

Stormwater Reader

Sanitary Sewer Overflows

Sanitary sewer systems collect and transport domestic, commercial, and industrial wastewater to treatment facilities for appropriate treatment. Sanitary sewers are different than storm sewers, which are designed to remove large volumes of untreated stormwater from streets and parking lots to prevent flooding. Occasionally, problems occur in sanitary sewers and will result in the releasing raw untreated sewage. These types of releases are called sanitary sewer overflows (SSOs). SSOs can contaminate our waters, causing serious water quality problems, fish kills, and back-up into homes, resulting in property damage and public health impacts. A key concern with SSOs that enter rivers, lakes, and streams is their effect on water quality. When bodies of water cannot be used for drinking water, shellfish harvesting, fishing, or recreation, society experiences an economic loss. Beaches can be closed. Tourism and waterfront home values may fall. Fishing and shellfish harvesting may be restricted or halted. When bathrooms 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 that come into contact with sewage usually must be replaced.

Possible causes of SSOs include:

- blockages,
- line breaks,
- sewer defects that allow stormwater and groundwater to overload the system,
- power failures,
- improper sewer design, and
- vandalism. EPA estimates there are some 23,000 - 75,000 SSOs per year (not including sewage backups into buildings) in the U.S.



Always contact Environmental Services at 972-466-5727 if you observe or think you observe an illicit discharge or spill! We will gladly go out and investigate all concerns.

You Can Prevent Sanitary Sewer Overflows

When you flush your toilet or turn on the water in Carrollton, the resulting wastewater begins a 20-mile journey to the wastewater treatment plant. Your habits have a direct impact on how difficult and costly it will be to treat the wastewater at the plant. Only flush the 3 P's: toilet paper, pee, and well, you know—poop. Toilet paper, in reasonable amounts, is made to dissolve in water so it will not clog the sewer line. Never flush sanitary napkins, flushable wipes, facial tissue, cotton swabs, disposable toilet brushes, cigarette butts and paper towels. These items do not dissolve in water and can clog the sewer lines. They should be disposed of with household trash. Never pour fats, oils, or grease of any kind down the drain. Even using hot water won't help keep the grease flowing and over time will clog pipes and cause plumbing to back up into tubs and sinks. Fats, oils and grease can be recycled or placed in the trash. Keeping trash out of the toilet and grease out of your sinks will substantially reduce the chance of a sewer backup at your house, in your neighborhood, or in the city sewer lines.



Health Hazards Associated with Sewage

The untreated sewage in SSOs carries bacteria, viruses, protozoa (parasitic organisms), helminths (intestinal worms), and inhaled molds and fungi. As a result, SSOs may cause diseases ranging in severity from mild gastroenteritis (causing stomach cramps and diarrhea) to life-threatening ailments such as cholera, dysentery, infectious hepatitis, and severe gastroenteritis.

People may be exposed through:

- Sewage in drinking water sources.
- Direct contact in areas of high public access such as basements, lawns or streets, or waters used for recreation. Studies have shown a direct relationship between gastrointestinal illness contracted while swimming and bacteria levels in the water.
- Shellfish harvested from areas contaminated by raw sewage. One study indicates that an average of nearly 700 cases of illness per year were reported in the 1980s from eating shellfish contaminated by sewage and other sources. The number of unreported cases is estimated to be 20 times that.
- Some cases of disease contracted through inhalation and skin absorption have also been documented.