



SUMMARY REPORT

Agenda Date: 8/30/2022

To: Board of Directors, Sonoma County Water Agency
Department or Agency Name(s): Sonoma County Water Agency
Staff Name and Phone Number: Andrew Rich 524-1177
Vote Requirement: Majority
Supervisorial District(s): Countywide

Title:

Alexander Valley Flood-Managed Aquifer Recharge (Flood-MAR) Feasibility Study

Recommended Action:

Authorize Sonoma County Water Agency's General Manager to execute an agreement with McMillen LLC dba McMillen Jacobs Associates, in a form approved by County Counsel, for groundwater monitoring network design and construction services through December 31, 2024, in the not-to-exceed amount of \$250,000.

Executive Summary:

This item requests that the Board of Directors authorize Sonoma County Water Agency's (Sonoma Water) General Manager to execute an agreement with McMillen LLC dba McMillen Jacobs Associates (Consultant) to perform a feasibility study for the flood-managed aquifer recharge (Flood-MAR) project in the Alexander Valley. Funding for the project was allocated from the Sonoma County Board of Supervisors (Board) Climate Resilience Fund. Under the proposed agreement, Consultant will develop a monitoring network that will improve understanding of the impacts of recharge on water supply reliability, including larger-scale groundwater conditions, fluctuations in direction of the surface-water-groundwater gradient, spatial variability of streamflow gains and losses, and the timing of the streamflow benefits.

Discussion:

HISTORY OF ITEM/BACKGROUND

On February 2, 2022, staff from the County Administrator's Office Climate Action and Resiliency Division presented the Climate Action, Resiliency and Equity (CARE) Framework to guide development and implementation of climate and resiliency actions, which the Board has prioritized. The CARE Framework was used to evaluate potential projects and make recommendations for allocation of the \$10 million Climate Resilience Fund. The Alexander Valley Flood-MAR Feasibility Study (Study) met the criteria for the Board's climate and resiliency policy priorities, and the Board approved \$400,000 for the Study.

Flood-MAR is a strategy that utilizes storm water runoff resulting from, or in anticipation of, rainfall for managed aquifer recharge. Recharging groundwater aquifers with excess storm water simultaneously lowers the risk of flooding to communities, improves stressed groundwater resources, and can improve summer and fall stream baseflows, which, in turn, benefits aquatic ecosystems.

The Study will assess the viability of Flood-MAR projects in the Alexander Valley to improve water supply

reliability (drought mitigation), improve local groundwater conditions, and enhance aquatic conditions in the Russian River. Understanding the impact of Flood-MAR implementation projects is critical for water resource planning and conservation (for example, maintaining instream flow requirements and reservoir operations), protection of endangered species, climate resilience, and agricultural and economic sustainability.

The Study will include the following two main tasks: (1) using modeling tools, evaluate potential areas in the Alexander Valley where Flood-MAR may be viable and (2) develop and implement monitoring network(s) for selected Flood-MAR projects to assess the location, time, and magnitude of the water supply benefit.

The Dry Creek Rancheria Band of Pomo Indians (Tribe) was recently awarded separate funding through the State of California Department of Water Resources' Urban and Multibenefit Drought Relief Grant Program to implement a Flood-MAR project (Project) within Alexander Valley. The Project is anticipated to begin in the upcoming winter.

The Study requires implementation prior to the Project so that a scientific baseline of conditions can be established. The baseline will enable Sonoma Water to understand the full impact of the Project. Sonoma Water will coordinate with the Tribe and its partners to leverage common resources and monitoring activities for the duration of the Study.

SELECTION PROCESS

On March 30, 2022, Sonoma Water issued a Request for Statements of Qualifications (RFQ) to the following 12 firms:

1. Daniel B. Stevens & Associates, Grass Valley, California
2. EKI Environment and Water, Inc., Daly City, California
3. GEI, Rancho Cordova, California
4. Jacobs Engineering Group, Inc., San Diego, California
5. Larry Walker Associates, Inc., Davis, California
6. Luhdorff & Scalmanini, Woodland, California
7. McMillen LLC dba McMillen Jacobs Associates, Boise, Idaho
8. Errol L. Montgomery & Associates, Inc., San Luis Obispo, California
9. Ramboll US Consulting, Inc., Sacramento, California
10. Todd Groundwater, Alameda, California
11. West Yost Associates, Davis, California
12. Woodard & Curran, Sacramento, California

The nine firms listed below submitted Statements of Qualifications (SOQs):

- Bachand & Associates Inc., Davis, California
- EKI Environment and Water, Inc., Daly City, California
- Jacobs Engineering Group, Inc., San Diego, California
- Larry Walker Associates, Inc., Davis, California
- McMillen LLC dba McMillen Jacobs Associates, Boise, Idaho
- Errol L. Montgomery & Associates, Inc., San Luis Obispo, California
- Ramboll US Consulting, Inc., Sacramento, California
- Resource Management Associates, Inc., Davis, California
- Woodard & Curran, Sacramento, California

The following criteria were used to evaluate each firm:

- Thoroughness of SOQ
- Professional qualifications and demonstrated ability to perform the work
- Exceptions to standard terms in the sample agreement
- Local Service Provider Preference

Consultant was selected for the subject work because it has extensive experience in developing groundwater monitoring networks. Consultant also brings a unique set of skills in model development and implementation of managed aquifer recharge projects. Consultant has completed a considerable amount of work in the region in a wide variety of projects.

The remaining \$150,000 provided by the grant will be used to support the permitting, locating, and planning of the monitoring network by Sonoma Water staff. Sonoma Water staff will also investigate the impacts of Flood-MAR on Russian River streamflow by measuring surface water groundwater interactions via synoptic streamflow measurements and installation of monitoring equipment. Finally, a portion of the remaining money will be used to simulate (using numerical groundwater flow models) the impact of Flood-MAR on Russian River flows in order to better understand project characteristics that lend themselves to the greatest benefit.

SERVICES TO BE PERFORMED

Under the proposed agreement, Consultant will provide support for monitoring network design and planning, installation of a shallow groundwater monitoring network (including permitting, drilling, and planning), data evaluation, preparation of a technical memorandum, and support to Sonoma Water in modelling Flood-MAR projects in the Alexander Valley.

The cost of services will not exceed \$250,000; the term end date is December 31, 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 (30) days in advance of the expiration date of the agreement and of the first extension option. The extension would be formalized in an amended agreement or amendment signed by Sonoma Water and Consultant.

Strategic Plan:

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

Pillar: Climate Action and Resiliency

Goal: Goal 2: Invest in the community to enhance resiliency and become carbon neutral by 2030

Objective: Objective 1: Align the Board of Supervisor's strategic priorities, policy, and operational goals with funding and resources.

Sonoma Water Strategic Plan Alignment:

Water Supply and Transmission System, Goal 1: Protect drinking water supply and promote water-use efficiency.

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Climate Change, Goal 1: Continue improving our ability to respond and adapt to climate change.

Prior Board Actions:

02/01/2022: Approved Climate Resiliency Funding recommendations.

05/11/2021: Approved Climate Action and Resiliency Project funding recommendations.

FISCAL SUMMARY

Expenditures	FY22-23 Adopted	FY23-24 Projected	FY 24-25 Projected
Budgeted Expenses	\$250,000		
Additional Appropriation Requested			
Total Expenditures	\$250,000		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other	\$250,000		
Use of Fund Balance			
Contingencies			
Total Sources	\$250,000		

Narrative Explanation of Fiscal Impacts:

Additional appropriations are required from the Sonoma Water General Fund to process this expense. With Board approval, unspent appropriations budgeted in FY 2021/2022 in the amount of \$250,000, and \$250,000 in offsetting Sonoma County Climate Resiliency Funds for this agreement and additional unspent expenses including corresponding offsetting revenue up to the total \$400,000 FY21-22 budget appropriation will be rolled over to FY 2022/2023 in the next quarterly consolidated budget adjustments.

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

Narrative Explanation of Staffing Impacts (If Required):

N/A

Attachments:

None

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

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None