

Town of Halifax
Wastewater Collection System Operation and Maintenance Plan

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Introduction

The North Carolina Division of Water Quality adopted new rules regulating sewer collection systems effective September 1, 2006. Section 15A NCAC 02T .0403 of these rules sets forth the requirements for collection systems that are permitted by regulation.

The purpose of this O&M Plan is to:

- Properly manage, operate, and maintain all portions of the Town's wastewater collection system;
- Provide adequate wastewater system capacity to convey peak wastewater flows;
- Minimize frequency of sanitary sewer system overflows;
- Mitigate impacts of sanitary sewer overflows (SSO) that may occur; and
- Meeting notification and reporting requirements related to the sanitary sewer overflows.

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Section 1. Goals

The Town's goals for the wastewater collection system are:

- Minimize the number and magnitude of spills.
- Respond to emergency sewer call within one hour.
- Conduct appropriate analysis/evaluation of SSOs utilizing historical maintenance records and develop strategies to reduce future risk.
- Operate all pump stations at a level of efficiency which exceeds daily requirements and perform preventative maintenance on equipment at all sanitary sewer pump stations on a regular basis.
- Maintain records of the sanitary sewer system.

Section 2. Operations and Maintenance

The Town has a variety of preventative maintenance programs in place to reduce the potential of SSOs from the sewer system including area-wide and problem area maintenance cleaning and lift station maintenance. These programs allow for the operations staff to continually evaluate the system.

2.1 Regulatory Requirements

The Operations and Maintenance Plan include the following elements that are appropriate and applicable to the Town's system:

- Maintain up-to-date map of sewer system.
- Pump station inspection frequency.
- Preventative maintenance schedule.
- Spare parts inventory.
- Overflow response plan.
- General observation of the entire sewer system.
- Grease Control Program that includes biannual distribution of educational materials and an enforceable grease trap program.
- Right-of-way maintenance; and
- Documentation of O&M activities.

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2.2 Maintain Up-to-Date Map of Sewer System

The Town's collection system was expanded 1980's. Upon completion of the project, the as-built drawings of the collection system were furnished to the Town. The collection system map will be updated as the sewer system is expanded, or as necessary map corrections are identified by the operations staff.

2.3 Pump Station Inspection Frequency

The NC DEQ requires that pump stations not connected to a telemetry system must be inspected every day including holidays and weekends. Pump stations that are connected to a telemetry system must be inspected at least once per week. The Town's four pump stations are connected to active telemetry systems. The collection system operator in responsible charge (ORC) or the Town's designee will inspect the pump stations at least once a week. In addition, the Town's operations staff will make routine inspections of the pump stations during the week. Documentation of each inspection will be kept.

2.4 Preventative Maintenance Schedule.

A preventative maintenance schedule based on manufacturer's recommendations will be developed. Valves at the pump stations will be exercised at least once per year.

Smoke testing and manhole inspections of the collection system will be scheduled and performed as the need arises.

The Town's operations staff performs or assists contractors performing maintenance tasks as follows:

- Inspect, clean, and maintain pump stations.
- Clean sewer lines as needed.
- Locate and mark underground utilities.
- Trouble-shoot lift station electrical controls and pumps.
- Coordinate lift station pump maintenance with contractors.
- Coordinate sewer main maintenance with contractors.
- Respond to wastewater emergencies;
- Maintain records related to service and repair work performed.

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2.5 Spare Parts Inventory

Town operations staff is working on compiling inventory lists. The Town does not keep parts and supplies in inventory that can be readily accessed from local suppliers due to space constraints. Replacement of underground pipelines, manholes and lift stations is contracted out to licensed contractors who have the equipment, materials, and staff to complete the work.

2.6 Overflow Response Plan

The primary objectives of the Overflow Response Plan are to:

- Protect public health and the environment.
- Satisfy regulatory agencies and discharge permit conditions which address procedures for managing sewer overflows; and
- Minimize risk of enforcement actions against the Town.

Other objectives of the Overflow Response Plan include:

- Protecting private and public property.
- Protecting Town personnel and contractors.
- Protecting all Town owned facilities; and
- Providing good customer service.

2.7 High-Priority Sewer Inspection

All aerial lines, sub-waterway crossings, siphons, lines contacting surface water, lines positioned parallel to stream banks and subject to eroding in such a manner that may threaten the sewer line are defined as high-priority sewer lines. The Town has one high-priority line at the Pernell Park station that is inspected twice per year, the inspection will be noted in the O&M log.

2.8 General Observation

The Town is required to observe the entire collection system throughout the course of every year. Regularly traveled paths, sewer cleaning, right of way maintenance and areas visible by the general public all count as an "observed" portion of the line. It is the lines that are not regularly seen by the public or the maintenance crews that are of concern and need to be recorded as looked at sometime throughout the year.

Documentation will be kept that Town staff, or their representative has observed the collection system at least once per year. The inspection will be noted in the O&M log.

2.9 Grease Control Program

Grease accumulation in sewer lines is the leading cause of dry weather sewer overflows and blockages in the sewer line. The Town has adopted an Oil and Grease Ordinance which regulates the discharge of grease from non-residential users. The Town will also implement a grease education program for residential and commercial users of the sewer collection system.

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2.10 Right-of-Way Maintenance

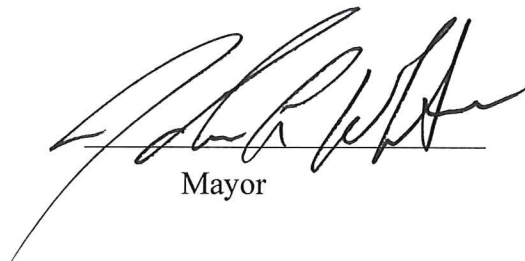
All sewer line installations are assessable for personnel and equipment. Right-of-way maintenance will be noted in the O&M log

2.11 Provide Regular Staff Training In Sewer Operations

Training is an important aspect, and a training budget exists to ensure all operations staff is properly trained. Staff will receive on-the-job training specific to the collection system and maintenance equipment used. Operations staff also attend outside workshops whenever possible. Certification as Collection System Operator is encouraged.

All staff are trained in new equipment by the contractor or manufacturer. Equipment manuals are reviewed by staff for maintenance and operational parameters.

Adopted this 9 day of January, 2023, by an affirmative vote of the Board of Commissioners.



Mayor

Attest: Cam Wells
Town Clerk