

City of Portsmouth
Portsmouth, New Hampshire
Public Works Department
RFP # 64-17
REQUEST FOR PROPOSALS

ENGINEERING SERVICES
WASTEWATER PUMPING STATIONS MASTER PLAN

INVITATION

Sealed Proposals, plainly marked “RFP #64-17 Wastewater Pumping Station Master Plan ” on the outside of the mailing envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until **2:00 pm on July 6, 2017**. In a separate sealed envelope within the propoosal envelope, enclose a cost proposal for the proposed scope of work, plainly marked “RFP #64-17, Wastewater Pumping Station Master Plan – Cost Proposal”.

The RFP can be found on the City’s website at
<http://www.cityofportsmouth.com/finance/purchasing.htm>.

FUNDING

This effort will be funded by wastewater enterprise revenues.

PROJECT BACKGROUND/PURPOSE

The City of Portsmouth is a regional provider of wastewater collection and treatment services to the City of Portsmouth, Town of New Castle and portions of the Towns of Greenland and Rye. The City has two wastewater collection systems that convey wastewater to separate wastewater treatment facilities (WWTF) at Peirce Island WWTF and the Pease International Tradeport WWTF.

The collection systems for the Pierce Island WWTF and Pease International Tradeport WWTF are shown in Figure 1 and services downtown Portsmouth and the client communities. The Peirce Island WWTF system consists of 99 miles of sewer, 8.6 miles of forcemain, and 19 pumping stations. The collection system for the Pease International Tradeport WWTF consists of 11 miles of sewer, 0.5 miles of forcemain, and 1 pumping station.

The selected consultant shall prepare a conditions assessment of existing sewer pump station and force main infrastructure, based on available data and any additional data deemed necessary by consultant and the City of Portsmouth. Additional data collection may include, but not be limited to physical inspection, physical testing, corrosion investigations/testing, engineering analysis, etc. Based on the assessment, the consultant shall develop a prioritized recommendation for capital improvement project implementation, including detailed scope, schedule and cost estimates.

The goals of this project include, but are not limited to, the following:

- Complete a detailed review of the existing structures, equipment, processes and systems
- Perform an engineering analysis of the existing structures, equipment, processes and systems regarding their condition, efficiency, energy use, sustainability, and capacity to meet current and proposed treatment conditions
- Perform flow and load scenarios based on buildout projections, flow shedding scenarios and client requests for capacity
- Develop a long term capital improvement plan for the City's pump stations to use for its capital planning needs

SCOPE OF WORK

The City anticipates the scope of work will be comprehensive and include all tasks necessary to provide a long term capital improvement plan that can be used for planning purposes. The scope of work is anticipated to include, but not be limited to, the following:

- *Project Management* – The consultant shall have one project manager for the Project who will be the prime contact for the City. The project manager shall be solely responsible for coordinating all aspects of development of the Project. In the event the consultant wishes to change the project manager, the principal of the consulting firm shall notify the City, in writing, of the change request. The City will review and approve/disapprove this request. The consultant shall be responsible for coordinating and attending all design team meetings, permitting and regulatory agency meetings, and relevant City committee and Council meetings. The consultants shall prepare all meeting agendas, presentations, and maintain meeting minutes (assume three design team meetings, a permitting meeting, and one City Council meeting). The consultant shall produce a Project schedule and shall update the schedule routinely.
- *Sewer pump station and force main assessments* – The consultant shall review all existing data provided by the City (including this RFP) and shall perform any additional assessment of the sewer pump stations and force mains, as deemed necessary by consultant and agreed to by the City. The consultant shall provide a scope and schedule for assessment efforts, to be reviewed and coordinated with the City in advance of the work. The City anticipates this effort to include field conditions assessment of the pump station buildings, equipment, dry wells, piping/valves, wet wells and force mains to determine condition and operational/failure risk. This work may include:
 - Evaluation of materials, i.e. piping, concrete, coatings, steel, asbestos pipe corrosion testing, etc.;
 - Engineering assessment of pump station capacity, operation, efficiency, etc.

All work impacting City facilities and operations shall be scheduled and performed in close coordination with City staff to mitigate any impacts to City operations.

- *Master Plan* – the consultant shall prepare a Master Plan presenting all available and collected data, interpreting data, evaluating risk and making clear recommendations to the

City on prioritized capital improvement projects. The Master Plan shall contain the following, at minimum:

- Summary results of the pump station and force main conditions assessment efforts;
- Quantitative and qualitative evaluation of operation risk and risk of failure based on existing conditions assessment;
- Development of a risk-based prioritization for recommended capital project implementation; and
- Detailed scopes, schedules, and costs for recommended capital improvements. The consultant shall make a recommendation regarding work phasing to address the highest priority infrastructure need(s) for construction beginning in 2017.

The Master Plan shall be submitted to the City for internal review before producing the final report.

Design services are not included in this RFP.

The final scope of work will be negotiated with the selected consultant prior to execution of a contract.

AVAILABLE INFORMATION

A list of pump station characteristics is provided in Table 1. Exterior photos of each pump station are provided in Appendix A. The following information will be made available to the selected consultant for the purpose of developing the evaluation:

- Record Drawings from Pump Station Construction (various dates)
- Force main maps and GIS database (2017)
- Operation and Maintenance Manuals for select facilities
- Lafayette Road Pump Station Conceptual Design Report (Woodard and Curran, 2015)

The following information is available from the City's website:

- 201 Facilities Plan (1999)
<http://www.cityofportsmouth.com/publicworks/reports/201facilities.pdf>
- Sewer Division Capital Improvements Plan (2017)
<http://planportsmouth.com/2017-2022CapitalImprovementPlan.pdf>

ENGAGEMENT OF THE ENGINEER**A. Required Contents of the Proposal**

A sealed proposal, plainly marked “RFP #64-17, Wastewater System Pump Station Master Plan ” on the outside of the envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until 2:00 p.m., July 6, 2017. Five (5) copies of the proposal shall be submitted and include the following information:

Proposals should be of a length and contain a level of detail equal to the magnitude of the proposed project. All proposals should include the following information, at a minimum:

1. Scope of Work:

Provide a detailed Scope of Work summarizing all work tasks required to complete the Project as generally described above. Consultants are encouraged to explain, in detail, their understanding of the Scope of Work and to identify any supplemental tasks deemed necessary for successful completion of the Project. Identify in the Scope of Work any key issues anticipated in completing the Project and summarize how the team will approach these. Include a summary of assumptions made in preparing the Scope of Work and/or proposed exclusions to the Scope of Work. The proposed Scope of Work will serve as the basis for final negotiations of the contractual scope of work with the selected consultant.

2. Project Manager and Project Team: Include an organizational chart of the consultant team and identify the Project Manager, key personnel, and sub-consultants, along with their proposed project responsibilities. Provide a description of the qualifications and experience for each key personnel, in addition to their current availability.

3. Experience: Include a list of projects completed by members of the consultant team over the last five years that are similar in scope and provide a brief description of the projects. Specifically, describe any previous experience with sewer pump station and/or force main assessment and master planning.

4. References: Provide contact information for at least three references from previous clients who are public agencies for which the firm has performed work similar to this Project.

5. Schedule: Provide a preliminary Project schedule, broken down by task, showing a contract start date of August 2017.

6. Consultant Fee: Provide, in a separate sealed envelope, a not to exceed fee estimate, broken down by task, for completing all work as described in the proposal Scope of Work, including materials and outside services. Also provide a current fee schedule for engineering services as used to calculate the consultant’s fee. The consultant fee and fee schedule will serve as the basis for final negotiations of the Consultant Agreement for Professional Services.

B. Ranking of Proposals

Each proposal will be reviewed and ranked according to the following criteria:

- | | |
|---|----------------------|
| a. Firm's experience successfully completing similar projects and individual Project Team member experience | Maximum of 40 points |
| b. Understanding and approach to project | Maximum of 50 points |
| c. Quality of proposal package | Maximum of 10 points |

SCHEDULE

The project is anticipated to start in August 2017. Final schedule will vary based on the negotiated scope and work tasks.

CITY ROLE

City staff will be responsible for administering the project. Representatives of the City's Public Works Department will provide input and assistance with any necessary field work and review all deliverables from the effort. The primary contact at the City will be Don Song, Wastewater Project Manager and he can be reached by phone at (603) 610-7305 or by email at dsong@cityofportsmouth.com.

SELECTION AND CONTRACT DOCUMENT

Upon review of all responsive proposals using the criteria outlined above, the City may select up to three (3) firms to interview. Following interviews, the Cost Proposal of the highest ranking firm will be opened and reviewed. The highest ranking firm will be invited to negotiate a final Scope of Services and fee with the City. When the contract is executed by both parties, the Consultant will be instructed to commence providing the work outlined in the contract. If the City is unable to reach agreement with the highest ranking firm, the City may enter into negotiations with the next highest ranking firm. The City reserves the right to negotiate directly with the firm(s) selected for additional project work.

RESERVATION OF RIGHTS

The City reserves the right to undertake such investigation as it deems necessary to evaluate the qualifications of the firm and to evaluate the proposals submitted. Firms may be requested to execute releases for information. Failure to provide a release upon request will result in disqualification.

The City of Portsmouth reserves the right to negotiate additional work including, but not limited to, preliminary design, final design and construction engineering services.

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the City and to negotiate the terms and conditions of any proposal leading to execution of a contract.

ADDITIONAL INFORMATION

Requests for additional information should be directed to Don Song at (603) 610-7305 Wastewater Project Manager. All questions shall be submitted by 4:30 PM on Friday, June 30, 2017. Addenda to this request for proposals, if any, including written answers to questions, will be posted on the City of Portsmouth website at the City's web site at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will NOT be sent directly to firms. Firms submitting proposals should check the web site daily for addenda and updates after the release date. Firms should print out, sign and return addenda with the proposal. Failure to do so may result in disqualification.

INDEMNIFICATION AND INSURANCE REQUIREMENTS

The Contract will require the Consultant to agree to pay on behalf of and hold harmless the City of Portsmouth for all claims arising in whole or in part from its work on behalf of the City. Consultant will be required to maintain insurance in such form as will protect the Consultant from claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract. Consultant shall also be required to maintain a minimum of 2 million in professional liability insurance.

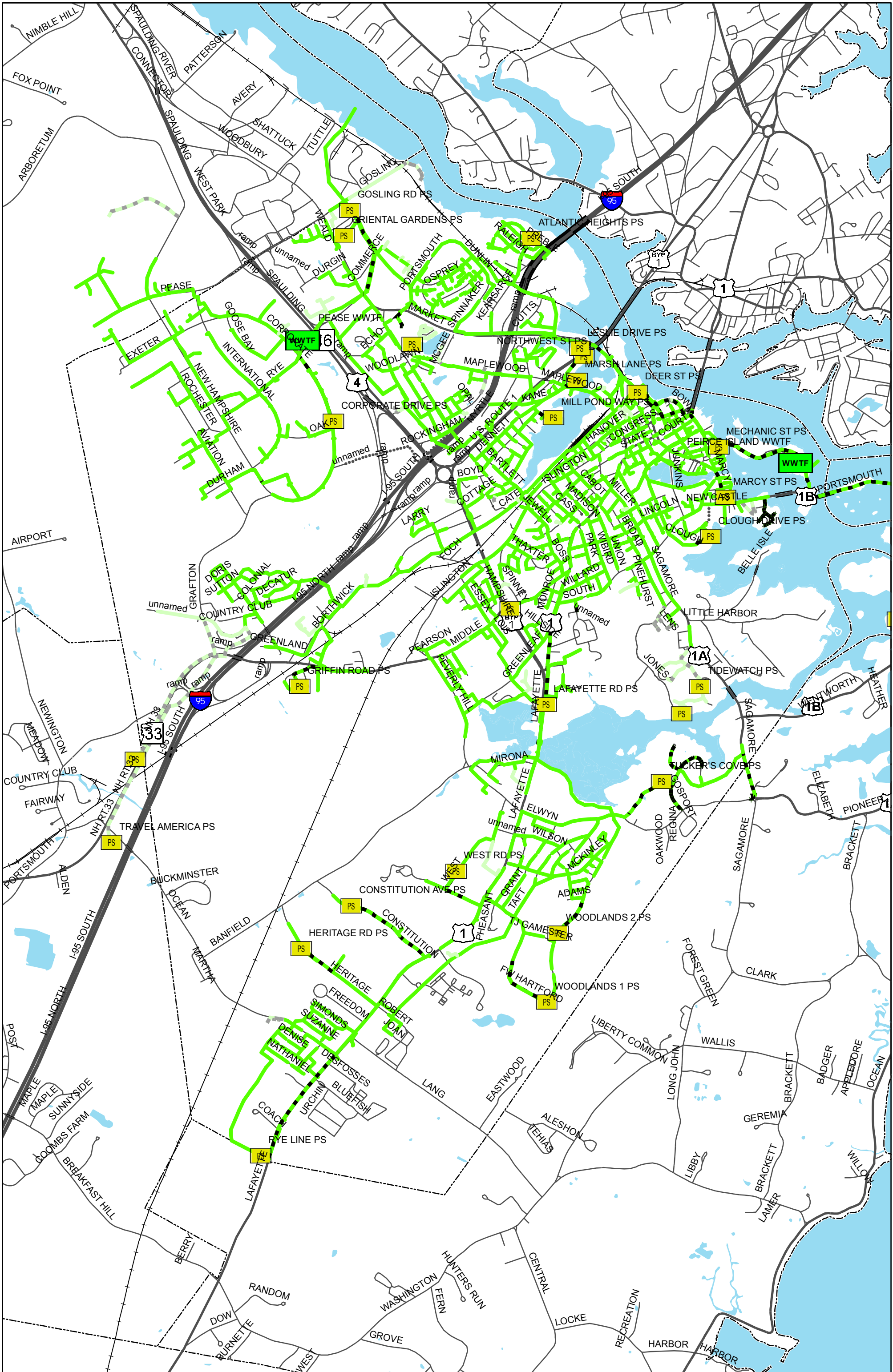
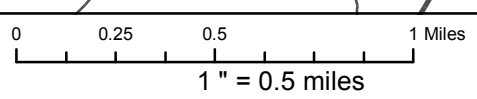


Figure 1: Portsmouth Sewer Division

Peirce Island WWTF

Map prepared by Portsmouth Department of Public Works



DATE: 05/23/2017

TABLE 1. CITY OF PORTSMOUTH SEWER PUMPING STATIONS

NAME	ADDRESS	DESCRIPTION	PUMP HP	NUMBER OF PUMPS	DUTY CAPACITY	ORIGINAL CONSTRUCTION	LAST UPGRADE	GENERATOR FUEL	GENERATOR SIZE
Atlantic Heights	134 Preble Way	GORMAN RUPP T-6 SUCTION LIFT	15 HP	2	385 GPM @ 43 FEET TDH	1986	2005 SCADA	Propane	30 KW
Clough Dr.	210 Clough Dr.	ITT FLYGT SUBMERSIBLE	2.3 HP	2	55 GPM @ 40 FT TDH	2005	2005	Portable	10 KW
Constitution Ave.	278 Constitution Ave.	GORMAN RUPP T-4 SUCTION LIFT	15 HP	2	320 FEET @ 67 FEET TDH	1980	2005 SCADA	Propane	45 KW
Corporate	215 Corporate Dr.	GORMAN RUPP T-6 SUCTION LIFT	30 HP	3	600 GPM @ 83.5 FT TDH	2001	2014 SCADA	Natural Gas	100 KW
Deer St.	2 Deer ST.	MORRIS CENTRIFUGAL	200 HP	3	4300GPM @ 116 FEET TDH	1960'S	2007	Diesel	500 KW
Griffin	205 Griffen Park	GORMAN RUPP T-4 SUCTION LIFT	7.5 HP	2	200 GPM	1990	2005 SCADA	Natural Gas	30 KW
Gosling Rd.	120 Gosling Rd.	PACO CENTRIFUGAL	40 HP	2	900 GPM @ 105 FT TDH	2005	2005	Diesel	125 Kw
Heritage Ave.	329 Heritage Ave.	SMITH & LOVELESS	7.5 HP	2	200 GPM @ 28 FT TDH	1976	DUE 2017	Diesel	30 KW
Lafayette Rd.	630 Lafayette Rd.	FAIRBANKS-MORSE CENTRIFUGAL	75 HP	3	1500 GPM @ 111 FT TDH	1981	DUE 2017	Diesel	230 KW
Leslie Dr.	590 Market St.	GORMAN RUPP T-10 SUCTION LIFT	25 HP	2	1550GPM @ 34 FT TDH	1986	2005 SCADA	Propane	45 KW
Marcy St.	535 Marcy St.	GORMAN RUPP T-4 SUCTION LIFT	10 HP	2	210 GPM @ 44 FT TDH	1986	2005 SCADA	Propane	20 KW
Marsh Ln.	4 Marsh Ln.	ITT FLYGT SUBMERSIBLE	2.3 HP	2	55 GPM @ 40 FT TDH	2004	2004	Portable	10 KW
Mechanic St.	113 Mechanic St.	DRY-PIT SUBMERSIBLE 500HP	450 HP	3	20 MGD @ 95 FT TDH	1991	2007 ELC	Diesel	750 KW
Mill Pond Way	131 Mill Pond	ITT FLYGT SUBMERSIBLE	2.3 HP	2	55 GPM @ 40 FT TDH	2009	2009	Portable	10KW
North West Rd.	221 North West	ITT FLYGT SUBMERSIBLE	2.3 HP	2	55 GPM @ 40 FT TDH	2012	2012	Portable	10KW
Ryeline	3618 Lafayette Rd.	SMITH & LOVELESS CENTRIFUGAL	20 HP	2	600 GPM @ 85 FT TDH	2009	2009	Natural Gas	80 KW
Tuckers Cove	91 Gosport Rd.	GORMAN RUPP T-4 SUCTION LIFT	15 HP	2	280 GPM @ 33FT TDH	1998	2005 SCADA	Propane	40 KW
West Rd.	280 West Rd.	GORMAN RUPP T-4 SUCTION LIFT	10 HP	2	400 GPM @ 40FT TDH	1984	2005 SCADA	Propane	30 KW
Woodlands I	307 F.W. Hartford	GORMAN RUPP T-4SUCTION LIFT	5 HP	2	150 GPM @ 38.5FT TDH	1985	2005 SCADA	Propane	30 KW
Woodlands II	516 F.W. Hartford	GORMAN RUPP T-4 SUCTION LIFT	5 HP	2	130 GPM @ 31FT TDH	1984	2005 SCADA	Propane	30 KW

LAFAYETTE ROAD PS



CLOUGH PS



MARCY STREET PS



MECHANIC ST PS



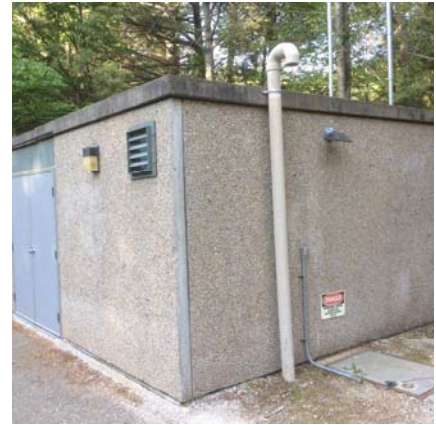
DEER ST PS



TUCKERS PS



WOODLANDS I PS



WOODLANDS II PS



WEST RD PS



CONSTITUTION PS



HERITAGE PS



MARSH LN PS



RYELINE PS



GRIFFIN PS



CORPORATE PS



GOSLING PS



ATLANTIC PS



LESLIE PS



NORTHWEST PS



MILL POND PS

