

Wastewater Services

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Down the drain, into a sewer pipe

Industries and the vast majority of homes in the seven-county Twin Cities area are connected to the regional wastewater collection and treatment system, a network of large sewer pipes and seven wastewater treatment plants operated by the Metropolitan Council. Wastewater services are designed to protect public health and the environment.

Whenever we take a shower, flush a toilet or run the washing machine, we create wastewater. Our wastewater is carried through a pipe, from the property, into a municipal sanitary sewer pipe. That pipe is, in turn, connected to a regional interceptor sewer operated by Metropolitan Council Environmental Services (MCES).

The regional wastewater collection system includes:

- Approximately 600 miles of interceptors, up to 14 feet in diameter;
- 61 lift stations that pump flows to treatment plants;
- 190 meter stations that help determine communities' share of regional costs; and 21 rain-gauge stations.

From pipes to treatment plants

Collection interceptors carry wastewater to the seven treatment plants, which have a combined capacity to treat 372 million gallons per day (mgd). In an average day, the plants treat 260 million gallons of wastewater from 105 of the region's communities. The plants operate 24 hours a day, 365 days a year.

Wastewater treatment results in clean water, discharged into one of three rivers in the region, and solid byproducts. MCES incinerates most of its solid byproducts and, in the process, produces energy; the remainder are recycled and processed for a variety of uses.

Plants have excellent environmental record

MCES treatment plants have an outstanding record of compliance with state and national clean-water discharge permits. Through August 2010, all seven of the plants had gone 43 consecutive months without a single violation of their discharge permit limits.

In 2009, three MCES

wastewater treatment plants achieved environmental compliance milestones. The Seneca Plant achieved its 9th consecutive year with 100% compliance with clean-water-discharge permits; St. Croix Valley Plant, 18 years; and Hastings Plant, 19 years.

MCES has also undertaken a massive effort to conserve energy in the wastewater collection and treatment system. In 2006, the agency embarked on a multi-year initiative to reduce fossil fuel consumption by 15%. Working with Xcel Energy, by the end of 2009 MCES had completed 27 energy reduction projects with an estimated annual savings of 31 million kilowatt hours and two million dollars. Studies have identified further process efficiencies that could save an additional \$1.5 million annually.

Metro Plant is one of nation's largest

Opened in 1938 near Pig's Eye Lake in St. Paul, the **Metro Plant** was the first wastewater treatment plant located on the Mississippi River in a major city. Today's upgraded plant is among the largest in the U.S.

With 251 mgd capacity, the Metro Plant treats wastewater from about 75% of the region. The 65 communities and 606 permitted industries served by the Metro Plant produce average waste-water flows of 185 mgd.

The Metro Plant has made significant environmental strides, reducing phosphorus discharges to the river by 80% between 1995 and 2005. The plant also cut airborne emissions, like particulates and mercury, by 90%.

Located on the Minnesota River in Eagan, the **Seneca Plant** is the region's second-largest wastewater treatment facility. The 39 mgd plant serves eight communities with a combined population of 245,000 people and treats an average of 24 mgd.

The 38 mgd **Blue Lake Plant** in Shakopee is also located on the Minnesota River. The plant treats an average 28 mgd and serves a population of 275,000.

The **Empire Plant**, located in Empire Township, serves some 134,000 people in several fast-growing Dakota County communities. The plant treats about 9 mgd. Recent upgrades to 24 mgd provide capacity to serve growth expected in Empire's service area. The plant's effluent is piped 12 miles to the Mississippi River.

The **Eagles Point Plant** serves southern Washington County.

It treats wastewater conveyed through the South Washington County Interceptor and the Woodbury Lift Station. The plant treats about 4.2 mgd; its 10 mgd treatment capacity is expected to serve the needs of rapidly growing Woodbury and south Washington County through 2020.

Located on the scenic St. Croix River, a nationally protected waterway, the 5.8 mgd **St. Croix Valley Plant** has been recognized as one of the nation's best advanced plants by the U.S. Environmental Protection Agency. It currently serves three communities with average flows of 3.1 mgd.

The 2.9 mgd **Hastings Plant** serves its namesake community and has room for growth through 2015. The plant treats an average of 1.6 mgd and discharges clean water to the Mississippi River. A new 5 mgd plant is also planned. It will be constructed east of downtown Hastings.

Recycling wastewater treatment byproducts

The Minneapolis-St. Paul metropolitan region has recycled biosolids since the 1940s, and MCES today employs a variety of technologies to process, incinerate and recycle its solid byproducts. Energy generated from wastewater treatment solid byproducts is one

example; the Council also awards contracts to recycle some other biosolids for agricultural use as fertilizers and soil conditioners.

For more information

- [Learn more about MCES.](#)
- [Visit the Council's Environmental Education web pages.](#)
- See related fact sheets:
 - [Environmental Services](#)
 - [Infiltration/Inflow](#)
 - [Metro Plant Solids Management](#)
 - [Surface Water Planning](#)
 - [Water Supply Planning](#)

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