

# Work Practice: Wastewater Collection System Maintenance Plan

## Potential Safety Hazards

--

## Required items

--

## Potential PPE

None
------

### Additional References - Collection System Related Work Practices & Forms

Jet Truck Cleaning Work Practice (Do not drive on peoples driveway) CDL B license tank endorsement & air breaks; root cutter

Tiger-vac Operation

Extendajet Operation

Manhole Entry Work Practice

Pathogen Exposure Work Practice

Traffic Management Work Practice

Hazardous Chemical release into Collection System Response Work Practice

Flood Protection Measures Work Practice

Claims Forms

Jet Truck/Tiger Vac/ Extendajet Operation Form

Customer Complaint Forms

## 1. Purpose

The purpose this policy is to provide the City of Seward's procedures for maintaining its sanitary sewer system. The system consists of about 35 miles of sewer main and three lift stations. These procedures are necessary to prevent sewer backups into homes and businesses and the natural environment. Maintenance also protects and extends the life of the city's sanitary sewer system. The City will provide such maintenance in a safe and cost effective manner, keeping in mind safety, budget, personnel and environmental concerns. The City will use city employees, equipment and/or private contractors to conduct this maintenance. City council will be made aware of and participate in reviewing and updating this policy. This policy is publicized on the City's web site under the wastewater department.

## 2. Routine Maintenance and Inspection

A. *Sanitary Sewer Lines* –

## Work Practice: Wastewater Collection System Maintenance Plan

1. Scope of City's Responsibility - The City will maintain the city's sanitary sewer mains. Private property owners are responsible for the maintenance of their own service line connection all the way to the City's sewer mains.
2. Schedule ó The City will clean every city sanitary sewer line every four years.
3. Problem Area ó This is defined as an area that has had a sewer backup, blockage or a known problem such as grease accumulation or shallow slope. These areas will be placed on a monthly problem manhole check list. As needed, sewer lines may be cleaned at greater frequency than every four years to prevent sewer backups.
4. Equipment ó Lines will be cleaned with the City's jet truck or in unusual cases hire a contractor for specialty sewer maintenance services. The response depends upon the location, type of line and the nature of the problem.
5. Television inspection ó Problem mains will be inspected by television on an as need basis. Any mains that are located on a street where a street maintenance project is planned will be inspected prior to those projects. The city will ensure new constructed mains will be televised before City takes ownership.
6. Visual inspection ó Annually, all sewer manholes will be visually inspected.
7. Flushing inspection ó Every dead-end manhole will be flushed annually to clean out the line and to determine if there are any problems with the flow.
8. A record of all grease traps & sand pits on the City Collection system will be maintained. Grease & sand pits may be inspected to ensure compliance with the City code.
9. The City controls roots intrusions into the City's sewer mains with a mechanical root cutter. Older established developments in town with large trees, particularly buildings with clay sewer service lines, often experience root intrusions in moist & nutrient laden sewer waters. Private building owners may want to use a foaming herbicide to help control roots in their service lines.
10. The City will conduct hydraulic studies of sewer mains. The study will evaluate wastewater flow bottle necks, impact of growth and expansion, age, composition of existing mains and documented problem areas. From the study, the City's capital improvement plan (CIP) improvement plan will be updated.
11. The wastewater department will repair manholes & mains as needed. When the scope of repairs exceeds the operating budget or capability of the wastewater department, the needed work may be added as a line item in the next budget or prioritized and tracked

## Work Practice: Wastewater Collection System Maintenance Plan

for future implementation by the department CIP. The budget and CIP are reviewed and approved by the City Council.

12. The wastewater department may sample & discharges into the collection system in order to monitor chemical or organics loads.

### B. *Sanitary Sewer Lift Stations*

1. Schedule ó The City will maintain the lift stations annually using specific maintenance that is reasonable and recommended. That maintenance is reflected in the checklists developed for each lift station.

2. Flow Meters - The flow meters at the lift stations will be checked on a daily basis to ensure that the lift stations are working properly and to detect any problems in the system.

### 3. Emergency Response

A. Definition ó An emergency response occurs in response to a call from citizens, fellow employees, or an alarm that indicates that there is a possible problem in the sanitary sewer system.

B. Response ó After receiving notice of a possible problem, an employee will respond and determine if there is problem in the city's system. If there is, he or she will remedy it based on accepted procedures. If necessary, the city employee will obtain assistance from other city employees or outside contractors such as plumbers, electricians or engineers.

### 4. Inflow/Infiltration

A. Definitions: Inflow is where storm water is misdirected into the sanitary sewer system through intentional connections such as sump pumps and roof leaders. Infiltration is where storm and ground water get into the sanitary sewer system through cracks or leaks in the sewer pipes or manholes. Inflow and infiltration can lead to backups, overflows, and unnecessary and expensive treatment of storm water.

B. Inflow: To reduce inflow, City enforces ordinances banning illegal sewer connections and public education to encourage voluntary compliance.

C. Infiltration: To reduce infiltration, the City employees will annually inspect manholes and repair any that contribute to this problem.

## Work Practice: Wastewater Collection System Maintenance Plan

### **5. Training**

The City will provide training on a regular basis to employees that will be involved in the routine maintenance and the emergency response on the procedures to follow and the on how to use the proper equipment.

### **6. Work schedule for city employees**

City employees will be expected to work eight-hour shifts. In emergencies, employees sometimes have to work in excess of eight-hour shifts. However, because of budget and safety concerns employees may be limited in how long they work.

### **7. Weather conditions**

Sewer maintenance operations will be conducted only when weather conditions do not endanger the safety of city employees and equipment. Factors that may delay sewer maintenance operations include: severe cold, flooding, rain, snow and wind.

### **8. Documentation**

The City will document all of its inspection, maintenance and emergency responses for its sanitary sewer system. The City will also document any circumstances where something has occurred that limits its ability to comply with this policy. These records will be kept in accordance with the City's record retention schedule.

