

Flood protection and preparing for sea level rise

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At the northern reaches of Santa Clara County, marshes once lined the San Francisco Bay. As our community grew, the bay shoreline transformed, and a majority of the wetlands were lost to fill or alteration. Marshes gave way to ponds employed in salt production for more than 100 years.

Now, the Santa Clara Valley Water District is working with state and federal partners to restore the marshland habitat that can support a wide variety of wildlife and help protect our valley from tidal flooding. The water district understands that the shoreline doesn't stop at city boundaries and is taking a coordinated regional approach to address flooding and sea level rise.

In May, the Bay Area Council Economic Institute released a study estimating the Bay Area would suffer a minimum of \$10 billion in economic damages from an extreme storm that many experts believe is overdue. The damage would be severe along the bay's waterfront land, where companies from Facebook to Google employ hundreds of thousands of workers, 355,000 residents have homes, and key economic and civic infrastructure is located.

A recent Santa Clara County Civil Grand Jury report also investigated sea level rise and recommended that local jurisdictions work together to guard against it. As a leader in flood protection in Santa Clara County, the water district shares this concern and appreciates the grand jury's call for action. We are already working on this, and will continue to partner with local, state and federal agencies to protect local communities.

The water district is a partner in the multi-phase South Bay Salt Pond Restoration Project, an effort to restore the wildlife, habitat and natural flood protection offered by tidal marshes. The project has three goals: habitat restoration, flood protection and recreation. Restoring the marshes generally occurs by breaching former salt pond levees and allowing the tide to bring sediment-laden water inside the ponds, building up the elevation so that marsh vegetation grows.

Many of the salt ponds cannot be breached until a flood risk management levee has been built. In phase one of the salt pond project, which was recently completed, most places that could be breached without causing more flood risk were breached and restoration is ongoing. Phase two would continue the breaching and restoration of more ponds that would not increase flood risk.

To protect the community, the water district is working with the U.S. Army Corps of Engineers and the State Coastal Conservancy to plan, design and construct a flood risk management levee, restore the shoreline habitat and provide recreational opportunities. This project, called the South San Francisco Bay Shoreline Study, must be completed before phase three of the salt pond restoration can be carried out.

This levee would protect the community against 100-year tidal events, which are tides that have a 1 percent chance of occurring in a given year. It would also protect against the sea level rise predicted for 50 years from now.

Recreational opportunities will be provided through trails and viewing areas that connect to the Bay Trail system, so all can enjoy this unique part of Santa Clara County.

To help pay for the shoreline study and its identified projects around the nine-county Bay Area region, the San Francisco Bay Restoration Authority is considering a \$12 per parcel annual tax for 20 years, tentatively scheduled to appear on the June 2016 ballot.

To learn more about this important issue, visit southbayrestoration.org. The Bay Area Council report can be found here: bayareacouncil.org/issues-initiatives/storm-flood-protection.

The grand jury report can be found here: valleywater.org/DocumentList.aspx?id=105&terms=grand+jury

Use water wisely.

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