



## Facts About Sanitary Sewer Overflows

When sanitary sewer systems operate properly, they convey sanitary sewage to municipal wastewater treatment plants. However, under certain conditions, sanitary sewer systems may malfunction from disrepair or from being overloaded with more flow than they were designed to handle. When this happens, communities may experience what are known as sanitary sewer overflows, or SSOs.

### What is an SSO?

A sanitary sewer overflow is a discharge of untreated, raw wastewater into local waterways. Overflows occur when there is too much wastewater for the sewer system or treatment plants to handle, such as after heavy rainstorms. During SSOs, untreated wastewater overflows from the sewers or from manholes connected to the sewers.

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SSOs may occur during wet weather as stormwater enters the sewer system through defects, or in dry weather due to blockages of the line, or equipment failure at pump stations. State and federal regulations now require the Baton Rouge City/Parish and other sewer agencies to reduce overflows and meet Clean Water Act requirements.

### Why do SSOs occur?

Occasional unintentional discharges of raw wastewater from municipal sanitary sewers occur in almost every system. The Environmental Protection Agency (EPA) estimates that there are at least 40,000 SSOs each year throughout the United States.

#### Aging Systems

Many of the sewer systems in older U.S. cities were built in the 1800s and early 1900s. As these pipe systems age and deteriorate, the cracked and leaking pipes, built to handle sanitary sewage alone, admit groundwater and storm water, which increases the volume of flow in the pipes resulting in SSOs. Aging systems may feature such problems as tree roots that grow into the sewer; sections of pipe that settle or shift so that pipe joints no longer match; and sediment or other material build up, causing sewers to break or collapse.

#### Lack of Capacity

As cities grow, sewer systems may receive volumes of sanitary sewage that are much greater than they were originally built to handle. Also, blockages that occur from tree roots, grease and other debris may obstruct flow in the pipes and may cause SSOs.

#### Illicit Connections

Occasionally roof drains, catch basins, or area drains designed to convey stormwater away from residences and businesses may be illegally connected to sanitary sewer systems. These illicit connections allow stormwater to enter the sanitary sewer system and may result in SSOs.

#### System Malfunctions

SSOs may occur when pump stations and other wastewater systems malfunction as a result of power outages, equipment failures and other system breakdowns.

### Why are SSOs such a serious problem?

The untreated wastewater from SSOs can contaminate our waters, causing serious water quality problems. Overflows of untreated wastewater may present serious risks of human exposure when released to certain areas, such as streets, private property, basements, and receiving waters used for drinking water, fishing and shellfishing, or contact recreational use. Untreated wastewater may contain pathogens or other pollutants, which may be harmful to humans. Additionally, SSOs are a violation of the federal Clean Water Act.

### What other damage can SSOs do?

SSOs also may damage property and the environment. When basements flood, the damaged area must be thoroughly cleaned and disinfected to reduce the risk of disease. Cleanup can be expensive for homeowners and municipalities. Rugs, curtains, flooring, wallboard panels, and upholstered furniture usually must be replaced.

### What can be done about SSOs?

Proper wastewater system maintenance, careful design and construction of sewers, pump stations, and treatments plants, and system capacity upgrades are just some of the ways that SSOs can be avoided or eliminated. In addition, a regular program of sewer system inspection, repair and replacement may be needed, especially in aging systems.