

City of Fortuna

Request for Proposals

**CITY OF FORTUNA
PREPARATION OF SANITARY SEWER EVALUATION STUDY**



August 9, 2017

PROPOSALS MUST BE RECEIVED NO LATER THAN
2:00 P.M., September 11, 2017

Approved for release by

A handwritten signature in blue ink that reads "Doug Culbert".

Doug Culbert, Utility Superintendent
City of Fortuna

8/9/2017

Date

**REQUEST FOR PROPOSALS
FOR
PREPARATION OF SANITARY SEWER EVALUATION STUDY**

The purpose of this Sanitary Sewer Evaluation Survey (SSES) is to develop a plan for the City of Fortuna(COF) that will meet the requirements established in the Planning Grant Agreement No. D16-04018 that was executed on February 6, 2016 by the State Water Resources Control Board (Waterboard). This plan will provide methodology for conducting a condition assessment of COF's sanitary sewer system that will meet the requirements of the Waterboard's Planning Grant Agreement.

The tasks below have been developed to meet the Clean Water State Revolving Fund (CWSRF) guidelines for preparation of a Sanitary Sewer Evaluation Study (SSES).

Consultants are expected to provide a detailed scope of work that covers the items outlined below, along with any additional items or suggested modifications that the Consultant deems necessary to provide full service to the City in delivering the described project.

I. Project Funding

The funding for this project is from a Planning Grant awarded to the City of Fortuna by the State Water Resources Control Board Clean Water State Revolving Fund as well as City Waste Water Enterprise funds.

II. Contact Person

Questions regarding this RFP may be directed to the following person via e-mail or Fax only by September 8, 2017:

Doug Culbert
City of Fortuna Public Works
621 11th Street
Fortuna, CA95540
(707) 725-7651 (FAX)
dculbert@ci.fortuna.ca.us

1.0 PROPOSAL REQUIREMENTS

1.1 Cover Letter

The cover letter shall be signed by an official authorized to bind the firm and shall contain a statement that the proposal is valid for ninety (90) days.

1.2 Project Understanding

Provide an overview of the project, including a brief description of your understanding of the services to be provided, the project's objective, and your approach to accomplish the objectives.

1.3 Technical Approach/Scope of Work

Describe your technical approach for completing the scope of services. Identify and detail specific tasks as necessary to complete the work. Proposers are encouraged to amplify the scope of work, to identify any supplemental tasks necessary, and to recommend any alternatives that may enhance the project or reduce costs.

1.4 Project Team Organization

Identify proposed personnel and include an organization chart. Recognize that the City expects the proposer to contractually commit the proposed personnel to this level of effort when requested. Describe why key personnel were selected and their related experience. Please note that many of the services required of your firm may be on a specific time schedule and must be responded to promptly; therefore, consultant should be prepared to adjust the manpower to meet the pace of each specific project.

1.5 Experience and Qualifications

Describe the proposed personnel's qualifications for conducting the proposed work. Identify the key personnel for your team and provide a brief description of similar state or federally funded projects where that person provided similar services. For each of the projects referenced, provide the date when the service was provided, the client name, contact name, and contact telephone number. These references will be contacted, so it is important that accurate and current phone numbers are provided. Inaccurate information will adversely reflect on the quality of the proposal.

1.6 Estimated Fee Schedule

The proposal shall define the total estimated contract price on a time-and-expenses basis. The price shall be an estimate of the time and expenses needed to complete the work as proposed. Please include this cost estimate in a separately sealed envelope. The estimate shall include:

- 1) A listing of tasks required to accomplish the proposed scope of services;
- 2) An estimate of the labor hours for each position classification and task;
- 3) The proposed hourly fee schedule for calendar year 2017 for the primary staff proposed to complete work on the project;
- 4) All other reimbursable fees and expenses (noting that the City will **not** pay for lodging or vehicles);
- 5) Assumptions upon which estimate is based; and

Since it is the City's intent to select the firm with the best qualifications, compensation will not be a selection criterion at this time.

2.0 Evaluation Criteria

The City's evaluation criterion for this work includes the following:

- A. Responsiveness to Requirements, terms and conditions of the RFP 20 Points**

- Ability to commence work immediately after execution of the contract;
- Name of consultant's project manager and individual authorized to negotiate the contract on behalf of the firm;
- Ability to meet the City's insurance Requirements;
- Adequacy of the financial management and accounting system;
- Understanding the project and the needs of the City; and
- Ability of project team to deliver project in a timely manner consistent with programming requirements.

B. Project Management/Firm(S) Strengths & Qualifications 30 Points

- Team management qualifications and strengths; identify lead entity for the overall proposal;
- Organized approach to work assignments; identify key staff including their names, classifications, professional history (attach resumes) and their respective roles and responsibilities in the program.
- Clear, effective organization chart;
- Thorough discussion of project management, sub-firm coordination, and quality controls; and familiarity with City, State financing and regulatory requirements.

C. Project Team/Previous Experience 50 Points

- Recent and significant experience and strong technical background in the field of expertise including prior experience with other SSES projects.
- Demonstrated capability on similar projects;
- Past relevant project and outcomes;
- Provide references for projects of similar type and scope.

3.0 GENERAL INFORMATION

3.1 Proposal Requirements and Due Date

Proposals shall be limited to a maximum of 20 pages, excluding appendices and section 5 (Experience and Qualifications). Proposals shall be bound, tabbed, organized and numbered in the order presented below:

Section 1 –Cover Letter

Section 2 – Executive Summary

Section 3 – Project Understanding, Approach & Scope of Work

Section 4 – Project Team Organization/Staffing Plan

Section 5 – Experience and Qualifications

Section 6 – Project Schedule

Appendix A – Resumes

Proposals will be received by the City of Fortuna until 2:00 p.m. on September 11th, 2017
Proposers shall send five (5) copies of their proposals to:

Doug Culbert
City of Fortuna Public Works
621 11th Street
Fortuna, CA95540

The City may or may not hold formal interviews. E-mail updates will be provided to advise Proposers of the City's selection process.

3.2 Project Time Schedule

The following schedule is provided as a guide:

Proposal due date	September 11 th , 2017 2:00 P.M.
Consultant Selected	September 5 th , 2017
Negotiate Fee	October 12 th , 2017
Professional Services Agreement	October 19 th , 2017
Executed/Notice to Proceed (NTP) Issued	November 2 nd , 2017

3.3 Attachments

Attached are the following:

Attachment A Scope of Services

4.0 PROFESSIONAL SERVICES AGREEMENT

The successful firm will be required to execute the City of Fortuna Professional Services Agreement (see Attachment B). The contract method of payment will be time and materials with a not to exceed maximum. The proposer should assure no exceptions to this agreement will be accepted and that any consultant submitting a proposal must be prepared to execute this agreement without modification. If a proposer believes that a modification of the Agreement will benefit the City, the proposer can describe such modification in their proposal, including a description of the perceived benefits. There is no obligation on the part of the City to accept such a modification.

5.0 NEGOTIATION OF CONTRACT

After selection of the consultant, the City and the consultant shall negotiate the contract under which the work shall be performed. All items submitted in the consultant's proposal shall be subject to negotiation.

Protest procedures and dispute resolution process will be based upon the procedures per 49 CFR 18.36(b)(12). Contracts shall not be awarded to a consultant without an adequate financial management and accounting system as required by 48 CFR Part 16.301-3, 49 CFR Part 18, and 48 CFR Part 31.

Thank you for your interest in this Request for Proposal.

ATTACHMENT A

SCOPE OF SERVICES FOR

PREPARATION OF THE CITY OF FORTUNA'S SEWER SYSTEM EVALUATION STUDY

The City of Fortuna ("City") is requesting your firm to provide a proposal for the following tasks to complete the City's Sanitary Sewer Evaluation Study. The tasks below have been developed to meet the Clean Water State Revolving Fund (CWSRF) guidelines for preparation of a Sanitary Sewer Evaluation Study (SSES). Funding sources for this project will be a grant issued by the SWRCB CWSRF.

TASK 1 IDENTIFY COLLECTION SYSTEM PROBLEMS

This task involves identifying existing problems within the collection system through a systematic investigation and approach. This task will build on the existing staff knowledge of problem areas in the system.

- A kick-off meeting will be held to develop a project execution strategy, and to obtain all available existing information needed for the analysis.
- Collection system mapping will be reviewed and used to divide the collection system into up to five subsystems, and key manholes which are located at the outlet of each subsystem will be identified for flow monitoring under this task.
- Additionally, existing flow records at the wastewater treatment plant will be reviewed.
- The meeting will also be used to develop the flow monitoring schedule and establish a date for initial installation of the necessary equipment, discussed below.

1.1 Flow monitoring

Flow Monitoring will be conducted at each of the key manholes identified in the kick-off meeting to compare observed flows with expected flows from each subsystem. Provide recommendations for number of and locations for flow monitoring. Install and obtain data from flow measuring devices. Monitors should be left in place to obtain base and diurnal flows. A minimum of one rain event should be recorded of sufficient duration and volume to determine impact of the rain event. All data should be provided as part of the final report. Rain gauges shall be installed at locations to be determined.

1.2 Video Inspection

A closed-television (CCTV) shall be performed on all pipes installed prior to 2012 with a diameter of 6-inches and larger. PACP coding methods are the required method and should be used. The video inspections should include location of all service connections; defects noted and shall be from the center of the upstream manhole to the center of the downstream manhole. Digital copies of the inspection video shall be provided to the City including a log of location of service connections, defect location and type.

TASK 2 DEFINE INFILTRATION/INFLOW (I/I) PROBLEM

2.1 Field Inspection:

Following identification of the problem subsystems in Task 1, the I/I issues will be further defined through field reconnaissance and physical inspections. Field reconnaissance will be conducted during rain events to characterize I/I sources within the designated subsystems.

This task includes field reconnaissance during the flow monitoring period. Field reconnaissance can be scheduled at night during low sanitary flow periods to identify “clear water,” which represents mostly I/I and very little wastewater. In problem subsystems where inflow and infiltration are anticipated to be contributing factors to excessive flow, efforts will be made to identify root causes of inflow or infiltration. Problem subsystem flow data will be compared to rainfall data collected at the Fortuna Riverlodge.

2.2 Manhole Inspections:

Physical inspections of manholes within the identified problem areas will also be conducted to identify physical or structural deficiencies that are contributing to I/I. Manholes will be inspected on the walls and floor for weeping water, mineral deposits, and sand/silt deposits. Construction and pipe materials will also be inspected for misalignment, structural deformities, and other potential physical issues which may be allowing stormwater or groundwater to enter the system.

2.3 Manhole Inspection Report:

Following these inspections, a manhole inspection report will be prepared which contains the manhole number, size, type of pipe, structural condition, amount of deposit, and root growth. The report will also include a recommendation for the preferred rehabilitation and/or cleaning method for each sewer section. The City will provide one (1) qualified staff person to assist with inspections and traffic control.

2.4 Smoke Testing:

The City has an ongoing smoke testing plan and will continue that plan. The City will provide consultant with maps detailing the locations of the completed smoke testing to assist consultant in prioritizing problematic areas.

TASK 3 SANITARY SEWER OVERFLOW (SSO) ANALYSIS

3.1 Compilation of Historical SSOs

The City will compile a list of all recorded SSOs from 2010 through 2016 and include in the GIS mapping in Task 4. The SSO database should be sorted into three distinct infrastructure asset groups: force mains, pumping facilities, and gravity sewers.

The GIS shapefiles are available from the City Engineering Department upon request. Contact Anthony Carnemolla by email at acarnemolla@ci.fortuna.ca.us to request the files or call (707) 725-1478 to arrange for alternate delivery

TASK 4 PREPARE MAP AND FIELD REPORT

4.1 GIS Map

Following completion of the Tasks 1, 2 and 3, a GIS map will be prepared locating and presenting identified problem sewers and manholes.

- The map will include subsystem delineations and color coding to differentiate pipe sizes, pipe materials, and estimated quantities of normalized I/I.
- Inflow and infiltration will be normalized by subsystem by length of collection system piping and pipe diameter. The direction of sewer flow will also be indicated on the map.
- The consultant’s maps shall be based on the City’s GIS maps provided in this proposal request.

4.2 Field Report

A draft field inspection report will also be prepared which incorporates the information from field reconnaissance, including all field notes and measurements, the manhole inspection report, and the smoke testing report.

TASK 5 CONDUCT COST EFFECTIVENESS ANALYSIS

After all data and results have been analysed and summarized in the draft field report, a cost-effectiveness analysis will be conducted to determine the cost of recommended I/I reduction measures for up to 10 grouped projects, and at which point the investments are no longer cost effective for the estimated reduction in I/I.

- Costs for transporting and treating existing I/I will be estimated including operation and maintenance costs.
- Order of magnitude costs for I/I reduction will include repair, rehabilitation, replacement, engineering, environmental and permitting, and construction management costs.
- The total costs of transporting, treating, and reducing I/I will then be plotted with the various estimated percentages of I/I reduction to determine the cost-effective cutoff point, as set forth in SWRCB guidelines for this type of analysis.

TASK 6 PREPARE FINAL REPORT

Following completion of the cost effectiveness analysis, a draft report will be prepared summarizing the results of the analysis and recommendations made for I/I reduction in problem subsystems, including the basis for recommendations and a short term and long term action plan and schedule.

- The draft report will include the subsystem analysis, flow monitoring, results of field reconnaissance, and manhole inspection report and recommendations.
- The goal of the recommendations will be to identify cost effective I/I projects that would bring the City within the EPA I/I limits of 120 gallons per capita per day (gpcd) for average dry weather flow and 275 gpcd for average wet weather flows.

The report shall also include organize data collected from field services and integrate into GIS. Use manhole inspections to update GIS maps. Assign flow values to each identified defect.

PROJECT DELIVERABLES:

At a minimum, the following shall be completed:

1. Flow Monitoring
 - a. Furnish and install open channel flow monitoring data collection equipment and rain gauges at locations selected.
 - b. Traffic control must be provided during the installation of and removal of the monitoring equipment.
 - c. Device must have an accuracy of plus or minus of 5 percent.
 - d. Data shall be downloaded as necessary.
 - e. All data shall be tabulated and included in the final report.
2. CCTV Inspection
 - a. PACP certified inspectors shall be employed for all CCTV inspections
 - b. The CCTV system shall be a self-contained system complete with closed-circuit television camera, monitor and computer.

- c. A video shall be produced using a pan-and-tilt, zoom, radial viewing, pipe inspection camera that pans 275 degrees and rotates 360 degrees.
 - d. Inspections shall include location of all service connections and defects. The defects shall be coded in compliance with PACP standards.
 - e. All inspection data including video, service connection locations, defect location and defect type shall be provided to the City in a digital format on two (2) portable hard drives.
3. Manhole Inspections
- a. Provide all equipment and personnel as necessary for manhole inspections.
 - b. Use handheld electronic data collection equipment for collecting manhole inspection data.
 - c. Collect the following attribute data, as it can be determined:
 - i. Mapping grade x-y locate of manhole;
 - ii. Top rim and invert elevations
 - iii. Manhole diameter;
 - iv. Manhole material;
 - v. Pipe invert measurements;
 - vi. Connecting sewer diameter(s);
 - vii. Connecting sewer material(s); and
 - viii. Connecting sewer flow direction.
 - ix. Description of location of manhole
 - d. Identify and document manhole condition, including:
 - i. Direct evidence of I/I;
 - ii. Open pick holes in lid;
 - iii. Frame and adjusting ring condition, including needed adjustments and chimney seals;
 - iv. Corbel condition and defects;
 - v. Wall condition and defects; and
 - vi. Trough and bench condition and defects.
 - vii. Invert and Elevation
 - e. Provide data analysis as follows:
 - i. Compile field data and develop complete list of defects;
 - ii. Incorporate results into GIS;
4. Summary Report and Project Management
- a. Perform quality assurance and quality control checking of data to ensure that each defect is assigned to the proper photographs, defect type, and the proper address or structure in preparation of a future rehabilitation or source removal program.
 - b. Provide the following information for the summary report:
 - i. Summary of work completed
 - ii. GIS map of identified defects
 - iii. List of defects prioritized by cost effectiveness for rehabilitation
 - iv. Recommendations for follow-up SSES work; and
 - v. Recommendations for rehabilitation and/or replacement.
 - c. Provide the following deliverables:
 - i. Up to five color copies and a digital copy of the draft report;
 - ii. Address City of Fortuna comments and submit up to five color copies of final report; and

- iii. Provide a digital copy of final report files, data, videos, and photographs.
- d. Provide project management and attend meetings, including:
 - i. Provide project management services for the duration of the project;
 - ii. Provide management of sub-consultants (if appropriate)