

SANITARY SEWER OVERFLOWS



What are Sanitary Sewer Overflows?

A sanitary sewer overflow can spill domestic wastewater out of manholes, onto streets and into stormwater systems or surface water bodies before it is able to reach a treatment facility.

Why Do Sewers Overflow?

Although wastewater facilities are permitted and designed to safely and properly collect and manage a specified wastewater capacity, obstructions or extreme conditions can cause SSOs.

When the flow of wastewater is obstructed in the pipe, the wastewater may then back up and overflow through a manhole, cleanout, toilet, sink or drain. This overflowing wastewater may then make its way into the environment, a house or a business.

Contributing factors may include:

- » Too much rainfall infiltrating through the ground into leaky sanitary sewers, which are not intended to hold rainfall. Excess water also can flow through roof drains connected to sewers or poorly connected sewer lines.
- » Blocked, broken or cracked pipes and other equipment or power failures that keep the system from properly functioning. Tree roots can grow into the sewer. Sections of pipe can settle or shift so that pipe joints no longer match. Sediment and other material can build up and cause pipes to break or collapse.
- » A deteriorating or aging sewer system that can be expensive to repair. Some municipalities have found severe problems, necessitating costly correction programs. DEP has a State Revolving Fund Program that provides low-interest loans for investments in water and sanitation infrastructure upgrades.

Why are SSOs a problem?

A key concern with SSOs entering rivers, lakes or streams is their negative effect on water quality. The overall impact of wastewater discharges to surface waters is fortunately temporary. Our bays, rivers and gulf are constantly moving, which results in the dissipation and dilution of wastewater contaminants in a few days.

The Florida Department of Health issues health advisories when bacteria levels present a risk to human health, and may also post warning signs when bacteria affect public beaches or other areas where there is the risk of human exposure.

Because SSOs contain partially treated (or potentially untreated) domestic wastewater, ingestion or similar contact may cause illness. People can be exposed through:

- » Direct contact in areas of high public access
- » Food that has been contaminated
- » Inhalation and skin absorption

How Can SSOs Be Reduced?

SSOs can be reduced by:

- » Sewer system cleaning and maintenance.
- » Reducing infiltration and inflow through system rehabilitation and repairing broken or leaking lines.
- » Enlarging or upgrading sewer, pump station or sewage treatment plant capacity and/or reliability.
- » Construction of wet weather storage and treatment facilities to treat excess flows.
- » A few SSOs may be unavoidable, including those occurring from unpreventable vandalism, some types of blockages and extreme rain events.
- » Permit holders do have bypass provisions when human health and safety are at risk and there is no feasible alternative. The utilities are required to notify DEP within 24 hours if they need to use those provisions.

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How does DEP respond to SSOs and resulting discharges to surface waters?

After DEP has received final data from the utilities regarding their wastewater releases, environmental specialists will review the data to assess the situation and the overall impact to the environment when considering whether to take additional action. Specialists will be evaluating many factors, including:

- » How serious was the violation?
- » Is it a first-time violator or a chronic offender?
- » Was the violation inadvertent or beyond reasonable control?
- » Can any damage to the environment be undone or remediated quickly?

For example, DEP takes into account the severity of the rain event, was it a hurricane or a storm, or if the area had received an unusually large amount of rainfall beyond historical averages. If the discharge was caused by an operator error, or lack of a certified operator on-site at the time, the department may consider additional training for operators to prevent similar errors from occurring in the future.

In some circumstances, the department will meet with utilities to discuss infrastructure repairs and process improvements the utility is making and planning to implement in order to avoid further discharges.

Most of the cities and counties that are having wastewater issues are investing millions of dollars to upgrade their infrastructure, but these are complex and costly projects that take time to complete.