

SCOPE OF ENGINEERING SERVICES
for
SODA BAY NON-POTABLE PIPELINE (TASK ORDER #4)
LAKE COUNTY SPECIAL DISTRICTS (CLIENT)
prepared by
BRELJE & RACE CONSULTING ENGINEERS (CONSULTANT)
November 18, 2024

PROJECT UNDERSTANDING

This project is intended to identify the necessary capital improvements for tying in non-potable fire system piping and facilities to existing raw water sources, or other non-potable sources such as the Geysers Pipeline, along Soda Bay Road between Soda Bay Road near Finley to South Main Street in Lakeport. The total distance covered is approximately eight miles.

The project would identify potential supply sources, storage locations and capacity, pipeline routes and sizes, and pumping needs. The options for developing and installing the capital improvements would be presented within a planning report covering the entire planned project length. The project is anticipated to be developed in multiple phases, however, and the planning report would be crucial for identifying the recommended phasing along with construction cost estimates for each phase. It should be noted also that some preliminary planning may have already been conducted. An initial task will be to conduct research during the planning phase to determine if any earlier planning efforts are available and could be reused for this planning effort.

Initially, and for budgeting purposes only, a single phase covering the commercial/industrial areas along the south end of South Main Street has been assumed to be included with preparation of improvement plans and specifications for bidding. (The actual first segment may differ greatly.) The initial segment is anticipated to include at least one pumping facility from the nearest source, a single storage tank, associated distribution piping and hydrants spaced to be within 300 feet of commercial facility driveways along the route, or roughly 500 to 600 ft. spacing in rural residential areas. The total piping length for the first phase is assumed to be roughly 11,000 LF (about 2 miles). The exact length and route to be included in Phase 1 will be determined within the planning report and may change depending on the estimated cost and available funding, or due to other factors. Later phases would eventually complete the project over the fully planned length.

Below is an outline description of the Scope of Services and approach for the anticipated tasks to be completed with this project.

SCOPE OF SERVICES

Task 1 – Planning Report

1.01 Project Planning & Draft Report Preparation

The initial task will be to determine a number of factors that will directly affect the design of the future non-potable fire line. The primary consideration will be to determine which supply sources may be available and suitable for use, along with their individual capacities. Depending on the available supply capacity, the next item to determine will be storage requirements, and to identify locations suitable for developing the needed storage. Pumping facilities for supply or for boosting are also likely to be needed depending on the sources and elevations of the storage facilities. Lastly, the piping routes will be determined for delivery of non-potable water from each source or storage location.

The initial project planning will include budgetary cost estimates, and a priority analysis for determining the recommended phasing for the different elements of the project. The overall length of the project is roughly 8-miles, and may be longer depending on the location of sources and their distances from the distribution mains.

Brelje & Race staff will provide regular updates to LCSD staff and will plan to conduct monthly meetings for discussions of options. The list of options for facilities is likely to be greater than needed (hopefully) and fine-tuning the project scope with Special District's staff will be critical to project success.

Upon determining best piping routes, available sources and storage options, a Draft report will be prepared presenting a listing of optional facilities along with our recommended improvements and a recommended phasing plan (criteria for determining priority segments and budgets to be determined with LCSD staff input). Budgetary construction cost estimates will be included and used (at least in part) when determining our recommendations.

1.02 Final Report Preparation

After Special District's staff have had time to review the Draft Report, a review meeting will be conducted to discuss all questions and comments. Based on the review meeting discussions and all other comments received from the review meeting the Draft Report will be updated and revised into a final version of the report. The Final Report will contain the detailed information needed to proceed with the first phase design.

Task 2 – PS&E Preparation for Phase 1 (South Main Street Segment)

2.01 Topographic Surveys, Base Mapping & Easements

The planned route for the pipeline will be surveyed for topographic information necessary for detailed mapping and design work. Base maps for use in the design will be prepared from the topographic survey data collected.

Property for ancillary facilities such as new pump stations and storage tanks are likely to be needed. For this scope, one (1) new property (either obtained in fee or as easement) will have a plat and legal description prepared, suitable for recording. No other property services are included, however, Brelje & Race, along with our subconsultants would be pleased to provide a separate proposal for property acquisition and related services (appraisals) upon request. (It is recommended to wait to see if such services may be needed.)

2.02 Preliminary Plans (30% Level Design)

Upon completion of base mapping, preliminary plans will be initiated to show basic design information regarding the piping routes, tank and/or pump station layouts, initial hydrant spacing, and other design elements (approximately 30% design level). These early drawings would be submitted for review by Special District's staff, including operations staff, for their review and comment prior to moving forward with greater design detail. Special detailing, specifications and cost estimates would not be included with this submission. One design review meeting would also be scheduled.

2.03 75% PS&E

While the 30% design was under review, additional design would be progressing towards the roughly 75% Plans, Specifications and Estimate (PS&E) completion level. And after the 30% design comments have been received, requested changes would be incorporated and design details added. The 75% set would include completed piping profiles, some details, notes and refinements of the main design elements. Technical specifications and an Engineer's Estimate of Probable Construction

Costs would also be prepared and included with the 75% submittal for LCSD staff review. One design review meeting would be scheduled.

The 75% PS&E would be suitable for use to complete CEQA and AB52 Tribal consultations if needed. CEQA services have not been included, but we'd be pleased to provide a separate proposal for environmental related services upon request.

2.04 100% PS&E (non-signed)

Additional detailing will progress while awaiting the 75% PS&E review comments. Upon receipt of the previous submittal review comments, requested changes would be incorporated and the final design details added to fully complete the plan set. Contract specifications, including a bid schedule, and frontend boilerplate documents (as supplied by LCSD) would also be finished. The Engineer's Estimate would be updated and finalized and used for reporting to contractors during bidding. The completed, but unsigned PS&E would be submitted for one final review and comment round and could also be submitted for necessary encroachment permits to the County and/or Caltrans and any other required permits. Efforts to obtain needed encroachment or other permits are not included at this time. Once the permitting requirements are better known, and upon request, we'd be pleased to provide a separate proposal for permitting services.

2.05 Final Bid-Ready PS &E (Signed Contract Docs for Bidding)

Comments received from the final reviews, including permit reviews, would be incorporated and signed contract documents prepared. The signed documents would be ready and suitable for bidding purposes.

FEES

Our fees for this work will be billed monthly on a time and materials basis per the rates provided and included in our On-Call contract with Lake County Special Districts. The Suggested Budgets are as follows:

Task 1.01 – Project Planning & Draft Report:	\$ 74,400
Task 1.02 – Meetings & Final Report:	\$ 10,600
Subtotal Planning & Report:	\$ 85,000
Task 2.01 – Topographic Surveys & Easements:	\$ 32,400
Task 2.03 – Preliminary Plans (30%):	\$ 59,800
Task 2.04 – 75% PS&E:	\$ 57,000
Task 2.05 – 100% PS&E:	\$ 39,000
Task 2.06 – Final Bid-Ready PS&E:	\$ 11,200
Subtotal PS&E Preparation:	\$199,400
Cont. (5%) & Plotting:	\$ 15,600
Total All Tasks:	\$300,000

It may be best to approve the budget for the planning and report preparation initially, and to revisit the surveying and design budget later, after the initial phases and their priorities have been determined. The planning budget only, per above and the attached work sheet is \$85,000.

ASSUMPTIONS AND LIMITATIONS

1. The piping and facilities to be constructed have been deduced based on limited information supplied to prepare this proposal. Brelje & Race reserves the right to make adjustments to the scope and fee based on the actual project scope requested.
2. Boundary surveying and record mapping services are not included. Should the Owner desire definitive boundary information other than that which can be provided by direct use of existing documentation, Brelje & Race can provide complete boundary survey and analysis services. Additional fees for these services can be identified following review of existing documentation.
3. Subconsultant services have not been included at this time. Subconsultant services that may become necessary include geotechnical engineering, electrical engineering, structural engineering, biological site review, and cultural site review. Property acquisition and appraisal services may also become necessary and have not been included.
4. Bidding and Construction related services are not currently included. No other services not specifically noted within the Scope of Services are included.

