

PROJECT TAKING SHAPE

PURE WATER MONTEREY, PIPELINE MOVING FORWARD



INSIDE THIS EDITION

**PURE WATER MONTEREY CONSTRUCTION BEGINS
CPUC ISSUES DELAY**





PIPELINE INSTALLATION

PAGE 5

PROJECT WEBSITE UPDATE

NEW DESCRIPTION PAGE

The Monterey Peninsula Water Supply Project website recently underwent a redesign of its Project Description Page. Here, visitors will find additional and updated information about the project. The new page also includes a series of infographics to help visitors to the site better understand some of the concepts at the heart of this project. They include pieces on the desalination process, the three major project components and how slant wells work, among others.

The website also contains helpful information such as the project's pipeline route maps and links to sign up for weekly construction and traffic updates and other news.

www.watersupplyproject.org

PIPELINE MAKING SIGNIFICANT PROGRESS

As the Monterey Peninsula Water Supply Project (MPWSP) nears the end of year 2 in its proposed 5 year project schedule, construction work for the Project's first major piece of infrastructure, the Monterey Pipeline, is progressing steadily.

The pipeline will carry treated water from the Pure Water Monterey recycled water project in Marina to Cal Am customers throughout the Peninsula and will eventually connect the Monterey system to Cal Am's proposed desalination facility.

The pipeline extends about 7 miles from the City of Seaside to the City of Pacific Grove, passing through residential and commercially zoned sections of Monterey.

The first two phases of the project, which involved testing the pipeline route for existing underground utilities and relocating conflicting water services where necessary, was completed in March of this year. Installation of the 36" pipe is well underway with more than half of the 7 miles of pipe installed and 2.2 miles of road repaving completed.

In late September, crews began curb and street restoration on Hilby Ave where pipe had previously been placed, and by January 2018 Hilby Avenue should look as good as new. Crews also recently began installing 36" pipe in downtown Monterey, with construction occurring during nighttime hours to avoid traffic impacts.

"With over half the Monterey Pipeline installed, we have incorporated many lessons learned allowing us to keep steady progress that balances budget and schedule," said Engineering Manager Chris Cook. "Additionally, with night work now starting downtown, steps for noise mitigation are being integrated to our ongoing construction effort."

To sign up for weekly email updates on the current pipeline construction schedule and expected traffic impacts, visit the contact page at www.mpwsp.com.

PIPELINE UPDATES ONLINE

Folks looking for information on the pipeline installation schedule, traffic impacts and informative maps can do so by visiting the project's website www.watersupplyproject.org/pipeline. Similar information can also be found on the project's facebook page www.facebook.com/Monterey_Water. Those with any concerns or special request can call California American Water's pipeline hotline at: **831-646-3297**. All calls will be followed up with in a timely manner.

PURE WATER MONTEREY

CONSTRUCTION BEGINS

DRILL RIG IN SEASIDE



At the same time, site preparations have begun at the Regional Treatment Plant for development of the Pure Water Monterey Advanced Water Purification Facility. Construction trailers have been set up and utility installation and markings are occurring at multiple locations. In the coming weeks, initial earthwork for the new facility will take place and several advanced water treatment components are being shipped to the construction site.

In addition, the first large, 24-inch diameter injection well for the project has been drilled to its final 830' depth, with construction expected to be fully complete this month.

Monterey One Water's Pure Water Monterey project recently broke ground with work related to source water, the advanced water purification facility and conveyance pipeline all underway. For the source waters, several Blanco Drain components are being constructed concurrently.

The pipeline that will connect water from the Blanco Drain to the head works at the Regional Treatment Plant is more than 50 percent complete and a portion of pipe that goes underneath the Salinas River has also been installed.

Earthwork at the Blanco Drain to construct a Pump Station is underway and will continue as weather permits.

'THIS PROJECT DEMONSTRATES THE COOPERATION AND INNOVATIVE THINKING'

Finally, American Pipe has begun manufacturing 40,000 feet -- almost eight miles -- of ductile iron pipe in Birmingham, Alabama to meet the conveyance pipeline completion date of December 2018. The 24-inch Diameter Class 350 pipe will be zinc coated for corrosion protection. Specially designed 350 psi butterfly valves are also being manufactured for the pipeline.

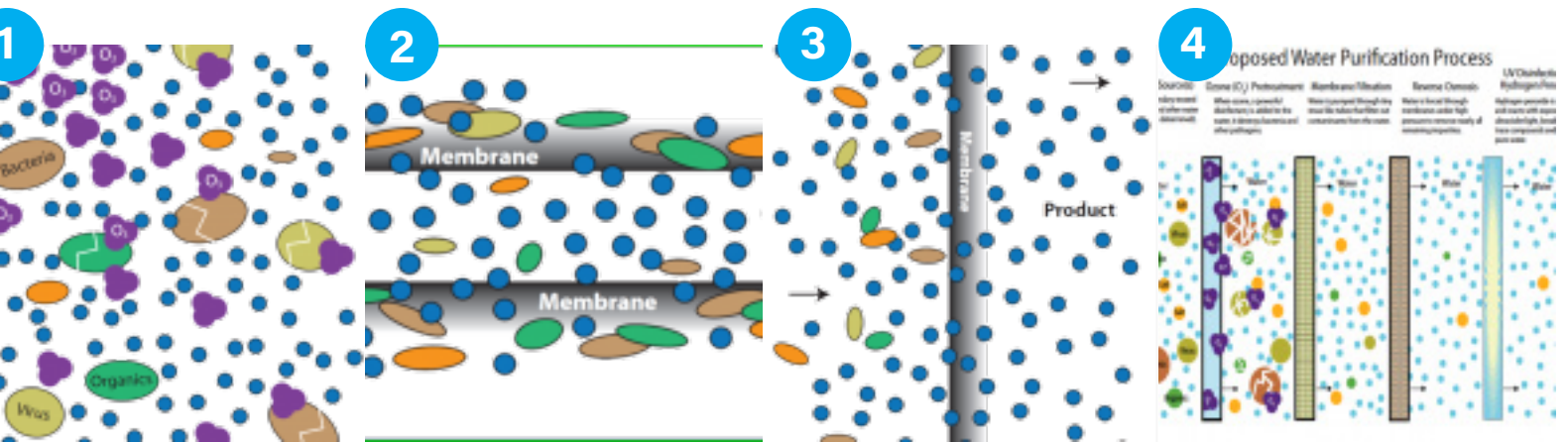


THE EXPOSED SECTION OF THE 18" HDPE PIPE THAT TRAVELS UNDERNEATH THE SALINAS RIVER.

"We are really excited to see all of the components of Pure Water Monterey getting started," said Monterey One Water General Manager Paul Sciuto. "This project demonstrates the cooperation and innovative thinking needed to help both the Ag community as well as the urban community develop a future water supply."



WASTEWATER RECYLING BY THE NUMBERS



Step 1: Ozone Pre-Treatment

With Ozone (O₃) Pre-Treatment, Ozone, a powerful disinfectant is added to the water. It destroys bacteria and other pathogens preparing the treated water for Step 2

Step 2: Membrane Filtration

In Membrane Filtration (MF) treated wastewater is pushed through a filter with pores 300th the size of a human hair. MF is used regularly to in food production such as baby food, bottled water and beer.

Step 3: Reverse Osmosis

Water is pushed through semi-permeable membranes under high pressure. RO is the standard technology used to remove salts from seawater for human consumption. It is so effective, RO is used on the International Space Stations to make drinking water on space shuttles.

Step 4: UV & Hydrogen Peroxide

At this stage, the water is already of a high grade water quality, pure enough for public consumption. The Pure Water Monterey project, however, adds a fourth step to ensure the water's purity and definitively remove any molecules that may have slipped through. This is done by oxidizing the water with hydrogen peroxide (H₂O₂) in the presence of ultraviolet light (UV). Together, these break apart any chemical bonds that may be present. This ensures water disinfection and purity

CPUC ISSUES 6-MONTH DELAY IN PROJECT EIR

In August, the state Public Utilities Commission announced the release of the final environmental impact study for the Monterey Peninsula Water Supply Project (MPWSP) will be delayed by six months.

The final combined state environmental impact report (EIR) and federal environmental impact statement is now slated to be published by March 16, with the delay likely pushing the commission's consideration of project approval into next summer.

In the ruling, Commissioner Lianne Randolph and CPUC Judge Jeanne McKinney announced that the commission's energy division and the Monterey Bay National Marine Sanctuary had decided to extend the release date due to the "complexity and extensive number of comments" received on the draft EIR released in January.

"We appreciate the need to address all issues thoroughly," said California American Water Manager of External Affairs Catherine Stedman, "but remain concerned that any additional schedule delays could threaten our ability to comply with the Cease and Desist Order."

In 2009, the State Water Resources Control Board issued a Cease and Desist Order (CDO) on pumping from the Carmel River, the Monterey Peninsula's current major source of water supply.

The order was amended in 2016 to allow more time to bring the MPWSP online, with the final cutback deadline set for the end of 2021.

The order establishes certain milestones for advancement of the Water Supply Project, and penalties for missed milestones include water supply cutbacks that could lead to significant water rationing for residents and businesses on the Monterey Peninsula.

"We will continue to do everything we can to move forward and avoid penalties from the state," Stedman added.

The CPUC has scheduled evidentiary hearings on the project through the fall, with the goal to reach a final decision on the project by June 30. The Carmel River CDO deadline for an approved project permit is Sept. 30, 2018.

While the EIR process continues, Cal Am is actively coordinating other permit application and project construction items that are able to be completed prior to final EIR approval.

The advancement of the Monterey Pipeline allowed the company to meet the first two CDO milestones ahead of schedule, and Caltrans permits were recently acquired so that construction of the pipeline bridge can begin in October.

Other components of MPWSP, such as the Pure Water Monterey Project, continue to advance steadily.

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 Marina as the site for the proposed desalination plant.

California American Water has also secured access to and the ability to purchase permanent easements for locations to host its slant intake wells. California American Water's project will use a series of slant wells located near the coastline in the North Marina area 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.

AQUIFER STORAGE AND RECOVERY

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 and Supply Return Facilities: \$79M (27% spent to date)

Desalination Plant: \$115M (18% spent to date)

Pipeline Facilities: \$128M (37% spent to date)

Pre-Construction Cost: \$8M (100% spent to date)

*NOTE: These figures are based on a 6.4 MGD desalination facility. Pre-construction costs are included in the \$322-million project total. Further breakdown of the above components will occur after the CPUC issues a Certificate of Public Convenience and Necessity permit for the MPWSP. These figures include financing and some contingency costs and therefore differ from the capital costs listed in the settlement.



For more information on the pipeline construction schedule and traffic impacts, please visit the project’s website: www.watersupplyproject.org

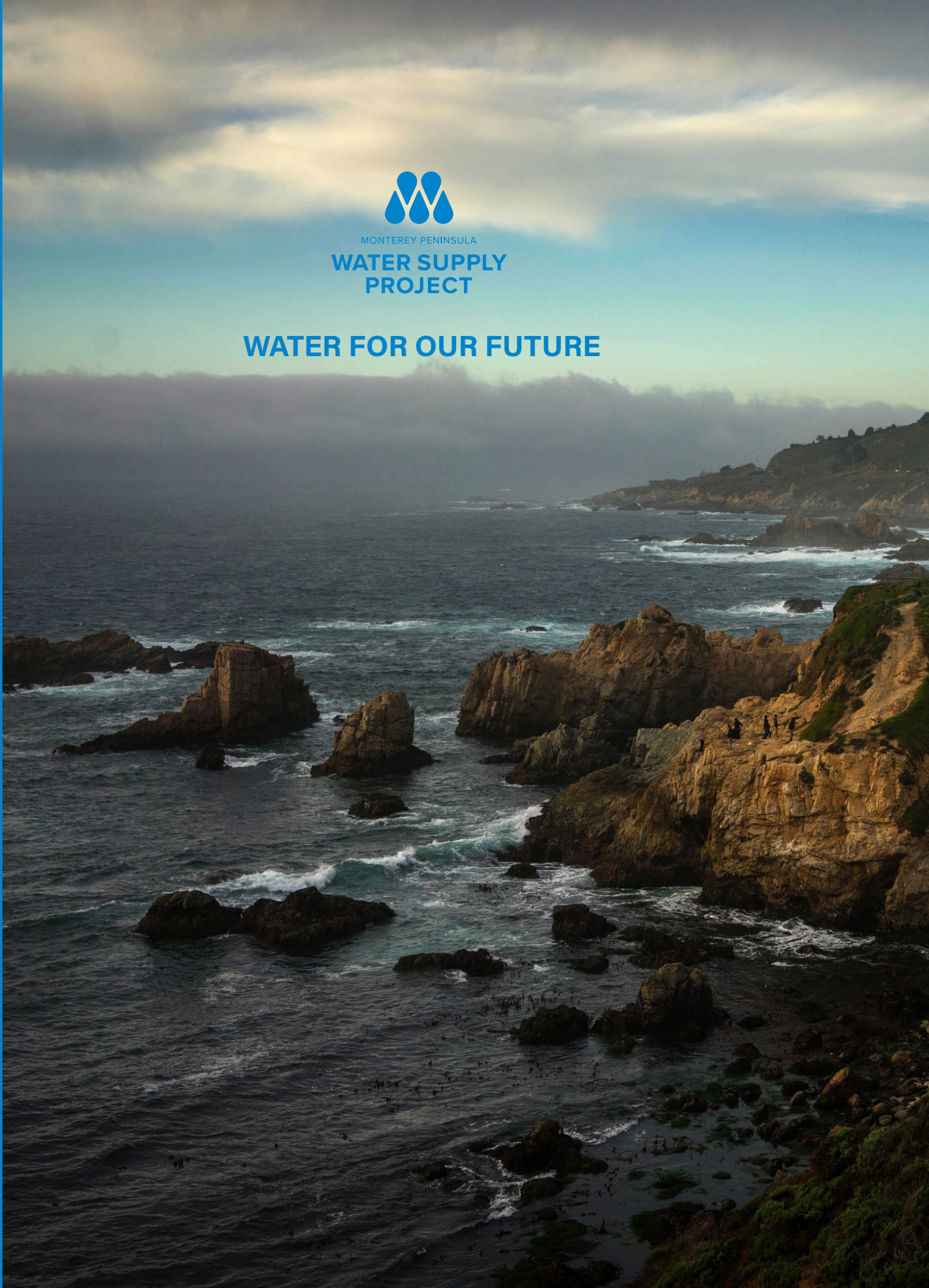
Here you will find information on where construction crews will be and when. You can also sign up to receive a weekly email with traffic alerts and general project progress.



MONTEREY PENINSULA

WATER SUPPLY PROJECT

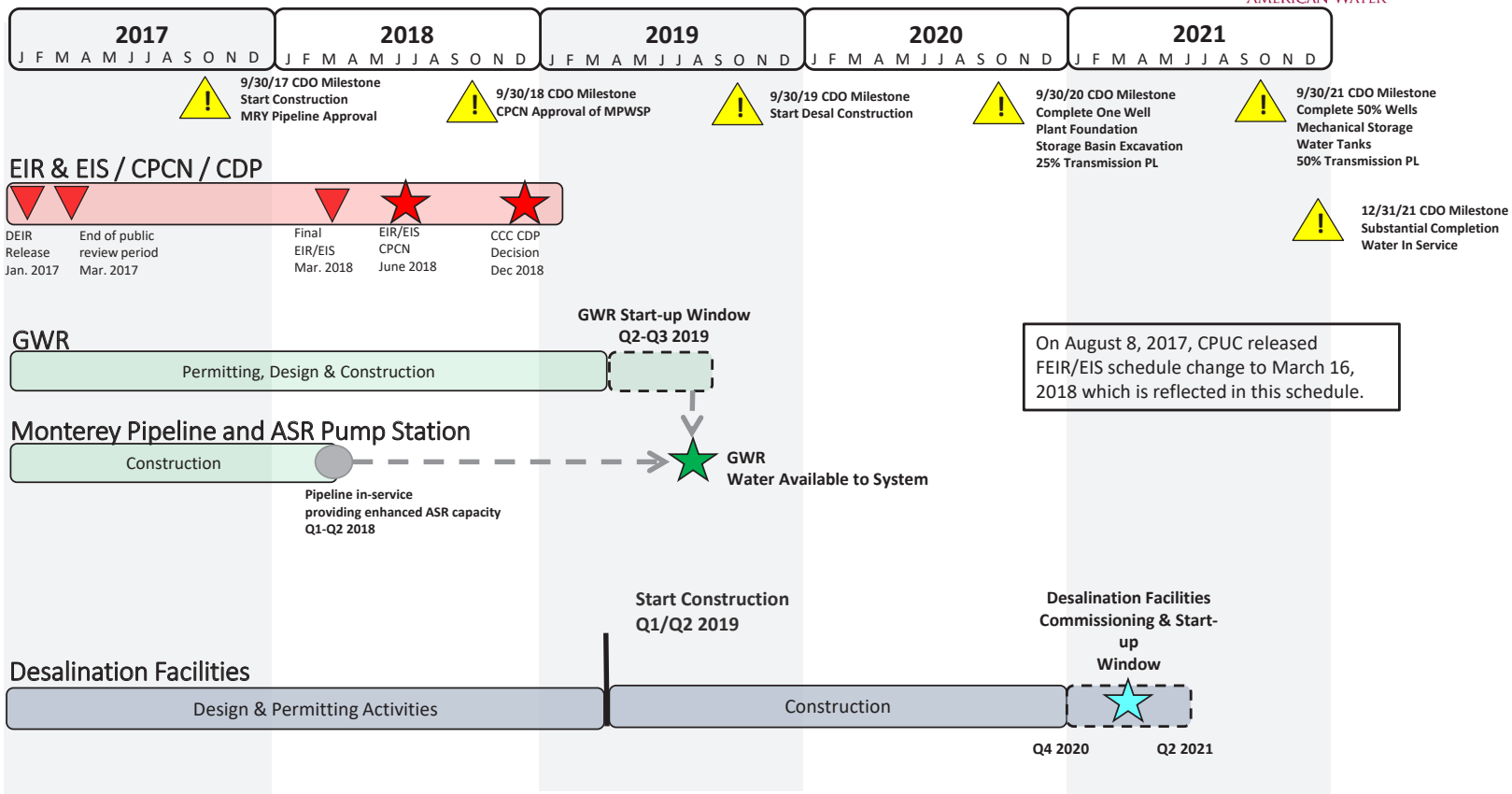
WATER FOR OUR FUTURE



PROJECT SCHEDULE



MPWSP Anticipated Schedule



Note: The schedule is based on the information and assumptions available at time of update and is accurate to +/-6 months.