

April 27, 2012

TO: Commissioners and Alternates
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SUBJECT: Briefing on the Adapting to Rising Tides Project
(For Commission consideration on May 3, 2012)

Staff Summary

The Adapting to Rising Tides (ART) project is a multi-year climate adaptation project being led by BCDC in partnership with the National Oceanic and Atmospheric Administration's Coastal Services Center (NOAA CSC). The project is assessing vulnerability and risk of a number of assets (including Oakland International Airport, ground transportation, and park and recreation facilities) to sea level rise and storm events within a subregion of the Bay Area from Emeryville to Union City. The vulnerability assessment will be used to develop adaptation strategies that will increase resilience in the project area. The project has received funding and support from NOAA, the Metropolitan Transportation Commission (MTC), the Federal Highway Administration (FHWA) and ICLEI and relies on partnerships with agencies within the project area, including Alameda County Flood Control, the East Bay Regional Park District, the Port of Oakland, the cities, the Hayward Area Recreation District, the East Bay Municipal Utility District, East Bay Dischargers Authority and Caltrans.

Staff Report

The Adapting to Rising Tides project is a collaborative effort being led by BCDC in partnership with NOAA CSC to work closely with local agencies to assist in identifying potential vulnerabilities to climate change and developing adaptation strategies that respond to those vulnerabilities. In addition to NOAA CSC, other partners that have supported the project with funding and staff support include MTC, the FHWA and ICLEI. The pilot project was initiated in October 2010 with the goal to increase the preparedness and resilience of Bay Area communities to sea level rise and other climate change impacts while protecting ecosystem services. The project area, which extends from Emeryville to Union City in Alameda County, was selected based on local interest in participating, the presence of a diversity of land uses and the presence of significant transportation infrastructure.



Since the project was initiated, BCDC and NOAA CSC, have created a working group of partners within the project area that meets regularly to help us evaluate two key questions:

- How will sea level rise and storm events affect the future of Bay Area communities, infrastructure, ecosystems and economy?
- What approaches can we pursue both locally and regionally, to assess these challenges and reduce or manage these risks?

In addition to the ART project working group, two subcommittees were created from existing working group members, a technical subcommittee and a communications subcommittee, to assist with more specific and detailed questions. The technical subcommittee met to discuss the development of new sea level rise and storm event maps for the project area. Those maps are now complete and identify areas potentially exposed to frequent or permanent inundation, more frequent floods and overtopping of shoreline protection. The communications subcommittee meets regularly to assist in the development of the vulnerability assessment and adaptation strategies and advises the project management team on how best to communicate our findings.

The project has completed the following work products and tasks:

- Identified the climate change impacts and develop climate impact statements;
- Defined the asset categories (airport, community land use, contaminated lands, energy, hazardous materials sites, ground transportation, parks and recreation, natural shorelines, structural shorelines, seaport, storm water, wastewater) to be assessed in the project;
- Participated in a vulnerability assessment of ground transportation within the project area in partnership with MTC and Caltrans;
- Completed an Existing Conditions and Stressors Report for all asset categories within the project area;
- Contracted with the Pacific Institute to develop a report on social vulnerability and demographics entitled *Adapting to Rising Tides: Vulnerability to Sea Level Rise in Selected Communities in the San Francisco Bay Region*; and
- Contracted with ERG Consulting to develop an economic analysis of park and recreation assets within the project area.

The project team is currently completing a draft of the vulnerability and risk assessment for the asset categories within the project area and will be holding the next working group meeting in June to present the findings from the assessment and propose an approach to the adaptation planning phase of the project that will begin in September 2012. For more information about the project, the ART project website <http://risingtides.csc.noaa.gov/> contains future meeting dates, fact sheets, completed materials and other project information.