



Request for Proposals

**For Professional Engineering Services Related to the
Regional Pump Station Improvements**

for the

GREENVILLE UTILITIES COMMISSION

**of the
City of Greenville, N.C.
P.O. Box 1847
Greenville, North Carolina 27835**

**Note: All questions regarding this RFP
should be directed to:**

**Mr. J. Scott Farmer, P.E.
Water Resources Engineer II
(252) 551-1529
farmerjs@guc.com**

Introduction

Greenville Utilities Commission (GUC) is seeking professional technical services related to improvements at the existing Green Mill Run and Fork Swamp Regional Pump Stations. Improvements include but are not limited to analysis of the existing cast in place screenings structures for rehabilitation or replacement, installation of new climber screens to handle screenings, replacement of existing hydraulic screenings presses, evaluation to ensure pumping capacity for the next 20 years at the Green Mill Run and the Fork Swamp Regional Pump Stations, and analysis of flow monitoring data provided by a third party to make recommendations on upstream improvements and inflow and infiltration reduction in the Green Mill Run sub-basin.

Existing Facilities

The Green Mill Run Regional Pump Station is located at approximately 430 W. Arlington Boulevard (35.588595, -77.383626) across from J.H. Rose High School. The station has a current total design capacity of 4.8 mgd and was constructed in 2003 as part of the Southside collection system improvements. The station is a wet-pit/dry-pit configuration with 3 pumps and a single automated climber style bar screen. The station discharges into a 30" force main that terminates at the Southside Pump Station.

The Fork Swamp Regional Pump Station is located at approximately 901 Van Gert Drive, Winterville (35.538154, -77.371612) in the rear of the Corey Ridge Subdivision. The station has a current total design capacity of 6.5 mgd and was constructed in 2003 as part of the Southside collection system improvements. The station is a wet-pit/dry-pit configuration with 3 pumps and a single automated climber style bar screen. The station discharges into a 20" force main that merges with the 30" force main at the Green Mill Run Regional Pump Station.

Project Description

Green Mill Run Regional Pump Station

The existing automated climber style bar screen at the Green Mill Run Regional Pump Station has been taken out of service due to the extent of repairs required to place it back in service. There is no interior protective coating system installed on the cast in place screenings structure and the existing odor control systems are not operational. Consequently, the cast in place screenings structure and automated climber style bar screen have undergone some degradation likely due to hydrogen sulfide corrosion.

In addition to the corrosion issues at the cast in place screening structure, operation of the station is currently impacted by the lack of adequate screening due to the failure of the automated climber style bar screen. A temporary fixed screen has been placed in service

to provide some screening, however, this situation results in a significant buildup of floatable material in the wet well and periodic clogging of the pumps. The pumps and temporary screen must be manually cleaned daily which presents a safety hazard for GUC employees.

It is the intent of the Commission to replace or rehabilitate the existing cast in place screenings structure and automated climber style bar screen at the Green Mill Run Regional Pump Station and develop a strategy to control hydrogen sulfide to protect the equipment and structures in the future. The hydraulic screenings press is also exhibiting signs of age and wear, and should be analyzed for replacement with a wash press as part of this project.

Recent inflow and infiltration studies have shown a significant amount of inflow and infiltration in the Green Mill Run sub-basin. A third party contractor will be conducting a flow monitoring study and providing the results to the Commission. A goal of this project is to analyze the flow monitoring results and make recommendations for improvements and repairs in the Green Mill Run sub-basin to reduce inflow and infiltration. The data should also be used to evaluate the station and ensure the capacity of the station will be sufficient for the next 20 years.

Fork Swamp Regional Pump Station

The existing automated climber style bar screen at the Fork Swamp Regional Pump Station has recently been taken out of service due to the extent of repairs required to place it back in service. There is no interior protective coating system installed on the cast in place screenings structure and the existing odor control systems are not operational. Consequently, the cast in place screenings structure and automated climber style bar screen have undergone some degradation likely due to hydrogen sulfide corrosion.

It is the intent of the Commission to replace or rehabilitate the existing cast in place screening structure and automated climber style bar screen at the Fork Swamp Regional Pump Station and develop a strategy to control hydrogen sulfide to protect the equipment and structures in the future. The hydraulic screenings press is also exhibiting signs of age and wear, and should be analyzed for replacement with a wash press as part of this project.

Purpose of Request for Proposals

Greenville Utilities is seeking qualified professional engineering services to conduct preliminary and final design of the recommended facilities, bidding, and construction administration and observation of the following major elements of work:

- 1) Replacement or rehabilitation of the existing Green Mill Run Regional Pump Station and Fork Swamp Regional Pump Station screenings structures.

- 2) Replacement of the existing Green Mill Run Regional Pump Station and Fork Swamp Regional Pump Station automated climber style bar screens.
- 3) Replacement of the existing Green Mill Run Regional Pump Station and Fork Swamp Regional Pump Station hydraulic screenings presses with wash presses.
- 4) Development of a strategy to reduce hydrogen sulfide levels in the screening structure at each station.
- 5) Evaluation of existing and future flow conditions at each station to ensure adequate capacity for the next 20 years.
- 6) Analyze third party flow monitoring data and make recommendations for improvements and repairs in the Green Mill Run sub-basin to reduce inflow and infiltration.

Available Information

The Commission's prime contact for questions regarding this Request for Proposals shall be Mr. J. Scott Farmer, P.E., Water Resources Engineer II, (252) 551-1529, farmerjs@guc.com.

Plans, specifications, prior reports and other information concerning the Pump Stations and related facilities are available for review at the Water Resources offices at 801 Mumford Road as well as the Wastewater Treatment Plant at 240 Aqua Lane, and may be reviewed Monday through Friday between the hours of 8AM and 5PM. Copies of this information are available for the cost of reproduction.

Selection Process

Responses to the Request for Proposals are due in the office of the Water Resources Engineer II, Mr. J. Scott Farmer, P.E., 801 Mumford Road, P.O. Box 1847, Greenville, N.C. 27835, no later than 4 PM on February 8, 2018. Proposals arriving or delivered after this time and date cannot be considered. It is the intent of the Commission to utilize an objectively based selection process involving a selection committee of staff and negotiate a contract with the top ranked firm. If the Commission is unable to satisfactorily negotiate a contract with the selected firm, negotiations will be initiated with the second highest ranked firm. Proposals will be evaluated based on the following criteria as a minimum:

- Qualifications of the team proposed for this project
- Five most similar projects completed by proposed project team (and their roles)
- Project understanding and approach
- Qualifications of the firm
- Work plan/schedule
- References

Proposal Requirements

Six copies of the proposal must be submitted within the previously referenced time period to the appropriate contact person. Proposals must contain, at a minimum, the following major elements:

- Letter of transmittal
- Table of Contents
- Qualifications of the proposed team (please indicate if project experience listed was with another firm)
- Qualifications of the firm
- Five most similar projects completed by proposed project team (and their roles)
- Understanding of the project
- Approach to the project
- Project schedule including estimated tasks and man-hours to accomplish
- References

These major elements shall be tabbed accordingly within the proposal so as to facilitate review. Proposals are limited to 30 pages. Printing front and back is acceptable. A single page printed front and back is counted as 2 pages. The minimum font size allowable is 12. Advertising material should not be included in the proposal and cannot be considered in the review. Additional information above and beyond the bulleted items listed above may be included in the proposal as appendices.