

# Flood Protection Project **Sunnyvale East and West Channels**



**Priority E**: Provide flood protection to homes, businesses, schools and highways.



## About the project

The Sunnyvale East and West Channels were constructed in the 1960s to serve as storm drains in response to flooding caused by a combination of major storm events, land subsidence and inadequate drainage to the bay. Since construction, the channels have experienced flooding during major storm events in 1963, 1968, 1983, 1986 and 1998. This project underscores Valley Water's commitment to the safety and protection of residents and businesses.

Flooding can result in millions of dollars in damages to homes, businesses, schools and public infrastructure. In addition, disruption to businesses and transportation networks can result in significant loss of productivity and revenue. The goal of the project is to provide flood protection to homes, businesses, schools, and highways to avoid transportation shutdowns and prevent potential damages that could exceed \$54 million (estimated at 2020 value) per flood event.

## Protecting people, their properties and enhancing our environment

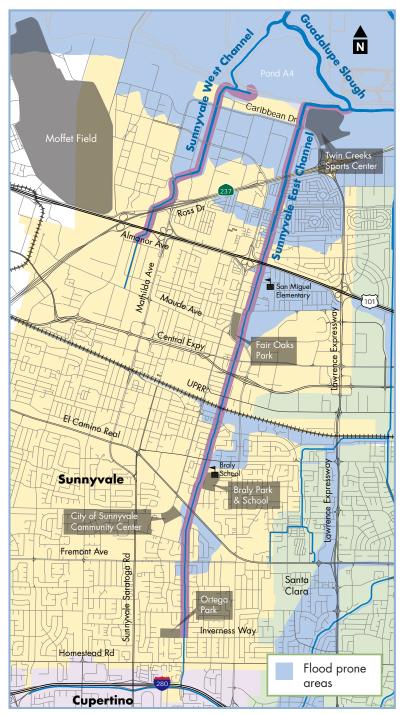
Each winter, thousands of households, businesses and schools in Sunnyvale are susceptible to flooding from Sunnyvale East and West channels during a major storm.

Once completed, this project will protect over 1,600 homes and 47 acres of highly valuable industrial and public lands from a 100-year flood, saving potential flood damages in excess of \$54 million (2020 dollars). A 100-year flood has a one percent chance of occurring in any given year.

The completed project will provide 100-year flood protection from local flows via the updated channel project. However this project will not protect against tidal flooding to some of the properties located along the San Francisco Bay in northern portion of Sunnyvale. Valley Water along with the California State Coastal Conservancy, the U.S. Army Corps of Engineers, and regional stakeholders are leading the San Francisco Bay Shoreline Protection project to provide tidal flood protection, restore and enhance tidal marsh and habitats, and provide recreational and public access opportunities.

To learn more about the San Francisco Bay Shoreline Protection project, visit our website, *valleywater.org*.

### Sunnyvale East and West Channels flood protection project



Sunnyvale West Channel is approximately three miles long and stretches from Maude Avenue to Guadalupe Slough. Sunnyvale East Channel is approximately six miles long and stretches from Interstate 280 to Guadalupe Slough.

#### Project benefits and features

The goal of the project is to provide flood protection to Sunnyvale residents, schools and businesses. The benefits and features of the project will enhance and improve our environment, community infrastructure and provide for recreational opportunities. This project will:

- Provide flood protection for thousands of homes and businesses in Sunnyvale.
- Improve water quality by implementing erosion control measures to decrease sediment, turbidity and buildup within the channels.
- Provide for recreation opportunities by accommodating the City of Sunnyvale's trail plan.
- Maximize the on-site planting of native plants to improve wildlife habitat along the channels and the bay.
- Create new channel culverts at Carl Road and Caribbean Drive to allow for greater water flow through these street undercrossings.



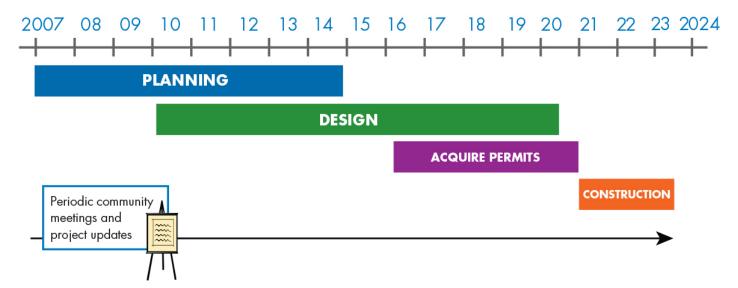
Sunnyvale East Channel at Caribbean Drive, December 2012.



Sunnyvale East Channel

#### **Project schedule**

Valley Water has completed the planning and design phases. Valley Water is actively coordinating with state and federal regulatory agencies to acquire the necessary project permits. Construction is scheduled to begin in summer 2021, which is dependent on the issuance of regulatory permits.



Valley Water has made significant progress in getting the project ready for construction. To date, the following has been accomplished:

- Design of the construction drawings are 95% complete (state and federal agency permits are pending).
- Applied for a Conditional Letter of Map Revision (CLOMR) to Federal Emergency Management Agency (FEMA) for review. This is the first step to removing properties from the flood zone upon completion of the project.
- Completed designs for floodwalls and new culverts at Carl Road (Sunnyvale West) and Caribbean Drive (Sunnyvale East).
- Conducted input meetings with the public and key stakeholders.
- Completed and obtained certification on the California Environmental Quality Act (CEQA).
- Submitted required permit applications to various state and federal regulatory agencies.
- Established an agreement with Google to explore widening the West Channel upstream of Caribbean Drive that may increase mitigation opportunities and habitat creation.

#### Looking ahead

The Sunnyvale East and West Channels flood protection project offers a tremendous opportunity to improve flood protection, create recreational opportunities, increase habitat opportunities along these two channels and improve the quality of the water that reaches the Bay.

Valley Water continues to work with state and federal regulators in obtaining the required permits to begin project construction. As with all flood protection projects, the permitting processes can be lengthy as it requires review and approval from various agencies. Valley Water meets with their respective staff regularly to help expedite the review of comments and changes to the application.

The approval to collaborate with Google on expanding the West Channel provides the opportunity to increase the amount of space available for the planting of native vegetation that may be utilized for onsite mitigation. Regulatory approval is required for the Project's proposed mitigation and monitoring plan. Valley Water will continue to engage in this effort.



Sunnyvale West Channel view from Java Drive looking south.



Aerial view of the Sunnyvale West Channel (left) with the proposed rendering of the Google campus looking south from West Caribbean Drive.

#### Your vote at work

The Sunnyvale East and West Channels Flood Protection project was originally funded by the countywide Clean, Safe Creeks and Natural Flood Protection Plan parcel tax passed by voters in November 2000. In November 2012, the project was transitioned to the Safe, Clean Water and Natural Flood Protection Program. The project is estimated to cost \$68.9 million to plan, design and construct.

#### By the numbers

- 9.5 mile Sunnyvale East and West Channels will be updated to provide 100-year flood protection.
- 1,618 homes will be protected and removed from the FEMA flood hazard maps and eliminate the requirements for flood insurance.
- 47 acres of industrial and government lands will be protected, including the former Onizuka Air Force Base satellite tracking station.
- **\$54 million** in potential flood damages will be saved should a flood occur.

#### You're in a watershed

No matter where Santa Clara County you are, you're in a watershed. A watershed is the area of land that drains to a common waterway. In Santa Clara County, our creeks catch rain and runoff from storm drains and carry the water north to San Francisco Bay or south to Monterey Bay. Along the way, some of the water is used to fill reservoirs for drinking water, replenish the underground aquifer and create better habitat for fish and wildlife.

This project is in the West Valley Watershed, an 85-square-mile area of multiple small-creek watersheds. Characterized by the contrast between these non-natural channelized storm drains and its more natural creeks and small streams in the hillsides, this watershed is the county's smallest.

