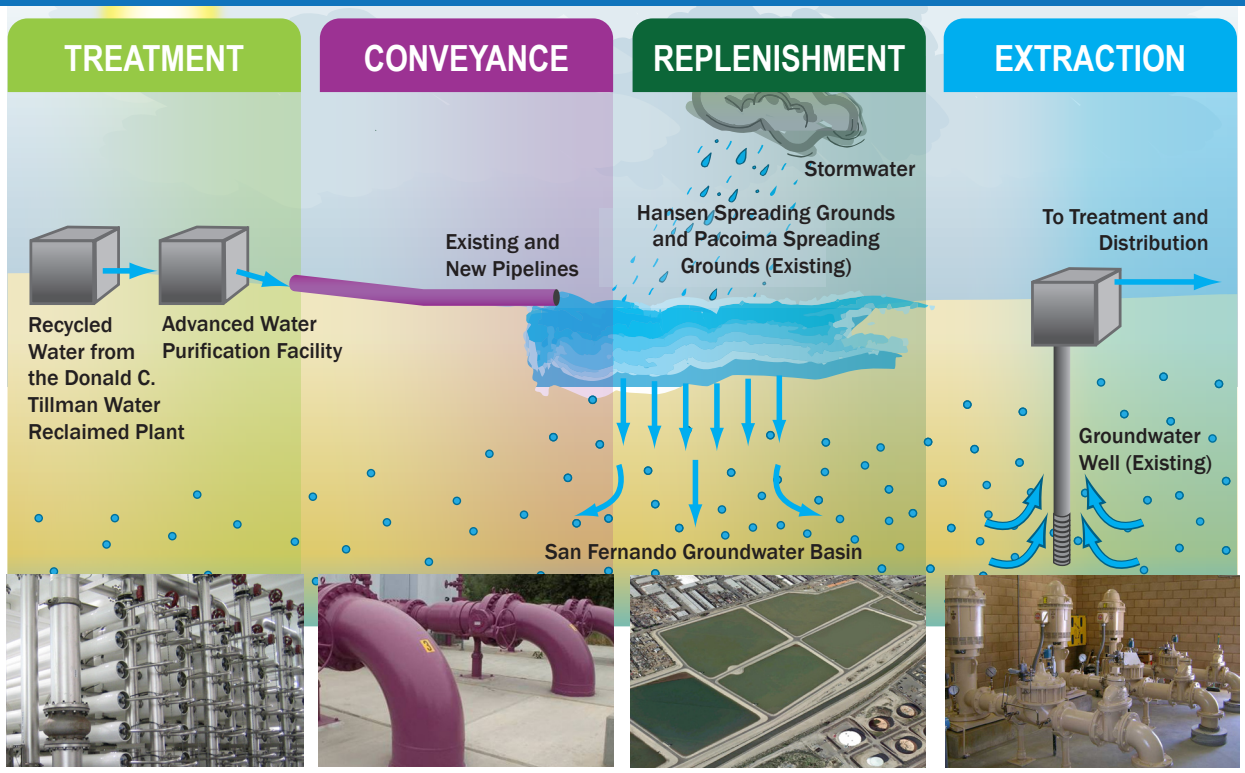
Recycled Water for Los Angeles

Groundwater Replenishment

LOCAL | SAFE | RELIABLE

At the Los Angeles Department of Water and Power (LADWP), the mission of our Water System is to provide our customers with safe, reliable, high quality and competitively priced water services in a publicly and environmentally responsible manner.

How It Will Work



Replenishing Our Groundwater Supplies

The City is developing a project to replenish the San Fernando groundwater basin with up to 30,000 acre-feet per year (AFY) of purified recycled water.

The groundwater replenishment advanced water purification facilities will produce extremely high quality water at lower costs, using less energy and generating fewer greenhouse gases than water purchased from Metropolitan Water District of Southern California (MWD).

Reducing Our Reliance on Imported Water

Los Angeles has long relied on water imported from hundreds of miles away to support its water demands. However, environmental, legal, and regulatory restrictions have threatened the reliability of these imported supplies.

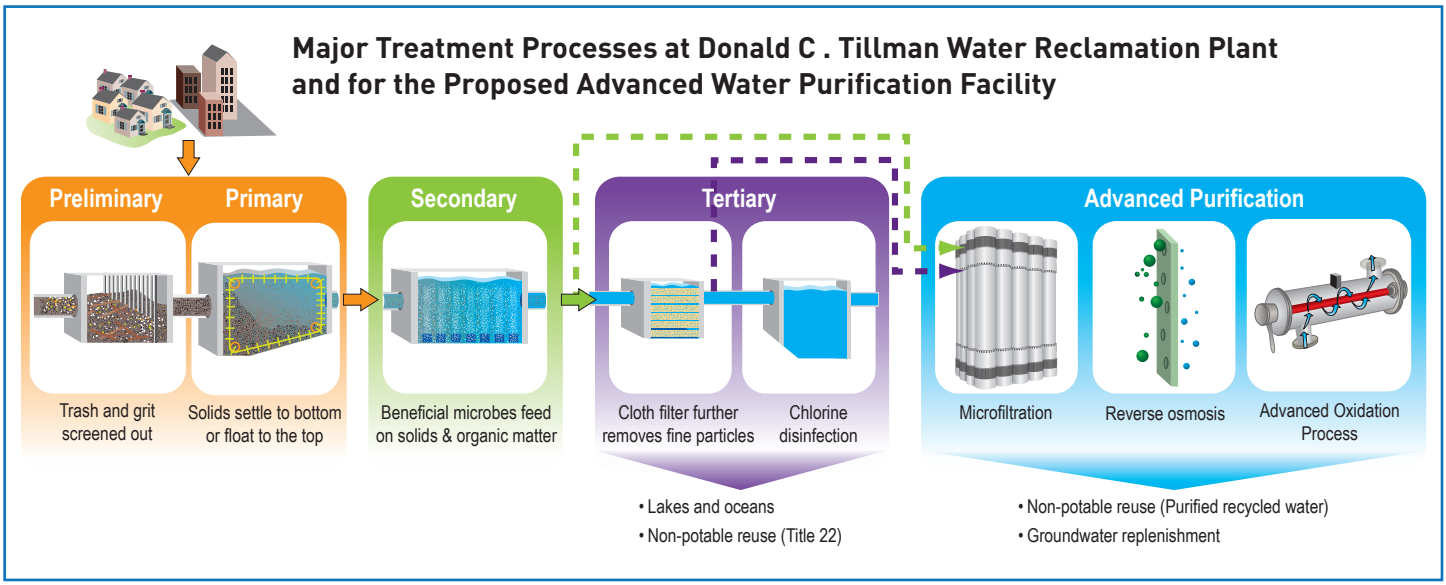
The City's water supply comes from:

- Imported water from Owens Valley and Mono Lake Basin (Los Angeles Aqueduct).
- Purchased water from the MWD, which is imported from the Sacramento-San Joaquin Bay Delta (California Aqueduct) and the Colorado River (Colorado River Aqueduct).
- Several local water sources including groundwater, captured stormwater, and recycled water. These are safe, more reliable, and more drought tolerant than imported water supplies.

The City is planning Los Angeles' water future in order to increase reliability. By increasing our local water supplies, in part through replenishing groundwater supplies, we can reduce our dependence on imported water. The City obtained input from stakeholders during this planning and will continue to seek input as projects are implemented.

One acre-foot of water is about 326,000 gallons and it is enough to serve two average families for one year.

Potable Water is Drinking Water



Multiple Levels of Treatment

A series of advanced treatment processes would be added to the City's Donald C. Tillman (DCT) Water Reclamation Plant to produce purified recycled water that is very close to the purity of distilled water. Up to 30,000 AFY of this purified water would then be conveyed through existing and new pipelines to the Hansen Spreading Grounds and Pacoima Spreading Grounds. This purified water would be added to the spreading grounds where it would flow through the soil to replenish the aquifers in the San Fernando Groundwater Basin. This natural treatment of the water would continue until it is pumped out by groundwater wells miles away to supplement our local drinking water supplies. Public health and safety standards will be met by the Groundwater Replenishment project.

Research and Testing Confirms Safety and Quality

Water purification technologies for groundwater replenishment (GWR) have been used for years by water agencies worldwide and in Southern California, such as the GWR System in Orange County. During a 16-month pilot study, a City of Los Angeles team of scientific experts ran different water purification systems through rigorous tests. Thousands of samples were collected and analyzed for more than 290 chemical compounds. Test results confirmed that drinking water and recycled water regulations and safety standards were met or exceeded.

Probable Costs of GWR

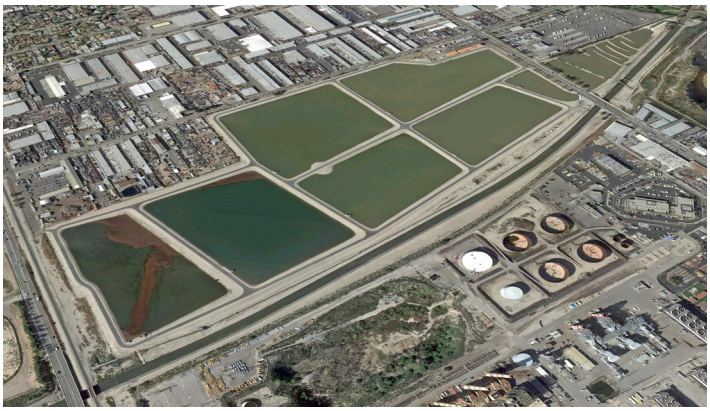
Capital (up to 30,000 AFY)..... **$379M – $415 M**
Annual Operations and Maintenance (up to 30,000 AFY)
..... **$17.0 M – $17.9 M**

Over the long term, the GWR Project will cost less than the projected cost of purchasing MWD water.

Implementation Timeline of GWR Strategy

Phase 1..... **15,000 AFY by 2022**
Phase 2..... **up to an additional 15,000 AFY by 2035**

Implementation is dependent upon funding availability.



Hansen Spreading Grounds
Image Source: Google Earth Pro, 2009

Reverse Osmosis Tubes at Terminal Island Water Reclamation Plant

For more information: www.ladwp.com/RW
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Based on October 2012 Recycled Water Master Planning Documents