

Southern First Aqueduct Facilities Improvement Project

Frequently Asked Questions

March 2024

Project Overview

What is the Southern First Aqueduct Facilities Improvement Project?

The Southern First Aqueduct Facilities Improvement Project will improve more than 100 unique aqueduct support structures in streets, along access roads and within utility easements for Pipeline 1 and Pipeline 2 of the First Aqueduct— two critical, regional water pipelines capable of transporting up to 120 million gallons of water per day to the San Diego region.

Specific improvements to the First Aqueduct will include a combination of maintenance, mechanical replacement, rehabilitation, and engineering upgrades.

Where is the First Aqueduct?

The First Aqueduct spans 35 miles across Valley Center, Escondido, City of San Diego/Rancho Bernardo, Poway, and unincorporated San Diego County. The Southern First Aqueduct Facilities project spans 21 miles from Hubbard Hill in northern Escondido to the San Vicente Reservoir in Lakeside.

Why was the First Aqueduct built?

Following World War II, San Diego—which had become a hub for the U.S. Navy—drastically grew in population. The region needed a long-term water supply and President Roosevelt directed the Navy to fund and supervise the construction of an aqueduct to bring water from the Colorado River to the San Vicente Reservoir. On November 28, 1947, the first water flowed through the San Vicente Aqueduct, known today as Pipeline 1 of the First San Diego Aqueduct. Once complete, the aqueduct was turned over to the Water Authority.

When drought hit San Diego County in 1950, the federal government pursued plans for a second major pipeline. In 1954, Pipeline 2 was turned over to the Water Authority and began delivering water to the San Diego region.

How much water is transported through the pipelines of the First Aqueduct?

The First Aqueduct comprises two critical water pipelines, which are between 48 and 54 inches in diameter. The two pipelines are capable of transporting up to 120 million gallons of water per day to the San Diego region.

Why are improvements to the Southern First Aqueduct needed?

Proactively maintaining critical regional water infrastructure supports the Water Authority's goals of providing safe and reliable water at an affordable price. This project is needed to improve the operations of the historic First Aqueduct. While the First Aqueduct has proven reliable for many decades, it is due for a combination of maintenance, mechanical replacement, and engineering upgrades to ensure that it will continue to serve the San Diego region for many decades to come.



The San Diego County Water Authority and its member agencies are coordinating closely to prepare for and minimize construction impacts. Scan here for more information.



San Diego County
Water Authority

sdcwa.org/first-aqueduct
(877) 682-9283, ext. 7004
FirstAqueduct@sdcwa.org

[f](#) [X](#) [@](#) [v](#) [in](#) [@sdcwa](#)

What will the improvements include?

The project will include pipeline condition inspection along with improvements of concrete vaults, entry hatches, floors, valves, vents, pipeline nozzles, mechanical valve assemblies, ventilation features, piping, access ladders, and related safety features.

These structures contain blow-off valves for releasing water and draining the pipeline, pipeline access points, or air valves for releasing and letting air into the pipelines. Connections to existing flow-control facilities are also being expanded between the two water pipelines to improve operational flexibility and maintain delivery to member agencies during construction.

How much will the project cost?

The projected cost is estimated at \$66 million.

How is this project funded?

This project is funded through the water rates paid by the Water Authority's member agencies and ultimately by water ratepayers across the region through their monthly water bills. The funds have already been set aside as part of the Water Authority's Capital Improvement Program.

The project is funded as part of the Capital Improvement Program (CIP), which is approved by the Water Authority's Board of Directors. This investment is expected to extend the life of the pipelines and their supporting structures by more than 50 years.

How will the First Aqueduct facilities be maintained going forward?

Timely improvements are part of the Water Authority's proactive [Asset Management Program](#), which uses the latest inspection technology to monitor conditions along the agency's 308 miles of large-diameter water pipelines. In this way, the life of the regional water delivery system is extended while avoiding unplanned shutdowns and costly emergency repairs.

How often will the Water Authority need access to the areas for operation and maintenance?

The Water Authority's Operations and Maintenance crews perform annual grading, culvert repairs, mowing, vegetation management and pipeline structure maintenance. The right-of-way team conducts routine patrols and checks for any unauthorized work which jeopardizes safe and reliable water delivery.

What is a right-of-way (ROW)?

The Water Authority maintains 308 miles of pipeline and 1,400 related structures and facilities. These facilities are located within the Water Authority's 168 miles of right-of-way. Most of the right-of-way applies to properties next to our pipelines and other facilities. Right-of-way is land that the Water Authority owns or has rights to use to operate, maintain or repair agency facilities. Most of the Water Authority's right-of-way is in the form of easements (see below). The Water Authority's right-of-way is inspected with periodic patrols and the use of drones.

Managing the right-of-way to preserve the Water Authority's ability to quickly access or repair vital water facilities when needed is a crucial ongoing effort. Contact a representative at (858) 522-6900 for more information or call 811, **DigAlert**, before you dig.



What is a utility easement?

An easement is the right to cross, enter, or otherwise use someone else's land for a specified purpose without owning the property. Utility easements are one of the most common types of easements and allow a utility company or agency to access and modify portions of private property near wires, pipes, and similar infrastructure. Easements are permanent and appear in the title report for the property when it is transferred from seller to buyer. The Water Authority should be consulted before any improvements are made in easements, such as planting shrubs/trees or building any fences or other structures. Discussing work ahead of time helps to ensure improvements are compatible with the Water Authority's easements. Contact a representative at (858) 522-6900 for more information or call 811, **DigAlert**, before you dig.

What is an encroachment?

An encroachment includes modifications or additions that encroach on a property which is owned by another party or has an easement. For example, an encroachment occurs when homeowners build a fence around their property and extend the fence onto their neighbor's property or into an easement.

Construction

Where will the First Aqueduct construction take place?

Phased construction will be performed along the 21 miles of the southern segment of the First Aqueduct in Escondido, City of San Diego (Rancho Bernardo), Poway, and unincorporated San Diego County. Approximately 10% of the structures are in an urban environment (Escondido), 20% are in Open Space (Sycamore Canyon/Goodan Ranch County Preserve), and 70% are in residential neighborhoods.

When will construction start?

Construction will begin in the southern part of the alignment near Goodan Ranch and move north. Construction is expected to begin in summer 2024. The Water Authority is committed to proactive communication and outreach throughout the project, so nearby residents will be provided with more details before work begins.

How long will construction take place?

The entire construction project will take approximately 2.5 years, from summer 2024 through summer 2026. However, construction on the more than 100 unique facilities will be phased to reduce impacts to residents, businesses, and the public. Construction work at most locations is expected to take between 2-6 weeks, and several months for the more complex sites.

How will construction be phased?

Construction will take place on Pipeline 2 during the first year of the project. When this work is finished, Pipeline 2 will be placed back in service, and then Pipeline 1 will be shut down. Construction on Pipeline 1 will take place during the second year of the project. The contractor will develop a schedule that will provide a 2-4 week look ahead of where they plan to be working and for how long. The construction and public outreach teams will monitor the schedule closely and coordinate with affected parties.

Will I be affected by construction? What can I expect?

Construction areas will include more than 100 specific sites in Escondido, San Diego (Rancho Bernardo), Poway and unincorporated areas of San Diego County. Construction impacts will vary based on factors such as the depth of construction, location, facility sizes and the extent of upgrades. Details of specific construction activity and duration by location will be provided to affected stakeholders and the public as each phase of work begins. Potential impacts include noise, dust, lights, heavy equipment, backup beepers, material deliveries, fencing, trash, and temporary construction material laydown areas.

Mitigation measures will include traffic control and street detours, designated parking areas, construction signage, coordination changes to pedestrian and bike routes, and wayfinding signage at [Sycamore Canyon/Gooden Ranch County Preserve](#) for users of affected biking and hiking trails. A GIS-based [Interactive Map](#) is available for the public that will allow a user to enter their address and learn more about possible construction in their community.

The Water Authority has been in close communication with stakeholders who will be directly impacted by construction and will continue to provide timely updates on schedules and impacts throughout the project.

What safety measures and stormwater pollution prevention practices will be in place during construction?

The Water Authority is working to ensure robust safety precautions and mitigation measures are in place for impacted areas throughout construction. Standard practices, such as traffic control, stormwater runoff prevention and signage for the public, will be in use during all phases of construction. All infrastructure improvements will adhere to current engineering standards to allow for safe access, operation, and maintenance.

Will construction affect businesses? Are resources available to help businesses?

Some businesses in Escondido will have construction nearby. The Water Authority is proactively meeting with businesses—and other stakeholders like schools, religious centers, homeowner associations (HOAs), the Greater Escondido Chamber of Commerce, and community groups—to provide project information, including construction safety measures such as traffic control measures, and to address concerns.

Will street parking be impacted?

Street parking in some neighborhoods will be limited during construction. The Water Authority will continue to work with residents and businesses to help them prepare for and reduce construction impacts.

Will there be increased traffic, detours, or road closures?

Construction activity often requires road closures and detours, which can impact traffic conditions. The Water Authority will work with residents and businesses to help them prepare for and reduce possible construction traffic impacts on nearby surface streets and thoroughfares.

Will my water service be impacted during construction?

The Water Authority is coordinating closely with retail water agencies to ensure residents and businesses have uninterrupted water access 24/7. If localized water shutdowns are necessary due to unique circumstances, the Water Authority will work with member agencies and neighbors to minimize potential impacts.

When the work is complete, can I plant trees, shrubs or build a fence in the easement?

The Water Authority should be consulted before any improvements are made to private property within our easement to ensure compliance with current regulations. The Water Authority's [Right-of-Way](#) (ROW) webpage provides detailed information. Chapter 7 of the Water Authority's Administrative Code outlines permissible uses of easements. You can read more about it here: [Administrative Code – Chapter 7.00 – Regulation of Rights of Way and Property](#). Contact a representative at (858) 522-6900 for more information or call 811, **DigAlert**, before you dig.

More Information

How can I learn more about construction in my area?

The Water Authority and its member agencies are coordinating closely to prepare for and minimize construction impacts on residents and businesses. Construction will include different types of work at each location, and work will vary in duration, visibility, and impact. Detailed construction information can be found on the Water Authority website at www.sdcwa.org/first-aqueduct as available. An interactive GIS-based map will allow the public to learn more about construction activity in their community. Sign up for project updates by emailing FirstAqueduct@sdca.org and ask for information about the Southern First Aqueduct Facilities Improvement Project.

How will the community be notified during construction?

The Water Authority is committed to working with community partners, project stakeholders, and impacted residents to provide clear and concise project information and regular construction updates. This will include public meetings, fliers, emails, mailers, doorhangers and other outreach methods.

How can I learn more about this project?

To learn more about the project, please visit www.sdcwa.org/first-aqueduct, call 877-682-9283, ext. 7004 or email FirstAqueduct@sdca.org.

Who can I contact with questions or concerns during construction?

For questions or concerns during construction, please contact the project team at 877-682-9283, ext. 7004 or FirstAqueduct@sdca.org.

Your Water Bill at Work



San Diego County
Water Authority