



THE COMMISSIONERS OF THURMONT

ORDINANCE 2020-01

**AN ORDINANCE TO ADOPT CHAPTER 101 TO
THE CODE OF THE TOWN OF THURMONT
ENTITLED "SEWER LATERAL INSPECTION POLICY"**

WHEREAS, the Charter of the Town of Thurmont requires any new Ordinance to the Code of the Town of Thurmont be adopted in the form of an ordinance;

NOW THEREFORE, BE IT ORDAINED BY THE MAYOR AND BOARD OF COMMISSIONERS OF THE TOWN OF THURMONT, MARYLAND, THAT THE attached Ordinance "Exhibit A" entitled "Sewer Lateral Inspection Policy" be added to the Code of the Town of Thurmont.

Introduced: February 11, 2020
Adopted: February 18, 2020
Effective: February 25, 2020

ATTEST:

THE COMMISSIONERS OF THURMONT


James C. Humerick, Jr.
Chief Administrative Officer


John A. Kinnaird
Mayor, Town of Thurmont



THE COMMISSIONERS OF THURMONT

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As many of you know, Thurmont, like many other municipalities has experienced problems over the years with our older sanitary sewer system and the introduction of groundwater into the system. Over the past several years, the town has funded major construction projects to upgrade our sanitary sewer system and attempt to eliminate the groundwater, otherwise known as inflow and infiltration (I&I). Inflow and infiltration is simply defined as wild ground water entering our Sanitary Sewer System. All water that passes through the sanitary sewer system must be treated at the Wastewater Treatment Plant. Treatment procedures are costly so every gallon of clear water that we can eliminate from the collection system will help reduce the need for rate increases and make our treatment plant more productive.

The purpose of this Sewer Lateral Inspection Policy is to allow Town of Thurmont staff and/or its contractors to inspect the sewer laterals on private property. The policy further allows the Town of Thurmont to require that property owners make the required repairs within a timely manner and in compliance with Town of Thurmont standards.

We hope this policy is helpful to the homeowner as well as the experienced plumber. Not only do we outline the procedures, we made an effort to educate the reader as to why these issues are serious problems that need to be fixed.

This is our first year to implement this program so I ask that you please be patient as we work out the details. If you have any suggestions for improving this program, please let us know! We will revisit this policy within a year and revise, if necessary. Doing nothing is not an option. We must be good stewards of our facilities. We don't want to raise sewer rates, and we hope to do everything possible to avoid more rate increases. Thank you.

Sincerely,

John A. Kinnaird
Mayor

Town of Thurmont

Sewer Lateral Inspection Policy

*Adopted by the Thurmont Board of Commissioners –
February 18, 2020*

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Town of Thurmont

INTRODUCTION

The Town of Thurmont is committed to reducing the amount of clear water that enters the sanitary sewer collection system. The Town Board of Commissioners has written this **Policy Document** to describe the programs and policies of the Town to educate the property owners of their role and responsibility in eliminating clear water inflow and infiltration (I&I).

PURPOSE

This policy allows Town of Thurmont staff and/or its contractors to inspect the sewer laterals on private property to: (1) identify the location of the line(s); (2) determine the condition of the line(s); and (3) to determine if there are any illegal connections. The policy further allows the Town of Thurmont to require that property owners make the required repairs within a timely manner and in compliance with Town of Thurmont standards.

INFLOW is rainwater that may enter the sanitary sewer system directly. Inflow may also be clear water from mechanical and air condition units such as condensation and cooling water. Other examples of inflow sources are roof drains, street storm systems, and sump pumps that pump floor drains directly to the sanitary sewer collection system.

INFILTRATION is rainwater, groundwater, or springs that may enter the sanitary sewer collection system after filtering through the ground. Ground water infiltration may occur during a storm event and continue several days after a storm event. General examples of infiltration sources are defects in sewage pipes, sewage manhole defects, building foundation drains, and sump pumps that allow groundwater to enter the sanitary sewer collection system.

Like most municipalities, Thurmont has a combination of clear water **INFLOW AND INFILTRATION** (I&I) problems. Evidence of combined I&I occurs at the Thurmont wastewater treatment plant (WWTP) where the sewage flow rate increases immediately during a storm event and continues at elevated conditions for several days. When flow conditions return to normal after a storm event, much of the sewage is from infiltration sources.

Elevated flows in the collection system can exceed the sewer main's capacity to get the sewage to the WWTP. When the sewer pipe capacities are exceeded, sewage may overflow at locations such as manholes. These **overflows** and **bypasses** allow untreated sewage to bypass treatment, pollute the environment, and have the potential for human contact.

Over the years, the Town and our customers have spent a lot of money to increase capacity in the collection and treatment systems. Many of these expenditures were required by federal and state agencies because of excessive I&I problems. Accordingly, it is the Policy of the Town to take action to remove I&I.

Removing I&I...

- Will help eliminate pollution to the environment.
- Will help eliminate human contact with raw sewage.
- Will help the Town comply with State and Federal regulations.
- Will add capacity to the sanitary sewage collection and treatment systems.
- Will save sewage utility customers money.

Many municipalities across the United States have been forced to eliminate I&I problems with drastic measures that are burdensome and expensive for the cities and for the sewage customers. The Town of Thurmont is committed to reduce I&I as outlined in this Policy Document.

TOWN SERVICES

As a service to the property owners, the Town pledges to do the following:

- **Administer the I&I Reduction Policy** to help achieve the goal of reducing I&I from private sources.
- **Keep Archives of plans and Sewer Tap Permits.** Information on all existing sewer mains and laterals do not exist. However, the Town is making efforts to find all information that does exist, and keep the information in such a format that will be available to the public, as needed.
- **Advisory Assistance.** The Town is available for assistance to help interpret the Policy. Because of the large numbers of properties that may be affected, the Town may not be able to commit a large number of hours to advisory assistance.
- **Manhole Inspection. RESIDENTS ARE NOT PERMITTED TO REMOVE MANHOLE LIDS OR ENTER A SEWER MANHOLE.** The sewer system has many gasses and odors that may be deadly. Our experienced personnel will remove manhole lids and look for dyed water, or anything else as needed.
- **CCTV Inspection.** If there is a valid concern about the condition of the sewer main or lateral, the Wastewater Department will use a closed circuit television (CCTV) camera and truck to inspect the sewer main from the inside.
- **Maintain the Collection System.** The Town has programs in operation to identify and eliminate excessive I&I within the Town sanitary sewer collection system. Just like the property owners, the Town makes every effort to fix problems when they are discovered.
- **Educate Realtors, Lenders, Plumbers, and Home Inspectors.** The Town will make efforts to contact the relevant professions and inform them of this policy.

ACCEPTING EXISTING SEWER SYSTEMS

Design and Construction of new sanitary sewer systems shall conform to the Town of Thurmont Specifications. Those standards were established and developed to protect the integrity of the sewer system and eliminate I&I sources.

There are private systems that contribute sewage flows to the Town public sewer system. It has been the policy of the Board of Commissioners to periodically inspect

those private systems and see if any excess I&I is present.

The Town may be required to accept existing sewer systems. This acceptance may be a result of annexation, or other dedications. Because the systems are in use, it is not the Town's practice to air test, mandre test, or vacuum test the system. The Town may require that I & I sources be eliminated before adopting the system.

The Board of Commissioners decision to accept an existing sewer system will consider some or all of the following actions:

- CCTV inspect the entire system and identify any visible defects.
- Perform flow monitoring to identify clear water
- Smoke testing
- Dye testing
- Visual observation
- Lift station evaluation
- Manhole(s) inspection
- Other actions as deemed necessary by Sewer Superintendent.

INSPECTION REPORTS

If inspection of any lateral or cleanout determines that I & I entering the system is due to illegal connections or defective laterals, the property owner will be notified immediately. The Town reserves the right to require the property owner, at their expense, to make the necessary repairs within 180 days.

If repairs are not completed within 180 days, the Town reserves the right to do any or all of the following:

- Restrict the ability of the property owners to obtain building permits.
- Fix the problem area(s) and file a lien against the property(s) to recoup the expenses, including any professional and/or legal fees incurred.
- Fix the problem area(s) and charge the affected property(s) a surcharge to the sewer utility bills to recoup the expenses.
- Seek legal action to fix the problem.
- Initiate fines to the property owner pursuant to the Town's municipal codes.

The Board of Commissioners will occasionally update this Policy Document, as needed. When the budget allows, the Board of Commissioners may choose to provide an option to assist property owners with a financial assistance program. This program will not be considered continuous and will be implemented only at the discretion of the Board of Commissioners. Observing the following procedures will help us meet our policy goals.

DO NOT ATTEMPT TO REMOVE MANHOLE LIDS OR ENTER A SEWER MANHOLE WITHOUT TOWN ASSISTANCE. Manholes are confined spaces with deadly gasses. Please contact the Sewer Department for assistance when working around the sanitary sewer collection system.

1. DOWNSPOUTS & CLEANOUTS

A common, but illegal, inexpensive construction practice in the past was to connect downspouts to the sanitary sewer system. Also, open cleanouts have eliminated many backyard puddles. In locations where storm sewers were unavailable, this was an easy way to dispose of rainwater without having to construct a storm sewer. Often offending downspouts are not physically connected to the sanitary sewer system but are discharged to a location that is drained by a missing or defective cleanout cap.

Thurmont receives an average yearly rainfall of 35-40 inches, a residential house with 2,000 square feet of rooftop can annually contribute over 42,000 gallons of clear water to the sewage systems each year through illegal connections from downspouts.

Cleanouts are locations that provide access to the sewer lateral so that plugged lines may be located and serviced without having to dig up the yard or make a mess indoors. Cleanouts are highly recommended, and are required for new construction and rehabilitated systems. Unfortunately, the caps that cover the cleanouts are sometimes missing or are damaged so that rainwater may still directly enter the lateral and the sanitary sewer system.

HOW ARE THEY BE INSPECTED?

The Town may use a variety of methods to locate connected downspouts and broken cleanouts. Inspection methods include visual inspection, smoke testing, dye testing, and utilizing closed circuit television.

HOW CAN THEY BE FIXED?

Downspouts connected to the lateral and missing or broken cleanouts are some of the **easiest and least expensive Inflow sources to eliminate**. This is usually accomplished by eliminating the downspout connection.

Sometimes there may be a PVC cleanout that was installed properly but **removed or damaged**. The cleanout caps should be inspected to ensure that there are no cracks or defects that could allow surface water to enter into the lateral and be repaired.

WAIVERS

No waivers shall be granted by the Town to allow any I&I to enter the sanitary sewer system from illegal connections.

MUNICIPAL CODES AND ORDINANCES

Municipal Code Chapter 102 specifies procedures for fines and penalties if a property owner is discovered to have a roof drain, defective cleanout cap, missing cleanout cap, foundation drain or any open connection to the sanitary sewer system. **All downspouts shall be disconnected** from the sanitary sewer system. **All cleanouts and their openings shall be closed** to prevent I&I from entering the sanitary sewer system.

2. SUMP PUMPS

Many homes have sump pumps located in crawl spaces and basement areas. Thurmont is blessed with an abundance of natural springs and a high groundwater table that require the installation of sump pumps for certain locations. If it weren't for sump pumps to pump clear water from various locations, many locations would experience damage to furnaces, water heaters, electrical panels, etc. and some locations would develop health concerns such as mold, fungus, and mildew.

The Town **does not** intend to eliminate the use of sump pumps, but prohibits sump pump discharges from entering the sanitary sewer system. In the past, many builders and homeowners found the sanitary sewer a convenient location to discharge the sump pump clear water.

Many sump pumps can easily discharge 20 gallons per minute. During wet conditions, those same sump pumps may operate almost continuously and could potentially discharge **28,800 gallons per day** of clear water I&I into the sanitary sewer system. This equates to a daily cost of several thousand dollars for treatment.

WAIVERS

No waivers shall be granted by the Town to allow any I&I to enter the sanitary sewer system from illegal connections.

MUNICIPAL CODES AND ORDINANCES

Municipal Code Chapter 102 specifies procedures for fines and penalties if a property owner is discovered to have a sump pump that is connected in any way to the sanitary sewer system. All sump pumps **shall be disconnected** from the sanitary sewer system.

HOW ARE THEY BE INSPECTED?

The Town may use a variety of methods to locate connected sump pumps and broken cleanouts. Inspection methods include visual inspection, smoke testing, dye testing, and utilizing closed circuit television.

HOW CAN THEY BE FIXED?

Any Sump pump that discharges into the Sanitary Sewer System shall be disconnected. Sump pump discharges shall be redirected to discharge to another location besides the Sanitary Sewer System, preferably to a grassy area in the property owner's yard or to the curb along the street.

3. LATERALS

Laterals are typically 4 or 6-inch diameter sewer pipes that transport the domestic sewage from the building to the sewer main. In Thurmont, the Property Owner is responsible for the lateral from the building to the point of 4 feet behind the property line or at the edge of the Town easement. The Town is responsible from that point to the sewer main.

Over time, the lateral pipe often cracks, disintegrates, separates at joints or has tree root invasion which will allow groundwater to infiltrate into the sanitary sewer system. The defective lateral may contribute a significant amount of I&I into the system.

INSPECTIONS

The homeowner can verify the condition of the lateral by contacting a licensed plumbing contractor. The Town reserves the right to test laterals to confirm plumbing contractor's findings.

It is possible to locate some lateral defects and potential sources of I&I by smoke testing. This is best done during dry ground conditions. By blowing smoke into the sewer system with high capacity blowers, smoke can go through the cracks and up through the ground. This procedure is not permitted without the assistance from the Town. When smoke testing is performed, the Town takes several precautions and issues notifications to prevent the smoke from causing damage and unnecessary alarm.

The Town reserves the right to require an inspection if the home is sold or leased to a new tenant.

HOW CAN THEY BE FIXED?

Complete lateral replacement will be required if the lateral shows pipe defects, presence of I&I and the lateral pipe material is other than PVC pipe. The new lateral should be constructed with new PVC pipe meeting Frederick County/Town of Thurmont plumbing codes. The pipe should have stone bedding to protect the new pipe from surface loading.

A **cleanout** should be installed 4 feet inside of the Town Right of Way line. Cleanouts are helpful in: 1) locating the lateral; and 2) allowing access to the lateral for cleaning purposes.

The Town of Thurmont Wastewater Department inspects lateral construction from the sewer main to the cleanout to verify proper construction and to document the location of the laterals so that future property owners may have a record of the lateral location. Town staff may also inspect the lateral between the house and the cleanout if there are suspected I&I conditions. If there is no cleanout, Town staff may have to access the lateral from inside the house. Town staff will not enter a private residence without the homeowner or tenant present.

CAUTIONS

Before digging up the old lateral, persons are required to contact Miss Utility location service (telephone 1-800-257-7777). If this service is not utilized, the person digging the ditch is automatically **responsible for any damages** to the gas, electric, telephone, water, sewer, cable, or any other utility.

Most of the sewer mains are located within the public right-of-way (ROW). The Town requires a permit before any private individual may dig or perform construction within the ROW.

WAIVERS

No waivers shall be granted by the Town to allow any I&I to enter the sanitary sewer system from illegal connections.

MUNICIPAL CODES AND ORDINANCES

Municipal Code Chapter 102 specifies procedures for fines and penalties if a property owner does not properly address defective laterals.

MUNICIPAL FUNDING ASSISTANCE

When the budget allows, the Board of Commissioners may choose to provide an option to assist property owners with a financial assistance program. This program will not be considered continuous and will be implemented only at the discretion of the Board of Commissioners.

DEFINITIONS

CCTV Inspection: The process of inspection, review, and data collection of the sewer collection system using a closed circuit television camera.

Cleanout and Cleanout Caps: Locations that provide access to the sewer lateral. These locations shall have water tight, manufactured cleanout caps that may be removed for inspection and maintenance purposes.

Collection system: A system of sewer pipes designed to collect sewage from many properties and transported to the WWTP. The pipes are typically larger than 9 inch diameter and are owned and operated by the Town.

Commercial: A place of business, industry or all other properties that do not conform to the "residential" definition in this Policy.

Domestic Sewage: Wastewater generated by households, businesses, or industries before it is mixed with I&I. Also known as raw sewage.

Downspouts: A method that allows water from a building rooftop to discharge to the ground, storm sewers. Sanitary sewer connections shall not be allowed and eliminated. Also commonly known as roof drains, house gutters, and roof leaders.

Dye testing: Liquid dye is added to water, flushed, drained and/ or pumped to verify where the water is normally flushed, drained and/or pumped.

Foundation Drain: A conveyance device to move ground water away from the foundation of a building or a structure.

Grinder Pumps: A pump within a structure intended to pump domestic sewage from a low point to a high point. These shall be discharged to the sanitary sewer and not to a storm sewer system.

House Gutters: See "Downspouts" definition

Industrial: A place of business, industry or all other properties that do not conform to the "residential" definition in this Policy.

Inflow and Infiltration: See "Introduction" section of this policy.

I&I: Pronounced "eye and eye," an abbreviation for Inflow and Infiltration.

Illegal Connection: A connection to the sewer lateral or sewer or sewer main that has not been inspected and approved by the Town of Thurmont; or a connection that conveys any substance other than domestic sewer to the sewer collection system.

Lateral: A pipe that connects a building sewer system to a sanitary sewer main. Also known as a service line.

Lift Station: A large structure in the sanitary sewer collection system with large pumps installed to pump the sanitary sewer to another location closer to the WWTP

Manholes: Large structures within the collection system where sewer pipes typically change directions.

Poly vinyl chloride (PVC): A rigid plastic-type material used to make modern plumbing pipes and fittings. PVC is preferable over older materials because of watertight joint connections and long-lasting dependable characteristics.

Rental: A rental property may be considered as a residential or commercial property depending on how/if the residential units are required to set up a water utility account.

Residential: Any property with living units where each unit is responsible for a separate Town of Thurmont water utility account.

Right-of-way (ROW): The right, established by common or statutory law, of passage over an area of land. A public right is a public easement that allows the construction of roads and public utilities (e.g., electrical, gas, telephone, sewer, and water) over and through a narrow strip of land.

Roof Drains: see "Downspouts" definition

Roof Leaders: see "Downspouts" definition

Sanitary Sewer: A general term to refer to the sewer system intended to transport domestic sewage from individual properties to the WWTP. The sanitary sewer may include laterals, collection system, manholes, lift stations, and the WWTP.

Service Line: See "Lateral" definition

Sewer: A general term for domestic sewage, or combination of domestic sewage and I&I.

Sewer Mains: Sanitary sewer pipes that transport sewage from multiple homes to the treatment plant.

Smoke testing: A method to test if different locations, structures, and/or pipes are physically connected. See "Smoke Testing" section of this Policy.

Storm Sewer: A system intended to convey clear water to a natural drainage way. These systems may include street curb and gutters, storm pipes, sump pump discharge lines, ditches, swales, and creeks. The storm sewers shall not be connection to a sanitary sewer system.

Sump Pump: A pump within a structure intended to pump clear water from a low point to a high point. These shall not be discharged to the sanitary sewer.

Wastewater Treatment Plant WWTP: Also known as a sewage plant, and wastewater treatment facility (WWTF).

