

IMPORTANT NOTICE

Because of continuing problems with an overload of our sanitary sewers, which results in higher costs to the Village sewer customers, the Cuba DPW will be inspecting the sewer system in your neighborhood. This inspection will reveal the primary sources of inflow and infiltration that are causing the problems.

What are inflow and infiltration? Inflow and infiltration are terms used to describe the ways that groundwater and stormwater enter the sanitary sewer system. **Inflow** is water that is dumped into the sewer system through improper connections, such as downspouts and groundwater sump pumps. (Sump pumps that pump only laundry water or other sanitary wastes are not a problem.) **Infiltration** is groundwater that enters the sewer system through leaks in the pipe. All of this water is called "clear water" (although it may be dirty) to distinguish it from sanitary sewage.

Why is this water a problem? Clear water belongs in storm sewers or on the surface of the ground, and not in the sanitary sewers. When clear water gets into the sanitary sewers, it must be moved and treated like sanitary waste. Too much clear water often causes sewer backups and overflows when it rains.

What is a sanitary sewer? A sanitary sewer is a pipe located in the street or easement that is designed solely to transport wastewater from sanitary fixtures inside your house or place of business. Sanitary fixtures include toilets, sinks, bathtubs, showers and lavatories.

What is a storm sewer? A storm sewer is a pipe designed to carry rainwater away. Storm sewers are normally much larger than sanitary sewers because they are designed to carry much larger amounts of water.

What is an improper connection to the sanitary sewer system? An improper connection permits water from sources other than sanitary fixtures and floor drains to enter the sanitary sewer system. That water should be going to the storm sewer or allowed to soak into the ground without entering the sanitary sewer.

What are different types of improper sanitary sewer connections? Some examples of improper connections include downspouts, groundwater sump pumps, foundation drains, drains from window wells and outdoor basement stairwells and drains from driveways.

Where should the water from downspouts, groundwater sump pumps, and/or other clear water sources be directed? Village wastewater discharge regulations require this water to be diverted to storm sewers or above ground drainage ditches.

Why is it important for everyone to remove improper connections? Removing improper connections will significantly reduce the flow of clear water to the sanitary sewer system. This will reduce the possibility of basement flooding due to overloaded sanitary sewers and lessen the amount of water that has

to be treated.

How can overloaded sanitary sewers cause basement flooding? The water in an overloaded sewer flows at a higher level than normal. If the home has sanitary fixtures or floor drains that are below this higher, overload level, water can flow backward through the sanitary sewer lines into the basement.

Do improper connections really contribute large amounts of clear water to the sanitary sewer system? Yes, and here's why: An eight-inch sanitary sewer can handle domestic wastewater flow from up to 200 homes, but only eight sump pumps, operating at full capacity, or six homes with downspouts connected to the sewers, will overload this same eight-inch line.

How does DPW identify the sources of clear water entering the sanitary sewer system?

There are four major methods: dye testing, television inspection, smoke testing and flow monitoring.

By flushing water and clothing dye into a suspicious downspout or sump pump, DPW can determine sources of clear water entering the sewers by the color of the water as it flows through the pipes.

By guiding portable television cameras through the sewer pipes, DPW can detect many of the sources of clear water entering the sewers.

By filling the sanitary sewer line with smoke and watching where it emerges, DPW can detect many more sources of clear water. The smoke is kept from entering buildings by the drain traps required on all sanitary fixtures and drains. It will emerge from the sewer standpipe vents on the roof of buildings — and from improper connections such as downspouts. It may also emerge from holes in the ground that lead to leaks in sewer lines.

By inserting special measuring devices into the sewer lines, DPW crews can monitor the water flowing through them. If the flow increases during rainstorms, it is a sure sign of infiltration.

What happens when you detect a leak or an improper connection?

If the leak is in the public sewer line, DPW will repair it.

If the source of the clear water is in a private line entering the public sewer, DPW will notify the property owner. The property owner should consult with a licensed plumber to determine the source of the inflow or infiltration and to have the problem corrected.

DPW will conduct a follow-up inspection. If the problem has not been corrected, the property owner and the state plumbing inspector will be notified by the Superintendent of Public Works.

What can a property owner do to minimize basement sewer backups?

- Consult with a licensed plumber to review your particular plumbing system.
- Consider the installation of a backwater check valve in the basement sewer line.
- Consider the installation of a removable standpipe in the basement floor drain.

- Consider the installation of a standpipe extension or a removable pipe cap on the washing machine drain pipe.

DPW does not recommend the use of blowup or expansion type pipe plugs for drains. The pressure in the sewer pipe can blow them out.

I've never had basement flooding due to a sewer backup. Why should I remove my improper connections?

If your plumbing pumps or drains clear water into the sanitary sewer, it may well be the cause of flooding in your neighbor's basement. It may also cause the sewer to overflow, polluting the storm drains and streams.

Does the requirement to remove improper connections pertain only to certain sewer service areas?

No. U.S. Environmental Protection Agency regulations require the DPW, as well as other local governments and independent authorities, to stop the intrusion of clear water into all sanitary sewers.

Some old neighborhoods, however, have "combined" sewers, where sanitary sewage and stormwater are handled together. These systems were built in the days before sewage treatment plants, when all the water was dumped into the streams and rivers, causing tremendous pollution problems. Today, all the combined DPW sewers flow into sewage treatment plants, where they still create problems during heavy rains. Under new Environmental Protection Agency regulations, these problems also must be solved. DPW is now implementing a plan to correct the problems associated with combined sewers in our older neighborhoods.

If you have any concerns or questions regarding this notice please call the Village Superintendent of Public Works @ 968-2070.