Water treatment glossary

Alkalization (alcalinización): adjustment of the pH (acidity) of the water, after disinfection. It prevents corrosion and scale formation in pipes.

Chlorine (cloro): chemical compound used as disinfectant.

Clarifiers or settling basins (decantadores): rectangular units in which sedimentation takes place.

Clay (arcillas): mineral particles of less than 0.002 mm in equivalent diameter.

Coagulant (coagulante): chemical element that causes smaller particles to coalesce into larger and denser ones.

Coagulation (coagulación): the process in which a coagulant is added. It requires intense agitation so that the coagulant mixes rapidly with the raw water.

Contact chambers (reservas): chambers in which the water remains for approximately two hours to achieve complete disinfection.

Disinfection (desinfección): elimination of pathogenic microorganisms by adding a disinfectant and providing contact time between the filtered water and the disinfectant.

Distribution (distribución): water is supplied to people.

Filtration (filtración): process in which clarified water is passed through a filtering media to remove small particles. In AySA, sand is used as filtering media.

Flocculation (floculación): process in which water is slowly stirred so that the particles can aggregate into larger and more stable flocs. It includes the addition of another chemical compound (flocculant).

Intake tower (torre toma): a structure placed in the river through which water flows into the water treatment plant. The water from the source used for treatment is known as "raw water".

Lime (cal): chemical compound used in the process of alkalization.

Pump (bomba elevadora): mechanical device for lifting water.

Raw water (agua cruda): water taken from a natural source before treatment.

Sand filter (filtro de arena): filter in which sand with certain specifications is used as filtering media.

Sedimentation (decantación): Process by which larger particles settle. For this purpose, the flow velocity of the water is reduced to such an extent that it can no longer carry the suspended matter.

Tank (tanque): artificial structure in which water is held.

Turbidity (turbiedad): quality of cloudiness of water due to the presence of suspended matter. In La Plata River, the turbidity is typically due to colloidal clays, of small size (0.1-10 µm, on the order of bacteria) that are negatively charged and repel each other (electrostatic repulsion), preventing them from settling in an acceptable time.

Underground rivers (ríos subterráneos): large concrete pipes that are used to transport water by gravity from water treatment plants to pumping stations.

Water quality testing (análisis de control de calidad): tests carried throughout the water treatment process and distribution to monitor different parameters, and ensure that is drinkable.