.A. is a consulting company with more than 40 years of experience in developing engineering with several integrated disciplines. Its headquarters are located in Peru and it has branches and offices in several Latin American countries. CESEL develops studies, designs and engineering projects; studies, works and assembly supervision; factory inspection; environmental studies and comprehensive management of engineering and construction projects through its twelve operating divisions and six technical departments. The Water and Sewerage Division is described as follows:

Services

- Materials balance.
- Energy balance.
- Project referential schedule.
- Preliminary equipment design.
- Preliminary design.
- Preliminary program.
- Preliminary estimation.
- Basic engineering.
- Pre-feasibility.
- Feasibility.
- Detail engineering.
- Work supervision.
- Project management (EPCM).

Software

- Water CAD.
- Sewer CAD.
- S10.
- Autocad REVIT.
- ArcGIS v.10.2.

Areas

Drinking water

- Catchments.
- Conduction lines.
- Pumping and re-pumping stations.
- Water conveyance line.
- Impulse line.
- Water treatment plants.
- Sea water desalinization plants.
- Sectorization.
- House service.
- Deep wells.
- Supported and overhead reservoirs.

Sanitary facilities and fire fighting system

- Houses.
- Buildings.
- Shopping centers.
- Industrial plants.

Sewerage

- Primary collectors.
- House service.
- Secondary networks.
- Pumping stations.
- Wastewater treatment plants.
- Outlets.

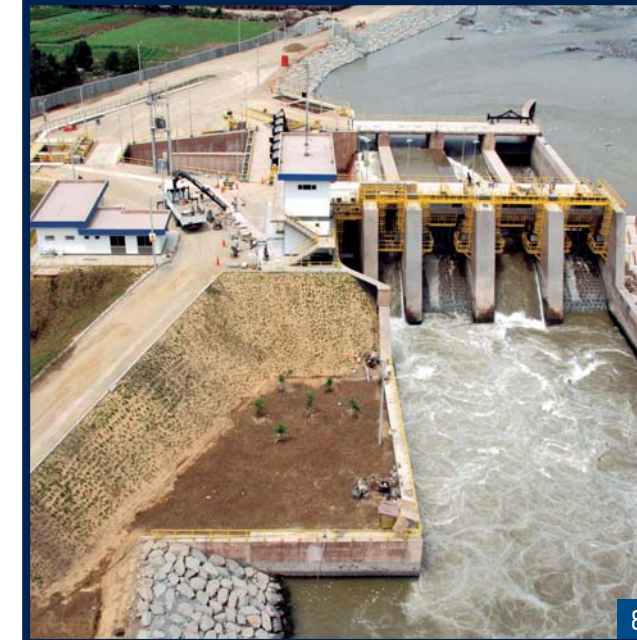
Storm drainage

- Primary collectors.
- Canals.
- Sumps.
- Pumping stations.
- Canalizations.
- Sump wells.



Projects

- Sanitary improvement of the drinking water and sewerage of the marginal areas of the northern and western areas of Lima. Project management, final study and work supervision. 900.000 inhabitants. Lima, Peru.
- Drinking water supply and sewerage improvement and extension in Piura. Basic and detail engineering. 700.000 inhabitants. Piura, Peru.
- Drinking water and sewerage secondary works, conventional and condominium works, with sinks and latrines in several districts of the Southern Part of Lima. Design and work supervision. 45.000 inhabitants. Lima, Peru.
- Drinking water and basic sewerage services improvement in the region of Puno. Work supervision. Puno, Peru
- Huachipa drinking water treatment plant, 10 m³/s. Design and first stage works supervision, 5 m³/s. Lima, Peru.
- Sewerage system extension in the city of Puntarenas. Collection, treatment and final disposal of wastewater system, with 0.6 m³/s PTAR. Feasibility and final study. 150.000 inhabitants. Punta Arenas, Costa Rica.
- El Ferrol Bay sewerage. Two-line 10 km HPDE submarine outlets. Technical file development and work supervision. Chimbote, Ancash; Peru.
- Water and sewerage network project with PTAP and PTAR, for effluents re-using in the district of Majes. Technical file and final study development. 77.500 inhabitants. Arequipa, Peru.



- 1 Marginal areas of Lima. Water conveyance line. Lima, Peru.
- 2 Curumuy drinking water treatment plant. Piura, Peru.
- 3 Huachipa water treatment plant. Panoramic view. Lima, Peru.
- 4 Marginal areas of Lima. Overhead reservoir. Lima, Peru.
- 5 El Ferrol Bay sewerage. Submarine outlet. Chimbote, Ancash; Peru.
- 6 Drinking water and conventional and condominium sewerage project. Lima, Peru.
- 7 Marginal areas project. North branch tunnel. Lima, Peru.
- 8 Huachipa water treatment plant. Intake. Lima, Peru.
- 9 La Atarjea drinking water treatment plant. Lima, Peru.