



**Yorktown Town Hall**  
363 Underhill Avenue, P.O. Box 703  
Yorktown Heights, NY 10598

(914) 962-5722  
www.yorktownny.org

April 29, 2019

**RE: Request for Proposals (RFP) for Inflow & Infiltration Flow Study  
Town of Yorktown/Peekskill Sanitary Sewer District**

The Town of Yorktown seeks to obtain the services of a professional engineering firm to perform a flow study that will quantify the amount of inflow and infiltration that is occurring within the collection system of the Town of Yorktown/Peekskill Sanitary Sewer District.

Each company, if interested, should respond to this Request for Proposals by the close of business on **Wednesday 6/5/2019**. Format shall be two (2) printed copies submitted to Diana Quast, Town Clerk, at the following mailing address: Yorktown Town Hall, 363 Underhill Ave, Yorktown Heights, NY 10598. The following information must be provided:

1. Statement indicating your interest in providing professional engineering services.
2. Firm brochure outlining the firm's background and experiences. If sub-consultants are proposed, a similar brochure shall be submitted.
3. A listing and brief narrative description of up to five (5) projects involving similar type services provided to public or private clients within the last 5 years. References with names and telephone numbers must be included for the projects.
4. A project organization chart indicating key personnel who will be assigned to the project. Sub-consultant personnel should be included as appropriate. Limit key personnel to no more than five (5) names.
5. Include resumes of personnel noted on the project organization chart.
6. Describe your Project Approach, 1-page maximum using standard font size.

**A pre-bid meeting will be held for interested parties on Wednesday 5/22/2019 at 10 am at the Yorktown Heights Water Pollution Control Plant, 2200 Greenwood Street.**

Any questions may be submitted to Diana Quast, Town Clerk, via email at [dquast@yorktownny.org](mailto:dquast@yorktownny.org) or at the following mailing address: Yorktown Town Hall, 363 Underhill Ave, Yorktown Heights, NY 10598.

We look forward to a response from your firm.

**Please complete the following & send back for our records/distribution list:**

\_\_\_\_\_ **Yes, we plan to submit a RFP for professional services:**

**Contact Person:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**RFP for Inflow & Infiltration Flow Study**

**Town of Yorktown/Peekskill Sanitary Sewer System**

**4/29/2019**

The Town of Yorktown owns and operates a sanitary sewage collection system in the northwest portion of the Town, the Peekskill Sanitary Sewer District. Wastewater flow from the Town collection system is conveyed to trunk sewers of the Westchester County-owned collection system and then ultimately treated at the Peekskill Wastewater Treatment Plant.

There are approximately 5,900 parcels in the Peekskill Sanitary Sewer District, of which approximately 4,000 are connected to Town sewer (the remainder are still on individual septic systems). The infrastructure includes a total of eight (8) pumping stations, sewer collection piping, manholes and force mains.

In December 2016 the Town received a Notice of Violation from the New York State Dept of Environmental Conservation concerning sanitary sewer overflows in three locations: Hill Boulevard, Lee Boulevard and Farmwalk Pump Station. Following subsequent meetings and correspondence with NYSDEC representatives, a Proposed Order on Consent was issued in September 2018.

At this time the Town is seeking the services of a professional engineering firm to undertake an inflow and infiltration flow study to determine the extent and location of excessive I&I within the Peekskill Sanitary Sewer District.

The scope of services for the inflow and infiltration flow study shall be as outlined herein.

***Project Background***

During the period from June 2014 to December 2016, the Town reported 21 sanitary sewer overflows, see Attachment #1. The overflows primarily occurred in the Peekskill Sanitary Sewer District and numerous reports were due to blockages, i.e. grease and debris in the sewer lines. In follow-up correspondence with the NYSDEC dated March 2018, the Town updated the various activities undertaken to reduce the potential for sanitary sewer overflows (see Attachment #2).

Upon receipt of the NOV in September 2018, the Town worked with the NYSDEC on a defined scope of work and timeline for performance of the I/I flow study, see Attachment #3.

The Town is required to report the results of the study to NYSDEC by June 2020 and also must identify any sub-areas that will need further evaluation as part of a Sanitary Sewer Evaluation Survey (SSES).

## ***Work Plan***

In this Work Plan, the Town of Yorktown will undertake an inflow and infiltration flow study of the sanitary sewage collection system tributary to the County's trunk sewer system within the Peekskill Sanitary Sewer District. The purpose of the evaluation is to identify major sources of inflow and infiltration (I/I) that are occurring within the collection system. The work plan shall include the following:

1. The sanitary sewer collection system within the Peekskill Sanitary Sewer District will be evaluated.
2. The Consultant shall develop a flow monitoring plan to set flow meters in selected manholes for sub-areas that consist of 10,000 to 30,000 linear feet of sewer. In establishing the sub-areas to be monitored, Consultant shall evaluate flow data from a prior I/I study. If feasible flow data from the prior study and this current study may be used to estimate progression of I/I.
3. Record manhole flow data for an approximate time period of 10 weeks.
4. During the flow evaluation period, install and monitor a rain gauge to measure rainfall concurrent with wastewater flow monitoring.
5. Monitor groundwater levels weekly in each sub-area concurrent with wastewater flow monitoring in order to determine the impact of changes in groundwater level on sewer system flows.
6. Compare the collected data against industry standards and compare to the allowable per capita flow allowed under the County Sewer Act.
7. Should the investigation of the public sewer lines exceed the allowable standards, make recommendations for further testing and evaluation. An analysis of the findings and options of corrective measures such as point repairs, CIPP lining, and manhole waterproofing shall be prepared in a summary report, along with priority order listing and budgetary cost estimates.

## ***Professional Services Scope of Work***

The engineering services that are required for the project are described below and shall be in accordance with the EPA Handbook entitled Sewer System Infrastructure Analysis and Rehabilitation and the WEF Manual of Practice No. FD-6, Existing Sewer Evaluation and Rehabilitation. In addition, the collected data set should be compared to Section 824.72.2 of the Westchester County Environmental Facilities Sewer Act, which states "Excessive infiltration and inflow means the quantity of flow entering the County sewer system which is greater than 150 gallons per capita per day.

### **Task 1: Inventory of Existing Conditions**

Under this task, the Consultant shall attend a kickoff meeting with the Town to review the project scope and available information, including the following:

- Mapping of the existing sewer collection system

- Available flow data from a prior flow study. Also from an ongoing Westchester County flow evaluation of the Yorktown sewer flows
- Capacity, management, operations, and maintenance plan (CMOM)
- Field reports (including any CCTV reports), water consumption data and wastewater flow records
- Conduct interviews with Town staff.

Limited Manhole Inspections – Conduct a limited inspection program to determine the general condition of the sewer system. Inspect approximately 10% of the total number of manholes in the sewer system.

Pump Station Data Review – Review flow and run time data available from the Town’s wastewater pump stations in order to evaluate within which pump station service areas I/I is most significant. Compare flow data to plant influent flow data.

#### Task 2: Mapping Development

Update the Town’s GIS wastewater collection system map based on data collected during the study. In addition, develop mapping to illustrate the I/I tasks performed during the evaluation and the study findings.

#### Task 3: Flow Monitoring

Divide the Town’s sewer system into sub-areas that range from approximately 10,000 to 30,000 linear feet of sewer in size. Install a continuous flow meter to measure wastewater flow at the outlet of each sub-area over a 10-week high groundwater period.

Utilize instantaneous flow monitoring, as appropriate, to supplement the continuous flow data obtained (e.g., to quantify infiltration in small sub-areas where continuous flow monitoring may not be warranted).

#### Task 4: Rainfall Monitoring

Install one tipping bucket style rain gauge within the Town to measure rainfall concurrent with continuous wastewater flow monitoring in order to determine the impact of rainfall of varying amounts and intensity on sewer system flows.

#### Task 5: Groundwater Monitoring

Monitor groundwater levels weekly in each sub-area concurrent with continuous wastewater flow monitoring in order to determine the impact of changes in groundwater level on sewer system flows. The groundwater gauging locations will be selected in an effort to obtain representative information on groundwater levels throughout the sewer system.

#### Task 6: Data Evaluation

Evaluate the flow, rainfall, groundwater and manhole inspection data collected during the study in order to quantify I/I in each sub-area and to identify those sub-areas in which infiltration and inflow are excessive.

Task 7: Draft Report

Prepare a draft report documenting the tasks performed during this evaluation and the results of the I/I evaluation. In addition, provide recommendations for follow up I/I investigations through a Sewer System Evaluation Survey (SSES). The recommendations shall include a detailed scope of SSES work.

Task 8: Workshop

Participate in a workshop with the Town to present the results of the draft report and obtain Town input.

Task 9: Final Report

Finalize the draft report based on input received from the Town during the project workshop.

Optional Tasks

The Town may require additional assistance from the Consultant that cannot be defined at this time. It is anticipated that the Town will try to obtain funding for the flow study and/or the sanitary sewer evaluation should any program funding become available from New York State, Environmental Facilities Corp, etc. The Town may also need assistance from time-to-time with meeting support or responding to inquiries from NYSDEC personnel. Under this task, payment will be made at the normal hourly billing rate scheduled of the Consultant. Authorization under this task will be when and as directed by the Town in writing.

**Minority Participation Requirements**

Not required at this time.

**RFP for Inflow & Infiltration Flow Study**

**Town of Yorktown/Peekskill Sanitary Sewer System**

**Firm Name:** \_\_\_\_\_

**Prepared By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

***Professional Service Fee***

<b>Task</b>	<b>Task</b>	<b>Quantity</b>	<b>Units</b>	<b>Rate</b>	<b>Subtotal</b>
1	Inventory of Existing Conditions				
2	Map Development				
3-5	Flow, Rainfall & Groundwater Monitoring				
6	Data Evaluation				
7-9	Reporting				
A	Optional Assistance with Funding Applications	1	Lump Sum	ALLOWANCE	\$7,000
B	Optional Meeting Assistance w/ NYSDEC	1	Lump Sum	ALLOWANCE	\$8,000
	<b>TOTAL BID PRICE</b>				