

## Frequently Asked Questions

### What is a CSO?

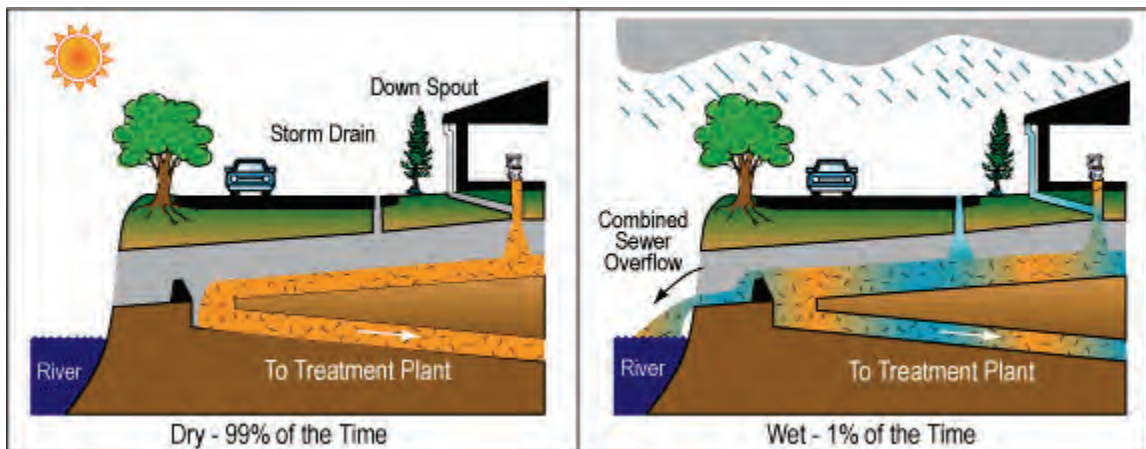
A combined sewer overflow (CSO) is a discharge of raw sewage mixed with stormwater into local waterways during a wet weather event, such as a rainstorm. Overflows occur when there is too much of this mixture for the sewer system or treatment plants to handle. To relieve pressure in the system and minimize backups into homes and businesses, excess sewage flows into local waterways.



*CSO Papillion Creek System*

### What is a combined sewer?

A combined sewer is a one-pipe sewer that is designed to convey both stormwater and sanitary sewage. During dry weather, sanitary sewage alone is conveyed to a treatment facility. During wet weather, a mixture of stormwater and sanitary sewage is conveyed. With as little as 0.1" of rainfall, combined sewers can reach full capacity and begin to overflow to the Papillion Creek or Missouri River.



### Why are CSOs a concern?

CSOs contain raw sewage, which can be the source of disease-causing organisms. In addition, the pollutants in CSOs can adversely affect fish and other aquatic life and can create aesthetic problems – such as odors and sewage waste and debris.

### Why does Omaha have a combined sanitary sewer?

Omaha's combined sewer collection system dates back to the 1800s and was designed to move wastewater and stormwater out of the increasingly urbanized areas and allow the Missouri River to disperse and carry pollution away. By the 1960s, it became apparent that dilution was not the total solution to pollution, and a system of diversion structures, lift stations, and interceptor sewers



was constructed to direct dry weather flow (sanitary sewage) to treatment plants before discharge of treated wastewater to the Missouri River.

Since the 1960s, Omaha's newly constructed sewer systems include separate pipes for wastewater and stormwater, and many projects have been initiated to separate parts of the existing combined sewers to prevent backups of sewage into basements. However, we still have most of the older combined sewer system in use.

### How does a CSO affect me and my water quality?

A Combined Sewer Overflow (CSO) contains raw sewage and pollutants that include human bacteria and viruses, chemicals, oils, animal wastes and other contaminants that all have the potential to cause health concerns and illness. A CSO allows millions of gallons of untreated sewage and stormwater to enter the waterways in a typical year. Concerns associated with these discharges include:

- ▶ The possibility of human contact with raw sewage that can carry disease-causing organisms
- ▶ Impacts of aquatic life, such as fish.
- ▶ Impacts on stream and park recreation. Most area streams do not meet the state's water quality standards for recreational activities, such as swimming or wading.
- ▶ Offensive odors and unsanitary debris along banks of rivers and streams.

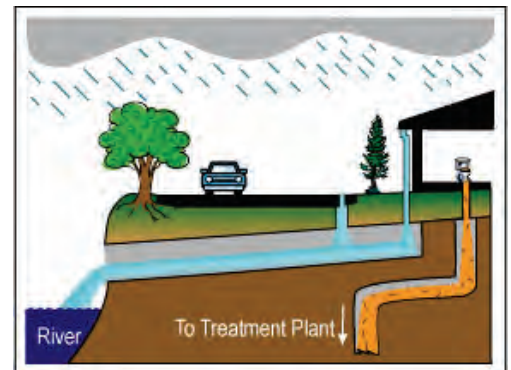
The extent of the health concerns from a CSO discharge depend on the amount of water dilution from the size of the receiving stream, the amount of precipitation that causes the overflow, and if the overflow occurs during peak sewage periods such as the morning or evening.

### What should residents do during a CSO event?

Residents should avoid water contact sports and activities (e.g., swimming, waterskiing, wading) during rainfall and snowmelt conditions or when any discharge is observed from a CSO pipe.

### What is a separate sanitary sewer system?

A separate sanitary sewer system is a collection of pipes located under streets and easements that are designed solely to transport sewage away from the sanitary fixtures inside homes, businesses, and industry and convey it to the wastewater treatment plant. This system protects public health by treating human and industrial wastes to reduce pollutant concentrations so they can be safely discharged to the Missouri River or Papillion Creek. Cities that have these systems must also have a separate sewer system to handle stormwater.



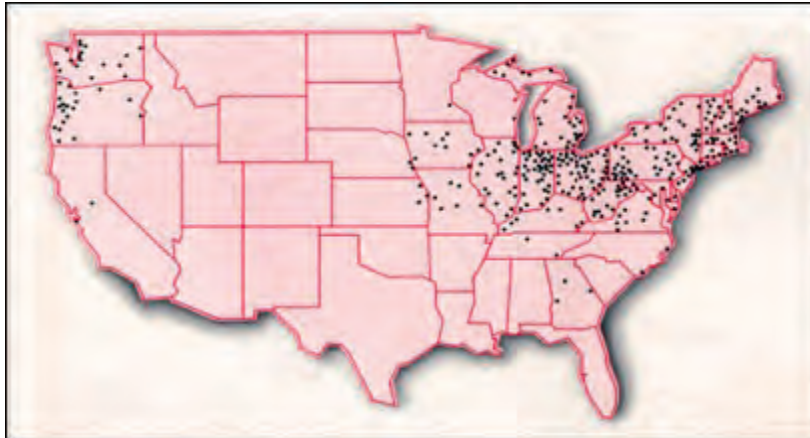
### What is a separate storm sewer system?

A storm sewer system is a collection of inlets and pipes – located under streets and easements – designed to transport rainwater and snowmelt away from streets, homes, and businesses and convey it to various receiving waters (such as streams and rivers). Storm sewers are usually much larger than sanitary sewer system pipes because peak stormwater flows from typical rain events greatly exceed sanitary flows. Water discharged through separate storm sewers generally receives no treatment and may contain pollutants.

### What other communities are subject to CSO regulations?

There are currently about 772 U.S. communities subject to CSO regulations. Most of these communities are located in the Northwest, Great Lakes, and Northeast portions of the country. This

map shows those areas that have combined sewer systems and are on the [EPA's list](#) of regulated CSO communities.



*Communities subject to CSO regulations*

### How can I help improve water quality?

Even when CSO Solutions are implemented, stormwater from our City will flow to streams and rivers during wet weather events. This stormwater picks up pollutants as it flows across the land, whether it comes from streets, open areas, or rooftops. You can help to reduce this pollution by:

- ▶ Disposing of household chemicals and used oil properly, and not pouring them down storm sewers
- ▶ Picking up after your pets
- ▶ Fixing fluid leaks from vehicles
- ▶ Applying lawn chemicals in a way that minimizes runoff in to storm sewers
- ▶ Implementing [Green Solutions](#).
- ▶

To learn about more ways to reduce pollution, you can invite the City to make a presentation to your civic associate or neighborhood group. Please indicate your interest in an educational opportunity on the [Contact form](#).

### What causes the sewer system to combine and overflow?

In the combined sewer service areas, one pipe exists to convey both sewage and stormwater. When the runoff from rain adds to the sewage component of the flow in the sewer, the system relieves itself to a creek or river at a CSO outfall. If there were no designed overflow points, the excess sewage mixture would overflow at other low-lying locations, like basement floor drains.

### Do all users pay the same rates?

The rates for sewer user fees are based on the costs of service by customer classification. All customers of a given class (residential, commercial, industrial) pay at the same rate, based on their contribution. All customers (inside and outside Omaha\*) will help fund the CSO improvements necessary to meet the federal mandates that will improve water quality for the greater Omaha region.

\*Included in the service area are the cities of Omaha, Bellevue, Papillion, La Vista, Ralston, Gretna, Bennington, Boys Town and Carter Lake.

### **How are people with low or fixed incomes going to afford even the most minimal increases?**

Wastewater service is a utility, like water and gas service, with charges based on contribution. However, beginning in 2011 customers that qualify for energy assistance will also receive a utility bill credit to help with rising sewer fees. The City also plans to work with local utilities and state agencies to review the existing utility assistance programs and look for ways to improve or enhance assistance to low and fixed income customers.

### **What are the water quality standards for Nebraska? How are they defined?**

Nebraska water quality standards and definitions can be found in the Nebraska Department of Environmental Quality's Title 117 (<http://www.deq.state.ne.us/RuleAndR.nsf/pages/117-TOC>). The main type of impairment in the metropolitan area is bacteria, and controlling CSOs will allow attainment of the standards in many Omaha streams.

### **Why don't we have a sewer use tax, which would be deductible, instead of a sewer use fee?**

Wastewater service is generally considered a utility, like water and gas service. Federal law requires that costs for wastewater service meet certain "equity" requirements, in terms of cost recovery.

### **Why don't we focus on stormwater management? What is the City's position?**

In developing the Long Term Control Plan, Omaha considered how the CSO solutions were integrated into a comprehensive watershed management plan for stormwater. In most cases Green Solutions will serve as an enhancement to the structural controls that form the backbone of the CSO control plan.

### **What will the cost to the individual homeowner be? Will the City incur the necessary costs for hook-ups or changes to the home/business, or will that be a homeowner/business cost?**

Sewer separation work will be funded through fees collected from all users of Omaha's regional treatment system. The impact of recently approved rates will mean the typical residential, who currently pays about \$15/mo in sewer fees will see those bills increase to over \$37/mo by 2014. Subsequent rate increases could force rates to rise to over \$50 per month by 2017.

Generally, there should be no direct costs assessed to individuals' homes or businesses where new sewers are constructed.