GOALS OF REMOVING I/I

- Protect the local environment, rivers, and streams from pollution due to Sewer System Overflows (SSOs);
- Protect your property and that of your neighbors from sewer backups/ overflows; and
- Reduce the volume of flow conveyed to the Town's WWTP resulting in lower treatment costs.

HOW IS ROCKLAND ADDRESSING I/I ISSUES?

The Town of Rockland is currently under an EPA's Administrative Order to comply with the Town's National Pollutant Discharge Elimination System (NPDES) Permit discharge limit. While the allowable rolling annual average limit is 2.5 MGD (million gallon per day) and the Town's average base wastewater flow is only 1.4 MGD, the Town has routinely received 3 to 4 MGD of flow during wet weather events, occasionally received over 6 MGD. This suggests that I/I could be as much as three times the Town's wastewater flow.

In 2021, the Town completed a pipe lining/rehabilitation work for approximately 11,000 linear feet of sewer mainline to decrease infiltration in the public Sewer System. Despite removing nearly 113,000 GPD of infiltration, there continues to be a substantial amount of I/I in the Town's sewer system. A large percentage of the I/I is a result of inflow sources from private homes.

Town of
Rockland
MASSACHUSETTS

Sewer Department
587R Summer Street
Rockland, MA 02370

781.878.1964
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This Summer, the Town plans to begin performing smoke testing to identify sources of inflow, such as roof leaders, pipe leaks, missing cleanout caps, or other private inflow connections, from the Sewer System. Smoke testing consists of introducing white, non toxic and non-staining, smoke to the sanitary sewer system via a smoke-generating machine. During this procedure, white smoke will be venting from holes in manhole covers located in the street and from plumbing vent pipes located on or near your roof surface. If a defect or connection to the Sewer system is located and identified, we will provide you with recommendations explaining how to correct the problem.

IS YOUR HOME A SOURCE OF INFLOW?

Look for:

- Downspouts discharging to the sanitary sewer
- Sump pump discharging to the sanitary sewer
- Window wells draining into sump pump discharging to sanitary sewer
- Driveway, yard and foundation drains discharging to the sanitary sewer
- Broken or missing cleanout caps

Town of
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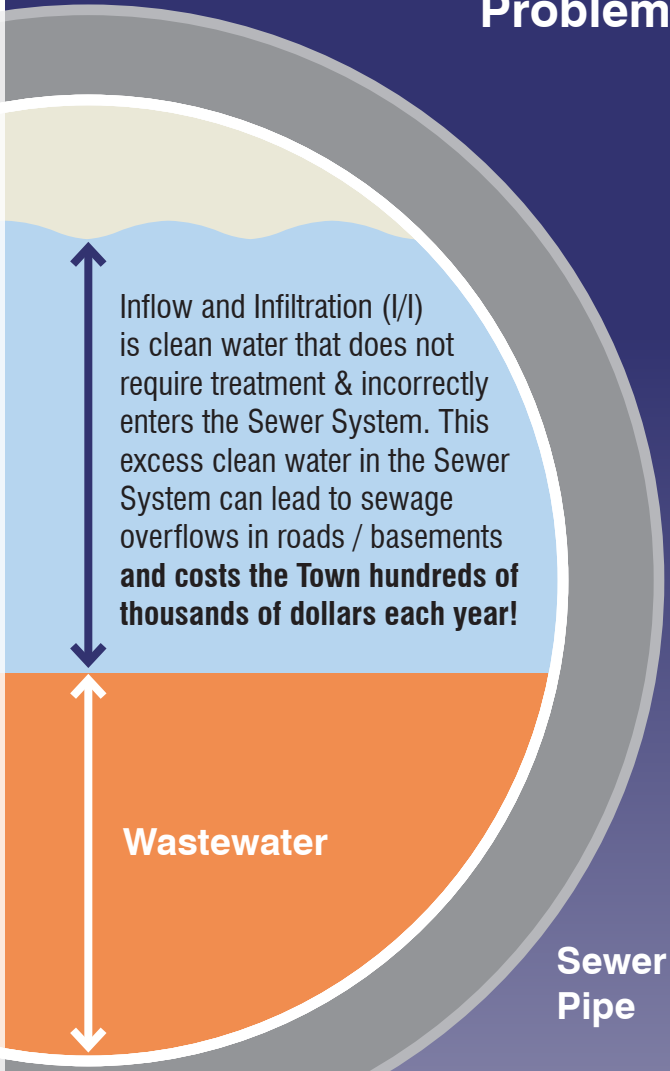
Understanding Rockland's Infiltration and Inflow Problem



WHAT IS INFLOW AND INFILTRATION (I/I)?

Inflow: Rainwater that directly enters the Sewer System, typically through a mistake in the piping (e.g., roof downspouts / sump pumps connected to the sewer) (red circles in diagram to right).

Infiltration: Groundwater that seeps into the Sewer System through cracks or leaks typically due to aging or damage (blue circles in diagram to right).

WHY IS I/I AN ISSUE?

During rainstorms, I/I enters the Sewer System. I/I consists of clean rainwater and groundwater, thus does not require treatment. However, by entering the Sewer System, the I/I mixes with wastewater and is pumped to the Town's wastewater treatment plant (WWTP) for unnecessary and costly treatment. The Town spends hundreds of thousands of dollars on the unnecessary treatment of clean water from I/I sources.

In extreme rainfall events, excessive I/I could fill up the limited space in sewers, causing surcharging (or back-ups) with the potential to flood basements or roads with raw sewage.

Example: A home with a roof downspout illicitly connected to the Sewer System collects all the rainwater that falls onto the roof and discharges it directly to the sewer. This rainwater is pumped to the WWTP and treated at the same cost as wastewater.

ROCKLAND'S WATER COLLECTION SYSTEMS

The Town of Rockland has two separate collection systems to convey water away from your property:

The Stormwater / Drainage System (blue pipes in diagram below) collects rainwater and diverts it to local receiving waters. The rainwater does not create health risks, thus does not require treatment prior to discharge.

The Sanitary Sewer / Wastewater System (brown pipes in diagram below) collects and carries wastewater from homes/buildings to the WWTF for costly treatment and discharge. Wastewater includes flow from sinks, toilets, tubs, showers, washing machines, etc. When homes have illicit inflow connections, clean water enters the sewers, mixes with the wastewater, and is treated at the WWTF at the same cost as wastewater.