

REQUEST FOR PROPOSALS

BLUE LAKE SPRINGS MUTUAL WATER COMPANY INFRASTRUCTURE IMPROVEMENT/WATER METER INSTALLATION PROJECT

Issued: April 7, 2017

INTRODUCTION

Blue Lake Springs Mutual Water Company (BLSMWC) is located in Arnold, CA and serves a community of approximately 1700 residential homes. The community obtains its water supply primarily from groundwater wells which is treated by pressure filters and chlorine disinfection prior to storage and distribution. BLSMWC is requesting proposals from qualified engineering/design consulting firms for its Infrastructure Improvement/Water Meter Installation Project. A portion of the existing 203,887 linear feet of water mains installed in the 1970's requires replacement due to age and being undersized. The project consists of construction of new water mains, new pressure reducing valves (PRVs), replacing fire hydrants, upgrading a booster pump station, and installing radio-read water meters. During construction, the Consultant shall make necessary provisions for verifying pressure tests, monitoring disinfection procedures, and passing bacteriological tests. The Consultant will be responsible for providing comprehensive range of services to fully support BLSMWC at a high level through all phases and aspects of this project including engineering/design, bid period services, resident inspection and engineering services, construction management and inspection, program management, and other tasks. The project will be funded by a USDA Rural Development loan and the consultant should have prior experience working within the framework required by USDA.

PROJECT DESCRIPTION

The Infrastructure Improvement/Water Meter Installation Project includes a series of project elements as follows:

A. Distribution Pipeline Relocation Project

This project includes replacement and relocation of 67,300 linear feet of new water mains ranging in size from 6 to 12-inch diameter including air relief valves (ARV), fire hydrants, PRVs, gate valves, 1-inch house services, meter boxes and meters, and other appurtenances. Reference: Water System Improvement USDA Preliminary Engineering Report, November 2016, prepared by MC Engineering, Inc. In addition, the Consultant shall verify suitable piping materials (C900 PVC DR18/DR14 with ductile iron fittings) and confirm thrust restraint and thrust blocking requirements. All work should be designed to be constructed within the streets, easements, and right-of-ways (R/W), not on privately-owned property. Also, paving repairs shall be addressed to restore roads and driveways after construction.

B. Pressure Reducing Valve (PRV) Stations Replacement Project

A Pressure Zone Study was conducted to identify replacement/relocation of nineteen (19) PRVs throughout the service area. Reference: Final Technical Memorandum: Pressure Zone Study, Blue Lake Springs Mutual Water Company, April 2017, prepared by Luhdorff & Scalmanini Consulting Engineers. The Consultant should review the model, identify the correct quantity, size and pressure class of PRVs to be installed, tabulate pressures settings/set points, and check that differential pressure is suitable for pilot operation. The Consultant should confirm suitability of a typical PRV station design with 4" or 6" PRV for fire flow and 2" PRV for normal flows. The new relocated PRV stations will require a cut-in to the existing water main, concrete vault with traffic rated cover/lid, pressure reducing valves, gate valves for isolation, pressure gauges, and other appurtenances. The concrete vaults will require hinged, torsion assisted opening, double access doors to meet CA OSHA requirements.

C. Unit 13 Fire Hydrant Replacement Project

This effort includes replacing twenty-seven (27) new 6-inch fire hydrants in Unit 13 of the Blue Lake Springs subdivision. The new hydrants will require cut-in to the existing water mains, street gate valve, and other appurtenances. The fire hydrants are typically AWWA C502 dry barrel due to snow and freezing conditions. The size and number of nozzles shall be confirmed with the Ebbetts Pass Fire Department. The placement of hydrants should be checked in the field to determine if block walls or slopes must be cut back to accommodate locating the hydrants. Snow poles, markers should be placed to identify hydrant locations during winter months.

D. Booster Pump Station Project

The project will include installation of a skid mounted booster pump system with two (2) booster pumps (skid mounted such as Grundfos Hydro MPC or equal), a new building (and the demolition of the old building), new electrical systems and control modifications, instrumentation, flow meter, fencing, paving, valves, suction and discharge manifolds, and yard piping. The Consultant will need to assess the electrical requirements for the new larger pumps and determine if the electrical service is adequately sized for larger horsepower. Variable frequency drives may be desirable for variable flow/constant pressure applications and to reduce motor starting currents to levels required by PG&E. All electrical design, engineering and inspection shall be performed under the direction of a licensed electrical engineer.

E. Water Meter Installation Project

BLSMWC proposes installation of approximately 1,300 radio-read water meters with two scenarios with different conditions/types of meter installations: (1) approximately 830 new meters within the water main relocation/replacement areas, and (2) 470 retro-fit meters where existing services have already been constructed in prior years. Scenario 1 (new) meter installations includes new service lines, corporation stops, iPERL meter, SmartPoint AMR Transceiver, meter box (with/without traffic rated lid as needed), curb stop, meter valve, and check valve. Scenario 2 (retrofit) includes iPERL meter, SmartPoint

AMR Transceiver, meter box (optional), meter valve, and check valve. For unimproved parcels, new service lines and boxes will be installed, but the meters will not be installed until after construction of the new homes. An important design consideration for Scenario 1 will be the location and placement of the meter box and meter. Lot-by-lot evaluations will need to be conducted by the Consultant to locate each new meter installation within the R/W to serve each lot and, where feasible, to be designed and constructed, utilizing a more cost effective installation of a double meter service line to serve adjacent lots.

SCOPE OF WORK

The Consultant's scope of work shall include engineering/design and other miscellaneous design services, program/project management, bid period and construction phase services, and loan processing assistance, which are further described below.

A. Engineering/Design Services

For the design phase, the scope of work shall include the following tasks:

- 1) Drawings: The Consultant shall prepare drawings for the project. The plans shall have a cover sheet, index, vicinity map, general notes, survey controls and other standard drawings. Plan and profile sheets (1"=40' horizontal scale) for approximately 67,300 linear feet of new water mains shall show the proposed improvements, topography, property lines, inverts, alignment, and stations. Additional sheets shall be provided for project details for PRV stations, gate valves, fire hydrants, air valves, water services, and other appurtenances. Also, drawings shall be prepared for the subject nineteen (19) PRV stations, Unit 13 fire hydrants, 1,300 new/retrofit radio-read meters, and booster pump station. For the pump station design, plans shall be provided for civil site plan and site piping; mechanical plans and elevations for pumps, valves, suction and discharge manifolds, structural drawings and details for the pump station building, concrete foundation, and plans for demolition of existing facilities. A complete set of electrical drawings shall be included with the plans with electrical power and distribution, site electrical plan, motor controls, conduit/wiring schedule, instrumentation, HVAC, and lighting.

Deliverables shall include 30%, 50%, 90%, and 100% drawings. The 90% and 100% deliverables are to identify all fittings and bends shown and annotated on the plan and profile sheets with corresponding survey control information. The 100% drawings may be subject to minor revision prior to reproduction of final bid set based on any review comments by USDA.

- 2) Project Manual/Specifications: The Consultant shall prepare a project manual including front end documents, technical specifications, and appendices. The manual shall be based on the current edition of the USDA Rural Development "Construction Contract Guide" and corresponding, stipulated edition of the Engineers Joint Contract Documents Committee (EJCDC) Standards. The Consultant shall amend the EJCDC documents to add specific State and Federal requirements according to the "Construction Contract Guide". The front end documents consist of items such as bid documents, bonds,

contract agreement, general conditions, supplementary conditions, forms for change orders and progress payments, etc. The Consultant will need to prepare the bid schedule, detailed descriptions for each bid item, and a sequence of work. Technical specification shall be provided for all materials furnished on project such as pipe and fittings, thrust restraint, fire hydrants, gate valves, air valves, water service materials, radio-read meters, concrete and rebar, metal roofing, skid mounted pumps, backfill and compaction requirements, paving, testing and disinfection requirements, etc. Electrical specifications shall be provided as separate specification sections. Special conditions shall be provided for storm water pollution, BMP's, dust control, traffic control, staging, flushing water, toilets, etc. Appendices should include the geotechnical report, encroachment permits, and other reports prepared for the design phase. Very large appendices may be issued/distributed in an organized electronic format for bid. The project manual and specifications shall be submitted with 50%, 90% and 100% deliverables; 30% deliverable may be limited to an outline and table of contents.

- 3) Cost Estimates: The Consultant shall prepare construction cost estimates for each aspect of the construction project and a total cost estimate. The estimate shall be divided into separate tasks identified in the project description of this RFP. The estimate will be updated and submitted with 30%, 50%, 90%, and 100% deliverables.
- 4) Program/Project Management: The Consultant shall prepare agenda, schedule, and conduct periodic progress meetings with BLSMWC staff as well as including meetings/workshops for kickoff, review of 30%, 50%, and 90% deliverables, and two presentations to the Board of Directors or LRSP Committee. The Consultant's scope shall otherwise plan for office meetings, field meetings and site visits needed to carry out each task, assure coordination of work and communication with all the various engineers, subconsultants, professionals, government agencies and other representatives associated with the project. Site visits may be needed for some tasks to facilitate communication, coordination of work, clarify objectives, better define scope, identify constraints, confirm assumptions, understand site conditions, agree on requirements, etc.
- 5) Reprographics: The Consultant shall prepare and distribute/deliver five (5) copies of each deliverable for BLSMWC staff's use/review and additional two (2) copies of deliverables for USDA State Engineer review, comment, and approval. The project manual and specifications shall be printed on standard letter size with comb binding and 11" x 17" (half scale) drawings.

B. Other Miscellaneous Design Phase Services

- 1) Topographic Survey: A preliminary survey has been conducted which includes setting four (4) initial control points around the perimeter of Blue Lake Springs and cross-section collection every 200' along the 12.2 mile alignment of proposed water mains. A base map as well as the survey will be provided to the selected Consultant as a starting point. The Consultant shall assess the completeness of this initial survey effort and

determine the additional survey needs for the project. The Consultant shall include a task in the proposal to conduct additional topographic survey necessary to complete the engineering design project including verifying property lines/corners, all surveying for the booster pump station project site and the proposed meter service locations.

- 2) Encroachments/Easements/Right-of-Way: The Consultant shall review existing subdivision maps, parcel maps and legal descriptions and to verify all project areas are within road encroachments, utility easements or property owned by BLSMWC. It is assumed that the design will remain within these existing right of ways. The Consultant will review the drawings with the appropriate agency to determine requirements for encroachment permit, traffic control, and road section repair requirements. The Consultant shall address and correct all encroachments, easements and right-of-way issues for legal counsel review to confirm clear right-of-way for the project.
- 3) Geotechnical/Soils Study, Field Investigation and Report: As optional tasks, the Consultant shall propose a scope of work and fee for conducting a geotechnical study for the project and the extent of any field investigation and exploratory drilling effort. The study should be conducted in an initial study to be submitted with the 30% deliverable and a completed field investigation and geotechnical report submitted with the 90% deliverable. The Consultant should contact and obtain scope and fee estimates from local geotechnical firms nearby in the foothills, such as Condor Earth Technologies and Holdrege & Kull, that will be able to support both design and construction phases.
- 4) Confirmation of New Meter Placement with Homeowners: The Consultant shall identify the proposed meter service location for those homes in Scenario 1 consisting of approximately 830 new services/meters. It is important to communicate with each individual homeowner to coordinate the transition for re-connecting their homes from the old to new system in a timely manner. The Consultant shall prepare an individual map for each impacted property showing the proposed meter location and will assist BLSMWC in sending letters with individual maps enclosed to homeowners regarding the meter location and work to be done by the homeowners. The Consultant shall update, revise and redistribute each map accordingly based on feedback and concerns of each individual homeowner, and will assist BLSMWC and each homeowner in determining revised meter locations. The consultant shall re-locate proposed service laterals as agreed with each homeowner and, as necessary, survey and incorporate this into the project drawings.
- 5) Public Outreach/Homeowners: The Consultant shall provide periodic presentations to homeowners at regularly scheduled or special community meetings to explain and clarify work being conducted and progress during design, bidding and construction phases. The presentations should, at a minimum, include up to three (3) posters/exhibits (maps of the development and areas affected by improvements), and handouts.

C. Bid Period Services

For bid services, the Consultant shall perform the following scope:

- 1) Provide thirty (30) sets printed copies of project manual/specifications and full scale 22" x 34" drawings. The full scale drawing shall be printed true to scale without reduction. Provide additional copies of project manual and drawings as needed during the Bid. All files for bid shall be put on a CD-ROM in electronic format including project manual, drawings, and appendices (PER, modeling report, geotechnical report, etc.). Each bidder shall be provided a printed copy of the project manual, drawings and CD-ROM.
- 2) Prepare and distribute advertisements for bids, newspaper and Builders Exchanges. The Consultant shall distribute the project manual and drawings to bidders, maintain the plan holders list, conduct pre-bid job walk, prepare addenda, and answer request for information for bid period. Addenda may be needed to correct errors in the bid set and drawings and/or result from bidders' questions and comments.
- 3) Review the bids and recommend the lowest responsive and responsible bidder to the BLSMWC legal staff and then make a subsequent submittal of bid results and recommendation to USDA for review/approval. The Consultant shall prepare agenda items and resolutions for recommended Award of Construction Contract for the Board of Directors Meeting.
- 4) Prepare ten (10) copies of conform plans including project manual and specifications, drawings full size (22" x 34") and half scale (11" x 17"). Also, provide 5 copies of an updated CD-ROM with all files and appendices.

D. Construction Phase Services

The construction phase services correspond with all project efforts previously described, i.e. 67,300-ft water mains, 1300 radio-read meters, nineteen (19) PRV's, Unit 13 fire hydrants, and booster pump station project. The following engineering services shall be provided by the Consultant during construction:

- 1) Construction Manager/Resident Engineer/Inspector: Provide full time construction management and resident engineering services during the construction phase, organize weekly construction meetings, maintain project files and records, track schedules, promptly answer contractor's requests for information, review shop drawings, coordinate inspections, obtain contractor's monthly as-built markups, process invoices, verify contract compliance, resolve utility conflicts and changed conditions in the field, schedule laboratory tests, coordinate encroachment permits, address complaints arising from construction activities, etc. Provide USDA coordination, correspondence and reporting. Submit to the USDA for review and approval, process and route progress payment requests, monthly budget outlay reports, work change directives and change orders. Upon project closeout, furnish all files and records to BLSMWC.

- 2) General Inspection Services: Provide all general inspection services as needed to verify contract compliance, prepare and maintain detailed daily notes for USDA review, collect and organize photos of on-going daily work, coordinate inspection efforts with construction manager/resident engineer. Provide special inspection by a qualified local geotechnical lab to perform soil compaction testing, prepare backfill material curves, observe contractor's compaction procedures, and concrete cylinder tests.
- 3) Special Inspection/Electrical: The Consultant shall retain the services of a qualified electrical engineering firm to perform engineering services and special inspections for all electrical systems for the new booster pump station including shop drawing review, answering contractor's RFI's, and field inspections of ground system, power distribution, motor controls, conduits and wiring, lighting, HVAC and other electrical items.
- 4) Construction Staking/Surveying: As an optional task, the Consultant shall provide and estimated scope and fee to provide construction staking and surveying during the construction phase.
- 5) Final "As-Built" Drawings: The Consultant shall prepare "as-built" records for BLSMWC records including ten (10) printed copies of final "as-built" drawings (full size 22" x 34") and (half scale 11"x17") drawings, and ten (10) copies of the project manual/specifications. Also, provide five (5) copies of an updated CD-ROM containing all project files, records, and appendices.

E. Loan Processing

It is important that the Consultant correspond and coordinate early with USDA RD parallel to the design effort to establish details and specific requirements for processing and finalizing the USDA loan. This process is likely to be time consuming involving many financial forms and procedural requirements.

PROPOSAL REQUIREMENTS

The consultant is free to submit proposal in format that best represents and demonstrates the experience, qualifications, organization structure, team/staff members, etc. At a minimum, BLSMWC expects a statement of qualifications, list of project references, confirm scope of work by task, schedule for design effort and deliverables, fee estimate by task including hours and hourly rates, organizational chart for staff and consultants working on the project, and fees/costs/markup for subconsultants. The project shall be managed under the direct and daily supervision of Professional Civil Engineers (P.E.'s) registered by the State of California. The consultant must have general liability and errors and omissions insurance in minimum amounts required by BLSMWC and/or USDA RD.

BLSMWC will be looking at various criteria in making its evaluation and selection. Criteria may include travel time, proximity to Arnold, use of local contractors (surveying, geotechnical, etc.), sufficient amount and allocation of staff hours, range of billing rates, general sense of cost effectiveness and value, qualifications and experience, proper

management/performance on other USDA projects, proposal content and presentation, fee estimate, schedule and ability to meet and deliver within timeframe, etc. Since BLSMWC is a small organization, it is important that the Consultant's scope and fee fully support the project during all phases and limit burden on BLSMWC staff. A fee in the range of \$1.5 million is anticipated depending on the proposed scope of work and optional tasks.

Please contact Dave Hicks, General Manager at 209-795-7025 or email at: davehicks@goldrush.com, if you wish to meet with staff to further discuss the project before submitting a proposal.

RECEIPT OF PROPOSALS

On or before 4:00 PM, Friday, May 12, 2017, please submit three (3) copies of proposals with a separate sealed fee estimate:

Hand-delivered to:

Attn: Dave Hicks
 Blue Lake Springs Mutual Water Company
 1011 Blagen Road
 Arnold, CA 95223

Or mailed to:

Attn: Dave Hicks
 Blue Lake Springs Mutual Water Company
 P.O. Box 6015
 Arnold, CA 95223

PROJECT SCHEDULE

Task Description/Milestones	Proposed Date
Distribute to Consultants	April 7, 2017
Pre-Proposal Meeting	April 27, 2017
Proposals Due	May 12, 2017
Consultant Selection/Award Contract	May 19, 2017
Kick-off Meeting/Site Visit	June 6, 2017
BLSMWC Annual Meeting	June 3, 2017
10% Design / Workshop (one day)	July 23, 2017
50% Design / Workshop	September 23, 2017
90% Design / Workshop	November 30, 2017
100% Design/Final Plans	December 17, 2017
Bid Project (for Construction)	January - February 2018
Award Construction Contract	March 2018
Notice to Proceed for Construction	April 2018
Construction Phase/Construction Services	April 2018 - August 2019
As-Builts	September 2019