



BOARD MEETING AGENDA SUBMITTAL

MEETING DATE:

ITEM SUBMITTED BY:

SUBMITTAL PREPARED BY:

AGENDA ITEM:

RECOMMENDED ACTION

BACKGROUND

ATTACHMENTS

FINANCIAL IMPACTS



2019 Integrated Water and Wastewater Master Plan

Board of Directors Review Draft in Preparation of a Request for Proposals

December 11, 2018

Master Plan Goals and Objectives

The goal of this Integrated Water and Wastewater Master Plan (referred hereafter as the GCSD Master Plan or Master Plan) is to provide a 20-year roadmap for the water and wastewater services provided by the GCSD. The Master Plan will help determine the projects needed to repair, replace, and/or upgrade the GCSD's aging infrastructure to increase system operating efficiencies and reliability, while improving cost predictability and maintaining a high level of customer satisfaction into the future. The Master Plan will proactively address increasingly stringent water quality and environmental regulations to protect public health and promote stewardship of the Sierra Nevada and Sacramento/San Joaquin River Delta; and it will serve as a guide to establish future rates and charges to allow GCSD to prioritize available funding and the pursuit of grants to complete the required projects. The Master Plan will outline a strategy to improve maintenance and asset management, prioritize new facilities and interweave the necessary upgrade or decommission of existing facilities.

The following planning objectives will guide the development of the Master Plan:

- Develop a roadmap for preserving and replacing assets, while also considering continued conversion of septic properties to GCSD sewer, biosolids management, odor management, aging infrastructure, sporadic source water outages and resource conservation/recovery where possible
- Consider the financial constraints of the small GCSD customer base and the need for maintaining fair and reasonable rates/charges.
- Maintain and improve cost-effective services through efficient operations, flexibility, and evaluation of new technologies.
- Include methods and means to reduce sanitary sewer overflows to zero, and to keep water losses low and outages to an absolute minimum
- Provide reliable capacity to manage and treat all wastewater flows within the existing and potential future wastewater service area, including during peak wet weather conditions. After meeting service area needs, identify additional capacity for ratepayer benefit and future customer growth.
- Identify and implement ways to beneficially use or reduce the disposal cost of treatment byproducts (effluent and biosolids).
- Consider the need, opportunities and methods for continued connection of existing septic properties to the GCSD public sewer
- Continue to meet increasingly stringent drinking water quality and environmental regulations and proactively upgrade water and wastewater facilities to comply with regulatory requirements.
- Minimize energy and chemical consumption and consider alternative energy sources.

- Develop capital improvement plans and implementation strategies with the understanding that District staff will focus on technical maintenance functions, and works of improvement and extensive renovations/replacements will be contracted.
- Identify optimal system maintenance requirements and methods in accordance with industry standards and consider the District's staffing levels and technical expertise.
- Reduce visual, noise, and odor impacts from the wastewater plant/system to neighbors to the extent practicable.

Scope of Work

The consultant will be required to evaluate and make recommendations regarding the condition and reliability for each of the Wastewater Treatment Plant unit processes, Water Treatment Plants, Wastewater Collection and Water Distribution System major components. The consultant should identify those systems requiring immediate (within the next fiscal year), short term (less than 5 years) and long term (5 to 20 years) improvements. The report should further address known regulatory issues that might impact the medium and long-term operation. The Improvement Plan should not solely be limited to reconditioning of existing plant/system assets. The consultant should also consider in concept alternative treatment systems which would incorporate recent technologies to meet future water/wastewater treatment, collection and distribution system goals. The consultant will be required to compare the cost of constructing alternative treatment processes with the cost of reconditioning existing assets.

In general, the capacity, reliability, condition, aesthetics, safety issues and code compliance for each system should be analyzed. The report shall contain an overview of the Treatment Plants and Systems, evaluation of the systems' performance including their limitations, highlighting deficiencies, aging components, and outdated technology of the systems, and highlighting positive aspects of the systems. The report shall also include recommendations regarding the various components which will need short term and long term replacements or rehabilitation. Consultant shall report the estimated cost for any improvements recommended and a proposed schedule on how to make the improvements for the various components. The elements to be identified in the Consultant's written report shall include but not be limited to the following:

1. Population, growth, current and estimated future wastewater flows and water demands
 - a. Effect of conversion of septic systems to public sewer
 - b. Effect of water conservation on water demand and wastewater discharges
2. Wastewater treatment evaluation
 - a. Wastewater loading and quality
 - b. Wastewater treatment regulations
 - c. Plant performance
 - d. Equipment/Asset Condition Assessment
 - e. Effluent disposal alternatives
 - f. Biosolids management
3. Wastewater Treatment Improvement Alternatives

- a. WWTP Immediate and Short Term Response Measures (Years 1-5)
 - b. WWTP long term alternatives (5-20 years)
- 4. Collection System Description and Evaluation**
 - a. SSO, failure, complaint history (such as odor)
 - b. System Evaluation Criteria
 - c. System Asset Inventory, Age and Condition, Maintenance
 - d. Improvements Planned with 2018 SWRCB Planning Grant
 - e. Current and future flows by lift station/capacity evaluation
 - f. Gravity sewer and force main capacity
 - 5. Collection System Proposed Improvements/Alternatives**
 - a. Immediate, short term and long term pipeline improvements
 - b. Immediate, short term and long term lift station improvements
 - c. Maintenance Improvement and Asset Management Program Development
 - 6. Water Treatment Plant Evaluation**
 - a. Water source quality, capacity and reliability evaluation
 - b. Filtration avoidance, current/future including cost of operation with and without filters
 - c. Alternate Water Supply (current temporary plants)
 - d. Plant Performance
 - e. Regulatory impacts
 - f. Equipment/Asset Condition Assessment
 - 7. Water Treatment Plant Improvement Alternatives**
 - 8. Existing Water Distribution System Evaluation**
 - a. System Evaluation Criteria
 - b. System Asset Inventory, Age and Condition, Maintenance
 - c. System Operation
 - d. Improvements Planned and Designed with 2018 SWRCB Planning Grant
 - e. Pressure Zones
 - f. Consumption demands and source, transmission/distribution capacity analysis
 - g. Storage analysis
 - 9. Proposed Distribution System Improvements**
 - a. Categories of Improvements
 - i. Immediate Improvements
 - ii. Reliability Improvements
 - iii. Regulatory Improvements
 - iv. Capacity Enhancement
 - v. Efficiency improvements
 - b. Maintenance Improvement and Asset Management Program Development
 - c. Long Term Improvement
 - 10. Decision and Prioritization Plan**

- a. Recommended alternatives
- 11. Capital Improvement Plan and Project Costs for Water and Wastewater**
- a. Immediate, short and long term
 - b. Include tables, figures and maps
- 12. Review and Recommendations on Water and Wastewater Capacity and Connection Fees**

Services to be Provided by Consultant

- 1. Review existing plans and related documents.** Conduct a detailed review of:
 - a. 2001 GCSO [Wastewater](#) and [Water Master Plans](#)
 - b. [2002 Septic System/Water Quality Study Report](#)
 - c. [2015 Urban Water Management Plan](#)
 - d. [2015 Water Rate Analysis](#)
 - e. 2018 GCSO Groveland/Big Oak Flat Water Distribution System Improvements Plan funded under a SWRCB Planning Grant
 - f. 2018 GCSO Wastewater Collection System Improvements Plan funded under a SWRCB Planning Grant
 - g. [2018 Sewer Rate Study](#)
 - h. Tuolumne County General Plan
- 2. Attend Meetings.** Attend a kick-off meeting to begin the project. Meet or confer with staff as needed. Attend three meetings of the Board of Directors to present an interim status of the study and obtain their input, and also one meeting to present the final draft of the Reports and Plans. Prepare related graphics, composite development land use and demand maps, and Geographic Information System (GIS) shape files.
- 3. Conduct Analysis.** Conduct analyses as required to address the scope of work.
- 4. Prepare Administrative Draft Plan, Cost Estimates and Reports.**
 - a. Prepare administrative draft plans, study reports and tentative fee cost impacts for staff review.
 - b. Submit electronic copy of the administrative draft plans, estimates and reports.
 - c. Meet with staff to review the administrative drafts.
- 5. Prepare Public Review Draft Plans, Cost Estimates and Reports.**
 - a. Incorporate changes pursuant to comments received from staff during the administrative draft review.
 - b. Prepare Study Session Public Review Drafts.
 - i. Submit one electronic copy and 10 bound copies for each Board of Directors Study Session.
 - c. Attend and present at the Board of Directors Study Sessions.
 - d. Incorporate changes pursuant to comments received from Board of Directors

during the Study Sessions.

- e. Attend and Present the Draft Final Integrated Master Plan to the Board of Directors for approval at a regularly scheduled Board Meeting.
- 6. Prepare Final Plan Report.**
 - a. Incorporate changes pursuant to comments received at the Board presentation.
 - b. Submit one unbound copy, 10 bound copies, and one electronic copy.
- 7. Time Schedule.** Supply a time schedule for developing the preliminary and final reports and Plan adoption. The final report shall be delivered to the District within 180 days or sooner from Notice to Proceed.
- 8. Public Relations and Outreach.** Provide one draft press release and one draft informational flyer summarizing the evaluation, findings and recommendations of the Plan and the importance of its implementation. Provide suggestions to the District for ways to obtain the understanding and support of our customers, jurisdictions, other agencies and stake holders for implementation of the Plan.

Services to be Provided by the District

The services to be provided by the District include, but are not necessarily limited to the following:

- 1. Furnish Data.** Furnish all reasonably available records and information, including reports, maintenance and past project information, budgets, production and consumption data, ordinances, and demand projections.
- 2. Master Plans.** Provide electronic or paper copies of Master Plans, SWRCB funded facility improvement plans, and studies referenced for review above. Provide available water and wastewater models.
- 3. Capital Improvement Projects.** Provide information on the most recent Capital Improvement Project list and five year plan.
- 4. Staff Support.** Coordinate Board and/or Committee meetings, staff meetings, provide staff support and assistance as required and agreed to in advance of the study.

Proposal Content and Requirements

The District welcomes a response to this request for proposals (RFP) in any format that best expresses the consultant's qualifications, approach to the project, and proposed scope of services. Proposals submitted in response to this RFP must include the following items:

- 1. Statement of Qualifications** - Section A of the Proposal shall consist of a statement of qualifications. Identify the individuals who will be responsible for directly conducting and preparing the evaluation and recommendations. Describe the background and experience of the individuals who will actually perform the services including individual experience in conducting surveys and preparing reports for similar projects. Include the

professional license numbers of those individuals holding relevant involved in key positions in the development of this project.

Provide a list of five similar projects that your firm has undertaken. For each project please list the following:

- Project name, location, description of size and nature of treatment facilities, collection and distribution systems.
- Detailed description of the services performed, and the time period in which they were performed.
- The name and telephone number of at least one reference for the project that can attest to the quality and effectiveness of the Consultant's work.

The statement of qualifications including resumes of individuals shall be limited to ten (10) pages.

2. Methodology and Approach - Section B of the Proposal shall describe the methodology and approach that the Consultant will use to perform the requested services, and develop the desired report and recommendations. At a minimum the proposal should include the following:

- A description of the step by step process that the consultant will utilize to research the existing water and wastewater treatment plant processes and systems, water distribution and wastewater collection system condition, conduct investigations, perform alternative analysis, identify cost implications, establish priorities and make recommendations concerning upgrades, repairs or replacement of each system and/or implementation of new technology.
- A list of the proposed tasks and the effort proposed to be devoted to each.
- A schedule of milestones and tasks, and estimated dates of completion for each task.

Selection of Consultant

A consultant selection committee will assess and rate the Consultants' proposals based upon the following criteria:

- Responsiveness to the RFP
- Qualifications of individuals to be assigned to this project
- Experience and demonstrated success of the Consultant in preparing similar evaluations for systems located in isolated, rural communities
- Previous work with GCSD
- Evidence that the Consultant understands the project purpose and requirements
- Consultant's approach to the project
- Evidence of the Consultant's ability to prepare a well-written document and accompanying technical drawings
- Demonstration of commitment to project and ability to deliver the finished product on time

The consultant(s), which the District in its sole discretion, has determined to be the most qualified to perform the evaluation and prepare the required report will be identified as the top rated consultants. The top rated consultants will be asked to make a presentation of their proposal to the selection committee. The Consultant's key person or Project Manager will be required to attend the interview. Based on the results of the interview, a contract will be negotiated with the highest rated proposer. If agreement cannot be reached, negotiations with other proposers, in order of their respective final ratings will be conducted until tentative agreements can be reached. The draft negotiated agreement will be presented to the Board of Directors for their approval.

The District anticipates that a Consultant will be selected in February of 2019, and that a contract for services will be negotiated and executed within a month thereafter. The consultant will be expected to commence services immediately upon execution of the District's Standard Consultant Services Agreement.

Proposed Compensation

The Consultant shall provide, **in a separately sealed and clearly marked envelope**, the estimated cost to be charged to the District by task **and subtask**, and a total proposed project cost. The cost proposal shall identify the hourly rates and include direct labor costs and expenses including travel and other direct costs. Cost proposals will not be opened until after each firm has been ranked and the firm deemed most qualified has been selected. The cost proposal for the selected firm will form the basis of negotiations for the contract.