ARCADIA WATER TREATMENT PLANT EXPANSION



GREENSAND FILTRATION

Upgrade existing greensand filters to remove iron and manganese ahead of the new UV AOP system.

ULTRAVIOLET LIGHT ADVANCED OXIDATION PROCESS

New advanced treatment process to remove industrial contaminants (e.g. 1,4-Dioxane) and restore the Olympic Well Field.

BULK CHEMICAL STORAGE

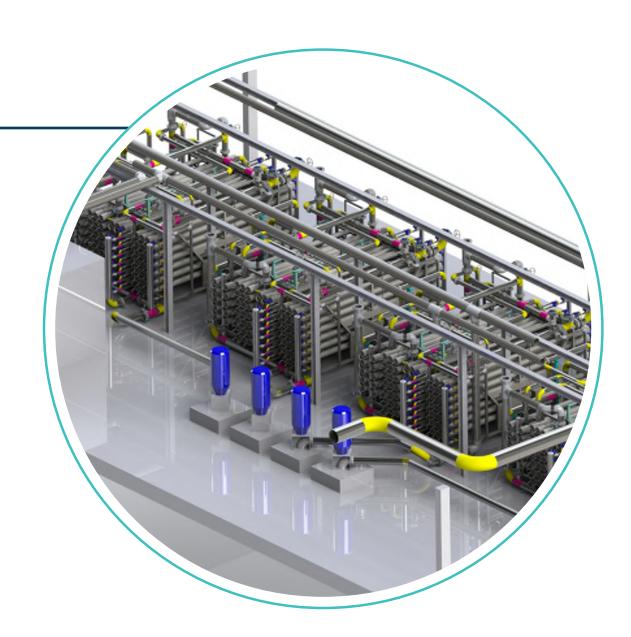
Expansion of chemical storage and feed facilities to support increased water production.

DECARBONATION / AIR STRIPPING

One new decarbonation tower added to provide post-treatment stabilization of RO permeate and removal of residual volatile organic contaminants.

GRANULAR ACTIVATED CARBON FILTRATION

Polishing step after the UV AOP system to provide a multi-barrier treatment system.



FLOW REVERSAL REVERSE OSMOSIS

The City will retrofit its existing reverse osmosis system with the Flow Reversal Reverse Osmosis (FRRO) technology to increase the production efficiency from 80% to 90% or greater.

This innovative technology will be the first of its kind in the United States and allow the City to produce additional high-quality drinking water from the same amount of raw groundwater, which will help reduce groundwater demand.





OLYMPIC WELL FIELD RESTORATION

Restoring the
Olympic Well Field
will provide up to
3,200 acre-feet per
year of local
groundwater supply
for Santa Monica.

Olympic Well Field-Groundwater

Groundwater production from the Olympic Well Field has been limited due to prior industrial activities that contaminated the groundwater aquifer.

Ultraviolet Light Advanced — Oxidation Process (UV AOP)

Industrial contaminants in the Olympic Well Field will be removed by state-of-the-art water treatment technology to ensure a safe, high-quality drinking water supply.

The UV AOP system is designed to achieve one of the highest contaminant removal efficiencies (nearly 3 log or 99.9% removal of 1,4–Dioxane) in the United States.

High Quality
Treated Water

After the UV AOP process, the groundwater will be further treated at the Arcadia Water Treatment Plant as part of the multi-barrier treatment system to ensure a safe and high-quality drinking water supply for the City.



Used in combination with UV light in the UV AOP to create a strong oxidant that breaks down and destroys industrial contaminants in the groundwater.

Restoring the Olympic Well Field will reduce the City's reliance on imported water.



