

Putting Recent Storms into Context



7th Avenue in San Bruno (12/31/2022, Source: Resident) Harbor Blvd & El Camino Real in Belmont (12/31/2022, Source: San Mateo Consolidated Fire Department)

As we dry out from the major storms earlier this year, we hope you are well and we commend the public servants throughout the county for their hard work to respond to and recover from these events.

According to the National Weather Service, several locations in the Bay Area set 3-week records for rainfall (including SFO with over 15 inches). Between December 26 and January 17, OneShoreline’s creek flow and rainfall monitoring stations along the Bay shoreline documented precipitation amounts ranging from 11.9 to 18.6 inches. Data from these stations, and new ones going online this spring in the Pescadero area, can be viewed at [OneShoreline’s flood early warning website](#).

These storms have understandably been described as extraordinary when viewed through the lens of prior decades, yet they are **predicted** by scientists to become ordinary as climate change continues to progress. This means, for example, that precipitation amounts previously associated with the 100-year storm standard (which means a 1% chance of happening in any given year) can become better described as a 10-year storm that has a 10% chance of happening in any given year. The new normal can also be seen in terms of the “whiplash effect” between drought and flooding – in the final 3 weeks of 2022, SFO received over 50% more rain than in the previous 49 weeks of the year. This pattern of drought and deluge is a repeat of what we experienced in 2021. And flooding conditions in our county from storms along the Pacific Coastline and in the low-lying areas affected by San Francisco Bay tides will be compounded by continued sea level rise.

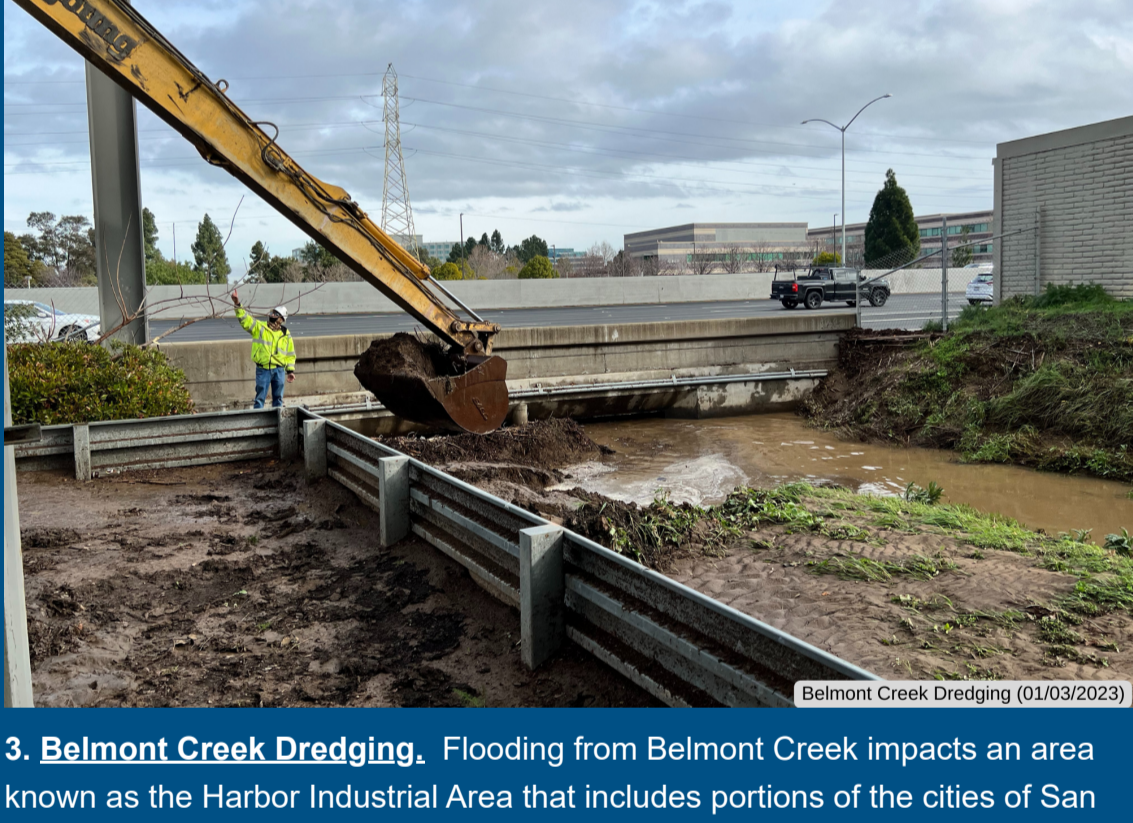
We are all in this together

OneShoreline was established in January 2020 to make all communities in San Mateo County resilient to the water-related impacts of climate change. Because these impacts extend beyond any one city or unincorporated area, our goal is to develop and implement projects that align and connect the protection and enhancement of multiple jurisdictions. This multi-jurisdictional approach applies not just to building resilience, but also planning for it. Starting with the Bayside of our county, and with input from staff from the County and twelve cities impacted by Bay tides, OneShoreline is developing a policy to guide our collective planning for future conditions. This policy can be used as a standardized and evolving resource for cities and the County to account for climate change in planning documents, ordinances, and project approvals. As the most vulnerable county to sea level rise in California that is also confronted by increasingly intense storms, we are in a race to achieve resilience and our planning guidance policy, which we anticipate seeking public comment on soon, aims to leave no community behind.

OneShoreline's Work in Storm Response

While OneShoreline is not an emergency response agency, our nimble nature and the resources we have developed over the past three years were brought to bear in facilitating action across jurisdictional lines in response to these storms in the following ways:

- 1. Mapping Flood Photos.** San Mateo County is geographically diverse, and residents experienced impacts from the recent storms differently. To document the extent of flooding, particularly in communities where damages may be under-reported, OneShoreline has developed an **interactive countywide map** to allow members of the public, community organizations, and local government staff to upload photos and associated location and time information. Having this information correlated to storm conditions is crucial to the ability of OneShoreline and local jurisdictions to collectively plan and build long-term resilience.
- 2. Countywide Flood Early Warning System.** Since it was established three years ago, OneShoreline has been utilizing a State grant to build out a network of monitoring stations that measures and communicates rainfall amounts and creek water elevations. These are currently located along the following flood-prone creeks: Colma, San Bruno, San Mateo, Atherton, and Belmont, which collectively drain parts of 14 cities and unincorporated County areas. In the first of week of January, in partnership with the San Mateo County Department of Emergency Management, we enabled the system to issue flood warning messages through **SMC Alert** to mobile phones in affected areas when the water level reaches creek capacity and substantial rain is in the forecast. The first such warning was sent concerning Belmont Creek on the morning of January 9, when these criteria were met.



Belmont Creek Dredging (01/03/2023)

- 3. Belmont Creek Dredging.** Flooding from Belmont Creek impacts an area known as the Harbor Industrial Area that includes portions of the cities of San Carlos and Belmont, and unincorporated County. Following flooding in the area on New Year's Eve, and due to the multi-jurisdictional nature of the problem, the County requested that OneShoreline mobilize a contractor to remove material that had accumulated in the channel upstream of Highway 101 and at Industrial Road. We completed this work the following day, though more work must now be done by Caltrans under the highway to reduce the recurring flood threat.
- 4. San Bruno Pump Stations and Scoping of Long-term Solutions for the City's Belle Air Neighborhood.** Throughout the series of storms, OneShoreline worked closely with the City of San Bruno and County Public Works to monitor and maintain two pump stations owned by OneShoreline that drain flow from the flood-prone Belle Air neighborhood. In parallel, OneShoreline is coordinating among many different agencies along San Bruno Creek to scope long-term solutions to the chronic flooding.



OneShoreline Board of Directors Meeting

OneShoreline and the cities of San Mateo and Pacifica discussed storm impacts and response at the January 30 Board of Directors meeting.

You may view a video of that discussion [here](#).

Contact Us

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