

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

50 California Street • Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • www.bcdc.ca.gov

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TO: Commissioners and Alternates
FROM: Will Travis, Executive Director (415/352-3653 travis@bcdc.ca.gov)
Lindy Lowe, Senior Planner (415/352-3642 lindyl@bcdc.ca.gov)
SUBJECT: **Staff Report and Recommendation on the Selection of a Sub-region for the Adapting to Rising Tides Project**
(For Commission consideration on December 16, 2010)

Staff Recommendation

Based on the selection criteria established for the Adapting to Rising Tides (ART) project, the staff recommends that the Commission endorse the selection of the section of the Alameda County shoreline between the Bay Bridge and the San Mateo-Hayward Bridge as the sub-region for the ART project. This sub-region includes both areas that are threatened by inundation and areas that will likely be subject to secondary impacts from the inundation of adjacent lands.

Staff Report

Background. The Adapting to Rising Tides project, which is a key element in the Commission's climate change program, is designed to evaluate potential shoreline impacts, vulnerabilities, and risks; identify effective adaptation strategies that will lead to stronger, more resilient shoreline communities; and develop and refine adaptation planning tools and resources that will be useful to communities throughout the Bay Area. The ART project provides direct assistance to both a sub-region and a community along the Bay Area shoreline. In partnership with the affected organizations, the ART project will conduct an assessment of the sub-region's vulnerability to sea level rise and identify adaptation strategies to address those vulnerabilities.

A sub-regional scale allows for a better assessment of shoreline vulnerability and provides the best opportunity to develop true partnerships with the local and regional agencies. The community scale allows for a more detailed analysis of impacts, vulnerabilities and adaptation strategies. While work at the sub-regional scale will be conducted primarily with representatives from agencies and organizations within the sub-region, the community scale work will be conducted with more involvement from the people who live, work and recreate within that community. Working at both the sub-regional and community scales facilitates the



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testing of strategies and processes that can inform a climate adaptation plan for the entire region.

The staff has forged several partnerships and obtained funds to support the ART project. The National Oceanic and Atmospheric Administration's Coastal Services Center (NOAA CSC) is providing funds for three public meetings that will assist in identifying a sub-region, help with the formulation of a working group within the sub-region and also provide the resources necessary for conducting the first meeting within the community. BCDC's staff, in partnership with the Metropolitan Transportation Commission (MTC) and Caltrans, obtained a grant from the Federal Highway Administration (FHWA) to test a vulnerability model within the sub-region to assess the durability of transportation infrastructure to projected sea level rise. To fund some of the work at the community scale, the staff obtained a federal Coastal Zone Management Act grant that will support work within the community. The staff was also successful in forming a partnership with ICLEI, which selected the BCDC-designated community to be one of eight communities across the nation that will receive assistance and resources from ICLEI's national Inaugural Adaptation Communities Program.

ART Project's Relationship to a Regional Strategy. The community and sub-regional scales of the ART project will help establish how best to conduct more detailed impact assessments, conduct vulnerability analyses, work in partnership with local governments, and determine effective adaptation strategies. In contrast to the regional assessment of possible impacts for the entire Bay shoreline, which was conducted for the staff report *Living with a Rising Bay*, the work at the sub-regional and community level will allow for an assessment of risk and vulnerability that will reflect the unique characteristics of the shoreline, identify valuable community assets, including shoreline protection and wetlands, document existing conditions of community assets and describe other important factors that will better determine the risk and vulnerability associated with sea level rise and other climate change impacts.

The ART project will serve as a precursor of a regional strategy for adaptation to climate change and will fit into the development of regional strategy in two important ways. First, the information gathered and the process for conducting the work within the ART project sub-region will inform the development of a regional strategy by clarifying the appropriate planning scale, the data needs and the necessary level of detail for devising an effective strategy. Second, if the regional strategy is detailed and includes the characteristics, assets, vulnerabilities and risks within Bay Area communities and contains specific guidance on adaptation strategies that respond to these conditions, then the data and information developed within the sub-region can be included in the regional strategy. If however, the regional strategy is designed as a broad guidance document without specifics but with a more general approach to adaptation, then each community within the Bay Area will need the type of information and data that will be developed within the sub-region to use such a regional strategy.

ART Project Kick-off Meeting and Public Outreach. On October 22, 2010 BCDC's staff and NOAA CSC held a regional meeting inviting representatives from local governments, regional agencies, flood control agencies, parks departments and others. To aid in providing information about the project, BCDC and NOAA CSC also developed a website for the project (www.risingtides.csc.noaa.gov).

Over 1,000 invitations were sent to federal, state and local decision-makers. Over 70 people attended the meeting, including representatives from the Federal Emergency Management Agency (FEMA), Caltrans, MTC, the Association of Bay Area Governments (ABAG), the Bay Area Council, ICLEI, the Sierra Club, and a number of cities and counties. Attendees were provided with an overview of the ART project and a variety of ways in which they could

express interest in participating in the project. The criteria for selecting a sub-region were identified at the meeting and on the website as:

- Desire and capacity of decision-makers and staff in the sub-region to become partners in the project.
- A diversity of land uses and characteristics along the shoreline.
- Regionally significant transportation infrastructure.

A form entitled “Express Your Interest in the ART Project” was provided at the meeting and e-mailed out to invitees. After the meeting, invitees and those who did not attend were reminded of the deadline for submitting the form as a means of expressing their interest in being selected for participation in the ART project.

Sub-Region Selection. Approximately 40 organizations from seven of the nine counties in the region expressed interest in participating in the project. Staff from BCDC, NOAA CSC, MTC and Caltrans identified the sub-regions and compared each sub-region to the selection criterion. Below is the summary of this analysis for each sub-region:

1. **San Francisco and the Northern Peninsula.** Capacity and interest was determined based on the number of the agencies that submitted and the information on the submittal. This sub-region had four submittals, which was one of the fewest number of submittals compared to the other four sub-regions.

The shoreline has a diversity of developed shoreline types but lacks natural systems compared to the other sub-regions.

The shoreline has some regionally significant transportation infrastructure, including rail and roadways. There is no vulnerable bridge touchdown.

Based on a lack of submittals and the lack of natural systems along the shoreline, this sub-region is not recommended for selection.

2. **Marin County.** Capacity and interest from Marin County was strong, with a number of cities and the county applying. However, the depth of submittals was not as strong as two other sub-regions where regional agencies and water districts also submitted.

The shoreline has a diversity of shoreline types, including natural systems and built environments.

The sub-region has regionally significant transportation infrastructure that is vulnerable, including Highway 101 and the future SMART rail corridor, as well as ferry terminals. However, it likely lacks a vulnerable bridge touchdown and in comparison to other sub-regions does not have as much transportation infrastructure of regional significance.

In comparison to two of the other sub-regions, the capacity and the regionally significant transportation infrastructure is not as strong. For these reasons, Marin County is not recommended as the sub-region.

3. **Contra Costa County around the City of Richmond.** Capacity and interest from this sub-region was more narrowly focused in comparison to others and only included Contra Costa County and the City of Richmond. The staff contacted several other cities that could have made a more comprehensive sub-region, but did not hear back from them.

The shoreline in the sub-region has a diversity of shoreline types, including natural systems, a seaport, transportation infrastructure, residential and industrial land uses.

The sub-region has regionally significant transportation infrastructure including rail, a seaport and a proposed intermodal station in Hercules. There is no vulnerable bridge touchdown in the sub-region.

While shoreline is diverse and there is some regionally significant transportation infrastructure, there were not enough submittals to build a sub-region around and therefore, it is not recommended that Contra Costa County be selected as the sub-region. Additionally, in comparison to two other sub-regions, the area does not have as much regionally significant transportation infrastructure.

4. **South Bay from the Dumbarton Bridge to the City of San Jose.** Capacity and interest from this sub-region was strong, with nine submittals that included cities, San Mateo County, the Santa Clara Valley Water District and the San Francisquito Creek Joint Powers Authority.

The shoreline types of the sub-region are not as diverse as others, primarily consisting of salt ponds, restoration projects and wildlife refuges. However, much of the land area behind these resources is vulnerable and contains a diversity of shoreline types.

The area within and behind the salt ponds, wetlands and refuges contains regionally significant transportation infrastructure, including rail, a bridge touchdown, two interstates and highways.

Based on capacity and vulnerability the South Bay would make a great sub-region. However, there are a number of large projects moving forward that are addressing the vulnerabilities of this sub-region, including the South Bay Salt Ponds project, the U.S. Army Corp South San Francisco Bay Shoreline Study, the San Francisquito Creek project and the Santa Clara Valley Water District project.

5. **Alameda County generally from the Bay Bridge to the San Mateo-Hayward Bridge.** This sub-region submitted the most comprehensive application and included the cities of Oakland, San Leandro, Hayward and San Lorenzo, Alameda County Public Works Department, East Bay Regional Pars District, East Bay Dischargers Authority, Oro Loma Sanitary District, BART and ABAG's Bay Trail.

The shoreline of the sub-region is diverse including airports, seaports, industrial, residential, parks and natural systems.

The sub-region contains a large amount of regionally significant transportation infrastructure including rail, interstates, two vulnerable bridge touchdowns, the Oakland airport and port and BART.

This sub-region had the most comprehensive submittal and included cities, the county, East Bay Regional Park District, Bay Trail and other partners. The shoreline is diverse and there is a lot of regional significant transportation infrastructure. Based on the strength of the submittal and the characteristics of the shoreline, it is recommended that the Alameda County sub-region be selected as the ART project sub-region.

Based upon the assessment above, the staff recommends that the Commission endorse the selection of the Alameda County sub-region, generally from the Bay Bridge to the San Mateo-Hayward Bridge for the ART project. BCDC's partners at NOAA CSC, MTC, Caltrans, and FEMA support this selection. The staff also remains committed to making this project as regional in scale as funding and staff time permit and is exploring different opportunities for public outreach and participation at the regional scale.

ART Project Next Steps. BCDC's staff and partners will work with the agencies within the sub-region to develop a working group and identify a community with which to work at the

local scale. The boundaries of the sub-region will be clearly defined with the partners within the sub-region. BCDC, MTC and Caltrans will select a consulting team to conduct work on the FHWA grant. The staff will provide the Commission with regular updates on the ART project and the issues that arise during the project.

