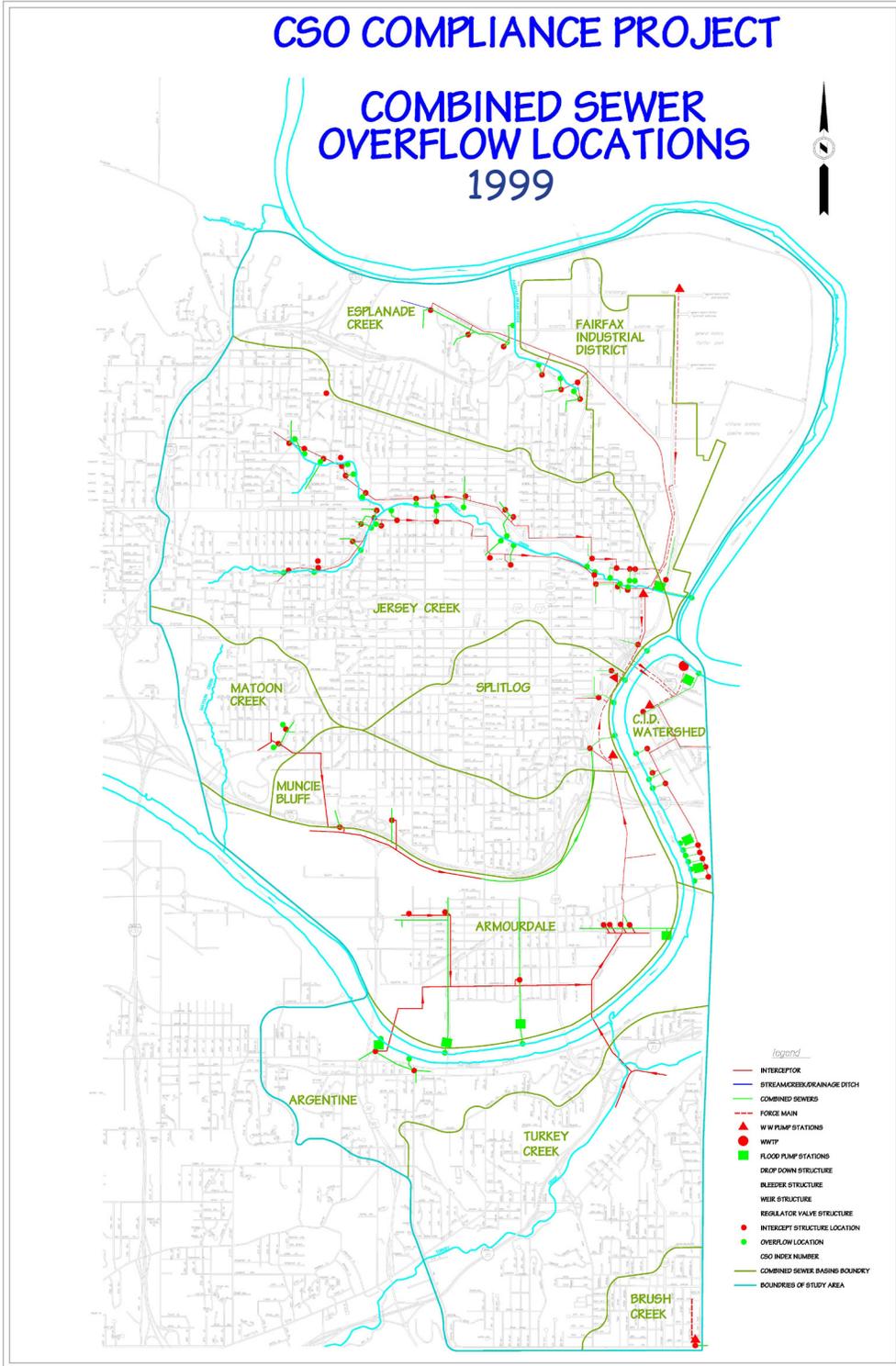


The locations of the CSOs are shown on the map below as points along the waterways.



A Guide to Understanding the Combined Sewer System in Kansas City, Kansas



Publication of:
Unified Government of
Wyandotte County / Kansas City, Kansas
Public Works Department
Water Pollution Control
50 Market Street
Kansas City, KS 66118

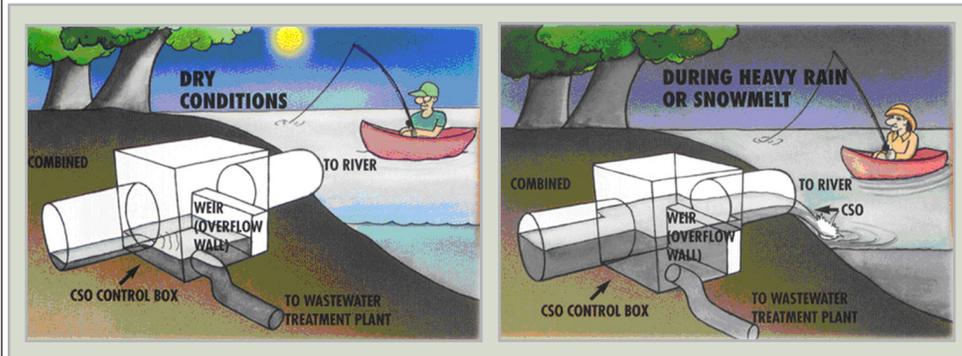


What is the Combined Sewer System?

In Kansas City, like hundreds of other US cities, sewers in the older portions of town are combined systems. Combined sewer systems are sewers designed to collect rainwater runoff, domestic sewage, and industrial wastewater all in the same pipe. The combined sewage flows by gravity to various pump stations where it is pumped to Kansas City's Kaw Point Wastewater Treatment Plant before being treated and discharged to the Missouri River.

What are Combined Sewer Overflows (CSOs)?

During periods of heavy rainfall or snowmelt, the volume of flow in a combined sewer system may exceed the capacity of the sewer system or treatment plant. For this reason, the combined sewer system was designed to overflow occasionally and discharge the diluted wastewater to a nearby tributary, such as Jersey Creek, Matoon Creek, Turkey Creek & Fairfax Drainage Ditch, or directly to the Kansas or Missouri Rivers. In 2001, Kansas City received an updated National Pollutant Discharge Elimination System (NPDES) effluent permit from the Kansas Department of Health and Environment that provides conditions under which such CSOs are authorized.



City of Kansas City Public Notification Program

One of the requirements of the NPDES permit is for Kansas City to post signs to inform the public that wastewater may discharge into the creek or river during certain rain events. In 1999, Kansas City staff began posting signs like the one below at all CSO locations. The signs are intended to inform the citizens of CSO locations and to provide a mechanism to report problems or obtain more information.

CSO NO. XX

THESE WATERS RECEIVE
COMBINED SEWER OVERFLOWS
DURING RAIN EVENTS.

AVOID CONTACT.

FOR INFORMATION, CONTACT
WATER POLLUTION CONTROL
UNIFIED GOVERNMENT

573-5535



What is being done to control CSOs?

As a part of its Capital Improvement Plan, Kansas City has made a commitment to begin eliminating CSOs by reconstructing separate storm and sanitary sewers. Millions of dollars over several years will need to be spent in the process to complete sewer separation and eliminate all CSOs. Consequently, the Unified Government of Wyandotte County/Kansas City is implementing the following nine minimum controls to minimize impacts from and reduce the frequency and duration of the overflows:

- Ensuring Proper Operation and Maintenance
- Controlling Solids and Floatable Materials
- Maximizing Storage in the Collection System
- Encouraging Pollution Prevention
- Reviewing and Enhancing Industrial Pretreatment
- Providing Public Information
- Maximizing Flow to Treatment Plants
- Monitoring of CSO Impacts
- Avoiding Dry Weather Conditions

Combined sewer overflows (CSOs) are one of the biggest challenges facing the Unified Government (UG). In 2000, the UG prepared and submitted to the Kansas Department of Health and Environment, a Long-Term Control Plan to comply with the requirements of the Federal CSO Control Policy. This plan serves as the blueprint for how combined sewer overflows will be controlled. From 2001 to 2008, the UG spent over \$9,000,000 addressing 31 of the 83 overflows identified. Work that has been accomplished to date includes the following projects:

- Major improvements were conducted at the Armourdale Industrial District and Fairfax Industrial District pump stations to return both to their original pumping capacity.
- Improvements were made to the headworks facility and additional piping was installed at the Kaw Point Wastewater Treatment Plant to maximize flows to the plant for proper treatment.
- Sewer separation projects have been constructed in the Jersey Creek Watershed to separate storm water from the combined sewer system. Additional sewer separation work is required for this watershed to reduce or eliminate remaining CSOs in the system.
- Additional sewer separation work has been undertaken in the Armourdale, Matoon Creek and Muncie Bluffs Watersheds.
- CSO elimination work and relief sewers are being designed and constructed in the Central Industrial District, located just west of the state line.

The UG has been aggressively working to control as many of the constructed overflows as possible. Overflows in the combined sewer system are complicated to address. Thus, due to extensive costs and design limitations, not all CSOs will be eliminated. As such, controlling these overflows is a major goal as well. There are solutions that the UG will be pursuing to control the remaining CSOs in the system that not only comply with Federal regulations, but meet state water quality standards as well for neighborhood streams and rivers.

Go to www.wycokck.org, then click on "Departments," then "Public Works," then "Water Pollution Control" and find the CSO document links at the bottom of the page.