

Adapting to Rising Tides

Working together to increase the resilience of Bay Area communities to sea level rise and storm events



San Francisco Bay Conservation and Development Commission

Contra Costa ART Working Group

Working Group Meeting #6 – June 9, 2016

Objectives

- Obtain input on asset category adaptation responses
- Discuss approach for Key Planning Issue responses
- Review and potentially refine project resilience goals

Agenda

- 9:00 am - Welcome, Meeting Objectives, Updates
- 9:20 am - Presentation: Brief review of Plan Step and Adaptation Responses
- 9:40 am - Adaptation Response Open House
- 10:40 am - Debrief and Discussion
- 11:00 am - Small Groups: Revisiting Project Resilience Goals
- 11:30 am - Small Group Report Back
- 11:45 am - Wrap Up and Next Steps

Project Timeline

ART Contra
Costa Project

Project Initiation – Fall 2014

Project Scoping – Fall/Winter 2015



Conduct Assessment – Winter/Spring 2015



Determine Assessment Outcomes – Summer 2015



Transition to Adaptation – Fall 2015



Develop Adaptation Responses – Spring 2016



Evaluate and Select Adaptation Responses +
Opportunities for Implementation – Fall 2016



Working Group Meeting



Individual or small group meetings



ART Planning Process

ART Contra
Costa Project



Working Group Meeting #6

Update: Assessment Products

ART Contra
Costa Project

New since last meeting:

- The People Chapter
- Key Planning Issues Chapter
- Draft adaptation responses for all 30 asset categories (will be on website soon)

Coming soon:

- People mapbook
- Flood exposure chapter
- Adaptation responses for the Key Planning Issues

The screenshot shows a website titled "Adapting to Rising Tides" with a navigation bar containing "ABOUT US", "ART APPROACH", and "NEWS". Below the navigation bar, there is a breadcrumb trail: "Adapting to Rising Tides > Protected: Contra Costa County Working Group Page". The main content area features a sidebar with four menu items: "Findings", "Projects", "How-To", and "Help Desk". The main text area is titled "Protected: Contra Costa County Working Group Page" and contains a paragraph of text about the ART Program's assessment project. To the right of the text is a photograph of a group of people in a meeting. Below the text is a section titled "Project Meetings and Materials" with three entries: "Meeting 3: August 5th, 2015", "Meeting 2: May 26, 2015", and "Meeting 1: March 23, 2015". Each entry lists materials and documents. A blue information box on the right side of the page provides contact information for Wendy Goodfriend.

<http://www.adaptingtorisingtides.org/contracosta-county-working-group-page>

password: cccwg

Update: Assessment Products

ART Contra
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Please review and provide comments by June 30, 2016

DRAFT Assessment Chapter

Contra Costa County Adapting to Rising Tides Project

People

People are the core of a community. It is critical to understand the unique needs of people, and the risks they may face during a hazard. The health of a community is dependent on the health of its residents. Within their communities, and throughout the region and beyond, people create social networks and culture, support the local economy as customers and employees, and contribute to the tax base.

Flooding can impact the health of a community if there are direct impacts on people or their homes, or if important services are disrupted in the days and weeks after the event. As flood hazards become more frequent and more severe as a result of climate change, greater proportions of the population will be impacted. The impact may be more severe for some communities, especially those with people, housing, employment sites and community services within the existing coastal or riverine floodplain, and those communities with underserved, resource limited or vulnerable populations. While in many cases, social cohesion can offset some of the consequences of flooding because impacted people will be more able to help each other meet some of their daily needs, not all have the strong community or social capital needed to be self resilient.

For this project, community vulnerability is described using the approach developed for the Stronger Housing, Safer Communities project completed by the ART Program in partnership with the Association of Bay Area Governments Resilience Program¹. Stronger Housing, Safer Communities selected ten indicators that represent characteristics of individuals and households that affect their ability to prepare for, respond to, and recover from a disaster. These indicators include financially constrained households, renters, non-English speakers, people of color, educational attainment, transit dependent individuals, the elderly and the very young. Indicators were mapped at a regional scale to identify areas (block groups) that may have a higher than average concentration of one or more indicator. Together, these indicators begin to present a picture of community vulnerability. Regionally, the key themes that emerged included age-related vulnerabilities, language and ethnicity vulnerabilities, cost-burdened residents, housing tenure issues, and access to resources².

Exposure to Current and Future Flooding

The Contra Costa ART project area includes a portion of the shoreline cities of Richmond, Pinole, Hercules and Martinez, the inland adjacent cities of El Cerrito and San Pablo, and a very small portion of Pittsburg on the eastern boundary of the project area. Also included in the project area are portions of the unincorporated communities of North Richmond, Tara Hills, Bayview, Montalvin Manor, Rodeo, Crockett, Port Costa, Clyde, Vine Hill, Concord, Mountain View and Bay Point. There are a total of 156,203

¹ <http://www.adaptingtorisingtides.org/project/stronger-housing-safer-communities-strategies-for-seismic-and-flood-risks/>

² http://resilience.abag.ca.gov/projects/stronger_housing_safer_communities_2015/#community

DRAFT Key Planning Issues

Contra Costa County Adapting to Rising Tides Project

Key Planning Issues

Key Planning Issue #1: Water-dependent industries

Contra Costa County's seaport, marine oil terminals, and shoreline refineries rely on transportation and utility networks that are vulnerable to sea level rise and storm events. Flooding of critical roads, rail lines, or pipelines both within the county or without could hinder critical goods export and import as well as processing operations within the County, negatively impacting the local and regional economy.

The Port of Richmond and associated industrial marine terminals handle the majority of the region's liquid bulk and automobile tonnage. Contra Costa County's seven marine oil terminals transfer bulk fuel from ships to distributors and processors, including four of the region's five refineries that are located in the county. All of these facilities are large, sit at fairly fixed locations, and rely on both waterside and landside connections to move goods on and off-site, as well as in and out of the region. Their continued operation depends on a functioning regional network of pipelines, rail lines, roadways and interstates, as well as on- and off-site energy and water supplies. These facilities also rely on local road access, which is critical to ensuring that necessary materials and supplies, as well as workers, can reach them, and that goods and products can be shipped from the facilities to other locations in the region and beyond.

Transportation and utility connections both within the county and beyond are vulnerable to flooding and sea level rise. Damage or disruption to these connections could cause the slow down or cessation of operations at the facilities they serve, such as the Port of Richmond, the county's marine terminals, and refineries. For example, while both the city-owned and private terminals at the Port of Richmond may not flood, or be damaged disruption of the Union Pacific or Burlington Northern Santa Fe rail lines would significantly impact seaport operations, because commodities such as automobiles and bulk materials cannot be easily moved by truck. The rail lines in the project area, which serve many shoreline industries, cross an estimated nine miles of coastal and riverine 100-year floodplain, run directly on the shoreline in many locations, and cross multiple creek and channels on bridges that are below potential flood heights. In addition, the entire rail network is highly vulnerable because damage at any point in the system can result in system-wide disruptions. Loss of the rail service to the seaport could result in increased truck traffic, congestion, and air quality impacts in surrounding neighborhoods, local roadways, and interstates.

Flooding of local streets and roads as well as local access to the region's interstates will impact the water-dependent industries that rely on them. A number of the roads that provide access to the Port of Richmond seaport are low in elevation, and exposed to future flooding that could disrupt access and operations. This includes low-lying areas of West Cutting Boulevard and Canal Boulevard as well as Harbour Way South, Wright Avenue and Ohio Avenue. In addition, Waterfront Road, which provides access to a

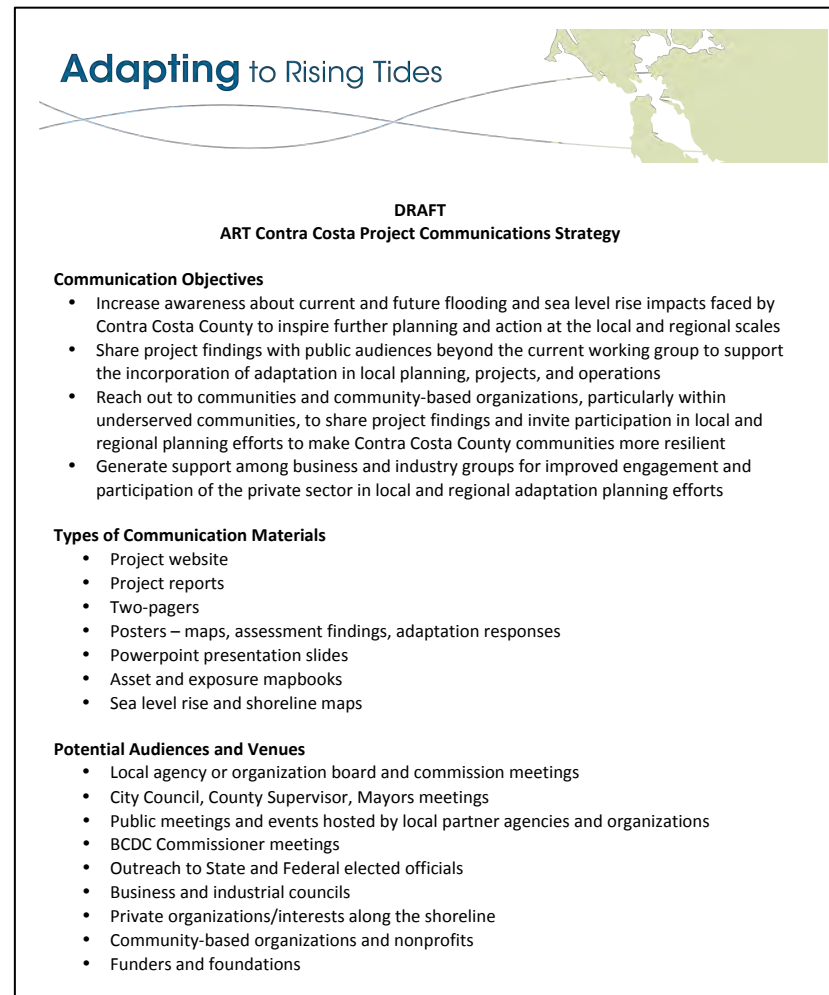
Update: Communication Strategy

DRAFT Project Communication Strategy

- Objectives
- Materials
- Audiences / venues

Next steps:

- ✓ Review draft strategy
- ✓ Provide us feedback by end of June
- ✓ Consider holding a small group meeting before the next working group meeting



Adapting to Rising Tides

DRAFT
ART Contra Costa Project Communications Strategy

Communication Objectives

- Increase awareness about current and future flooding and sea level rise impacts faced by Contra Costa County to inspire further planning and action at the local and regional scales
- Share project findings with public audiences beyond the current working group to support the incorporation of adaptation in local planning, projects, and operations
- Reach out to communities and community-based organizations, particularly within underserved communities, to share project findings and invite participation in local and regional planning efforts to make Contra Costa County communities more resilient
- Generate support among business and industry groups for improved engagement and participation of the private sector in local and regional adaptation planning efforts

Types of Communication Materials

- Project website
- Project reports
- Two-pagers
- Posters – maps, assessment findings, adaptation responses
- Powerpoint presentation slides
- Asset and exposure mapbooks
- Sea level rise and shoreline maps

Potential Audiences and Venues

- Local agency or organization board and commission meetings
- City Council, County Supervisor, Mayors meetings
- Public meetings and events hosted by local partner agencies and organizations
- BCDC Commissioner meetings
- Outreach to State and Federal elected officials
- Business and industrial councils
- Private organizations/interests along the shoreline
- Community-based organizations and nonprofits
- Funders and foundations

Outcomes of the Contra Costa ART project Plan Step:

- Adaptation responses for all 30 asset categories
- Adaptation responses for the project's six Key Planning Issues
- Implementation options for all actions
- Criteria to help evaluate the responses based on project resilience goals



What is an Adaptation Response?

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An **adaptation response** is an action or series of actions that if implemented will address an identified vulnerability

Adaptation responses include:

- The vulnerability being addressed
- One or more action that address, or make progress towards addressing, the vulnerability
- Implementation options that highlight the agencies, organizations and individuals (actors) that should be involved and the processes into which the actions could be integrated

Example Adaptation Response

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Vulnerability	Action	Action Type	Process	Possible Actors
<p>GOV1: In Contra Costa, the CalARP and ISO sites have a high level of compliance with hazardous material inventories and contingency planning requirements, while the diverse and numerous other hazardous material sites that use, generate or transport smaller quantities of hazardous materials have differing levels of compliance with operational and regulatory requirements.</p>	<p>Develop and implement a self-assessment process for hazardous materials sites to gather critical information needed to assess site vulnerability and risk from sea level rise, storm events, and elevated groundwater</p>	<p>Evaluation</p>	<p>New Initiative</p>	<p>DTSC, RWQCB, USEPA, CCHS, Cities, County, private entities</p>
	<p>Require consideration of sea level rise impacts including flooding, increased groundwater levels, salinity intrusion, and increased liquefaction susceptibility risk in all hazardous materials operational and regulatory programs</p>	<p>Program/operation</p>	<p>Operations</p>	<p>DTSC, RWQCB, USEPA CCHS</p>
	<p>Educate businesses that use, generate or transport smaller quantities hazardous materials about sea level rise impacts and the options for reducing the consequences of a flood event, i.e., elevating stored materials and limiting amount of materials stored</p>	<p>Education/outreach</p>	<p>Emergency and Hazard Planning</p>	<p>DTSC, RWQCB, USEPA, CCHS, Cities, County, private entities</p>

Vulnerability addressed:

Governance (GOV), Information (INFO), Physical (PHYS), or Functional (FUNC)

Example Adaptation Response

Vulnerability	Action	Action Type	Process	Possible Actors
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One or more action tied to a specific vulnerability, some that are alternatives and some that are sequential

Example Adaptation Response

ART Contra
Costa Project

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The type of action and the planning, decision-making or funding process that could support implementation

Example Adaptation Response

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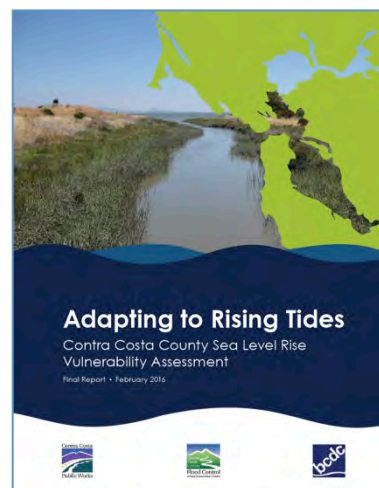
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The agencies, organizations, and entities that could either lead or partner on action implementation

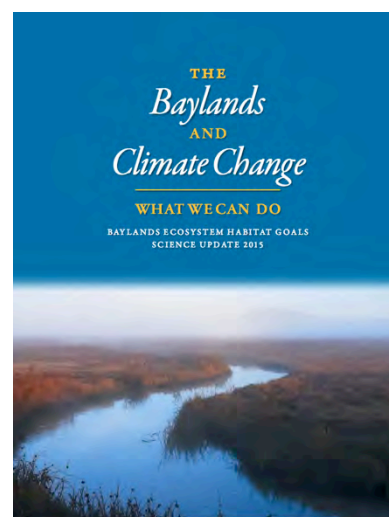
Different Action Types

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- **Evaluation** – actions to improve data and information or conduct new analyses
- **Program/Operation** – actions to update plans, procedures or management activities
- **Policy development** – actions to develop or revise policies and guidelines
- **Coordination** – actions to initiate or expand partnerships
- **Education/outreach** – actions to communicate information and build awareness



ASSOCIATION OF BAY AREA GOVERNMENTS
RESILIENCE PROGRAM



A screenshot of the Association of Bay Area Governments Resilience Program website. The website has a navigation bar with links for Hazards, Projects, Topics, Data, Publications, and About. The main content area is divided into two columns: "Featured Projects" and "Upcoming Events". The "Featured Projects" section includes "Stronger Housing, Safer Communities" and "Mitigation and Adaptation Plans". The "Upcoming Events" section includes "In the News" and "Are you storm ready?".

Different Processes

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Capital Planning	Project Planning and Design
Capital improvement plans Caltrans Project in Development (PID)	Private and public development projects Restoration project planning and permits
Codes and Standards	Long-Range Planning
Building codes and standards City ordinances Construction codes Design standards State and federal standards Other standards, e.g., professional organizations or committees	Agency or facility master plan Climate Action Plan Community-based planning Regional Airport Sustainability Plan (RASP) Regional Transportation Plan (RTP) Sustainable Communities Strategy (SCC) Integrated Water Resource Management Plan (IRWMP)
Emergency and Hazard Planning	Land-Use Planning
State or local hazard mitigation plans Emergency response and recovery plans Standardized Emergency Management Systems (SEMS) National Incident Management System	General plan Specific plan Land use plan
Operations	New Initiatives
Annual budgeting Continuity of Operations Plans (COOP) State Highway Operation and Protection Program (SHOPP)	Partnerships and collaborations Ballot measures Legislation

Adaptation Response Open House

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Posters around the room with draft adaptation responses for 9 of the 30 asset categories assessed

- People
- Single and Multi-family Housing
- Industrial Land Uses
- Brownfields
- Stormwater
- Natural Areas
- Regional Parks
- Roadways
- Flood Control Channels

Adaptation Response Open House

ART Contra
Costa Project

As you review the responses, please provide your feedback on the following

- Are these the right types of actions?
- Are there actions missing?
- Are these the right actors? Who might lead and who might partner?
- Are these the right implementation processes?

Grab a pen and make revision, add your comments, share your ideas ...



- Your reflections on today's Open House
- Ideas for how you would like us to gather input on Key Planning Issues adaptation responses, presentation, Open House, or...



Contra Costa Key Planning Issues

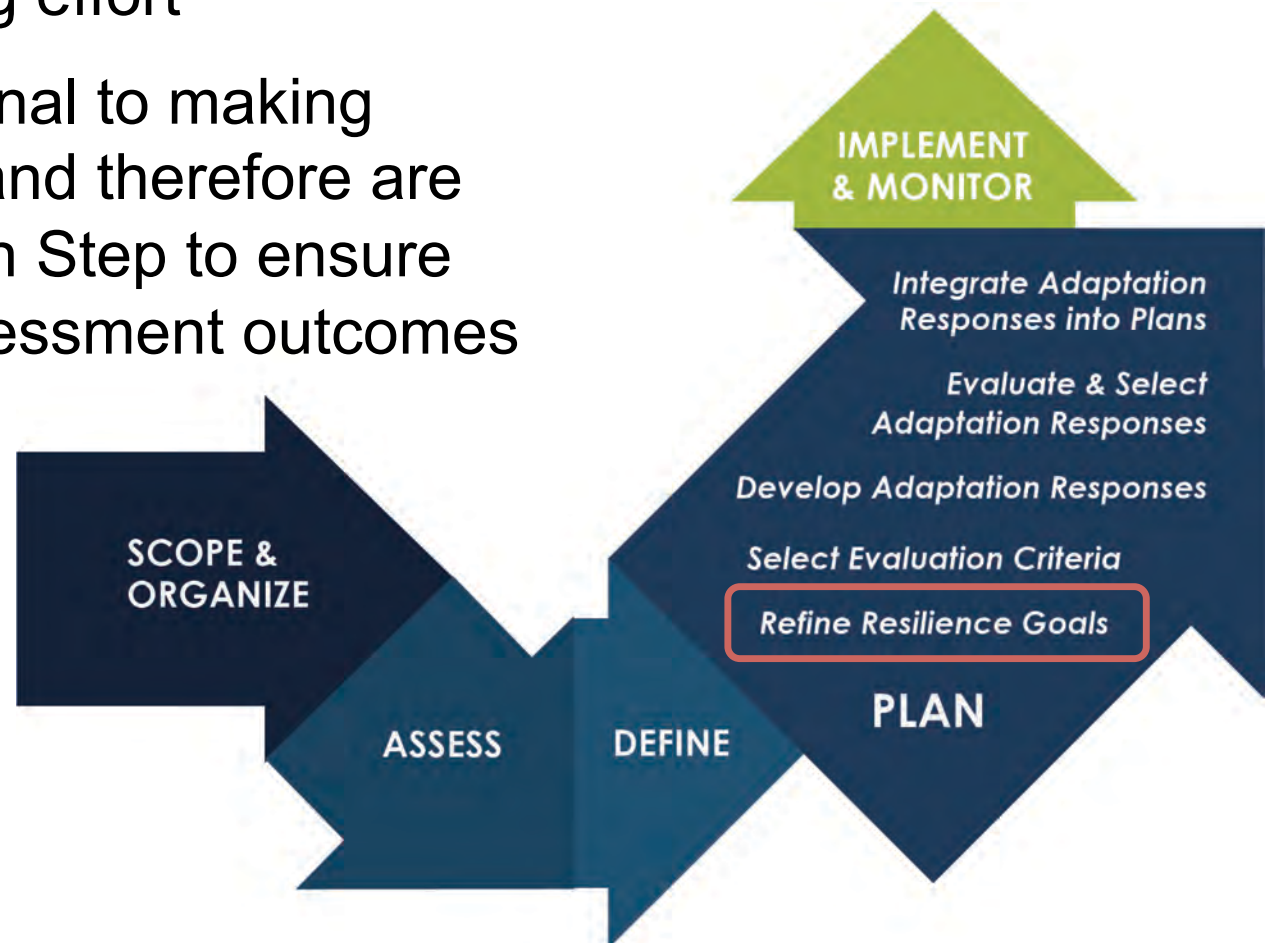
- Water-dependent Industries
- Employment Sites
- Creek-side Communities
- Access to Services
- Ad-hoc Flood Protection
- Parks and Open Spaces

Revisiting Resilience Goals

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Project Resilience Goals help define the desired outcomes of a climate adaptation planning effort

They are foundational to making project decisions, and therefore are revisited in the Plan Step to ensure they align with assessment outcomes



Small Group Discussion

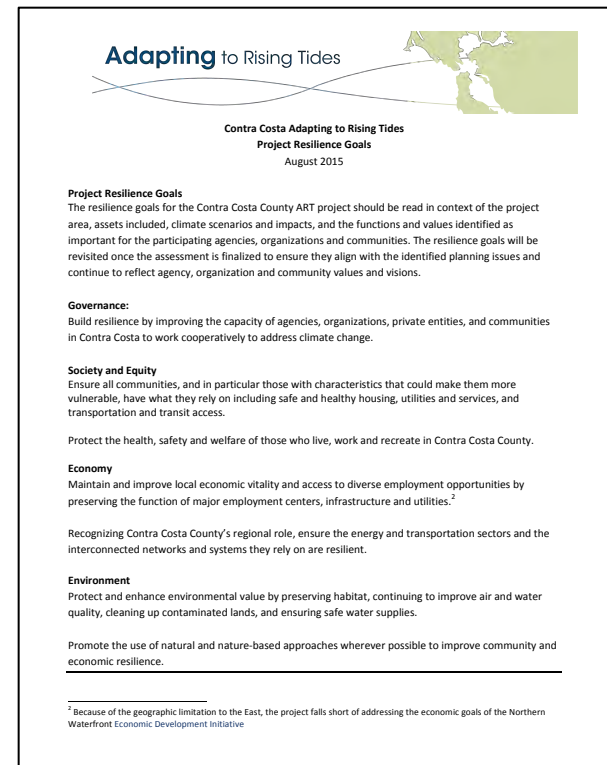
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Objective

- Review the project resilience goals (*handout*)
- Consider if they need to be refined or revisited

Remember

Resilience goals should be considered in context of the project area, assets included, climate scenarios and impacts, and the functions and values identified as important for the participating agencies, organizations and communities



Adapting to Rising Tides

Contra Costa Adapting to Rising Tides
Project Resilience Goals
August 2015

Project Resilience Goals
The resilience goals for the Contra Costa County ART project should be read in context of the project area, assets included, climate scenarios and impacts, and the functions and values identified as important for the participating agencies, organizations and communities. The resilience goals will be revisited once the assessment is finalized to ensure they align with the identified planning issues and continue to reflect agency, organization and community values and visions.

Governance:
Build resilience by improving the capacity of agencies, organizations, private entities, and communities in Contra Costa to work cooperatively to address climate change.

Society and Equity
Ensure all communities, and in particular those with characteristics that could make them more vulnerable, have what they rely on including safe and healthy housing, utilities and services, and transportation and transit access.
Protect the health, safety and welfare of those who live, work and recreate in Contra Costa County.

Economy
Maintain and improve local economic vitality and access to diverse employment opportunities by preserving the function of major employment centers, infrastructure and utilities.²
Recognizing Contra Costa County's regional role, ensure the energy and transportation sectors and the interconnected networks and systems they rely on are resilient.

Environment
Protect and enhance environmental value by preserving habitat, continuing to improve air and water quality, cleaning up contaminated lands, and ensuring safe water supplies.
Promote the use of natural and nature-based approaches wherever possible to improve community and economic resilience.

² Because of the geographic limitation to the East, the project falls short of addressing the economic goals of the Northern Waterfront Economic Development Initiative

Report Back on Resilience Goals

- ✓ Governance
- ✓ Society and Equity
- ✓ Economy
- ✓ Environment



Next Steps

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- Review the People and Key Planning Issues Chapters by end-June
- Review asset category adaptation responses by mid-July
- Consider attending a small group meeting to discuss the communication strategy
- Invite us to speak to your colleagues, partners, decision makers, other stakeholders or the public
- Next meeting: Key Planning Issue Adaptation Responses – September



Project web page:
[www.adaptingtorisingtides.org/
project/contra-costa-county-
adapting-to-rising-tides-project//](http://www.adaptingtorisingtides.org/project/contra-costa-county-adapting-to-rising-tides-project/)

Working Group Password:
cccwg