

Dear Louisville Metro Residents:

Clean water is essential for our well-being and continued growth. Over the past eighteen months, I have spoken to almost 150 community and civic groups about the challenges of protecting our streams and the Ohio River. There is a direct link between clean water and healthy communities.

To address the challenges of improving our water quality, MSD is about to embark on a comprehensive sewer improvement program that will eliminate major sources of water pollution throughout Louisville Metro. The new initiative is called "Project WIN" (Waterway Improvements Now). Planned upgrades under Project WIN will allow us to comply with Clean Water Act regulations.

Project WIN will address problems with combined and sanitary sewer overflows. During rain storms, the sewers become overloaded with rainwater and discharge the combined water and sewage into local streams and the Ohio River. MSD has committed to take necessary measures to control sewer overflows under a federal Consent Decree with the U.S. Environmental Protection Agency (US EPA) and the Kentucky Division of Water (DOW).

Project WIN will involve a substantial investment from our customers over the next 19 years. In the months to come, you will see increased communications about the potential risks of wet weather overflows and our efforts to reduce them to safe levels. We will be installing signs near affected waterways, presenting at public meetings, placing brochures and other information in public places and updating our web site. This information is not meant to alarm or frighten you in any way; it is meant to keep you safe and informed. Over the past five years, MSD has invested over \$150 million in reducing occurrences of combined and sanitary sewer overflows. We will continue to develop projects to help us achieve the goals of Project WIN.

Project WIN will ensure that Louisville Metro residents and future generations will enjoy all the benefits of clean streams for many years to come. Please let us know if you have questions. MSD customer relations agents are available 24 hours a day, 7 days a week at (502) 587-0603.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

A MESSAGE FROM MSD

ABOUT THE INTEGRATED WET WEATHER PROGRAM

As a customer of MSD, we want you to be informed and aware of the challenges we face as we develop a program to control sewer overflows and improve water quality in Louisville Metro. While we are legally responsible for meeting our regulatory obligations, your involvement as a partner in improving area water quality will be crucial to the success of our program. As our partner, you deserve to know how our community got to this point and what we are doing to meet our obligations.

- **Much of our sewer system is old and lacks the capacity to handle the current volume of sewage and stormwater. Infrastructure improvements will reduce sewer overflows into our streams and sewer backups into our homes, and help us to reduce health risks associated with exposure to bacteria and contaminants.**
- **Sewer overflows pollute streams and rivers throughout Louisville Metro, in violation of the federal Clean Water Act. We have devised a plan that will allow us to comply with all state and federal clean water regulations.**
- **Without improvements, we could face severe financial consequences for failing to meet federal and state regulations by the 2024 deadline. Fines, limits on growth and economic expansion, and the higher costs of operating a failing system are some of the possible consequences.**
- **To continue economic prosperity, we must have a clean, safe environment. Polluted water leads to crippled growth opportunities.**
- **Our program to rehabilitate our sewer system will improve local water quality, protect the health of our citizens and future generations. Our children and grandchildren will enjoy a cleaner and healthier environment tomorrow, if we invest in our infrastructure today.**

Our Water Protection PRIORITIES

While the Consent Decree related activities are underway, MSD will continue implementation of other programs designed to safely and efficiently operate and maintain our wastewater and stormwater systems, and to make the necessary improvements for increased water quality and quality of life for Louisville Metro citizens. Two of the important programs include Project DRI and the Ohio River Flood Protection System.

Project DRI is a drainage improvement program that is helping to develop dependable drainage systems and reduce flooding for citizens throughout Louisville Metro.

We will also continue efforts to increase dependability of the Ohio River Flood Protection System, by upgrading flood pumping stations and overhauling major system equipment. MSD continues to work with the Corps of Engineers to determine the order of improvements.

MSD is committed to meet these major challenges, set a successful course, and make Louisville Metro an even better and safer place to live for all our citizens.

DID YOU KNOW ?



The Louisville-Jefferson County Metropolitan Sewer District was founded in 1946 by the Kentucky State Legislature. However, our sewer system dates back to the 19th Century, and many of the original sewers are still in use. Today, we serve 220,000 customer accounts and 693,000 people. We operate and maintain:

- **6 regional wastewater treatment facilities**
- **19 small wastewater treatment plants**
- **304 pumping stations and 3,200 miles of sewers**
- **The Ohio River Flood Protection System, including 16 flood pumping stations and 29 miles of floodwall**

The Sewer Overflow CHALLENGE

The Louisville Metro combined sewer system was built from the 1860s to the 1950s. Many older U.S. cities built combined sewers to remove both wastewater and stormwater from areas where people lived. Combining wastewater and stormwater in a single pipe and designing the system to overflow during periods of heavy rainfall was considered state-of-the-art wastewater technology in the late 19th and early 20th centuries. It was not until the late 20th Century that experts began to realize that combined sewer overflows (CSOs) were contributing a sizeable amount of pollution to urban streams and rivers.

In areas of Louisville Metro with separate sanitary sewers, sanitary sewer overflows (SSOs) occur because of aged pipes that leak when the system is overloaded from rainfall or due to illicit connections of sump pumps, roof drains and foundation drains to the sanitary sewer system.

The objectives of MSD's ongoing capital improvement program are to:

- **Improve water quality and Reduce SSOs**
- **Implement a long-term CSO control plan**
- **Address neighborhood drainage deficiencies, and**
- **Upgrade the flood protection system**

What we have already

ACCOMPLISHED

MSD has already completed more than \$1.4 billion in capital expansion and upgrades to wastewater and stormwater facilities.

- **Sewer overflow points in the combined and separate systems have been reduced by 300**
- **Solids and floatable controls have been installed at 90% of CSO locations**
- **66,000 linear feet of combined sewers have been separated**
- **40,000 septic tanks have been eliminated**
- **275 small plants and pumping stations have been eliminated**
- **Hundreds of small stations have been rebuilt and/or expanded to serve larger service areas**
- **Wastewater treatment facilities have been built and expanded to provide better treatment of wastewater from homes, businesses, and industries**

Still, we continue to face challenges from sanitary and combined sewer overflows, especially during wet weather.

Meeting the CHALLENGE

MSD initiated a Wet Weather Abatement Program in 1989. The first goal was to accurately identify potential overflow points in the combined sewers (CSOs) and in the fast growing sanitary sewer system (SSOs). Both CSOs and SSOs occur most often during prolonged rain storms. On the wettest days, millions of gallons of diluted sewage is discharged to our streams.

MSD's Wet Weather Abatement plan includes these measures:

- **Adding storage basins to the combined sewer system**
- **Cleaning sewers of excess sand, gravel and mud to increase carrying capacity**
- **Removing unnecessary clean-water connections (downspouts and sump pumps)**
- **Repairing sewer leaks that allow groundwater into the sewer system**
- **Informing the public about hazards associated with overflows**

In August of 2005, MSD signed a Wet Weather Overflow Consent Decree.

WHAT IS THE CONSENT DECREE?

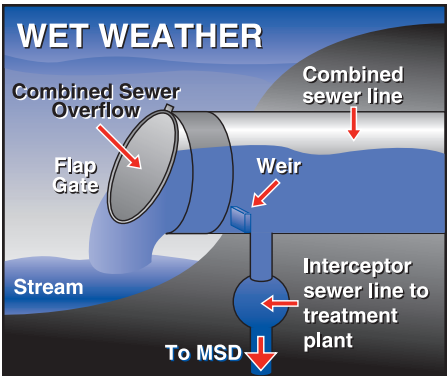
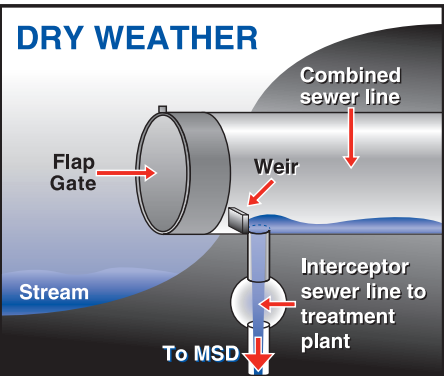
The Consent Decree is a legal document that is signed by both the community and an enforcement agency that binds the community to complete specific activities that will lead to the elimination or reduction of sewage overflows in their municipal sewer system.

PUBLIC INVOLVEMENT IN PROJECT WIN

MSD has assembled a Wet Weather Team to assist in the development of Project WIN. The Wet Weather Team consists of community representatives, civic leaders, elected officials and MSD personnel who will advise MSD on its investment, policy and performance choices in the design of Project WIN. The community representatives will play an important role in helping to ensure that these choices can be made wisely and in ways that best meet the needs of the local community.



As MSD works to develop Project WIN, you will notice an increase in information and notifications about sewer overflows, as well as educational materials addressing watershed management, water protection and steps you can take to help make Louisville Metro's waterways cleaner. Soon, you will also start hearing about planned construction projects and how we will fund Project WIN. Signs will be posted throughout Louisville Metro that alert you to the need to protect yourself and your family in the event of a sewer overflow.



What is the Clean Water Act?

The Clean Water Act is the federal legislation that governs the introduction of contaminants and pollutants into waters of the United States. This Act has as its goals that all streams should be fishable and swimmable.

What are (SSOs) sanitary sewer overflows and (CSOs) combined sewer overflows?

A separate sanitary sewer system is designed to carry only wastewater to a wastewater treatment plant; a separate stormwater system is designed to carry only stormwater that is transported to ditches and streams. In a combined sewer system, both wastewater and stormwater are carried in the same set of pipes to the treatment plant.

During nearly every rain, stormwater gets into these sewer systems, which results in untreated sewage overflowing into area streams and the Ohio River. When these overflows occur in the combined sewer system, they are known as CSOs. Likewise, when such overflows occur in the separate sanitary sewer system, they are known as SSOs. These overflows are generally caused by aging sewers or illegal stormwater and groundwater connections to the sanitary sewers and can contribute to water quality problems in our streams.

How big is the sewage overflow problem in our community?

Louisville has over 3,200 miles of sewer, approximately 500 miles being over 100 years old. Much of the system is in need of rehabilitation or repair. Currently, there are 111 active CSO locations and on average will overflow 30 times per year. Additionally, during a year with above-average rainfall, over 100 locations in the separate sanitary sewer system could overflow.

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Will sewage rates go up? I thought MSD was working on this sewage overflow problem already.

Yes, sewer rates will go up to pay for the costs of rehabilitating our sewer system. However, it is MSD's goal to keep our sewer rates well below the national average as we have in

years past. MSD has already spent more than \$150 million over the past 5 years to reduce the impacts of CSOs and SSOs. Much improvement has been accomplished, but there is still much more to be done.

**An 8 inch
sewer pipe is
designed to carry sewage
from 200 homes.**

**4 basement sump pumps
connected illegally
can cause a
sewer overflow.**

Is Louisville's problem unique, or are other communities facing similar problems?

No, Louisville's problem is not unique. Wastewater systems across the nation, including many in our state, are facing the same problems of aging infrastructure and increasingly strict regulations. Many cities have already entered into similar enforcement actions, such as Louisville's Consent Decree. EPA has made it a priority to bring all cities with similar problems into compliance.

What should I do in the event of a sewer overflow?

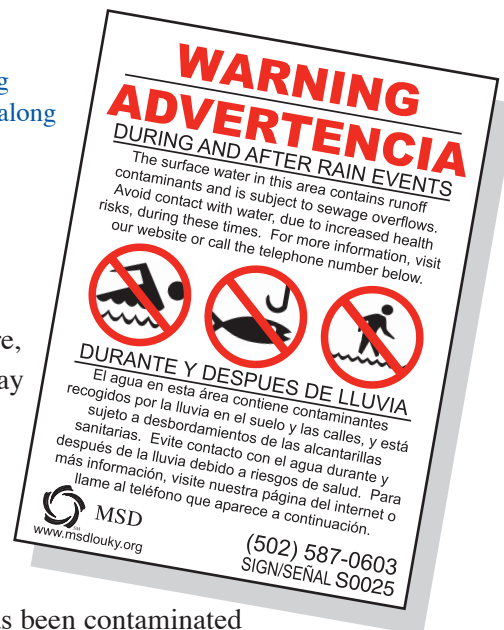
The most important thing to do is to stay away from water in ditches, streams and the river during and for 48 hours after rainfall. This is when overflows are most likely to occur. In the event



MSD will be distributing door hangers within a couple of blocks of any overflows after a storm. If you have any concerns or questions please contact MSD.

MSD is placing warning signs along streams.

of a sewer system failure, overflows may occur during dry weather. If you do come into contact with water that has been contaminated by a sewer overflow, you should wash with soap and warm water before touching any surfaces, persons or food.



Are there health risks if contact is made with this contaminated water?

The health risks depends on how long and how much contact one has. For example, if contaminated water is swallowed while swimming, one might become ill and need to seek medical attention. If the contact is external - skin only - then a thorough washing with soap and warm water will be sufficient to kill any bacteria one has encountered. The best thing to do is avoid the contaminated water altogether.



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SEWER OVERFLOWS: WHAT YOU NEED TO KNOW

Contact with sewage should be avoided. It's that simple. Just by following a few rules, you'll be a healthy, safe partner in water quality.

- Avoid contact with creeks, streams and rivers during and 48 hours after a rainfall. Don't swim, fish, or play in water until at least 2 days after rain has ended.
- Keep children out of ponds, creeks, streams, drainage ditches and other places that might potentially receive sewer overflows.
- If you do come in contact with sewage overflow, wash your hands thoroughly in warm, soapy water before handling food or touching other persons or surfaces.
- During storms, minimize water-using activities, such as clothes- or dishwashing, bathing, etc., as much as possible.



A sewer overflow has occurred in this area. Water containing sewage has been discharged from the sewer and may be on the ground, in drainage ditches or in nearby streams.

You are advised to avoid contact with creeks, streams, drainage ditches and standing water, as they may contain sewage and stormwater runoff contaminants that could make you sick.

If you, your family or your pets come in contact with possibly contaminated water, *wash with warm, soapy water*, especially before handling food.

For the next 48 hours,
DO NOT SWIM, FISH or WADE
in outdoor waters!

For additional information, call (502) 587-0603
or visit the MSD Web site at www.msdlouisville.org
to register for automatic e-mail notifications.



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WHAT CAN YOU DO TO HELP SOLVE THE PROBLEM?

You can begin to make an immediate difference by taking the following steps:

- Disconnect downspouts, driveway or foundation drains, groundwater sump pumps or any other stormwater connection from the sanitary sewer system.
- Re-direct your downspouts so that rain soaks into your yard or garden.
- Sump pumps help to keep your home dry by pumping ground water away from your foundation. They also must drain into your lawn or yard area.
- It is prohibited and illegal to have the sump pump connected to the sanitary sewer. Such connections allow a tremendous amount of water to enter the system which, in turn, during wet weather causes the sanitary sewer to exceed the pipe's capacity and overflow into nearby ditches and streams or backup into downstream homes.
- Have the line that connects your house with the public sewer line (called a house lateral) inspected. Repairing broken laterals, which is the homeowner's responsibility, can reduce stormwater from leaking into pipes and prevent sewer backups into your home.