



## Pure Water Los Angeles

### Glossary for Customers, Communities, and Other Stakeholders

Term	Definition
Acre-foot (AF)	A unit used to measure large volumes of water. An acre-foot is approximately 326,000 gallons and can cover 1 acre to a depth of 1 foot. 1 AF is considered enough water to meet the needs of two families of four with a house and yard for 1 year.
Advanced Water Purification Facility (AWPF)	A facility that provides advanced treatment to purify the recycled water that is produced by a wastewater reclamation plant. An AWPF can produce purified recycled water that is safe for drinking water and meets all water quality regulatory requirements. The quality of the purified recycled water varies based on the intended potable reuse application.
Contaminants	Substances naturally occurring in water or accidentally introduced by human activity. Not all contaminants are unsafe. However, some contaminants can impact the health of people consuming the water therefore, the federal and state governments regulate levels of these contaminants in drinking water to protect public safety.
Direct Potable Reuse (DPR)	Sending purified recycled water directly to a drinking water treatment plant or drinking water distribution system without the use of an environmental buffer
Enhanced Source Control Program	A program that identifies industrial activities and operations that potentially add contaminants to wastewater. It sets limits on specific contaminants to protect downstream treatment processes.
Environmental Buffer	Mixing an existing water source – such as a groundwater basin or reservoir –with purified recycled water so that the purified recycled water can be further monitored before using it as a drinking source.
Environmental Planning	The process of identifying and evaluating potential environmental impacts that could result from the construction and implementation of a proposed project, and identification of mitigation to reduce potentially significant impacts, in compliance with the <i>California Environmental Quality Act</i> or <i>National Environmental Policy Act</i> , or both.



<b>Term</b>	<b>Definition</b>
Groundwater	Water beneath the land surface.
Groundwater Basin	A natural underground area that has the capacity to store water, also referred to as an aquifer – Los Angeles's largest is the San Fernando Groundwater Basin.
Groundwater Recharge (or Replenishment)	The inflow of water to a groundwater basin through natural conditions or human activity, such as injection wells and spreading grounds.
Imported Water	Water that originates outside the Los Angeles region and is transported to Los Angeles using a system of major pipelines, pumps, and reservoirs. Water imported to Los Angeles is mainly Colorado River and State Water Project water purchased from Metropolitan Water District of Southern California and water delivered by the Los Angeles Aqueduct.
Independent Advisory Panel (IAP)	A group of experts who are independent of the agency in charge of drinking water treatment and distribution; they review the purified recycled water treatment process and plan to verify that it meets all regulatory requirements.
Indirect Potable Reuse (IPR)	Sending purified recycled water to an environmental buffer before sending it to a drinking water treatment plant or a drinking water distribution system. The purified recycled water must remain in the environmental buffer for a required period of time (see 'Retention Time'), at which it may be extracted, treated for any groundwater constituents, and then sent to the drinking water treatment plant or potable water distribution system.
Local Water Supply	Water that originates in the Los Angeles region from rainfall in the mountains and valley watersheds, primarily in groundwater aquifers and surface water streams; this includes recycled water and local stormwater capture.
Los Angeles Aqueduct	The 233-mile-long water conveyance system that transfers water from Owens Valley to Los Angeles for drinking water treatment and supply, built and operated by the City of Los Angeles Department of Water and Power (LADWP).
Membrane Bioreactor (MBR)	An MBR combines a biological treatment process with membrane filtration. Biological processes break down organic matter and nutrients. The membranes are located at the end of the bioreactor tanks and filter out large solids and microscopic particles, including microorganisms.



<b>Term</b>	<b>Definition</b>
Membrane Filtration (MF)	MF removes large and microscopic particles, including microorganisms, from water. MF filters can be located after the biological processes as a standalone process or can be combined in an MBR.
Non-Potable Recycled Water	Wastewater treated at a reclamation plant that has not been purified and cannot be used for drinking; however, it is treated sufficiently for safe use for irrigation, industrial uses, and other non-drinking water purposes.
Non-Potable Water	Water not intended for human consumption that does not meet regulatory requirements for drinking water safety.
Pipeline Alignment Alternatives	Conceptual alternative routes under study for conveying purified recycled water to the Los Angeles Aqueduct Filtration Plant and groundwater recharge facilities along the way. There are three alternatives: the Sepulveda, Cahuenga, and Griffith Park alignments.
Potable Water	Water that is safe for drinking, meeting all regulatory requirements.
Potable Water Distribution System	The system of pipes and pumps that transports drinking water to homes, businesses, and public facilities.
Pure Water Los Angeles Master Plan	Developed by LADWP in partnership with the City of Los Angeles Sanitation and Environment (LASAN) to establish the foundational strategy for Pure Water Los Angeles. Brings together many technical components, including the source water; the advanced water purification facility that provides the water supply; and pipeline alignment alternatives, storage, demands, and potential post-treatment.
Pure Water Los Angeles Program Implementation Plan (PIP)	Written by City of Los Angeles Sanitation and Environment (LASAN), evaluates how to maximize the implementation of potable reuse at Hyperion Water Reclamation Plant. The plan includes information on advanced water purification processes, program delivery, construction, and costs.
Purified Recycled Water	Water that has passed through a wastewater reclamation plant and an advanced water purification facility and has been verified through monitoring that it meets regulatory requirements to be safe for augmenting drinking water supplies.



<b>Term</b>	<b>Definition</b>
Recycled Water (RW)	Generally refers to wastewater that has been treated so that it can be used more than once, typically for non-potable applications. Recycled water that isn't purified in an Advanced Water Purification Facility cannot be used as a potable water source.
Reservoir	A place where water is stored until needed. This can be in an open or covered lake built for water storage or an enclosed storage tank.
Retention Time	The amount of time that purified recycled water remains in the environmental buffer, which is usually a natural water source in a groundwater basin or reservoir. When the retention time ends, the blended water is sent to a drinking water treatment plant that produces drinking water and distributes it to customers.
Reverse Osmosis (RO)	Part of the water purification process where water is forced through a membrane filter under high pressure. The water passes through the molecular structure of several sheets of thin, plastic membranes to filter out minerals and contaminants, including salts, viruses, pesticides, and other materials. The RO membranes behave like microscopic strainers. Bacteria, viruses, inorganic molecules, and most organic molecules cannot pass through the membranes.
Ultraviolet Light Disinfection and Advanced Oxidation (UVAOP)	As part of purification process, disinfection is accomplished by exposing recycled water to ultraviolet (UV) light. When chlorine or hydrogen peroxide is added, it also causes an advanced oxidation reaction that eliminates remaining contaminants in water by breaking them down into harmless compounds that are removed from the water.
Wastewater	Untreated water collected in the sewer system from residences, businesses, and public facilities from bathtubs, showers, bathroom sinks, clothes washers, toilets, kitchen sinks, dishwashers, and industrial processes.



<b>Term</b>	<b>Definition</b>
Water Equity	Occurs when all communities have access to clean, safe, affordable drinking water and wastewater services; are resilient in the face of floods, drought, and other climate risks; have a role in decision-making processes related to water management in their communities; and share in the economic, social, and environmental benefits of water systems. Involves the three tenets of justice: Recognition justice, procedural justice, and distributive justice.
Water Purification Demonstration Facility	A smaller-scale advanced water purification facility built and operated to obtain the necessary scientific, technical, design, and operational data for future full-scale advanced water purification.
Water Reclamation Plant (WRP)	A facility that treats wastewater from homes, businesses, and public facilities to produce water that is safe for discharge to the environment, or for reusing for non-potable purposes, or for potable purposes in combination with advanced water purification.
Water Reliability	The ability to deliver water and wastewater services to users on a continuous basis, and to resolve minor interruptions, due to system upsets, in a timely manner.
Water Resiliency	The ability to withstand unforeseen events such as earthquakes and to recover or restore service timely after a major outage.
Water Sustainability	The ability to meet present water needs by using renewable sources or practices, without compromising the ability of future generations to meet their needs.