

# Reducing Risk of Floods in the **RHEEM CREEK WATERSHED**



## Community-Based Ecological Solutions to reduce risk of flooding in the Rheem Creek watershed

In western Contra Costa County, the Rheem Creek watershed faces many challenges, including dense development, which have led to highly degraded ecosystems and problems such as flooding, particularly in the Rollingwood neighborhood. For over 20 years, this community has suffered from flooding related to creek overflows. The Rollingwood reach of Rheem Creek has long been neglected and is choked with invasive vegetation, leading to sediment build up, obstructed channels, and worsening flood conditions. Climate change is expected to increase flood frequency and unpredictability. The City of Richmond, American Rivers, The Watershed Project, Restoration Design Group, the Coastal Conservancy and Contra Costa College have partnered on a multi-phased project to restore ecological function to the

Rheem Creek watershed while reducing the risk of flooding to nearby residents. The project aims to implement nature-based solutions placed throughout the watershed, benefiting people, wildlife, and the economy by restoring and enhancing riparian habitat, providing open space and educational opportunities, and improving the watershed's ecological function, all of which will build climate change resilience. Phase I of this project consists of community engagement and agency coordination, site-specific restoration planning, and advancing restoration efforts throughout the watershed. By working together, residents, public agencies and environmental groups can improve the health of Rheem Creek while alleviating long-standing flooding issues.

# PROJECT GOALS

The project's primary aim is to restore ecological function to the Rheem Creek watershed while reducing flood risk to nearby households

## WHAT IS A WATERSHED?

Everyone lives in a watershed. A watershed is all of the land area that drains into a particular creek, river, lake, ocean, or other body of water. The watershed includes the landforms, vegetation, habitat, biological systems and natural communities contained within its boundaries, as well as the water body itself. Healthy watersheds benefit the plants, animals, and people that live within their boundaries.

## COLLABORATION

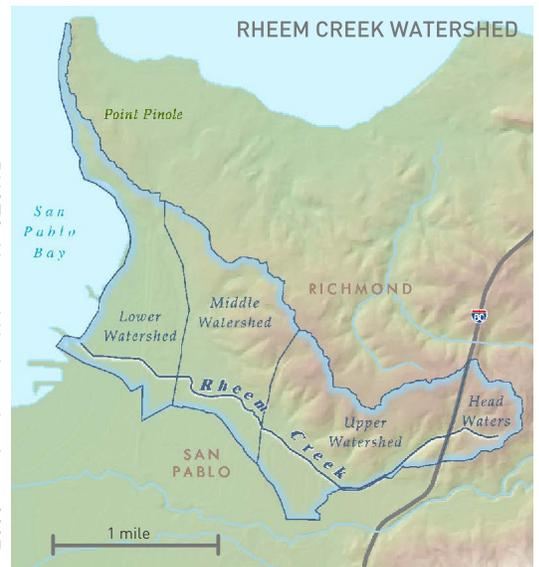
Community engagement and agency coordination are critical for this collaborative project. The project will begin with a door-to-door household survey to obtain historical flood information and involve the most impacted communities from the beginning. The project will also include community design charrettes, neighborhood work days and coordination with local agencies and municipalities as this project lies within multiple jurisdictions.

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## ROLLINGWOOD SITE PLANNING

Site-specific restoration planning will include analysis of existing conditions, designs, and permitting for the Rollingwood site, and conceptual designs for other locations on Rheem Creek.

Informed by resident survey results, a topographic survey and existing hydrologic data, we will analyze, model and develop a written assessment of site conditions and flooding causes. We will develop a long term community-based maintenance and monitoring plan. We will also develop conceptual design plans for up to three other nearby sites along Rheem Creek and conduct an environmental restoration opportunities analysis for the Rheem Creek watershed.



## RESTORATION OPPORTUNITIES

“The local flooding of Rheem Creek has affected the community for many years and it's exciting to finally be acting on this problem with a community-based approach. Neighbors will be invited in helping identify the flooding area and will help improve the creek conditions to limit street flooding and to restore a more natural creek. We hope that though this project the neighbors will gain a new appreciation for the creek and the role each of us plays in making our communities better and more resilient.”

— Juliana Gonzalez, Executive Director of the Watershed Project

Project Partners :

