Contra Costa County

To: Contra Costa County Flood Control District Board of Supervisors

From: Brian M. Balbas, Public Works Director/Chief Engineer

Date: March 10, 2020

Subject: Cooperative Agreement to Provide Funding for Shared Temporary Deployment of Precipitation Forecasting System, Countywide. Project No. 7505-6F8106

RECOMMENDATION(S):

Acting as the governing body of the Contra Costa County Flood Control and Water Conservation District (FC District), APPROVE and AUTHORIZE the Chief Engineer, or designee, to execute a two-year Cooperative Agreement to provide funding for the Shared Temporary Deployment of Precipitation Forecasting Sysytem with Sonoma County Water Agency, East Bay Municipal Utility District, Alameda County Flood Control & Water Conservation District, Alameda County Water District, and East Bay Dischargers Authority.

FISCAL IMPACT:

The total cost of the effort is $330,000. The FC District contribution to the Cooperative Agreement will be $20,000 and will cover two years of shared costs.

BACKGROUND:

Project Description: The San Francisco Bay Area Advanced Quantitative Precipitation Information System Project (AQPI) is a regional effort that will install improved weather radars and other observing systems and develop a suite of numerical forecast modeling systems covering the multijurisdictional San Francisco Bay Area (Bay Area).

☑ APPROVE ☐ OTHER

☑ RECOMMENDATION OF CNTY ADMINISTRATOR ☐ RECOMMENDATION OF BOARD COMMITTEE

Action of Board On: **03/10/2020** ☑ APPROVED AS RECOMMENDED ☐ OTHER

Clerks Notes:

VOTE OF SUPERVISORS

AYE: John Gioia, District I Supervisor
Candace Andersen, District II Supervisor
Diane Burgis, District III Supervisor
Karen Mitchoff, District IV Supervisor
Federal D. Glover, District V Supervisor

I hereby certify that this is a true and correct copy of an action taken and entered on the minutes of the Board of Supervisors on the date shown.

ATTESTED: March 10, 2020

David Twa, County Administrator and Clerk of the Board of Supervisors

By: Stacey M. Boyd, Deputy

Contact: Mark Boucher, (925) 313-2274

cc: Allison Knapp, Deputy Chief Engineer, Tim Jensen, Flood Control, Mark Boucher, Flood Control, Catherine Windham, Flood Control

BACKGROUND: (CONT'D)

The AQPI project is being completed through collaboration of federal, State, and local government agencies. It will provide accurate and timely information that will be of significant value to a variety of decision makers. Expected benefits include: mitigating flood risks, enhanced reservoirs management to improve water supplies, reduced water quality impacts to San Francisco Bay from wastewater overflows, improved weather related logistics management for transportation sectors, and improved lead-time on coastal and Bay Area inundation from severe storms, especially high-moisture laden atmospheric rivers.

This Cooperative Agreement will allow the FC District to participate in funding a Doppler radar on Rocky Ridge, where existing communication towers already exist on the ridge west of the Town of Danville, for a two-year period while long-term funding for the operation and maintenance of the AQPI system is established.

Project Funding: In 2002, Senate Bill 1672 created the Integrated Regional Water Management (IRWM) Act to encourage local agencies to work cooperatively to manage local and imported water supplies to improve the quality, quantity, and reliability.

In November 2002 and November 2006, California voters passed propositions for water bonds, namely Proposition 50 (Prop 50) and Proposition 84 (Prop 84), respectively. These combined provided $1,500,000,000 for IRWM project planning and implementation.

The Bay Area IRWM Planning Group consists of a consensus based decision making group of representatives from water resource agencies who plan, prioritize, and implement projects that are each all or partially funded through IRWM grants from the State of California, Department of Water Resources (DWR). The Bay Area IRWM Planning Group, represented by Sonoma County Water Agency (also known as Sonoma Water), received a grant from DWR for the AQPI project amounting $19.84 million in grant funds from Prop 84.

Besides the grant award, a local cost share of approximately $330,000 is needed to pay for several siting and operational tasks. Sonoma Water, acting as grantee and lead administrative agency, will manage administration for the AQPI including contracting with the DWR and project partners. Sonoma Water and the other participants are interested in precipitation forecasting issues and the relationship between those issues and their effect on government operations.

The FC District contribution to the Cooperative Agreement will be $20,000 and will cover two years of shared costs.

Collaboration: Sonoma Water and the Cooperative Agreement participants — FC District, Sonoma County Water Agency, East Bay Municipal Utility District, Alameda

County Flood Control & Water Conservation District, Alameda County Water District, and East Bay Dischargers Authority (Participants) wish for Sonoma Water to retain the services of a consultant or consultants with expertise in deploying a precipitation forecasting system, such as an X-Band Radar system at a site in the East Bay. Sonoma Water will contract with the Consultant for the design of the precipitation forecasting system. Sonoma Water also will contract with a contractor to install and construct the precipitation forecasting system.

Sonoma Water and the Participants have identified what appears to be a suitable site and intend for Sonoma Water to enter into a sublease agreement on their mutual behalf to allow for the deployment and operations of a radar on the Rocky Ridge site.

Benefits to the FC District: The data produced by the AQPI system will provide forecasts on flooding in our smaller local creeks as is currently done for the Russian River and other major tributaries. Past forecasts were updated at a lower rate than the hourly updated model that now exists. The AQPI radar data will feed into relatively new high resolution, rapid refresh National Weather Service (NWS) weather forecast model. In cooperation with the NWS forecasters and computer upgrading and training, the FC District will be able to better predict flooding in critical areas. An AQPI users group has been formed to foster the learning and use of the AQPI data.

Benefits to Public Works — Roads: Besides benefits to the FC District, the AQPI system and associated forecast models can help in predicting high water at road crossings where the County and/or other agencies would need to stage resources for road and bridge closures. The AQPI system data could also be used to forecast problems in areas where road flooding regularly occurs due to storm drain system deficiencies.

Benefits to the County at large: Though Public Works does not specifically provide every service the AQPI system will benefit (sewer, water supply, etc.), our Board serves the general public that receives these other services that will benefit even those in incorporated areas. The people of Contra Costa, or the agencies that provide various services to them, will all benefit from the better forecasting the AQPI system provides. These include better management of reservoirs to secure and preserve water supplies; minimize water quality impacts to the San Francisco Bay from wastewater overflows; anticipate air, sea and land transportation challenges; and have improved lead-time on coastal and Bay Area inundation from severe storms, especially high-moisture laden atmospheric rivers. We anticipate others, such as sewer districts, water districts, cities, Office of Emergency Services, and private entities, will find uses for the AQPI system data in ways we have not yet envisioned.

CONSEQUENCE OF NEGATIVE ACTION:

If the Cooperative Agreement is not approved, the FC District will not be able to contribute $20,000 to this important regional AQPI project and may not have as much influence on how the system is ultimately operated.

ATTACHMENTS

Cooperative Agreement