

Central San Rafael Reach

County: Marin

Risks: sea level rise, storm surge and tidal flooding, insecure municipal finances

The site area, referred to as the Central San Rafael Reach, encompasses the low-lying valley floor of the Central San Rafael watershed. The valley is contained within hilly topography on its north and south sides. This area is most vulnerable to flooding and will be impacted by sea level rise. It extends from the East San Rafael shoreline westward, and through the San Rafael Creek, a navigable channel, to the edge of Downtown San Rafael. The low-lying area contains dense urban development including Marin County's largest concentration of commercial businesses, public services and its highest density residential neighborhood (Canal Neighborhood). It also includes the convergence of two major freeways (US 101 and Interstate I-580), SMART (a regional passenger railroad), and the service centers and facilities for major utilities (PG&E and Central Marin Sanitation Agency). San Rafael has a population of about 58,000 and its residents and businesses pay the largest cumulative annual flood insurance premiums of any jurisdiction in Marin County. This is due to the combined risk of maritime and fluvial flooding.

The site area is comprised of multiple diverse physical and geographic conditions that make it suitable for exploring a variety of creative adaptation design solutions. Conditions include a linear shoreline with a mix of filled lands and levees that vary in elevation, a closed landfill, a portion of the Bay Trail, expansive tidelands and mudflats outboard of the levee, a navigable creek/channel (San Rafael Creek) with a narrow mouth, inboard seasonal marshes and wetlands, and freshwater storm drainage ponds. Nearly all of the developed area is built on filled lands over bay mud within the FEMA Special Flood Hazard Zone A (100-year flood). The City's large vulnerable population, significant exposure of public and private assets at risk, and the County's largest cumulative flood insurance premiums offer the greatest potential in Marin County to demonstrate meaningful solutions. In addition, multiple community groups and stakeholders have been engaged by our nonprofit partners, Resilient Shore and Shore Up Marin, and are prepared to participate in the RbD Challenge.

A variety of languages are spoken in the Canal neighborhood, including Spanish, Vietnamese, and Mayan. Residents face the risk of permanent displacement resulting from a severe flood event and sea level rise. Characterized by apartment buildings mostly constructed in the 1960's it's built at elevations subject to flooding and inundation, most of the residential buildings constructed along the San Rafael Creek (The Canal) are not protected by seawalls or similar features.