



**Contra  
Costa  
County**

To: Contra Costa County Flood Control District Board of Supervisors

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

Date: August 9, 2022

Subject: Cooperative Agreement to Provide Funding for Shared 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 Cooperative Agreement to provide funding for the Shared Deployment of Precipitation Forecasting System with Sonoma County Water Agency, East Bay Municipal Utility District, Alameda County Flood Control & Water Conservation District, Alameda County Water District, East Bay Dischargers Authority, and Alameda County Flood Control and Water Conservation District – Zone 7 for the term August 9, 2022, to December 31, 2023.

### **FISCAL IMPACT:**

The total cost share, besides that expended directly by Sonoma Water, is \$190,000. The FC District contribution to the Cooperative Agreement will be \$20,000 and will cover two years of shared costs. 100% Flood Control District Funds.

### **BACKGROUND:**

Previous Agreement and History: On March 10, 2020, the Board APPROVED and

☒ APPROVE

☐ OTHER

☒ RECOMMENDATION OF CNTY  
ADMINISTRATOR

☐ RECOMMENDATION OF BOARD  
COMMITTEE

Action of Board On: **08/09/2022** ☒ 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: August 9, 2022

Monica Nino, County Administrator and Clerk of the Board of Supervisors

By: Stacey M. Boyd, Deputy

Contact: Mark Boucher, (925)  
313-2274

AUTHORIZED the Chief Engineer, or designee, to execute an agreement (2020 Agreement) for the same project described below. In the 2020 Agreement, the FC District's financial contribution to the project was \$20,000. The Cooperative Agreement now before the Board is nearly identical to the 2020 Agreement.

Due to COVID-19 restrictions and wildfires, Sonoma Water, the lead agency on the project, was unable to move the project forward as anticipated. In 2021, to address unanticipated permitting requirements and avoid delays, the FC District utilized on-call engineering contracts to have structural inspections, calculations,

## BACKGROUND: (CONT'D)

and plans completed to fulfill building permit requirements. The final cost of the engineering work amounted to \$21,832.32. At that time, the FC District communicated, and Sonoma Water acknowledged, this amount would be considered as an in-kind contribution to the project.

An amendment to the 2020 Agreement was anticipated shortly after it was executed, due to the delays and other issues. The project was further stalled, however, and the 2020 Agreement expired. The project has continued and is anticipated to be installed this year. The agreement before the Board will acknowledge the FC District's in-kind work with language to allow credit and reimbursement for in-kind amounts over and above our contribution.

**Project Description:** The San Francisco Bay Area Advanced Quantitative Precipitation Information System Project (AQPI) is a regional effort that will install four (4) 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). This agreement is to provide funding for costs to deploy a radar in Contra Costa County on Rocky Ridge, a ridge west of the Town of Danville.

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 deployment of a Doppler radar on Rocky Ridge, where existing communication towers already exist, 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 Water, received a grant from DWR for the AQPI project amounting to \$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 water resource and other public agency operations.

The FC District contribution to the Cooperative Agreement will be its in-kind contribution of \$21,832.32 and will cover two years of shared costs. The in-kind contribution will be credited to the FC District's cost share. This cost share could be reduced to \$20,000.00 if there are remaining funds at the close of the project to reimburse the FC District the \$1,832.32 over its cost share.

Collaboration: Sonoma Water and the Cooperative Agreement participants — FC District, East Bay Municipal Utility District, Alameda County Flood Control & Water Conservation District, Alameda County Water District, East Bay Dischargers Authority, and Alameda County Flood Control and Water Conservation District – Zone 7 (Participants) wish for Sonoma Water to hire a consultant or consultants to install a radar on Rocky Ridge. 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 Flood Control office 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. The FC District is already receiving data from the AQPI system and integrating it into its protocols for flood warning.

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 Contra Costa County as an agency 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 Countywide. The people of Contra Costa, and 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 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