



## Legislation Text

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**File #:** 2022-0842, **Version:** 1

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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:** Kevin Booker 707-521-1865  
**Vote Requirement:** Majority  
**Supervisorial District(s):** Countywide

**Title:**

Asset Management Program Phase 3

**Recommended Action:**

Authorize Sonoma County Water Agency's General Manager to execute an agreement with Carollo Engineers, Inc., in a form approved by County Counsel, for assistance with Phase 3 of Sonoma Water's Asset Management Program through June 30, 2024, in the not-to-exceed amount of \$1,100,000.

**Executive Summary:**

Sonoma County Water Agency (Sonoma Water) is in the final phase of developing a three-phase Asset Management Program to support Sonoma Water's goal of applying asset management business practices enterprise-wide. Under this agreement, Carollo Engineers, Inc. will roll out asset management business practices enterprise-wide for Phase 3. The cost of services will not exceed \$1,100,000; the term end date is June 30, 2024.

**Discussion:**

HISTORY OF ITEM/BACKGROUND

Sonoma Water provides high-quality drinking water to over 600,000 people in Sonoma and northern Marin counties; is responsible for maintaining over 150 miles of creeks and streams throughout Sonoma County to help reduce the risk of flooding; manages and operates four sanitation districts and four sanitation zones in unincorporated Sonoma County; and produces recycled water to offset potable water demands.

Sonoma Water has multiple systems for managing and maintaining asset information and has initiated a project to implement asset management practices to integrate the available information to enhance the decision-making process for managing these assets. Sonoma Water has articulated this in the following statement:

Sonoma Water's vision is to improve its process to accomplish reliability-centered maintenance, business system interconnectedness, and improve asset management enterprise-wide. Sonoma Water is seeking strategies to reduce labor required for asset maintenance, record keeping, researching asset history information, benchmarking, reporting key performance indicators, more comprehensive fiscal decision making, assurance of regulatory compliance, justification for rate increases to the public, and other pertinent enterprise asset management functions.

Sonoma Water initiated a multi-phased Asset Management Program (AMP) development effort beginning with an Asset Management Implementation Plan (Phase 1), followed by pilot project elements of the AMP (Phase 2), and now rolling out asset management business practices for additional Sonoma Water systems (Phase 3).

The objectives established for Sonoma Water's AMP are to:

1. Provide business processes and policies to track assets throughout their life cycle from activation to deactivation.
2. Provide a consistent asset naming system so that assets can be easily identified and organized across the service area.
3. Assess centralized data systems and software to store and share asset information easily across the organization.
4. Provide a consistent and comprehensive assessment of the condition of assets.
5. Employ a unified policy to define and track the types of maintenance work such as preventative, predictive, corrective, and reactive maintenance.
6. Employ a risk-based asset management framework for calculating the probability of failure and consequence of failure of assets throughout their life cycle.
7. Establish strategies for managing assets to minimize costs, reduce risks, and comply with regulations.
8. Provide a structure for prioritizing projects for the Capital Improvement Program (CIP).
9. Develop long-term funding options, including rate impacts, for managing operation and renewal of the assets.

In addition to the above, Sonoma Water's AMP will include reporting of key performance indicators for tracking the implementation progress of these business processes. Sonoma Water will accomplish successful enterprise-wide asset management when all personnel understand, support, and execute the asset management principles, processes, and technologies that are developed for the AMP.

Sonoma Water's AMP is being developed with support from Carollo Engineers, Inc. (Consultant) through a three-phased approach for fully developing this comprehensive program. These phases include:

Phase 1 - Asset Management Implementation Plan (AMIP) - Complete

Phase 2 - AMP Pilot Project - Nearly complete

Phase 3 - Refinement and initial implementation of the AMP

Phase 1 included the development and implementation plan details of the AMP. This phase included a review of Sonoma Water's current asset management practices, identification of gaps, development of an AMP vision and charter and asset management framework, and calculation methods for probability and consequence of failure and business risk exposure analysis. Phase 1 also included an assessment of current business system integration (BSI) practices, and assessment of Sonoma Water's current computer maintenance management system (CMMS) as well as recommendations for further BSI of data to support asset management. The outcome of Phase 1 is an AMIP report documenting the components of the AMP to serve as a guide throughout the process of developing, piloting, and rolling out an enterprise asset management program for Sonoma Water.

Phase 2 applied the asset management practices and principles defined during Phase 1 to complete a pilot condition assessment for a subset of Sonoma Water assets as well as further development of BSI practices and drafting a request for proposals for CMMS software implementation. The pilot condition assessments included

both water production and wastewater treatment facilities.

Phase 3 will include integrating the changes recommended in Phase 2 into the full roll-out of the AMP to cover all of Sonoma Water's systems of assets and supporting the implementation for the CMMS solution selected by Sonoma Water. An updated AMIP will be provided to Sonoma Water to include a timeline for developing asset management plans so that the AMP can be implemented enterprise-wide. The Phase 3 scope includes the following task areas:

- Business System Integration (BSI) - Consultant will assist Sonoma Water in reaching the vision of interconnected business systems to increase efficiencies and decrease costs while providing additional reliability. Sonoma Water is in a unique position to move to the next level of BSI which includes pursuing Intelligent Water Systems (IWS). IWS is being applied by many utilities that are taking the path to a "Smart Utility." This task will help Sonoma Water further integrate business systems using IWS practices.
- Water Transmission System AMP - Apply the asset management framework refined during Phase 2 to develop an asset management plan for the transmission system storage tanks and booster stations. This includes coordinating with Sonoma Water's water storage tank condition assessment consultant, and the current CIP tank recoat and seismic retrofit program to collect data that will be integrated into the asset management dashboards being developed in Phase 2. Additionally, Consultant will conduct on-site visual field condition assessments of six booster pump stations. Results will also be incorporated into the asset management dashboards. The recommendations from the booster pump station assessments will be grouped into a 20-year projection of capital and maintenance needs.
- Wastewater Treatment Plant AMPs - Develop asset management plans for the Occidental, Penngrove, and Sea Ranch wastewater treatment facilities. Consultant will conduct on-site visual and corrosion condition assessments and assign condition scores to the assessed assets. Results will be incorporated into the asset management dashboards. Recommendations from the assessments will be grouped into a 20-year projection of capital and maintenance needs.
- Flood Control AMP - Conduct a risk analysis based on the existing flood control assets data using probability of failure and consequence of failure scoring protocols developed during Phase 2 for prioritizing resources for capital and operational needs. Assign the flood control assets to risk categories to facilitate prioritizing recommended capital and maintenance needs in coordination with the conditions assessments recently completed for those facilities with Natural Resources Conservation Services funding. Recommendations from the assessments will be grouped into a 20-year projection of capital and maintenance needs in coordination with the Natural Resources Conservation Services efforts.
- Aqueduct Piping AMP - Develop a preliminary aqueduct inspection plan. The inspection plan will include a matrix of inspection technologies for assessing aqueduct piping. This task includes reviewing asset data in Sonoma Water's CMMS and GIS systems and providing recommended updates to the asset register. Conduct a risk analysis using probability of failure and consequence of failure scoring protocols for prioritizing resources for capital and operational needs. Assign the assets to risk categories to facilitate prioritizing recommended capital and maintenance needs.
- Asset Management Implementation Plan (AMIP) Update - This task will document updates to Sonoma Water's asset management framework and enterprise-wise implementation schedule. Additionally, this task includes developing a preliminary asset management strategy for building facilities and providing recommendations for an asset management staffing plan.

**SELECTION PROCESS**

Consultant was selected from a list of qualified consultants developed from a prior competitive selection process. Attached is a memo that explains the previous competitive selection process.

Consultant was chosen from the list to perform the work for this agreement because of their experience with similar public agencies and demonstrated understanding of Sonoma Water’s needs.

Sonoma Water may seek to amend or enter into subsequent agreement(s) with Board approval if required, relying upon this competitive selection process, after the preliminary or initial work is completed for the Project.

**SERVICES TO BE PERFORMED**

Under the proposed agreement, Consultant will develop Phase 3 of the AMP by conducting project monitoring, reporting, meetings, and workshops; expanding business system integration; facilitating software selection and implementation; developing asset management plans for water transmission, wastewater treatment plants, flood control, and aqueduct piping; and developing an asset management implementation plan in order to roll out asset management practices and principles enterprise-wide.

The cost of services will not exceed \$1,100,000; the term end date is June 30, 2024.

The agreement includes two options for Sonoma Water to extend this agreement for a period of one year each by providing written notice to consultant thirty days in advance of the expiration date of the agreement and of the first extension option.

**County Strategic Plan: N/A**

**Sonoma Water Strategic Plan Alignment**

Water Supply and Transmission System, Goal 2: Maintain and improve the reliability of the Water Transmission System.

Sonoma Water plans to move from isolated data silos to interconnected business systems to accomplish reliability-centered maintenance, business system interconnectedness, and improve asset management enterprise-wide.

**Prior Board Actions:**

04/20/2021: Approved agreement between Sonoma Water and Carollo Engineers, Inc., for assistance developing Phase 2 of the Asset Management Program. Cost \$492,360; term end April 30, 2022.

08/13/2019: Approved agreement between Sonoma Water and Carollo Engineers, Inc., for assistance developing Phase 1 of the Asset Management Program. Cost \$689,500; term end March 31, 2021.

**FISCAL SUMMARY**

<b>Expenditures</b>	<b>FY 22-23 Adopted</b>	<b>FY23-24 Projected</b>	<b>FY 24-25 Projected</b>
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Budgeted Expenses	\$1,100,000		
Additional Appropriation Requested			
<b>Total Expenditures</b>	<b>\$1,100,000</b>		
<b>Funding Sources</b>			
General Fund/WA GF	\$350,000		
State/Federal			
Fees/Other	\$750,000		
Use of Fund Balance			
Contingencies			
<b>Total Sources</b>	<b>\$1,100,000</b>		

**Narrative Explanation of Fiscal Impacts:**

Budgeted amount of \$1,100,000 is available from FY 2022/2023 appropriations for the Sonoma Water General Fund (\$350,000), the Water Transmission O&M Fund (\$550,000), and the Flood Control Zone 1A Fund (\$200,000). No additional appropriation is required.

<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:**

Selection Memo

**Related Items "On File" with the Clerk of the Board:**

None