

Sunnyvale East and West Channels Flood Protection Project

About the project

The Sunnyvale East and West Channels were constructed in the 1960s 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.

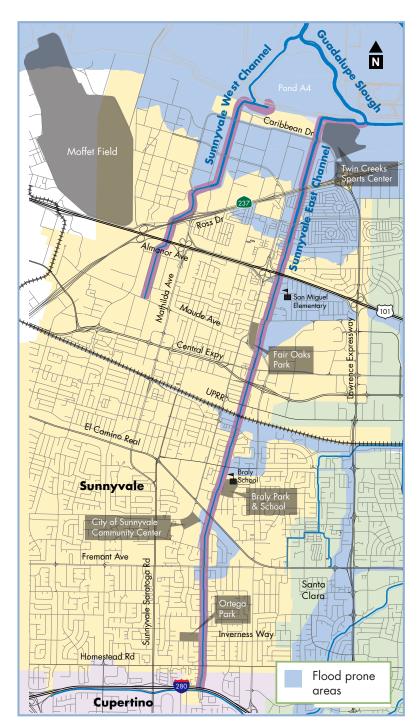
Flooding can result in millions of dollars in damages to homes, businesses and schools. In addition, disruption to businesses and transportation networks can result in significant loss of productivity and revenue. The goal of the project is to provide protection to property, avoid transportation shutdowns and prevent potential damages that could exceed \$44 million (2009 value) per flood event.

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Santa Clara Valley Water District

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.

Protecting people and their properties

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 1,618 homes and 47 acres of highly valuable industrial and government lands from the 100-year riverine flood, saving potential flood damages in excess of \$44 million.

Additional project benefits

In addition to providing riverine flood protection, this project will:

- Improve water quality by implementing erosion control measures to decrease sediment and turbidity in the channels;
- Provide for recreation opportunities by accommodating the City of Sunnyvale's trail plan; and
- Revise the Federal Emergency Management Agency (FEMA) flood hazard maps (upon completion of the project) to reflect 100year riverine flood protection along the improved channels, which could eliminate the requirements for flood insurance in areas of this community.

riv·er·ine (riv-uh-rahyn, -reen) adj.

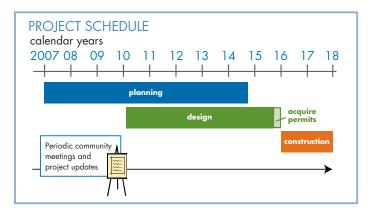
- 1. Relating to or resembling a river.
- 2. Located on or inhabiting the banks of a river; riparian. Riverine flood protection applies to flooding from a river or channel, as opposed to tidal flooding from a bay or ocean.



Sunnyvale East Channel

Project schedule

The Santa Clara Valley Water District has completed the planning phase and the design phase will be complete in spring 2015. Construction is scheduled to begin in January 2016, dependent upon the issuance of regulatory permits.



To date, the water district has:

- Conducted a design level geotechnical investigation in 2011
- Collected additional survey data in key areas
- Updated hydraulic models with refined design elements
- Refined erosion protection and floodwall design
- Completed structural design for floodwalls and new culverts at Carl Road (Sunnyvale West) and Caribbean Drive (Sunnyvale East)
- Conducted meetings with key stakeholders and public
- Completed 90 percent design submittal of the contract documents in December 2013
- Completed the California Environmental Quality Act (CEQA) Draft Environmental Impact Report (EIR)
- Released Draft EIR for public review in November 2013
- Final EIR certified on September 9, 2014

Looking ahead

The Sunnyvale East and West Channels flood protection project offers a tremendous opportunity to improve riverine flood protection, create recreational opportunities and enhance the environment. The water district will continue to work with the communities and cities to provide critical flood protection.



Erosion along the Sunnyvale East Channel



Sunnyvale East Channel at Caribbean Drive, December 2012.



Sunnyvale West Channel

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 \$68.3 million to plan, design and construct.

By the numbers

- 9.5 mile Sunnyvale East and West Channels will be updated to provide 100-year riverine flood protection.
- 1,618 homes will be protected and be 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.
- **\$44 million** in potential flood damages will be sayed.



You're in a watershed

No matter where 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 its channelized creeks on the valley floor and its more natural streams in the hillsides, this watershed is the county's smallest.

On the cover:

- Bridge at Sunnyvale East Channel
- 2. Flooding from Sunnyvale East
- 3. White Egret on Sunnyvale East Channel
- 4. Sunnyvale West Channel



