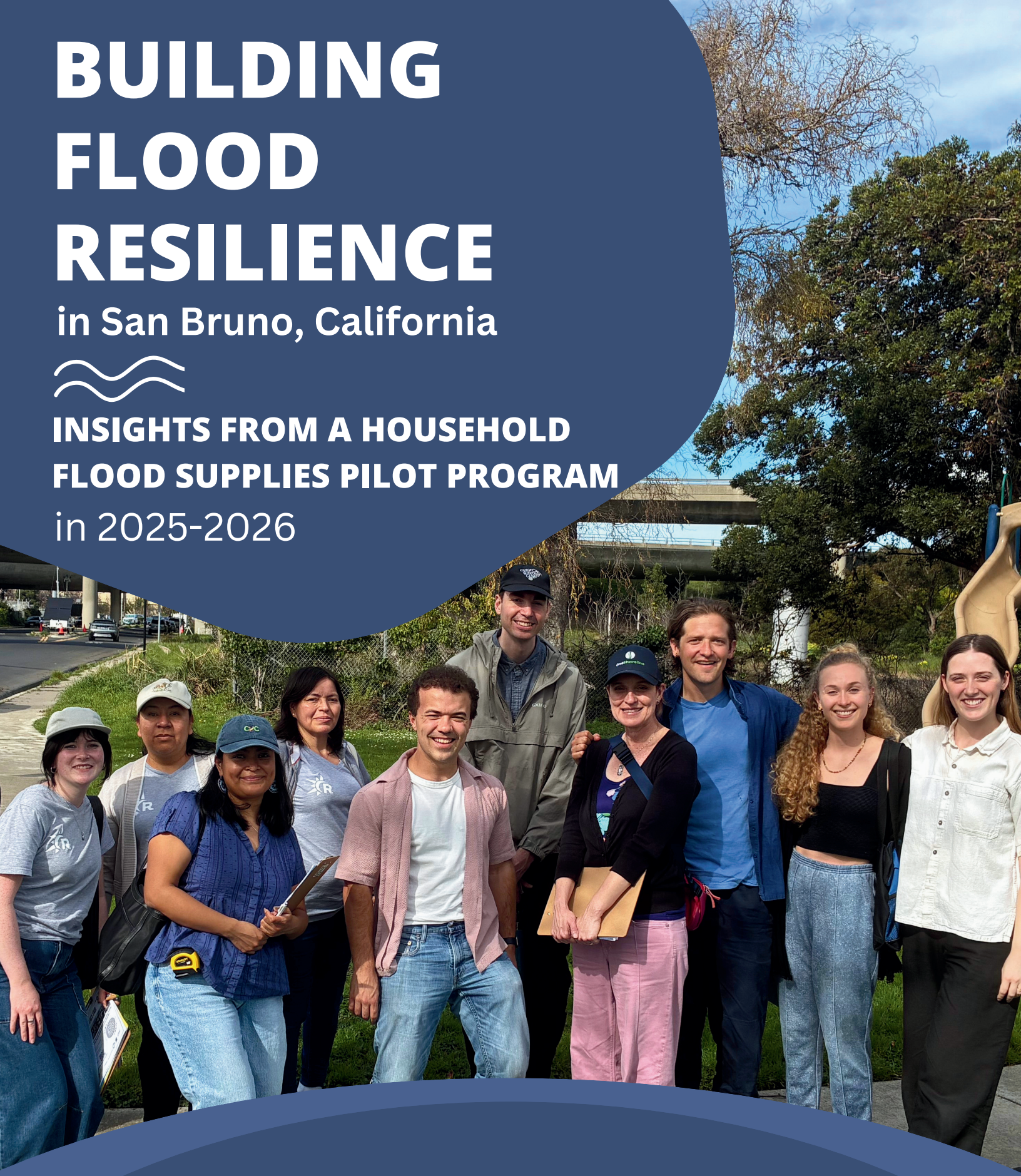
BUILDING FLOOD RESILIENCE

in San Bruno, California

INSIGHTS FROM A HOUSEHOLD FLOOD SUPPLIES PILOT PROGRAM in 2025-2026



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Building Solutions for a Changing Climate

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CLIMATE RESILIENT COMMUNITIES

Purpose

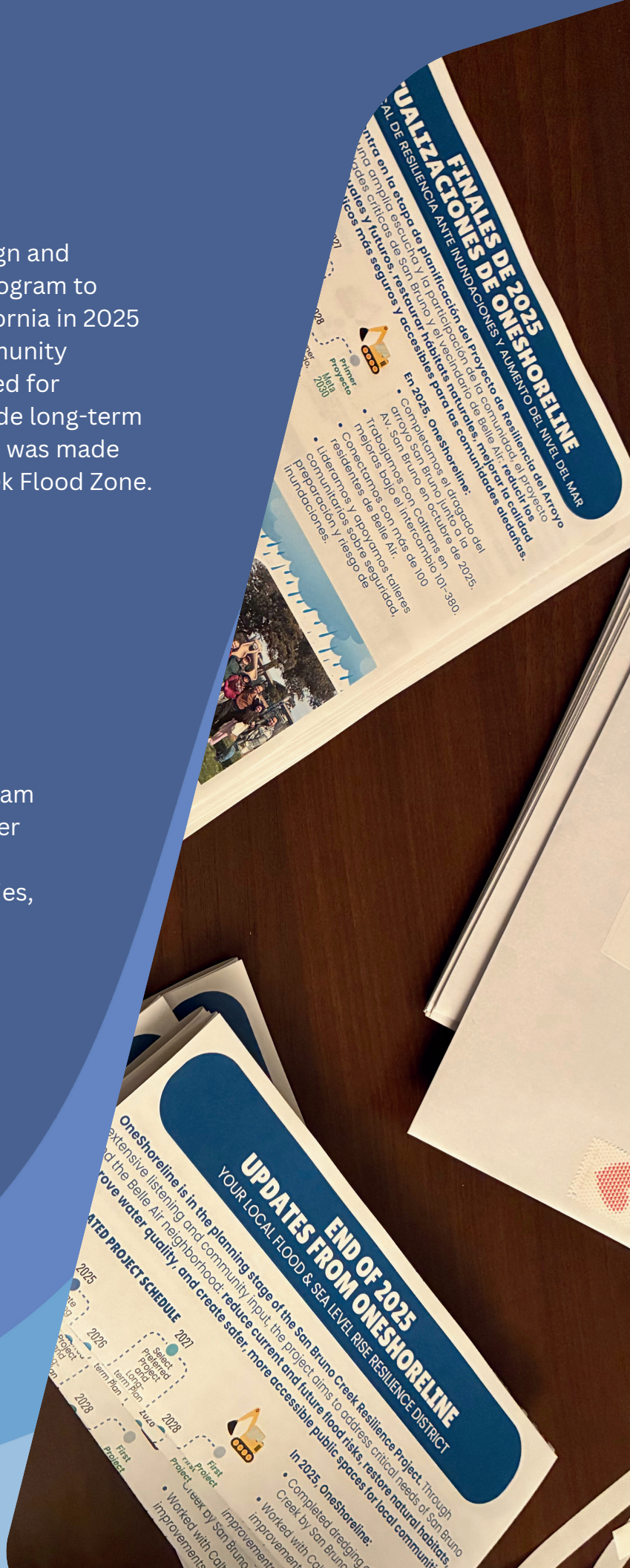
This report describes insights from the design and implementation of a Flood Supplies Pilot Program to improve flood resilience in San Bruno, California in 2025 and 2026. The program emerged from community engagement in 2024, which uncovered a need for immediate household-level support alongside long-term infrastructural improvements. This program was made possible by taxpayers in the San Bruno Creek Flood Zone.

Team

The Flood Supplies Pilot Program was spearheaded by OneShoreline (San Mateo County Flood and Sea Level Rise Resiliency District). OneShoreline developed the program in partnership with Ari Simon of Inner & Outer Engagement, researchers from Stanford University, and Climate Resilient Communities, who conducted resident outreach and distributed the supplies.

Suggested Citation

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ORIGINS OF THE FLOOD SUPPLIES PILOT PROGRAM

The Belle Air neighborhood of San Bruno, California regularly experiences rainfall, king tides, and flooding. In 2024, **OneShoreline**, a public agency charged with developing solutions to address sea level rise and flood resilience in San Mateo County, brought together our team of Stanford researchers and engagement specialist Ari Simon to connect with Belle Air residents to understand how these water-related concerns were affecting their lives.



January 1, 2023 after a rain event

Through listening sessions, door-to-door conversations, and community workshops, we heard stories of lost belongings, rising insurance costs, and the compounding stress of monitoring the weather every winter. While much of Belle Air is at high risk of flooding, we found that the most significant impacts were occurring along 7th Avenue, the neighborhood's easternmost street that runs alongside to the San Bruno Creek. We also learned that many residents were already preparing for flooding on their own by stacking sandbags, moving valuables off the ground, installing sump pumps, and looking out for their neighbors.



Belle Air flood workshop, 2024



Site visit with community partners

Locals recognize a critical need for OneShoreline and regional agencies to advances long-term infrastructure improvements (see Page 9 for more about the *San Bruno Creek Resilience Project*). But alongside that, **residents expressed a need for near-term support with flooding they already experience.** This led OneShoreline to launch a Flood Supplies Pilot Program, co-developed by our team, to provide supplies to households in Belle Air in partnership with Climate Resilient Communities, a local nonprofit advancing community-driven solutions to climate change impacts. Funding for this program was made possible by taxpayers in the San Bruno Creek Flood Zone.

PROGRAM OVERVIEW



The Flood Supplies Pilot Program provided residents along San Bruno's 7th Avenue with free flood supplies as short-term, household-level protection to complement the long-term infrastructural improvements that are currently underway.

We offered 13 types of household flood supplies identified by OneShoreline and Stanford researchers on our team, based on input gathered from residents, similar programs, and the engineering and scientific literature.

BY THE NUMBERS

99 eligible households

26 enrolled households

90 items delivered

13 types of flood supplies

$905 average benefit to household

SUPPLIES INCLUDED

- Sump Pumps
- Dehumidifiers
- Platforms & Shelving
- Clean Up Gear
- Drainage Materials
- and more

PROGRAM TIMELINE

Community Engagement
2024

We conducted trauma-aware listening with residents to understand their experiences, needs, and priorities

Program Design
Spring-Summer 2025

We developed the program structure with community input

Outreach & Recruitment
Fall-Winter 2025

We engaged eligible households through mailers, door-to-door outreach, and at local events



Ninety-nine (99) households along 7th Avenue were eligble for the pilot program, all of which reside in the Federal Emergency Management Agency (FEMA)'s flood hazard zone. We recruited households through various modes, including canvassing, phone calls, text, mailers, and door-knocking with bilingual English and Spanish outreach. Of the 99 eligible households, 26 signed up.

Each household met with a member of our team to decide which flood supplies would be most beneficial for their home, and worked one-on-one with a staff member from Climate Resilient Communities to place an order.

In total, the program delivered 90 items to participating households, at an average cost of $905 per household – all fully covered by the program.

Resident Voices

> *"You guys kept us in the loop, got us supplies in whichever way possible. So I'm grateful."*

> *"When it did storm badly, we were able to easily dry out and clear a lot more water than we usually do because we had the dehumidifier and risers."*

> *"I felt more prepared, actually. I didn't need the sump pump this season, but I was still prepared and now I know it's there if I need to use it."*



Ordering & Preparation
Winter-Spring 2026

Each household met with a member of our team to select supplies together

Supply Delivery
Winter - Spring 2026

Supplies were delivered to participant homes and residents received guidance on their use

Follow-up
Summer 2026

We checked in with residents to learn what worked, answer questions, and inform next steps

WHAT WE LEARNED

RESIDENT OUTREACH

25 of 26 households who enrolled had previously met our team in-person.

We had already connected with 55 of the 99 eligible households at least once over the two years leading up to the start of the Flood Supplies program by knocking on doors, holding flood workshops, and through one-on-one listening sessions.

45% of the residents we connected with during that outreach enrolled in the program (25 out of 55).

HELPING RESIDENTS SELECT FLOOD SUPPLIES

Personalized Gudiance

Case managers met with every household to help residents choose supplies most suited to their needs. We used structured conversation guides to understand resident needs and goals.

Visual Tools

Visual tools helped identify and link flooding issues around the home to key priorities (such as preventing water intrusion, protecting belongings, reducing indoor moisture) and relevant supplies. The flood supplies decision tools developed for this program are available online!

Check out the tools here!

oneshoreline.org/flood-readiness-simple-steps-for-your-home

Key Insights

In-Person Interaction

Personal interaction helped build trust and encourage residents to participate. Several said meeting our team helped overcome skepticism about a fully subsidized program.

Accessible Hours

Residents with long or irregular work schedules were hardest to reach, and appointments made during the workday were often missed. Offering evenings and weekends would help meet people when they're available.

Language Support

Resources and meetings were offered in Spanish and English, but there remains a need to expand accessibility for other languages.

Flexible Outreach

Calls and texts were our most effective way to follow-up with residents, but the right channel varied: many residents preferred texting, while older adults were more likely to answer a call.

Key Insights

Tailoring Guidance to Resident Needs

Some residents entered the conversation with a clear wish-list, some wanted to understand the technical details of flooding in their home, and others preferred a direct recommendation. Adjusting our level and type of support for each household was important.

Technical Training for Case Managers

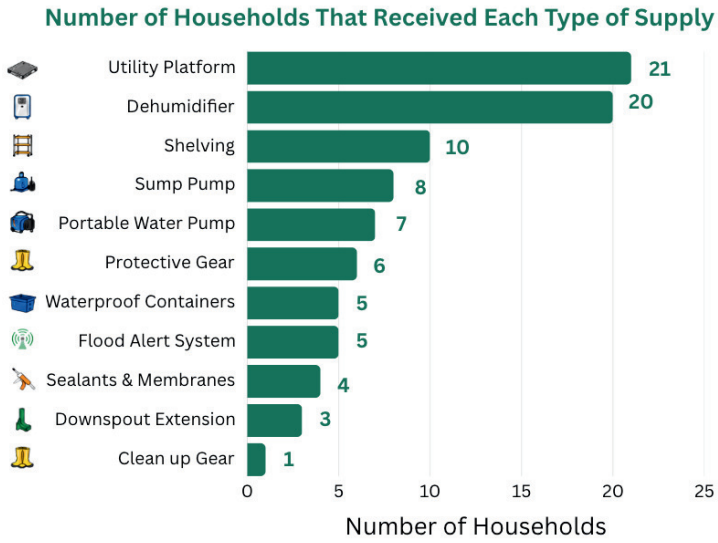
Advising on supplies requires understanding how each measure addresses a particular flood pathway. Training helps case managers make confident recommendations.

Renter-Specific Guidance

Renters tended to choose smaller, more temporary measures, and were often unsure which modifications required landlord permission. Specific guidance on renters' rights and landlord coordination is critical.

DELIVERING SUPPLIES AND PUTTING THEM TO USE

Most requested supplies



Dehumidifiers, utility platforms, water pumps, and shelving were the most requested supplies.

Deployable flood barriers were also in high demand, but they require more testing and coordination than the pilot could support. We are trialing them with a subset of homes to assess how well different models perform.

Residents received **90 items**, averaging **$905 benefit per household.**

Key Insights

Repair as preparedness

Several residents had existing flood or moisture damage. This program was designed to reduce the risk of future damage, but remediation was a recurring need.

Supporting labor and installation

Even with supplies fully covered, labor remained a barrier.

Setup may take time, physical labor, and technical expertise. Residents gravitated toward measures they could install themselves, and some items remained unused after delivery.

For some households, labor itself was the need, not supplies: help moving heavy furniture and appliances, cleaning gutters, installing ground drainage and backflow valves, or tearing up damp carpet.

Covering services alongside supplies, or connecting residents to vetted providers, would reach needs this pilot could not.

Implementation and follow-up

Supply delivery

Case managers ordered supplies directly from major retailers to residents' doors.

Follow-up support

Check-ins addressed questions and ensured smooth delivery

Key Insights

Ongoing follow-up

Delivery is not the end of the process. Check-ins with recipients surfaced instances where supplies weren't the right size or type, allowing us to place re-orders. Follow-ups also revealed residents who hadn't yet set their supplies up — some waiting until the rainy season, and others simply not having gotten to it. Getting supplies into use before a flood arrives will likely take both installation help and significant engagement to provide ongoing reminders and encouragement.



WHAT MADE THIS POSSIBLE

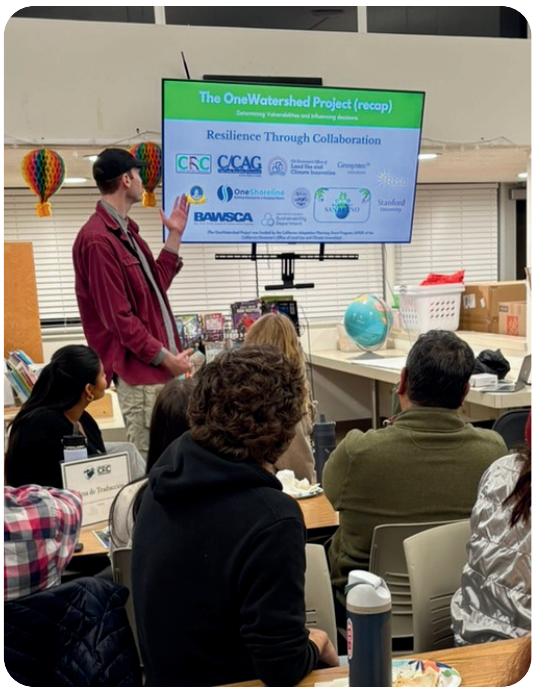
Community Engagement

Since 2023, OneShoreline and its partners have built **an ongoing process for residents to share information, shape conversations, and stay connected to local flood resilience efforts**. Residents contributed real-time observations and community-generated data, participated in preparedness and infrastructure discussions, and received ongoing support. This sustained engagement created the foundation for the Flood Supplies Program, with residents' experiences and requests directly informing its design.



Resilient San Bruno

Climate Resilient Communities has been convening a *Climate Change Community Team (CCCT)* in San Bruno since 2024, **bringing together dozens of local residents to collaborate, organize, and strategize together**. Through monthly meetings and ad hoc events, Resilient San Bruno has become a primary place for community to learn about resilience opportunties like the Flood Supplies Program and share needs and feedback that informs the program direction.



OneWatershed Community Vulnerability Assessment (CVA)

The OneWatershed CVA, led by a regional city-county coordination agency (C/CAG) and Climate Resilient Communities, **gathered input on climate and flooding risks alongside technical hazard data**. This helped identify key vulnerablity issues, fed into flood studies for the San Bruno Creek watershed, and resulted in funding preliminary design of a flood resilience project around Belle Air Elementary.



WHAT HAPPENS NEXT

OneShoreline is dedicated to continue providing impactful, more immediate measures, such as Year 2 of a Flood Supplies Pilot Program to address household flood risk. This will happen in tandem with the agency's biggest focus: **advancing local and regional solutions to protect communities against sea level rise and increasing flood severity.**





San Bruno Creek Resilience Project

The San Bruno Creek Resilience Project (SBCRP) is a suite of critical improvements to prepare the San Bruno Creek Flood Zone and watershed for the future, provide multiple benefits, and make tangible improvements to local flood management. OneShoreline is developing potential projects, including pump station improvements, new tide gates, detention basins, and future flood supplies. The SBCRP also includes projects led by other agencies such as storm drain upgrades, shoreline protection, and stormwater quality works.

A Community Advisory Group for the SBCRP convenes local residents and leaders to provide feedback and inform the priorities, project co-benefits, and approach.



Learn More

To learn more about the SBCRP, please visit OneShoreline's San Bruno Creek Resilience Project website at: **https://www.oneshoreline.org/san-bruno-creek-resilience-project.**

For additional questions, please email **info@oneshoreline.org.**



LEARN MORE

For questions about this report or the Flood Supplies Pilot Program, please contact info@oneshoreline.org.

The Flood Supplies Pilot Program was made possible by OneShoreline through tax payers in the San Bruno Creek Flood Zone, and implemented by Climate Resilient Communities, Stanford University researchers, and Inner & Outer Engagement. This program evaluation and report was made possible by funding from the Stanford Sustainable Cities Program.

Thank you to the Belle Air residents and community partners who shared their experiences, knowledge, and ideas throughout this work. Their contributions helped shape the Flood Supplies Pilot Program and the lessons captured in this report.