



# COUNTY OF SONOMA

575 ADMINISTRATION  
DRIVE, ROOM 102A  
SANTA ROSA, CA 95403

## SUMMARY REPORT

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**Agenda Date:** 5/12/2026

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**To:** Board of Directors, Sonoma County Water Agency

**Department or Agency Name(s):** Sonoma County Water Agency

**Staff Name and Phone Number:** Grant Davis 707 547-1900, Dale Roberts 707 547-1979

**Vote Requirement:** Informational Only

**Supervisorial District(s):** All

**Title:**

Update on Advanced Quantitative Precipitation Information Project

**Recommended Action:**

Receive an update on the completion of grant funded phase of Advanced Quantitative Precipitation Information (AQPI) Project

**Executive Summary:**

This item requests that the Board of Directors for the Sonoma County Water Agency (Sonoma Water), receive an update on the completion of the grant funded phase of the Advanced Quantitative Precipitation Information (AQPI) Project.

**Discussion:**

In January 2016 the California Department of Water Resources announced \$19.8 million in grant funding for the San Francisco Bay Area Advanced Quantitative Precipitation Information Project (AQPI). The funding was provided by The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84), through the San Francisco Bay Area Integrated Regional Water Management Plan (IRWMP). Sonoma Water led development of the initiative and administered the grant for the Bay Area IRWMP.

More than 50 percent of the San Francisco Bay Area's rain and flooding comes from atmospheric rivers, but existing National Weather Service radars aim too high to see the low-elevation atmospheric rivers. AQPI deployed four X-band radars and one C-band radar, along with other surface monitoring instrumentation and improved weather modeling, which provides improved precipitation and streamflow forecasts. This greatly improves reservoir operations for water supply, flood management, regulating combined sewer and wastewater flows, anticipated emergency response, public roads management.

Sonoma Water led the development of AQPI with the implementation of a Local Partner Agencies Committee (LPAC) comprised of stakeholders such as the National Ocean and Atmospheric Administration's National Weather Service, University of Colorado's Cooperative Institute in Research in the Atmosphere, Scripps Institute of Oceanography's Center for Western Weather and Water Extremes, San Francisco Public Utilities Commission, San Clara Valley Water District East Bay Municipal Utility District (EBMUD), East Bay Dischargers Authority (EBDA), Alameda County Flood Control & Water Conservation District (ACFCD), Alameda County Water District (ACWD), and Contra Costa County Flood Control & Water Conservation District (CCCFCWCD).

Due to external delays such as the COVID-19 pandemic, shutdowns of federal government agencies, supply chain delays, Federal Communications Commission's staffing shortages and ability to issue radar operating licenses, and local permitting issues, the AQPI radars and surface monitoring rain gages were not fully deployed and operational until March 2025. With the AQPI now deployed and operational, Sonoma Water is transferring operational responsibility of the AQPI system to the Center for Western Weather and Water Extremes (CW3E).

The LPAC met quarterly during the grant phase of the project. The LPAC agreed on September 20, 2022 to transfer the operational responsibility of the AQPI system to CW3E after the DWR grant period ends. CW3E has the knowledge, infrastructure, and interest in operation and further development of the system. CW3E currently operates a network of meteorological observations across California and has extensive west coast meteorological experience and computational resources to support a system like AQPI. CW3E would operate the system in collaboration with the Cooperative Institute for Research in the Atmosphere (CIRA) and NOAA Physical Sciences Laboratory (PSL) to leverage their knowledge and expertise in radar and other observing systems and moving products from research-to-operations.

Additional information about AQPI can be found at <https://www.sonomawater.org/aqpi> and <https://cw3e.ucsd.edu/Projects/AQPI/main.html> .

**Strategic Plan:**

This item directly supports the County's Five-year Strategic Plan and is aligned with the following pillar, goal, and objective.

**Pillar:** Resilient Infrastructure

**Goal:** Goal 5: Support, fund, and expand flood protection.

**Objective:** Objective 1: Develop partnerships with cities, tribal governments, and private organizations regarding flood protection and sustainability to identify gaps and address climate change impacts.

The AQPI Project supports Sonoma County's efforts to partner with other local entities to prepare, mitigate, and prevent community impacts caused by emergencies and natural disasters including, but not limited to, flood protection and other adverse effects from heavy precipitation events.

Sonoma Water Strategic Plan Alignment

This item directly supports Sonoma Water's Strategic Plan and is aligned with the following goal, strategy, and action item.

**Goal:** 5. Climate Change - Assess risk and uncertainty of climate change, and develop and take actions that improve resiliency and sustainability.

**Strategy:** 5.1 Develop and implement practices to understand and minimize vulnerability to climate change impacts.

**Action Item:** 5.1.2 Support interagency partnership efforts addressing regional climate-resiliency planning and projects.

The AQPI Project supports Sonoma Water's efforts to partner with other agencies to respond and adapt to the

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effect's climate change is having on precipitation patterns in the region, as well as improve early warning capabilities to avoid life-safety threats from potential land sliding, debris flows, flooding, erosion, road hazards, and burn scar problems that could be compounded from heavy rain events.

**Racial Equity:**

**Was this item identified as an opportunity to apply the Racial Equity Toolkit?**

No

**Prior Board Actions:**

Attached

**FISCAL SUMMARY**

<b>Expenditures</b>	<b>FY25-26 Adopted</b>	<b>FY26-27 Projected</b>	<b>FY27-28 Projected</b>
Budgeted Expenses			
Additional Appropriation Requested			
<b>Total Expenditures</b>			
<b>Funding Sources</b>			
General Fund/WA GF			
State/Federal			
Fees/Other			
Use of Fund Balance			
General Fund Contingencies			
<b>Total Sources</b>			

**Narrative Explanation of Fiscal Impacts:**

N/A

<b>Staffing Impacts:</b>			
<b>Position Title (Payroll Classification)</b>	<b>Monthly Salary Range (A-I Step)</b>	<b>Additions (Number)</b>	<b>Deletions (Number)</b>

**Narrative Explanation of Staffing Impacts (If Required):**

N/A

**Attachments:**

Prior Board Actions

PowerPoint Presentations

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**Related Items “On File” with the Clerk of the Board:**

None.