



MONTEREY PENINSULA

**WATER SUPPLY
PROJECT**

NEWSLETTER

2021/Q4

PIPELINE CONSTRUCTION CONTINUES

A 1.3 mile, 36"-diameter underground pipeline that will help deliver recycled water to the Monterey Peninsula



ALSO INSIDE

**PROJECT DESCRIPTION
PROJECT UPDATE**

CONSTRUCTION PROCEEDS:

Major Capital Projects Delivering New Water Supplies Take Shape

Two important, water supply related construction projects continue forward with the aim of readying the Monterey Peninsula's water system to handle new sources of water.

The State Water Resources Control Board's order limiting pumping on the Carmel River to 3,376 acre-feet per year became fully effective on December 31, 2021. In 2022 and beyond, most water will be coming from the Seaside Basin, a natural underground reservoir, where native Seaside groundwater and water from the Pure Water Monterey recycled water project is stored. In heavy rain seasons, additional water from the Carmel River may also be stored in the Seaside Basin for later use.

Bringing most of the water from Seaside south to the other cities on the Peninsula requires both a new water pipeline and pump station, both of which have been under construction since late last year.

Parallel Pipeline

Construction of a new 36-inch pipeline in General Jim Moore Boulevard in Seaside is proceeding on schedule, with an expectation of completion by the first quarter of this year. The pipeline, itself, has already been installed. Crews are now finishing up with installation of appurtenances and tie ins to the existing pipeline.

"Monterey Peninsula Engineering, our contractors on this project, have done an exceptional job of keeping the project moving while dealing with

unprecedented challenges procuring materials," said California American Water engineering manager Tim O'Halloran.

The project team has worked closely with the City of Seaside to maintain a safe and effective traffic control system while construction is underway. Approximately 4,800 feet of a total of 7,000 feet of 36" ductile iron pipe has been installed to date. When complete, the new pipeline, situated alongside an existing 36" pipeline, will allow water to be simultaneously injected into, and extracted from, the Seaside Basin.

"In order to most efficiently use and maximize our limited supplies, there will be months when we need to inject Carmel River water into the Seaside Basin at the same time that we take recycled water from the basin to serve our customers," explained O'Halloran. "Until additional supplies like desal are available, every drop counts. The new pipeline will enable us to ensure that every bit of water we have rights to is being delivered or stored for future use."



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ABOUT THE PROJECT

The Monterey Peninsula is facing a severe water supply problem. That's because the State Water Resources Control Board has ordered California American Water to significantly reduce its pumping of water from the Carmel River.

This order coupled with pumping restrictions in other parts of the county means that nearly 70 percent of the Monterey Peninsula community's historic water supply must be replaced.

The current project is comprised of three elements:

- [Desalination](#)
- [Aquifer Storage and Recovery](#)
- [Pure Water Monterey: A Groundwater Replenishment Project](#)

This multi-faceted approach brings numerous advantages over a single-source solution. For one, it will enable California American Water to build a smaller desalination plant that will reduce the project's environmental footprint.

Secondly, this strategy will build-in redundancy that is critical for all municipal water supply systems, allowing the water system to continue to provide water if one component becomes temporarily unavailable.

DESALINATION

The Monterey Peninsula Water Supply Project consists of sub-surface slant intake wells, a desalination plant, and related facilities including source water pipelines, product water pipelines and brine disposal facilities.

The desalination plant will produce 6,250 acre-feet of treated water per year. One acre-foot is

equal to one acre filled with one foot of water, which is typically enough water to support four households on the Monterey Peninsula for a year. California American Water purchased a 46-acre parcel of land located off of Charles Benson Road in unincorporated Monterey County as the site for the proposed desalination plant.

California American Water has also purchased permanent easements near the coastline in the North Marina area to host its slant intake wells. California American Water's project will use a series of slant wells designed to draw ocean water.

The slant wells will be up to 800 feet long. The final location, layout and configuration will be based on the results of the slant test well and groundwater modeling work. In addition to the plant and its intake wells, other pipeline, storage and pump facilities will need to be constructed to ultimately deliver water to customers.

PURE WATER MONTEREY

The proposed Pure Water Monterey project, a partnership between Monterey One Water and the Monterey Peninsula Water Management District, recycles wastewater through an advanced treatment process. The resulting highly purified drinking water will be injected into the Seaside groundwater basin.

A new, advanced water treatment plant will be constructed for the project in addition to a number of supporting facilities. Source water for this project will go through a three-step treatment and purification process of microfiltration, reverse osmosis and oxidation with ultraviolet light and hydrogen peroxide — all commonly used in numerous industries and food manufacturing.

AQUIFER STORAGE AND RECOVERY

California American Water will expand its current ASR project – a partnership with the Monterey Peninsula Water Management District – which captures excess winter flows from the Carmel River for storage in the Seaside Aquifer and withdrawal during the dry, summer months. Winter flows are considered excess only when they exceed what is needed to protect the river's threatened population of steelhead.

For the Monterey Peninsula Water Supply Project, the company plans to construct two additional ASR wells that will increase capacity of the program and allow the desalination plant to be smaller than would be needed without the wells.

BUDGET*

Subsurface Intake System: \$80M
(34% spent to date)

Desalination Plant: \$132M
(52% spent to date)

Pipeline Facilities: \$67M
(57% spent to date)

Pipeline/Pump Station: \$50M
(100% spent to date)

*NOTE: These figures are based on a 6.4 MGD desalination facility. These figures include some contingency costs and therefore differ from the capital costs listed in the settlement.



Future editions of this newsletter will contain information on project expenditures, construction progress and milestones. Once collection begins for the Construction Funding Charge (or Surcharge 2), amounts collected by the charge will also be reported. Progress regarding slant well construction and information regarding slant well monitoring data will also be reported in future editions, as well as estimates as to the return water obligation and actual return water obligation calculated.