

Sewer Separation FAQ/Fact Sheet

Acronyms

CWA – Clean Water Act of 1972
EPA – Environmental Protection Agency
IDEM – Indiana Department of Environmental Management
LTCP – Long Term Control Plan
CSO – Combined Sewer Overflow
CSS – Combined Sewer System
NPDES – National Pollutant Discharge Elimination System
O & M – Operation and Maintenance
SRF – State Revolving Loan Fund
IFA – Indiana Finance Authority

Definitions

Convey – the movement of bulk commodities or other products such as water, sewerage, electricity, or gas.

Weir – is a small overflow-type dam commonly used to raise the level of a river or stream or in this case in a structure to restrict the flow from leaving the sewer unless the sewer becomes over capacity.

Point Source – discrete conveyances such as pipes or man-made ditches

Hydrodynamic Separator – a flow-through structure with a settling or separation unit to remove sediments and other pollutants that are widely used in storm water treatment.

FAQ

Q: Why do we have to separate sewers?

A: The United States Government signed into law, the CWA (Clean Water Act of 1972), which focuses on reducing the amount of toxic substances that are released to receiving waters and to eliminate additional water pollution by 1985. Over the past several years the EPA (Environmental Protection Agency) and IDEM (Indiana Department of Environmental Management) has required the City of Huntington to develop a LTCP (Long Term Control Plan) which will focus on the control of the sewage that enters our lakes and streams as described in the CWA and to reduce and eliminate the events surrounding the CSO's (Combined Sewer Overflows).

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Q: What is a combined sewer?

A: A CSS (Combined Sewer System) is a sewer that **conveys** both storm and sanitary sewage in a single pipe. The rationale behind a CSS is when the system is built it was cheaper to build a single pipe to convey both storm water and sanitary sewage, however this type of sewer is no longer the common practice.

Q: What is an event?

A: During normal weather conditions (Dry weather) the sewer is sized appropriately to handle the sewage being conveyed. During a wet weather event (rain or snow) the sewer quickly becomes undersized and cannot convey the water that the system is receiving. In these instances the capacity of the sewer is exceeded and often causes untreated combined sewage and storm water to back up within the pipe, usually topping the **weir**, within the diversion structure, and ending up flowing into the river or stream causing an event. Though, not as common, an event can occur during dry weather if sewage demands are at their peak.

Q: What is a sewer separation project?

A: A sewer separation project usually consists of installing a second sewer system either for storm water or sanitary sewerage to convey to either the treatment plant or to the river. The determination of which system to install depends on the condition of the existing CSS, size, and depth.

Q: Do we treat the storm water?

A: Though not a requirement as of yet the City had the contractor install 4 **hydrodynamic separators**. These structures were installed at each CSO location. These separators are big structures buried deep within the ground that allow the water to pass through depositing 80% of the debris & oils associated with runoff from nearby streets. These separators are then cleaned out about twice a year to ensure maximum operation potential. This method is an acceptable method to treat or pre-treat storm water and is considered a “green” technology.

Q: How is this project funded?

A: This project is funded through a SRF (State Revolving Fund) Loan. The SRF Loan Program is a state agency, administered by the IFA (Indiana Finance Authority), which provides low-interest Loans to municipalities for wastewater and drinking water infrastructure improvement projects. The City was able to get a reduction in its interest rate for installing the hydrodynamic separators.

Q: Why does a separation project take so long?

A: There is a multitude of factors that play into the length of a separation project. One of the major reasons projects move slowly is due to depth of pipe installed. The deeper the trench the longer it takes for equipment to excavate it. Other reasons jobs may move slowly is there are other utility conflict, traffic, soil conditions, and unknown conditions that cannot be calculated or planned for. All of these factors can lead to increased cost and also time extensions if not planned for.

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Websites

EPA Summary of the Clean Water Act (1972)
<http://www.epa.gov/lawsregs/laws/cwa.html>

EPA Office of Wastewater Management
<http://cfpub.epa.gov/NPDES/>

IDEM
<http://www.in.gov/idem/index.htm>

Indiana Finance Authority (SRF Loan)
<http://www.in.gov/ifa/index.htm>

City of Huntington
<http://www.huntington.in.us>