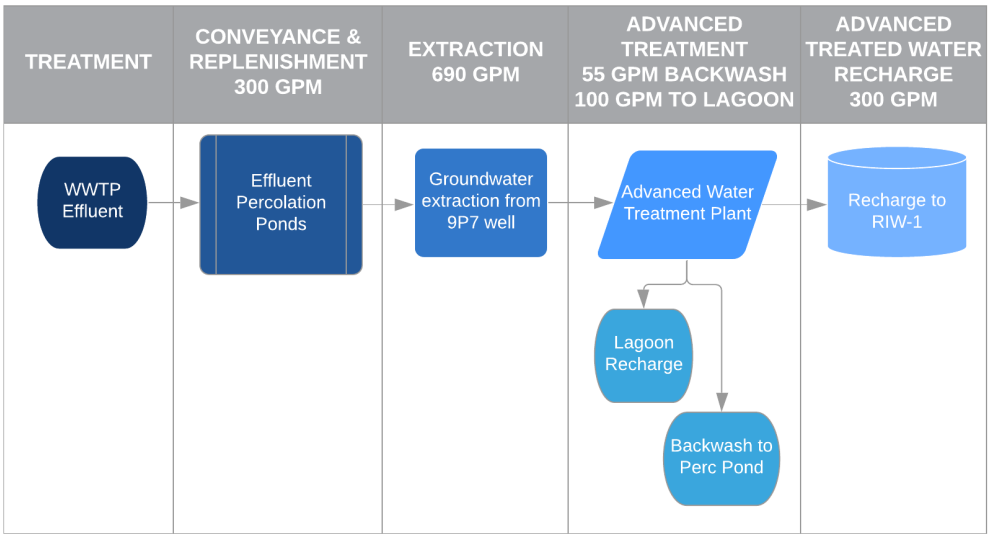
SWF/EWS QUICK FACTS

E-CDP: ZON2013-00259 issued NOVEMBER 2014
R-CDP: DRC2013-00112 applied JUNE 2014; DRC2013-00112 revised

How it Works

The Advanced Water Treatment Plant located off San Simeon Creek Road treats a combination of brackish groundwater from a deep aquifer saltwater wedge, treated wastewater effluent from the District's percolation ponds, and groundwater from creek underflow.



Plant influent, or source water, is first pumped from an existing District well. The treatment process starts with micro-filtration, which removes fine particles from the water. Next comes reverse osmosis, which removes salt and other complex organic constituents. The water then goes through an advance oxidation process. Here, UV light and hydrogen peroxide are used to remove trace organic compounds that are not fully removed by the RO membranes.

Final post-treatment stabilizes the water to prevent corrosion of the conveyance pipeline and pumping equipment. The treated water is then injected back into the ground upstream where it travels a minimum of 60 days prior to blending with the District's potable water supply. Because product water from the AWTP is injected into the aquifer to augment existing supply, the project is considered "indirect potable reuse" and is permitted under Title 22 of the California Code of Regulations.

The AWTP is capable of producing 250 acre feet per year, plus 81 acre feet per year of MF water for San Simeon Creek Lagoon re-charge. The purpose of the plant is to enable the CCSD to continue pumping from the San Simeon Creek Aquifer during periods of drought. Prior to construction of this facility, dry years resulted in water rationing with penalty surcharges and reduced production of potable water from the San Simeon Well Field to limit the risk of saltwater intrusion.

Why the Name Change?

During the development of the SEIR, the District revised and expanded the original project to include components aimed at maximizing local water use efficiencies and providing a reliable water supply to serve 4,650 existing and future residential units at buildout, pursuant to the current North Coast Area Plan and mitigation set forth in the CCSD's certified Water Master Plan Program EIR.

The Sustainable Water Facility project included the original EWS project components (AWTP, an extraction well, an injection well, and related pipe-lines and pumps) but proposed RO brine disposal by truck and conversion of the decommissioned brine evaporation pond into a potable surface water impoundment basin and treatment plant that could be used to supply 6- to 7-million gallons of potable water.

ACRONYMS

AWTP: Advanced Water Treatment Plant

CDP: Coastal Development Permit

E-CDP: Emergency Coastal Development Permit

EIR: Environmental Impact Report

EWS: Emergency Water System

LUP: Land Use Permit

RIW: Re-injection well

SEIR: Subsequent Environmental Impact Report

SWF: Sustainable Water Facility

SWIB: Surface Water Impoundment Basin

MF: Micro Filtrate

RO: Reverse Osmosis

UV: Ultra Violet

The Project Description

The original project description submitted with the 2014 regular CDP application was specific to the emergency water supply project as originally designed and constructed. Modifications were required to address the closure of the brine evaporation pond, and further modifications were completed to incorporate the Sustainable Water Facility project components outlined within the Final SEIR. While some technical details are still uncertain—especially relating to the future use of the SWIB—many of the project goals and objectives remain unchanged, including to provide Cambrians with a reliable water supply to address current water shortages and prevent future shortages from occurring.