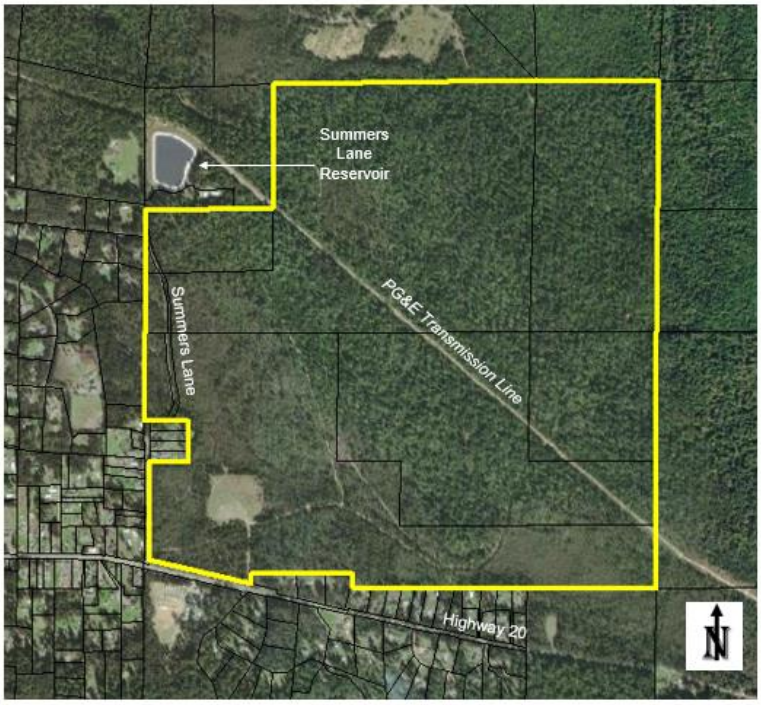
CITY OF FORT BRAGG
REQUEST FOR PROPOSALS FOR RESERVOIR DESIGN
FORT BRAGG RESERVOIR PROJECT FOR WATER STORAGE RESILIENCE
PROJECT WTR-00024
30900 HIGHWAY 20

Figure 1



Not to Scale

The City of Fort Bragg (City) is seeking proposals from qualified consultants interested in contracting with the City to design 3 (three) 45-acre-foot reservoirs within a fenced compound (Project) and to prepare construction drawings and contract documents supporting their construction. The reservoirs will occupy approximately 30 acres of land within a forested area purchased by the City, which is comprised of six (6) parcels and totals 582 acres. These parcels are located adjacent to the City's Summers Lane Reservoir, which is an existing 45-acre-foot reservoir. (Figure 1). The proposed reservoir compound shall also include a caretaker unit and a storage building. The proposed caretaker unit will be constructed in the disturbed area in the northwest portion of the property, and a fenced parking lot and pit toilets will be constructed in the highly disturbed area off Highway 20.

This project is critical to ensure a reliable supply of water to residents during periods of drought. The reservoirs will be filled during winter with water pumped up from the Noyo River or via gravity flow from the Waterfall Gulch source when flows are high. Water will be drawn from the reservoirs during summer when flows in the channels are low, reducing the impact on aquatic species. The water will flow primarily by gravity to the City's Water Treatment Plant.

The new reservoirs shall be similar to the existing Summers Lane Reservoir, which has a depth of up to 18 ft., fill heights of up to 16 ft., with 2:1 external and 3:1 internal side slopes. Construction of new piping to and from the reservoirs and conveyance piping to existing infrastructure will be needed. The projects proposed dam heights and storage capacities should be such that the project does not fall within the jurisdiction of the California Division of Safety of Dams.

It is assumed that the reservoirs will need to be lined with HDPE due to high groundwater and that floating covers will be required to reduce evaporation and algae growth. The design shall consider the future installation of floating solar panels on at least one of the proposed reservoirs. At least one of the reservoirs shall be accessible for a helicopter to draw water from for fire suppression.

The site includes the endemic and rare sensitive natural habitat of the Mendocino Cypress Woodland, as mapped by the California Department of Fish and Wildlife, as well as the more traditional redwood forest associations. Preliminary biologic studies to optimize reservoir siting and minimize impacts to special status species have recently been completed. The RFP for the Environmental Impact Report will be issued in parallel with this design RFP and the winning consultants for both contracts will be expected to work closely together to achieve the project objectives. The overall project is anticipated to include mitigation measures for impacts due to project construction, and the City intends to use the remainder of the property to create a community forest.

A. SCOPE OF WORK

The City intends to retain a qualified and committed professional engineering consultant for the design of the new reservoir property, including 100% plans and specifications. The successful consultant shall demonstrate the availability of qualified personnel to perform the required engineering services. Consultants shall develop an appropriate work plan for design services and will utilize that work plan to successfully develop construction documents that provide sufficient information to contractors to adequately prepare and submit accurate bid proposals while minimizing construction change orders. For all work products, the engineering consultant shall perform all work necessary to define the Project and produce all necessary documents required to obtain approval of the design from the City. The City will be seeking the services of an environmental firm for the preparation of the Environmental Impact Report (EIR), simultaneous to the design, so frequent coordination with the selected firm will be required.

Listed below is a general description of the scope of services/tasks that are anticipated to comprise this Project. Proposing consultants are encouraged to expand upon this outline and recommend additional value-based services as part of the approach while also being cognizant of costs.

Task 1 – Meetings and Project Management

1. Project Administration.
2. Project Quality Assurance/Quality Control Program.
3. Progress Meetings and Reporting. Project progress meetings and reporting will include virtual meetings through Zoom or mutually agreed upon locations between City staff and the consultant. Meetings shall be held, as often as deemed necessary and at a minimum, the consultant shall report monthly on work accomplished in the previous month and the status of the project progress, project schedule, project budget, and any modifications. The Consultant is expected to work in regular coordination with the Environmental Consulting team, especially for the timing and phasing of deliverables. Project Team meetings with other project stakeholders will be held as needed. Minutes of all the meetings will also be prepared by the Consultant and furnished to attendees and concerned parties within five working days of the meeting.
4. Jurisdictional Agency Coordination, as needed.
5. Design Review Workshops/Public Outreach. Up to two (2) meetings are to be held either virtually or in person.
6. Preparation of Presentations and participation at Meetings.

Task 2 – Preliminary Engineering Report

Develop and submit a preliminary engineering report (PER) with sufficient information to complete environmental documentation and initiate detailed design. At a minimum, the PER shall:

1. Recommend a preferred site layout, with emphasis on biological and preliminary geotechnical evaluations. Designate proposed areas for development, conservation, and mitigation.
2. Provide reservoir site plan, and profile – complete with site access, parking, utilities, fencing, and drainage information.
3. Provide a project description sufficient to support the project environmental documentation for CEQA. NEPA may be necessary depending on grant funding.
4. Summarize primary design elements.
5. Summarize permits required for the Project and include a workflow and schedule to obtain the permits. Coordinate with Environmental Firm for permit listing.
6. Prepare construction cost estimates for the proposed reservoirs and site layout and develop innovative solutions to minimize cost impacts.
7. Identify construction access and potential equipment and material lay-down areas.
8. Prepare an anticipated schedule for construction, including the number of working days, phasing, and potential mitigations related to environmental seasonality.

Task 3 – Survey

Following approval of the Preliminary Engineering Report by the City, a survey of the proposed reservoir compound area, secondary caretaker unit area, and recommended conveyance piping alignment shall be completed. The survey work shall cover all areas of proposed

disturbance and include the following:

1. One-foot contours
2. 50-ft survey corridor along the proposed pipe centerline
3. Tree size and type
4. Identify all affected easements, facilities, and property boundaries
5. Identification of all visible above-grade features and obstructions to the proposed piping, as well as any marked, below-grade utilities
6. Survey limits to include sufficient data for environmental compliance (CEQA)

Deliverables:

- Survey data: Raw data points and processed data
- Topographic/existing conditions maps, PDF and digital format

Task 4 – Geotechnical

Geotechnical investigation for the Project shall be designed to collect data that is sufficient to ensure optimum project design for the site conditions. **Deliverable** will be a geotechnical report.

Task 5 – Environmental/CEQA Compliance Coordination

The work related to the completion of an environmental impact report for this project will be contracted separately from the design; however, the consultant is expected to be in close communication with the City and the environmental consultant throughout the project design.

Task 6 – Design

The design team will be responsible for the complete design phase culminating with design documents, plans, specifications, a schedule of bid item costs, suitable for public bidding, and construction of the work. The design shall assume that construction will be required to be compliant with "Buy America" and "American Iron and Steel". All construction documents shall be fully compliant with all of the requirements of any funding source. Consultant is responsible for thoroughly reviewing and understanding the design and construction requirements imposed by funding sources, and to ensure they are fully incorporated into the construction documents. Consultant shall work with City staff to ensure that the contract documents reflect all the funding source requirements.

1. Design issues to be addressed:
    a. Avoidance of special status species
    b. Earthwork balance
    c. Intake design
    d. Conveyance piping
    e. Site access, security, and drainage
    f. Environmental SWPPP and BMPs
    g. Construction cost containment
    h. Maintenance Issues

2. Design deliverables: Complete detailed construction drawings, specifications to facilitate permitting, and bidding of the Project. Submit for City review at 30%, 60%, 90% and 100%. The city shall have 2 weeks to review. Completed

construction documents shall be designed and organized in such a way as to make updating them convenient and yet maintain internal consistency

a. 60% design shall include drawings, the outline of specifications, and a preliminary cost estimate (3 sets of paper copies).
b. 90% design shall include drawings, specifications, and cost estimate (3 sets of paper copies).
c. Bid set (100%) shall include wet-signed drawings, wet-signed specifications, and cost estimate (1 set of paper copies plus digital).
d. Electronic copies of plans, specifications, and estimates at each submittal stage.
e. Drawings shall include:
    1. Civil design including reservoir compound, secondary caretaker unit, and access road
    2. Structural design
    3. Mechanical piping design
    4. Cathodic protection design
    5. Electrical and instrumentation design
    6. Landscape and irrigation design
    7. Fencing
    8. Demolition and/or timber harvest
    9. Sedimentation control and site drainage improvements design

3. Quality control strategies.

Task 7 - Project Schedule

The design schedule shall be updated to accurately reflect the current Project status and shall include coordination with the jurisdiction having authority.

1. The construction schedule shall include post-construction activities.
2. Coordinate with the County of Mendocino and other regulatory agencies as required to obtain all permits necessary for the project on behalf of the City.

Task 8 – Bidding Assistance

1. Attend a pre-bid meeting hosted by the City for prospective bidders and/or contractors and be available to answer questions.
2. Review and prepare written responses addressing technical questions submitted by the prospective bidders during the bid phase for inclusion in the bid addenda.

Task 9 - Quality Control/Quality Assurance

All submittals (plans, calculations, reports, and associated documents) shall adhere to a City approved quality assurance/quality control (QA/QC) program. The selected consultant shall identify major reviews and procedures that are specific to this Project. A successful QA/QC program is one in which the consultant does not use the City as “plan checkers” for the work.

Alternate 1 – Noyo River Crossing Lining or Replacement – A large portion of the Raw Water Line that brings untreated water to the Water Treatment Plant (WTP) is currently undergoing replacement. The Noyo River Crossing, which lies south of the WTP, needs either replacement or refurbishment via lining to ensure 1) the longevity and reliability of the system and 2) appropriate restraints are added to areas of the transmission line that were not replaced with the Raw Water Line Replacement Project. While the line currently flows via gravity to the WTP, the City plans to reverse the flow via pumping to transport water to the upstream reservoirs during periods of high river flow. The current crossing is 12" in size but is bounded on each side of the river by a 10" pipe. Please propose the most cost-effective but least environmentally damaging method of construction to accomplish those goals. Plans for the existing crossing and the adjoining portions of the Raw Water Line Replacement Project are available on request.

Alternate 2 – Culvert replacement for Segment 2 – Segment 2 of the Raw Water Line Project that is currently in construction runs from the WTP down to the Noyo River. The pipeline crosses five (5) culverts ranging in size from 12" to 30" in diameter that need replacement, and the California Department of Fish and Wildlife is requiring that the culverts be redesigned to ensure adequate capacity for stormwater as well as allowing for fish passage. Please describe the tasks and provide associated costs for all work necessary to redesign the roadway culvert system. Plans for Segment 2 of the project are available on request.

B. STANDARDS

The Project must adhere to the City and County of Mendocino design standards if applicable, regulations, policies, and procedures for all work at the time of Project advertisement. All work must be performed and work products prepared in such a fashion to be approved by the appropriate agency, i.e. County of Mendocino.
Additionally, the Project must adhere to the following:

1. Design shall comply with the latest City and County of Mendocino ordinances.
2. Digital formats for use in plan development, plats, and record drawings shall be delivered utilizing AutoCAD/Civil3D (.dwg) 2021 release or lower.
3. All electronic text document deliverables shall be in the Microsoft Office platform (Word, Excel, PowerPoint, Project, Visio, etc.) version 2016 or newer.
4. All Geographical Information System (GIS) files shall be delivered in acceptable vector spatial data formats which are geodatabase (.gdb), personal geodatabases (.mdb), and shapefiles (.dbf, .prj, .sbn, .sbx, .shp, .xml, .shx).
5. All horizontal data (X, Y coordinates) shall be delivered using the California State Plane Coordinate System (NAD 83, Zone II, feet).
6. Specifications shall be in Construction Specification Institute (CSI) format and in conformance with the City's Standard Specifications.
7. All reports should be submitted electronically and provided in Word for review, with the final version provided in Adobe PDF format with OCR and indexed.

C. Proposal Requirements:

The proposal should be concise, well organized, and demonstrate the responders'

qualifications and experience applicable to the Project. Responses will be evaluated based on the information submitted.

1. Proposers should send a complete digital proposal, collated into one PDF document, three (3) printed copies of the completed proposals, and a cost bid so that it is received no later than 2:00 PM on July 23, 2024, to:

   City of Fort Bragg
   ATTN: City Clerk
   416 N Franklin Street
   Fort Bragg, CA 95437
   cityclerk@fortbragg.com

2. Format: The proposal shall be printed on double-sided, 8.5" x 11" pages, printed on recycled and recyclable paper with removable bindings, bound in a single document, and organized in sections following the order specified under Contents.

3. Contents: Proposals shall contain the following:

   a. Transmittal Letter: The proposal shall be transmitted with a cover letter describing the consultant's interest and commitment to the proposed Project. The letter shall include the name, title, address, and telephone number of the individual to whom correspondence and other contacts should be directed during the consultant selection process.

   b. Firm Description: Describe your firm and list relevant information about capabilities, size, rate of services, and length of time in existence. Include the same for any sub-consultant proposed. Indicate the roles of prime and all sub-consultants.

   c. Relevant Experience: Describe relevant experience designing reservoir and other water capital improvement projects and preparing technical specifications for public works projects for other public agencies. Indicate roles of prime and all sub-consultants

   d. Key Personnel Qualifications: Identify key personnel who would work on the project as assigned, their respective roles, and a synopsis of relevant experience. Provide resumes of the Project Manager and other key Project team members. Resumes shall include relevant experience, proposed role, education, and licenses. The resume for each individual shall not exceed two pages in length and can be included in an appendix. For the Project Manager, provide at least three references (names and current phone numbers) from recent work (previous five years) similar in size and scope to this Project. Include a brief description of each project associated with the reference and the role and responsibility of the Project Manager. Replacement of key team members will not be permitted without prior consultation with and approval by the City. All work shall be performed under the supervision of an engineer licensed in the State of California, who has substantial experience with projects of similar size and scope

   e. References: List of public agencies or clients for whom similar work has been

performed, with the name, title, and phone number of a contact person. For the Project Manager, provide at least three references (names and current phone numbers) from recent work (previous five years) similar in size and scope to this Project. Include a brief description of each project associated with the reference and the role and responsibility of the Project Manager. The City may request a copy of a similar report prepared previously by the firm for another agency.

f. Scope of Work: Explain tasks associated with the project, including how you propose to complete each task. Include a breakdown of recommended tasks, including tasks not identified above that could benefit the project.

    i. Provide a narrative that identifies key Project issues/challenges and describe the consultant's understanding of and ways to mitigate and effectively address, these key Project issues/challenges in design and during construction. Include detailed descriptions of innovative or alternative ideas and approaches to the Project design and construction in a cost-efficient manner.

    ii. Discuss, if applicable, elements that have not been considered by the City (new ideas).

    iii. Provide prioritization of tasks and permit requirements.

    iv. Discuss the consultant's approach to budget control and minimizing construction change orders or how their design (approach) considers minimizing construction change.

    v. Summarize value-engineering opportunities.

    vi. Provide a discussion of how the QA/QC program manages sub-consultants' efforts to ensure technical accuracy and successful completion of the Project.

    vii. Provide information summarizing measures that will be implemented to monitor the project schedule and budget.

g. Budget and Schedule of Charges: Provide a "Not to Exceed" amount and a list of Personnel Rates, Equipment Charges, Travel Reimbursement Costs, and Job Descriptions for Personnel. Please be aware that prevailing wage rates apply to preconstruction work, such as inspection and land surveying, for public works projects.

h. Work Schedule: Provide a schedule for the completion of work. This Project is a priority for the City's Capital Improvement Program. As such, it is imperative that the design of this Project is completed and ready to bid by January 5, 2026. Proposing consultants shall demonstrate they are capable of delivering the final bid documents to the City by this deadline. The proposing consultants shall describe the critical path items and summarize an approach that demonstrates successful completion in an expeditious fashion.

i. Insurance: The individual or firm receiving the contract shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property that may arise from or in connection with the

performance of the work hereunder by the Consultant, his agents, representatives, employees or subcontracts as outlined in Section 5.0 of Exhibit A which is attached hereto and incorporated by reference herein. Any requests for a reduction in the insurance amount shall be included in the proposal. The cost of such insurance shall be included in the consultant's proposal.

j. Consultant Agreement: The City's standard consultant services agreement is attached as Exhibit A. Please identify if your firm would have any issues with the provisions of the City's standard consulting services agreement. All requests for amendments to language in the agreement must be included in the proposal.

D. EVALUATION CRITERIA

Proposals will be evaluated based on the following criteria:

- Understanding of the work to be completed
- Experience with similar kinds of work
- Capabilities and resources of the firm
- Qualifications and experience of project personnel
- Schedule for completion of work
- Proposed cost

The above selection criteria are provided to assist proposers and are not meant to limit other considerations that may become apparent during the selection process. The Consultant awarded the contract will be chosen based on the apparent greatest benefit to the City. The City will make the final determination of the Consultant selected, as it deems appropriate, in its sole discretion, and in the best interests of the services provided.

Proposals will be reviewed and evaluated by the City of Fort Bragg and a recommendation for the award of the contract will be presented to the Fort Bragg City Council.

Each Consultant will be notified in writing whether or not they have been selected as the preferred Consultant.

E. SCHEDULE FOR SELECTION AND AWARD

- Advertise RFP June 11, 2024
- Last Day to Submit Written Inquiries July 12, 2024
- Proposal Due Date July 23, 2024
- City Council Contract Award August 12, 2024
- Ready for Construction January 5, 2026

F. OTHER CONSIDERATIONS

The City of Fort Bragg reserves the right to reject any and all proposals. This Request for Proposals does not commit the City to award contract, pay any costs incurred in the preparation of proposals, or procure or contract for supplies or services.

The City of Fort Bragg reserves the right to negotiate with any qualified source or to cancel, in part of or in its entirety, this Request for Proposals, if it is in the best interest of the City to do so. The City may require the selected consultant to participate in negotiations and submit such price, technical, or other revisions of the proposal that may result from negotiations.

G. QUESTIONS

Questions regarding this solicitation shall be directed in writing to Diane O'Connor at doconnor@fortbragg.com. All inquiries shall be received by July 12, 2024. Responses to the inquiries will be posted on the City's website at www.city.fortbragg.com on July 16, 2024.

H. ATTACHMENTS

Exhibit A – City's Standard Professional Services Agreement