

water supply solutions

SEAWATER DESALINATION DIVERSIFIES WATER RESOURCES

Early in its history, the Los Angeles Department of Water and Power (LADWP) built an engineering wonder – the Los Angeles Aqueduct – to deliver water to the city’s growing population and help transform the small desert town into a booming metropolis. Today, faced with many challenges that impinge upon our traditional water resources, LADWP continues to provide visionary leadership in finding innovative ways to keep the water flowing to Los Angeles.

Seawater desalination – the process of removing salts and other impurities from ocean water – is one of several programs being implemented by LADWP to ensure an ample water supply for Los Angeles residents and businesses for years to come. Desalinated ocean water represents a viable long-term alternative water source to help meet the future demand. Once treated, seawater will provide a drought-proof water supply located right off the coast of Los Angeles.

Seawater Desalination Project

LADWP will build the city’s first seawater desalination plant at its Scattergood Generating Station in Playa Del Rey. The plant will produce at least

12 million gallons of water per day – that’s enough to furnish water to about 75,000 people for a year. LADWP will minimize costs by locating the facility at the existing power plant and using the plant’s water intake system as well as electrical transmission infrastructure and available land.

How Desalination Works

The LADWP will use cutting-edge technology to convert seawater into high-quality drinking water. The Los Angeles seawater desalination plant will feature a high-pressure system that forces seawater through super-fine membranes to filter out the salt and other impurities – a process known as reverse osmosis.

Water Quality

Water produced through the desalination process will meet or exceed all drinking standards regulated by the state and federal governments. Water treated through reverse osmosis is of the highest quality; for instance, it is the most widely used purification process for water that runs through kidney dialysis machines.

Seawater Desalination Diversifies Water Resources

Cost of Desalination

Seawater desalination is still a costly water supply option compared to conventional water sources. However, new advances in filter membrane technology over the past decade have drastically reduced the price of purifying salty or brackish water. In addition, the use of existing infrastructure and potential grants would further help defray the total capital cost, which is estimated to be in the range of \$69.5 million.

Environmental Impact

Seawater desalination plants produce waste brine, which diverts back into the generating plant's cooling loop and blends into the plant's regular discharge, or outflow.

The proposed Los Angeles plant will use only a small fraction of the average amount of seawater flowing through the generator's cooling loop system. As a result, LADWP expects that the increase in salinity to the plant's existing outflow will have only a minimal impact. Prior to moving forward with the project, LADWP will conduct a full environmental review and obtain all required permits.

Wave of the Future

The Los Angeles seawater desalination plant represents LADWP's commitment toward ensuring a reliable water supply for its customers. LADWP will continue to provide visionary leadership in exploring new water supply opportunities to meet future challenges.

To learn more about LADWP water supply solutions, call **1-800-544-4498** or visit www.ladwp.com/water



Los Angeles Department of Water and Power
Water Services Organization

*Bringing a dependable supply of safe, quality water to our customers
in an efficient and publicly responsible manner.*