COASTAL CONSERVANCY

Staff Recommendation
June 20, 2013

FEMA FLOOD RISK REDUCTION – LOCAL PROJECTS IDENTIFICATION

Project No. 13-017-01
Project Manager: Moira McEnespy

RECOMMENDED ACTION: Authorization to expend up to $200,000 of Federal Emergency Management Agency grant funds to identify priority needs and actions related to flood risk reduction in coastal counties from San Francisco through San Diego.

LOCATION: Coastal communities in counties from San Francisco through San Diego

PROGRAM CATEGORY: Climate Change

EXHIBITS

Exhibit 1: Project Location Map

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31113 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes expenditure of up to $200,000 of Federal Emergency Management Agency, Region IX grant funds to identify priority needs and actions related to flood risk reduction in coastal counties from San Francisco through San Diego."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with the purposes and objectives of Section 31113 of the Public Resources Code regarding addressing the potential impacts of climate change on coastal resources.
2. The proposed project is consistent with the current Project Selection Criteria and Guidelines."

PROJECT SUMMARY:

Staff recommends that the State Coastal Conservancy (Conservancy) authorize expenditure of up to $200,000 of Federal Emergency Management Agency (FEMA), Region IX grant funds to identify priority needs and actions related to flood risk reduction in coastal counties from San Francisco through San Diego. The Conservancy is the grant recipient, and these funds were accepted by the Conservancy's Executive Officer in April 2013 under authority previously delegated by the Conservancy Board.

Need to address coastal flooding: The National Research Council's 2012 report *Sea-level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* concludes that over the next several decades the most significant impacts will come from the combined effects of sea-level rise and storms, "…particularly the confluence of large waves, storm surges, and high astronomical tides during a strong El Nino."[1] Critical state infrastructure is at risk, such as roads, hospitals, schools, emergency facilities, wastewater treatment plants, and power plants, as well as wetlands and other natural systems. The cost of replacing property at risk of coastal flooding under a 1.4 meter sea-level rise (SLR) scenario could reach $100 billion. [2]

Coastal counties from San Francisco through San Diego support most of the state's populations as well as critical infrastructure (airports, road systems, passenger rail systems, ports, power plants), numerous national and state parks, tourism-generating beaches, and heavily-urbanized population centers. [3] A recurring theme in reports on climate adaptation is that planning must occur at local and regional scales.[4]

FEMA's role and actions: FEMA administers the National Flood Insurance Program, a critical component of which is identifying and mapping the nation's floodplains to create a broad-based awareness of flood hazards, and provide data necessary for community floodplain management programs and for rating flood insurance. A nationwide FEMA program entitled RiskMAP was created in Federal FY 2009 to fund risk mapping, assessment, and planning.

Under the RiskMAP program, FEMA Region IX[5] is currently implementing a project entitled the "California Coastal Analysis and Mapping Project" (CCAMP) for the "Open Pacific Coast" (there is an analogous effort for the San Francisco Bay). CCAMP involves conducting a coastal engineering study (modeling and analysis) in order to re-map the coastal flood risk and wave hazards using updated flood hazard data, with the ultimate goal of updating its Flood Insurance

[1] El Nino events of 1982 and 1997 caused temporary increases in sea level that, combined with storm surges, caused significant coastal flooding and erosion; these impacts will likely be amplified as sea level rises.
[2] *The Impacts of Sea-level Rise on the California Coast* (A paper from the California Climate Change Center, prepared by The Pacific Institute, May 2009), funded in part by the Ocean Protection Council. Cost estimates are in Year 2000 dollars.
[3] The South Coast region alone supports a population of 16,747,468 according to the U.S. Census Bureau in 2010.
[4] See the following examples: (1) The "Ocean and Coastal Resources" chapter of the *2009 California Climate Adaptation Strategy* recommends support for regional and local planning to address sea-level rise impacts; (2) the March 2011 Ocean Protection Council resolution on sea-level rise states support for development of regional sea-level rise adaptation plans; (3) the 2009 Pacific Institute study concludes that local governments or regional planning agencies should conduct detailed studies to better understand the potential impacts of sea-level rise in their communities; (4) the 2012 *California Adaptation Planning Guide* prepared by the California Emergency Management Agency and the California Natural Resources Agency is structured to provide guidance at the local and regional scale.
[5] Arizona, California, Hawaii, Nevada, and the Pacific Islands

Rate Maps (FIRMs). The study is using seafloor mapping and LiDAR data, the collection of which was spearheaded and significantly funded by the California Ocean Protection Council. Because FIRMs are a regulatory product that FEMA must base on current conditions, the study is not accounting for future bluff erosion or sea level rise.

FEMA Region IX is undertaking CCAMP in two sections—Northern California (Del Norte through San Luis Obispo counties) and Southern California (Santa Barbara through San Diego counties)—in a six-step, six-year process: (1) Kickoff, (2) Data Acquisition, (3) Engineering Analysis, (4) Floodplain Mapping, (5) Map Production, and (6) Post-processing. Staff are currently working on map production for Northern California, and floodplain mapping for Southern California.

The CCAMP process involves assisting communities with incorporating the updated flood information into their risk assessments and hazard mitigation planning; communities can opt to create additional maps that factor in sea-level rise scenarios if they so choose. FEMA Region IX is seeking to partner with an organization around this community engagement piece. It is looking for an organization whose mission overlaps around risk reduction (hazard mitigation and climate change adaptation), and who has established networks with coastal communities. The Coastal Conservancy squarely meets these criteria. The partnership organization will enable FEMA to engage about CCAMP through existing networks and forums.

Project Goals and Approach: FEMA has traditionally had a very technical focus on updating floodplain maps nationwide and getting local governments to adopt the maps, but is now expanding its focus to include outreach and education on how communities can account for risk, and formulate and take actions to minimize risk. FEMA and Conservancy staff will work together to improve understanding of local awareness and needs related to flood risk reduction efforts in communities from San Francisco south to the U.S.-Mexico border, [6] and will identify mitigation and adaptation actions and what is needed to implement them. The goals of this collaboration include:

- Identification of priority hazard mitigation and climate change adaptation activities
- An understanding of what products and resources each community needs in order to implement hazard mitigation and climate adaptation activities.

Grantee Appropriateness and Qualifications: The Conservancy will be the recipient of this grant, and Conservancy staff will carry out the actions described above. The Conservancy is an appropriate grantee because it has over 35 years' experience working with coastal communities to develop and deliver on-the-ground projects, and in 2013 became specifically authorized to address the potential impacts of climate change and to undertake projects to address extreme weather events, sea level rise, storm surge, beach and bluff erosion, salt water intrusion, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources.

Site Description: The proposed site includes coastal communities in counties from San Francisco through San Diego.

Project History: In December 2012, Conservancy staff attended a FEMA-sponsored CCAMP stakeholder meeting, and followed up with a one-on-one meeting with Region IX staff to further

[6] FEMA chose this geographic area based on where the bulk of California's coastal population resides.

discuss agency collaboration. In April 2013, Region IX staff proposed formalizing collaboration with the Conservancy under a "Cooperating Technical Partner" Agreement, and the Conservancy's Executive Officer accepted the funds under authority delegated by the Conservancy Board on September 25, 2001.

PROJECT FINANCING

FEMA	$200,000
TOTAL**	**$200,000**

The anticipated source of funds is a grant from FEMA that will be awarded to the Conservancy to pay for staff time and travel.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Sections 31104 and 31113(a) of the Conservancy's enabling legislation.

Section 31104 authorizes the Conservancy to accept federal grants. Consistent with this section, the Conservancy will accept a grant from FEMA, a Federal agency, to conduct activities necessary to meet the project goals described in the "Project Goals and Approach" subsection, above.

Section 31113(a) authorizes the Conservancy to address the potential impacts of climate change on resources within its jurisdiction, and undertake projects that address extreme weather events, sea level rise, storm surge, beach and bluff erosion, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources. Consistent with this section, the proposed project entails Conservancy staff working with FEMA and local communities to increase flood risk awareness, identify priority flood hazard mitigation and climate change adaptation activities, and pinpoint what products and resources each community needs in order to implement flood hazard mitigation and climate change adaptation activities.

CONSISTENCY WITH CONSERVANCY'S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 7 Objective A** of the Conservancy's 2013-2018 Strategic Plan, the proposed project seeks to identify significant climate-related threats and priority technical assistance needed to maintain resilient coastal communities and natural resources, particularly with respect to flood hazards.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on November 10, 2011, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.

2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** The proposed project would enable FEMA Region IX to more effectively engage with coastal communities while carrying out mapping, analysis, and planning activities that are inherent to their administration of the National Flood Insurance Program.
4. **Location:** The proposed project would be relevant for coastal communities located in San Francisco County through San Diego County.
5. **Need:** Conservancy participation is needed to help FEMA more efficiently and effectively transition from its more traditional technical focus on updating floodplain maps to engaging coastal communities in discussions about flood risk reduction, and what is needed to formulate and take actions to minimize risk.
6. **Greater-than-local interest:** The proposed project is part of a FEMA, Region IX statewide effort ("Open Pacific Coast" segment of CCAMP); Conservancy engagement will be for coastal communities located in San Francisco County through San Diego County.
7. **Sea level rise vulnerability:** The proposed project would be focused on engaging coastal communities in discussions about reducing and addressing risk related to flooding. Although FEMA does not account for sea-level rise in the development of its FIRMs, communities are encouraged to pursue additional mapping that incorporates sea-level rise if they so choose, and this expanded conversation would be facilitated and supported by Conservancy staff.

Additional Criteria

8. **Urgency:** FEMA, Region IX has set a schedule for completing its CCAMP project, and the proposed community engagement component is underway.
9. **Readiness**: The project partners are ready to begin as soon as funds are secured.
10. **Cooperation**: The proposed project represents the inaugural opportunity for Conservancy and FEMA to formally cooperate, and will hopefully lead to continued cooperation and increased government efficiency in the future.

CONSISTENCY WITH CALIFORNIA COASTAL ACT POLICIES:

California Coastal Act Section 30253(a) states that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard [emphasis added]. Consistent with this section, the proposed project will entail Conservancy staff, FEMA, Region IX staff, and local communities working together to increase flood risk awareness, identify priority flood hazard mitigation and climate change adaptation activities, and pinpoint what products and resources each community needs in order to implement flood hazard mitigation and climate change adaptation activities.

COMPLIANCE WITH CEQA:

The proposed project is categorically exempt from review under the California Environmental Quality Act (CEQA) pursuant to 14 California Code of Regulations Section 15306 because the project involves only data collection, research and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. Staff will file a Notice of Exemption upon approval.