



Sewage treatment plant
El Jagüel



Lo bueno
del agua
llega.



The company

AySA provides essential drinking water and sewerage collection services to our users in the City of Buenos Aires and its metropolitan area.

Drinking water production and sewerage sanitation require a huge infrastructure **to be able to ensure quality during production, distribution and treatment.** To deliver these services, AySA owns waste treatment and water treatment plants at different locations within the concession area.



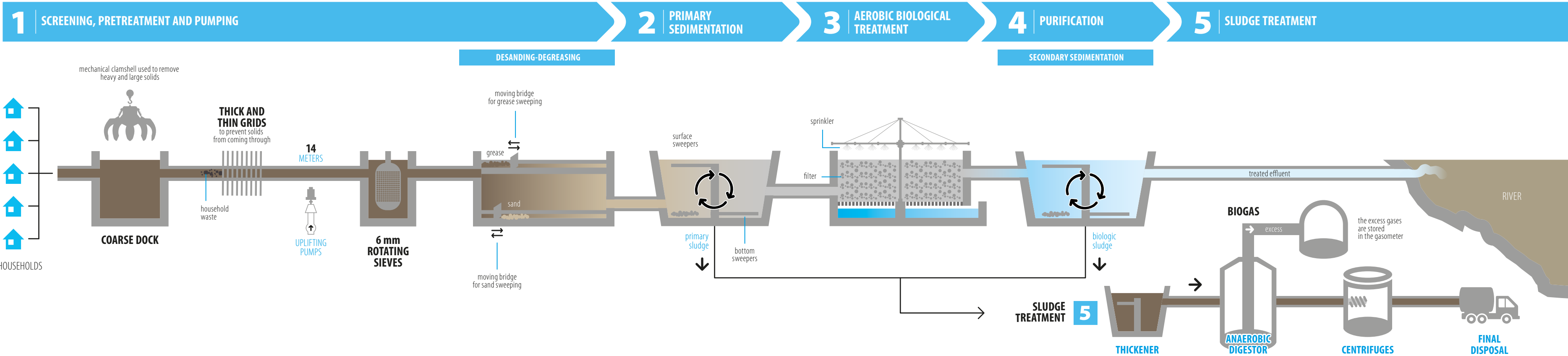
Sewage treatment plant

El Jagüel

The El Jagüel Sewage Treatment Plant is located in the Esteban Echeverría district and its urban effluent treatment capacity is equivalent to a population of approximately **150,000 inhabitants**. At present, it receives an average flow of **39,744 m³/h** from Ezeiza, Monte Grande, and Luis Guillón.

The process applied within the Plant is based on a biological treatment in filter beds. Once treated, sewage effluents are discharged into the Matanza river.

The treatment process



Raw fluids enter the coarse dock, where heavy and large solids are retained and extracted by means of a mechanical clamshell, and then driven through two sets of grids. The first one, with a 10 cm separation between bars and manual cleaning, and the second one with a 2 cm separation and automatic cleaning, which ensures unobstructed continuity of the process.

There, uplifting pumps drive the fluid to a height of 14 m to the rotating sieves that retain solids with a diameter over 6 mm.

Then, fluids go through the **desanding-degreasing** module, where sands are decanted by their own weight and greases are separated by flotation.

This stage is equipped with two conical-floor circular decanters with bottom sweepers. Sewage effluents enter through the middle and settle for approximately 2 hours for the remaining solids to separate from the fluid.

In this stage, organic matter is transformed into sedimentable biological sludge, which is later extracted from the system. Treatment is performed through two filtering beds, providing air by natural convection thanks to a set of windows placed at the bottom of each unit.

By means of two decanters, where the fluid remains for approximately 5 hours, the effluent is separated from the sludge produced by degradation of the biodegradable organic matter found in sewage. Thus, it results on the one hand, in a purified fluid ready to be discharged, and on the other, in biological sludge to be subsequently treated.

SLUDGE THICKENER: Primary and secondary sludge enter this stage, where they are concentrated up to ten times as a result of gravity. The thickener has a sweeper and a conical floor, which allows for sludge to be collected and sent to the digester. To avoid bad odors, the thickener is completely covered and has a biofilter that operates at all times.

SLUDGE DIGESTION: In this stage, sludge stabilization is achieved by the action of anaerobic microorganisms, which consists in volatile organic matter degradation. The main product resulting from this process is biogas, which is used for heating and agitation of the digester.

Excess biogas is sent to the gasholder to maintain biogas pressure throughout the whole network and the digester's dome.

SLUDGE DEHYDRATION: This is focused on reducing the volume of sludge to be disposed of, thus achieving significant savings on transportation and disposal costs. For these purposes, centrifugal pumps are used, and a polyelectrolyte is added to reduce sludge humidity.



www.aysa.com.ar

Sewage treatment plant
El Jagüel

Newton 2750

Esteban Echeverría - Provincia de Buenos Aires - Argentina



Lo bueno
del agua
llega.

Argentina unida



Ministerio de
Obras Públicas
Argentina