



Paducah McCracken Joint Sewer Agency
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The Paducah McCracken Joint Sewer Agency (JSA) provides wastewater collection and treatment throughout most of the City of Paducah and McCracken County. JSA is responsible for operating and maintaining three wastewater treatment plants, 330 miles of gravity sewer, and 80 lift stations.

In 2007, JSA entered into a Consent Judgment with the Commonwealth of Kentucky and has received an Administrative Order from the Environmental Protection Agency (EPA); these documents require JSA to address overflows in the sanitary sewer and combined sewer systems.

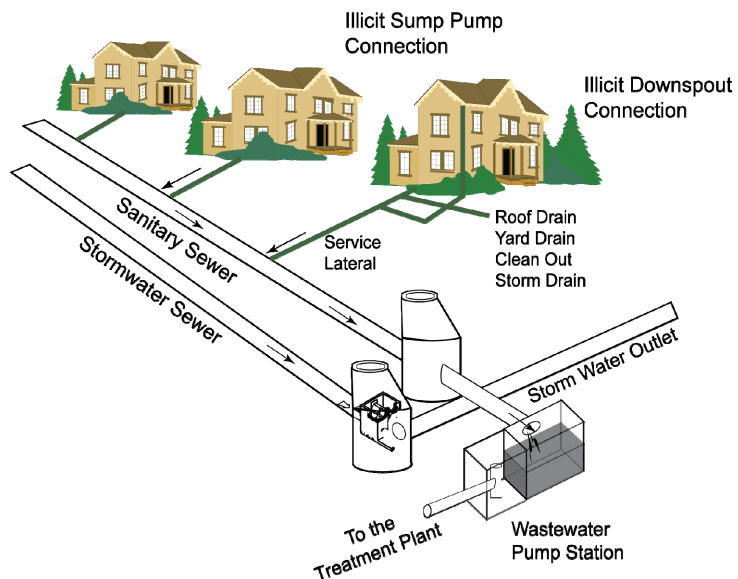
What this means:

- ◆ The Consent Judgment requires JSA to address sanitary sewer overflows (SSOs) and discharges from combined sewer overflow (CSO) outfalls (see Primer on Sewer Flows, below, for additional information).
- ◆ It also requires that JSA develop, submit for approval, and implement plans for the continued improvement of the sewage collection and treatment system.
- ◆ JSA is one of seventeen communities in Kentucky with permitted CSO outfalls. Each of these communities, including Frankfort, Henderson, Louisville, the Northern Kentucky Sanitation District #1, and Owensboro, are under similar consent judgments. According to EPA reports, there are 746 permitted CSO communities across the country.
- ◆ EPA has found that almost every wastewater collection system has occasional or unintentional discharges of untreated sewage and estimates that 23,000 to 75,000 SSOs occur each year in the U.S.

What is a combined sewer system?



What is a sanitary sewer system?



Primer on Sewer Overflows

The wastewater collection system, operated and maintained by JSA, contains both combined sewers and separate sanitary sewers.

The combined sewer system is designed to collect stormwater runoff, domestic sewage, and commercial / industrial wastewater in the same pipe and convey these flows to the treatment plant. During storm events, flow in the combined sewer may exceed the pipe's capacity. When this occurs, combined sewers are designed to overflow, resulting in the discharge of untreated wastewater into the area's streams and rivers. These discharges are referred to as combined sewer overflows (CSOs). Combined sewer systems are found in many older cities in the U.S. and were considered state of the art technology during the late 19th and early 20th centuries.

The separate sanitary sewer system is designed to carry only wastewater to the treatment plant. If the capacity of the sewer is exceeded, sanitary sewer overflows (SSOs) may result. These SSOs may occur because of pipe failures, blockages, or other maintenance issues; however, they can also be the result of illegal stormwater connections or defects in the sewers which may allow stormwater to enter the sewer and exceed the pipe's capacity.

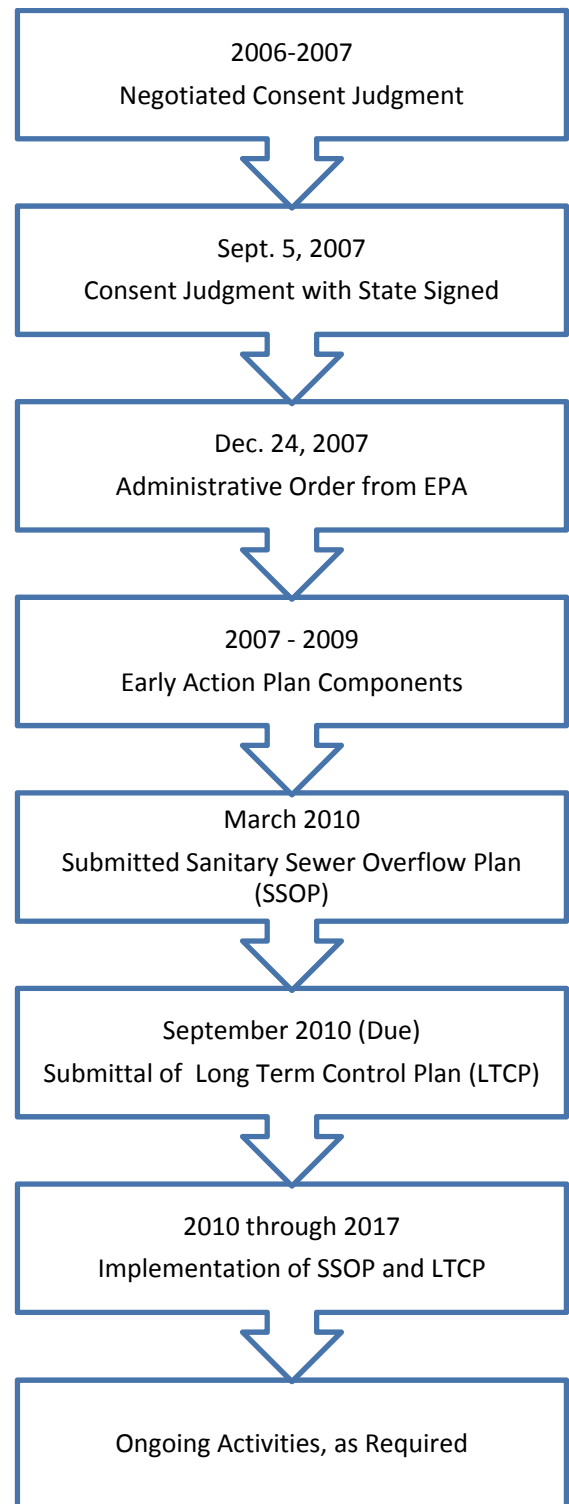
Requirements of the Consent Judgment

Early Action Plan includes completing projects listed in the judgment and assessing current operation and maintenance procedures to minimize impacts of SSOs and CSOs while further improvements are being evaluated, designed, and constructed.

Summary of the major projects included in the Early Action Plan are:

- ◆ Complete the last phase of the Woodlawn Interceptor, an interceptor project initiated in 2003 to reduce overflows in the Farley area. The first two phases were completed from 2003 to 2006. *This final phase was completed in 2007.*
- ◆ Increase the Paducah Wastewater Treatment Plant capacity from 9 million gallons per day (mgd) to 18 mgd. This project allows for more combined sewer flow to be treated prior to discharge during a rain event, doubling the wet-weather capacity of the Paducah Wastewater Treatment Plant. *This project was completed in June of 2009, one year ahead of schedule.*
- ◆ Perkins Creek Pump Station Refurbishment – The Perkins Creek Interceptor drains a large portion of West Paducah and Lone Oak, representing one-third of the dry weather flow treated at the Paducah Wastewater Treatment Plant. This project increased the pumping capacity at the Perkins Creek Pump Station and redirected the flow from this pump station out of the combined sewer system directly to the treatment plant. *This project was completed in December of 2009, seven months ahead of schedule.*

Timeline for Compliance



- ◆ Perform sanitary sewer rehabilitation – JSA was tasked to spend \$650,000 performing sanitary sewer rehabilitation. As part of their committed to providing a reliable sanitary sewer system, JSA has completed \$1.6 million in rehabilitation to the sanitary sewer system from 2007 to 2009. Since 2005, JSA has performed over 12 miles of sanitary sewer rehabilitation, with another 6 miles scheduled for 2010.

Since 2007, JSA has completed over \$7.0 million of capital improvements throughout the separate sanitary and combined sewer systems.

Sanitary Sewer Overflow Plan assesses the sanitary sewer system and identifies projects to eliminate SSOs. Development of the Sanitary Sewer Overflow Plan incorporates rainfall and flow monitoring data into a computer model to evaluate the existing sanitary system, identify deficiencies, and evaluate potential improvement alternatives. This plan, submitted in March of 2010, has identified projects aimed at containing wet-weather, or rainy day, flow during non-flood events. Projects included in this plan include sewer investigation and rehabilitation, making sewer lines and pump stations larger for increased capacity, and providing storage facilities to store wet weather flow. Costs associated with these projects could reach \$60 million dollars over the next eight years.

Long Term Control Plan (LTCP) assesses the combined sewer system and identifies improvements to minimize the impact of CSOs. JSA is in the process of developing a LTCP, which includes the following components:

- ◆ Characterizing and understanding the combined sewer system and receiving streams
- ◆ Addressing water quality impacts of the CSO discharges
- ◆ Evaluating a range of potential solutions to control CSOs
- ◆ Consideration of sensitive areas, such as the drinking water intake, as the highest priority for controlling overflows
- ◆ Balancing cost and performance considerations in select improvement projects to control CSOs
- ◆ Involving the affected public in the LTCP development process

A public informational meeting was held in early May to provide an overview of the LTCP process and solicit feedback from the public about potential ways to better control CSOs. Based on the feedback received, analysis of the system will conclude, and recommendations for projects to control CSOs will be presented to the public August 2010. If you were unable to attend the May meeting and would like to have additional information or submit your comments on the LTCP process, please contact the JSA office.

OTHER FREQUENTLY ASKED QUESTIONS

What if there is a problem with the sewer?

If you experience a sewer back-up or if all of the wastewater drains in your residence or business are stopped up, please call JSA at (270) 575-0056. JSA will check the sewer main to ensure it is operating properly. If the problem is in JSA's sewer main, the stoppage will be cleared, the sewer repaired, or the problem otherwise addressed by JSA.

If the problem is not located within the JSA system, the property owner will be advised to contact a plumber or sewer contractor. JSA personnel will not perform any work on private property except within a public easement.

What if the problem is just a sewer odor in my house or business? What should I do?

Turn on all water sources in your house or business and pour water in any floor drains to ensure that the traps are full of water. If this does not help the situation, contact a plumber or sewer contractor.

What are the property owner's responsibilities?

The property owner is responsible for all maintenance, operation, and cleaning of the sewer service lateral from the building to the point of connection with the JSA main sewer. Repairs and reconstruction of the sewer service lateral from the building to a public roadway shall be the responsibility of the owner.

If the property owner's contractor is unable to clear a stoppage due to a structural defect in the sewer service lateral located within JSA's right-of-way, JSA should be notified while the contractor is still on location. The portion of the service lateral on JSA's right-of-way will be repaired by JSA. If there is no cleanout to grade, the property owner must install one on the service lateral at the easement or right-of-way.

How much does it cost to have JSA check on a sewer problem?

JSA does not charge for evaluating the location of the problem or correcting a stoppage or defect located within JSA's right-of-way. This work is financed through sewer user fees. JSA, however, will not assume the cost of the plumber or contractor's call, regardless of the location of the stoppage.

What can I do to minimize overflows?

- ◆ Keep fats, oils, and greases out of the sewer system. These items should never be poured down the drain. As grease cools, it will solidify and accumulate in the sewer system, resulting in clogs or stoppages. Fats, oils, and grease should be collected in a container, such as an empty coffee can, and disposed of with your garbage.
- ◆ Do not use your toilet or drains as a wastebasket. Never dispose of items like paper towels, diapers, or personal hygiene products in the sewer.
- ◆ Keep storm drains free of yard clippings, leaves, litter, and other debris.
- ◆ Direct your downspouts, driveway drains, groundwater or basement sumps, or other stormwater connections to your lawn and away from the sewers.
- ◆ Minimize water use activities (clothes washing, dishwashing, bathing, etc.) during rain or storm events.

How do I properly dispose of prescription drugs?

- ◆ Take unused, unneeded, or expired prescription drugs out of their original containers and throw them in the trash. Mixing prescription drugs with an undesirable substance, such as used coffee grounds or kitty litter, and putting them in impermeable, non-descript containers, such as empty cans or sealable bags, will further ensure the drugs are not diverted.
- ◆ Flush prescription drugs down the toilet *only* if the label or accompanying patient information specifically instructs doing so.

Does JSA give rebates for sewer fees associated with water used for filling swimming pools? If not, why?

JSA does not provide such a rebate for health and environmental reasons. Some pool treatment chemicals contain copper, silver, and chlorine which can be toxic to aquatic creatures. In addition, water that comes in contact with human beings could be contaminated. Therefore, swimming pool water should be treated before re-entering the environment. The Kentucky Division of Water, along with JSA, agrees that rebates should not be given for water discharged into the environment and not into the sewer system.

Where can I dump the holding tank for my recreational vehicle?

The Paducah Wastewater Treatment Plant accepts RV septage.

How can I find out more about any of JSA's programs?

Feel free to contact JSA by phone or in person, or visit our website.



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