# STAFF REPORT

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| **Meeting Type:** | Board of Directors |
| **Title:** | Approve a Professional Services Agreement with Carollo Engineers for Engineering Design of Atmospheric River Capture Project |
| **From:** | Paul Sellier, Director of Water Resources |
| **Through:** | Ben Horenstein, General Manager |
| **Meeting Date:** | April 15, 2025 |

**TYPE OF ITEM:** X Action Information

**RECOMMENDATION:** Approve a Professional Services Agreement with Carollo Engineers not to exceed $9,699,235 to provide engineering services for the preliminary and final design package and bidding support services for the Atmospheric River Capture (ARC) and authorize the General Manager to negotiate and execute the contract

**SUMMARY:** At the February 25, 2025 Board of Directors meeting, the water supply conveyance alternative PETA-3 was approved by the Board as the preferred alternative to advance into design and environmental review. PETA-3 has been renamed the Atmospheric River Capture (ARC) Project. Following direction from the Board, Staff requested proposals from qualified engineering firms for design services and received one proposal from Carollo Engineers (Carollo). Carollo's proposal, interview responses, and performance working with the District on prior projects reflect their team's thorough understanding of the project need, urgency, complexities as well as Carollo's technical expertise designing similar projects.

**DISCUSSION:** By mid-2021, as a result of historic drought conditions, the District was left with just months of water supply. Fortunately, with the help of historic rainfall, the District's reservoirs were at capacity by December 2021, that provided relief from the drought emergency and time to more thoroughly investigate water supply options. Over the next year the District developed the Strategic Water Supply Assessment (SWSA) that investigated the District's ongoing vulnerability to drought and established the need for additional water supply. The SWSA evaluated a range of water supply alternatives that culminated in February 2023, when the Board selected the Integrated Roadmap for improved water supply resiliency (Roadmap). Staff has been working to implement the Roadmap projects, including a review of new and available information to thoroughly define the longer-term projects included in the Roadmap.

On February 25, 2025, the Board of Directors reviewed a short-list of water supply alternatives including raising Kent Dam, raising Soulajule Dam, constructing a 10-MGD desalination plant, and

constructing the Atmospheric River Capture project (formerly PETA-3). The Board directed staff to proceed with the design and environmental review of the Atmospheric River Capture project (ARC) as it was identified to be superior across nearly all planning criteria compared to other long-term supply alternatives available to the District.

Once constructed, ARC will support the District by capturing excess water during atmospheric river events in the Russian River watershed for storage in Nicasio Reservoir. The proposed transmission pipeline will tie into the existing North Marin Aqueduct (NMA) that conveys water from Sonoma County Water Agency. The proposed pipeline route is along San Marin-Novato Blvd for approximately 9.2 miles before heading south another 4.0 miles along Pt. Reyes – Petaluma Road to Nicasio Reservoir.

Following direction from the Board, staff requested proposals from qualified engineering firms for design services and received one proposal from Carollo. In review of the proposal, Carollo demonstrated exceptional attention to detail and awareness in key areas of the project that are expected to be most challenging, including coordination with local agencies and jurisdictions, including PG&E, identifying potential geotechnical issues early in the design process to minimize change orders, ensuring technical analysis adequately supports the environmental review and permitting process to maintain the overall project schedule, and working with landowners to identify feasible sites for facilities.

Carollo has an excellent record of timely deliverables with the District, having delivered final design drawings and bid documents for the Fairfax Manor 1st Lift Pump Station Replacement Emergency project in six months as well as 30% design for the Emergency Intertie Project in just four months. Previous experience working with Carollo has indicated their strength in interfacing with other jurisdictions, vendors, environmental consultants, and private stakeholders, in addition to detailed coordination with CalTrans. Carollo has proposed the same team and team-members be assigned to the Project as previously active on the recent Conveyance Improvements Project. Staff is confident that the Carollo team provides the District the necessary experience, skills and resources to complete the design successfully and on schedule.

<u>Project Implementation</u>

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| Board authorization of design services | April 15, 2025 |
| Complete Basis of Design Report | October 2025 |
| Complete 60% Design Package | June 2026 |
| Complete 90% Design Package | October 2026 |
| Complete Final 100% Design Package | January 2027 |
| Project Bid Phase | January – March 2027 |

Staff recommends the Board of Directors approve a Professional Services Agreement with Carollo Engineers not to exceed $9,699,235 and authorize the General Manager to negotiate and execute the contract to provide engineering services for the preliminary and final design package and bidding support services for the Atmospheric River Capture Project.

**ENVIRONMENTAL REVIEW:** Staff has issued a request for proposals to qualified environmental consultants for the environmental review and permitting associated with this project and will return for the Board's approval with a preferred environmental consultant in May 2025.

**FISCAL IMPACT:** The total cost impact associated with the proposed agreement is $9,699,235 as shown in Table 1. Funds are included in the adopted FY 2026 Budget.

**Table 1**
**Atmospheric River Capture Project**
**Engineering Design Scope of Work and Fee Summary**

| Task Description | Budget |
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| **Task 1 – Project Management:** This task includes conducting project progress meetings, preparing monthly progress reports, preparing and attending Board presentations, internal technical reviews and quality assurance, coordination with sub-consultants | $753,535 |
| **Task 2—Develop Basis of Design Report (BODR):** This task includes review of existing information and related record drawings, conducting a field visit to the proposed route, identifying project design criteria, conducting hydraulic modeling of project facilities and sizing of facilities; confirm pipeline alignment for constructability, maintenance, and operations; confirming pipe materials and evaluating pipeline construction techniques; evaluating site alternatives for pump station facilities, dechlorination facilities, and reservoir discharge facilities; conducting transient analysis for surge protection of the facilities, conducting a workshop with staff on project facilities alternatives, refinement of desktop geotechnical evaluation, development of preliminary construction cost estimate; identifying permitting agencies and requirements; evaluate Kastania Pump Station for future expansion; development of construction schedule and sequencing; develop Preliminary (30%) drawings and specifications table of contents; development of draft and final Basis of Design Report including review workshop with District | $1,918,642 |
| **Task 3—Field Investigations:** This task includes conducting a topographic survey of the project limits, including development of a base-map, aerial survey, supplemental ground surveys, and right-of-way retracements; conducting a detailed geotechnical investigation of the project limits, including obtaining subsurface exploration permits and encroachment permits, traffic control services, drilling borings along the pipeline alignment, conducting groundwater monitoring, seismic refraction surveys and laboratory testing; conducting existing utility research and coordination, developing a potholing plan and performing potholing to more precisely locate existing utilities | $1,471,420 |
| **Task 4—Permitting and Stakeholder Coordination:** This task includes preparation and submittal of required agency permits, providing support to the District for stakeholder concerns regarding the project, and assistance with public outreach as needed – including preparation of a project outreach plan, development of project materials, planning and preparation of public workshops to support the project | $358,944 |
| **Task 5—Easement and Property Acquisition Assistance:** This task includes identification of temporary or permanent construction easements as well as preparation of legal descriptions and plats for easement acquisitions; assistance with identification of permanent property acquisitions required for the project, including preparation of legal descriptions and plats | $295,508 |

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| **Task 6 — District CEQA Consultant Coordination:** This task includes CEQA coordination meetings with the District's environmental consultant and technical support necessary for the development of CEQA | $52,468 |
| **Task 7 – Coordination with Other District Consultants and Agencies:** This task includes assisting the District with coordination with other agencies as required as the project facilities will tie into facilities owned and operated by others, coordination with PG&E to connect proposed facilities to the electrical grid, including the application for power connection, coordination with other District consultants as needed | $105,566 |
| **Task 8 – Develop Pipeline Construction Documents (Package No. 1):** This task includes development of 60%-, 90%-, and 100%- pipeline design document submittals and probable construction costs, conducting review meetings with District staff at each level of design development | $2,069,466 |
| **Task 9—Develop Pump Stations Construction Documents (Package No. 2):** This task includes development of 60%-, 90%-, and 100%- pump station design document submittals and probable construction costs, conducting review meetings with District staff at each level of design development | $2,401,816 |
| **Task 10—Pipeline Bid Phase Services (Package No. 1):** This task includes supporting the District during pipeline bidding period, including responding to bidders' questions, interpreting construction documents, and attending on-site meetings as well as developing plans and specs for use during construction | $92,880 |
| **Task 11— Pump Stations Bid Phase Services (Package No. 2):** This task includes supporting the District during pump station bidding period, including responding to bidders' questions, interpreting construction documents, and attending on-site meetings | $178,990 |
| **TOTAL** | **$9,699,235** |

**ATTACHMENT(S):**

1. Draft Scope of Work
2. Fee Estimate

| DEPARTMENT OR DIVISION | DIVISION MANAGER | APPROVED |
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| Water Resources | **Paul Sellier**<br>**Water Resources Director** | **Ben Horenstein**<br>**General Manager** |