

# Adapting to Rising Tides



The **Adapting to Rising Tides (ART)** assessment of vulnerability and risk of San Francisco Bay Area shoreline and community resources to sea level rise and storm events has revealed a number of overarching vulnerabilities. These fall into five themes: population characteristics, certain land uses, emergency preparedness and response, information gaps and networked infrastructure.

## Networked Infrastructure

Networked infrastructure, such as the Bay Trail, the regional rail system, utility infrastructure, and the system of shoreline protection that rings the Bay's edge, is particularly susceptible to disruption. Because it is interconnected and functions as a continuous corridor, or as a series of continuous segments, impacts to one part of a network can compromise the entire network.

Natural and structural shorelines are a networked system that protect communities and infrastructure from flooding and storm event impacts. The people and property owners that are protected by these systems rarely own, operate or manage them, and are generally not included in planning or funding decisions regarding maintenance, repair or upgrade.

Shoreline systems protect many networked infrastructure assets, such as the Bay Trail, regional rail and utility infrastructure, that are particularly susceptible to disruption because they are only as resilient as their weakest links. If shoreline systems that protect these assets fail, disruption to networked systems could affect the communities and economic activities that depend on them.



## Example Adaptation Actions

**Improve communication and coordination** between those that own and manage the shoreline and those that own and manage the assets protected by the shoreline.

**Expand or form partnerships** among agencies, organizations, the private sector and community members **to facilitate decision-making and cost sharing for planning, implementing, and monitoring** multi-objective shoreline improvement projects.

**Establish a working group** of agencies and organizations, including community-based organizations and private land-owners, **to develop a shoreline project decision-making framework** that considers the value of ecosystem services, public access and recreation, and social equity.

