Metropolitan Council Environmental Services (MCES)

WASTEWATER TREATMENT PLANTS

What does MCES do?

Protect public health and the environment through reliable and effective wastewater conveyance and treatment.

Foster economic growth in the region by maintaining low service rates through efficient operations and smart planning.

Collaboratively engage with our customers, stakeholders and partners to provide excellent wastewater conveyance and treatment services.

Our wastewater infrastructure

8 wastewater treatment plants

610 miles of conveyance pipe and associated pump stations, meter stations, and rain gauges.

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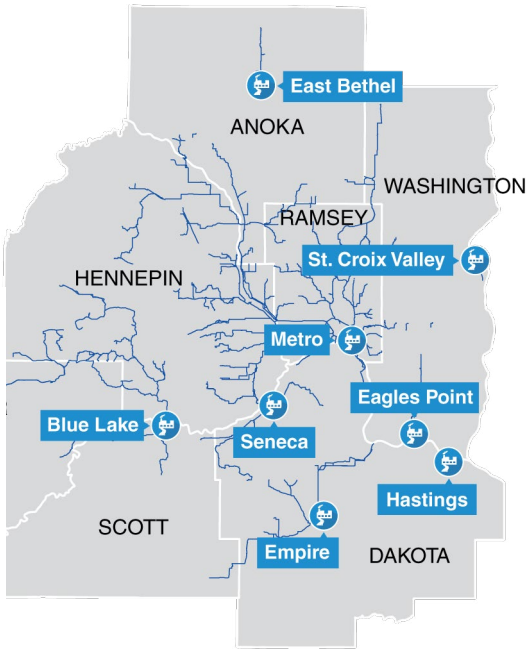


TREATMENT PLANT	POPULATION SERVED (= 10,000 people)
Metro (175 mgd)	1,800,000
Blue Lake (26 mgd)	300,000
Seneca (24 mgd)	150,000
Empire (10 mgd)	130,000
Eagle's Point (5 mgd)	70,000
St. Croix Valley (3 mgd)	30,000
Hastings (2 mgd)	25,000
East Bethel (<1 mgd)	<10,000

mgd = million gallons per day

Who is MCES?

OUR CUSTOMERS

109 communities in the 7 country Metro Area

2.6 million population served

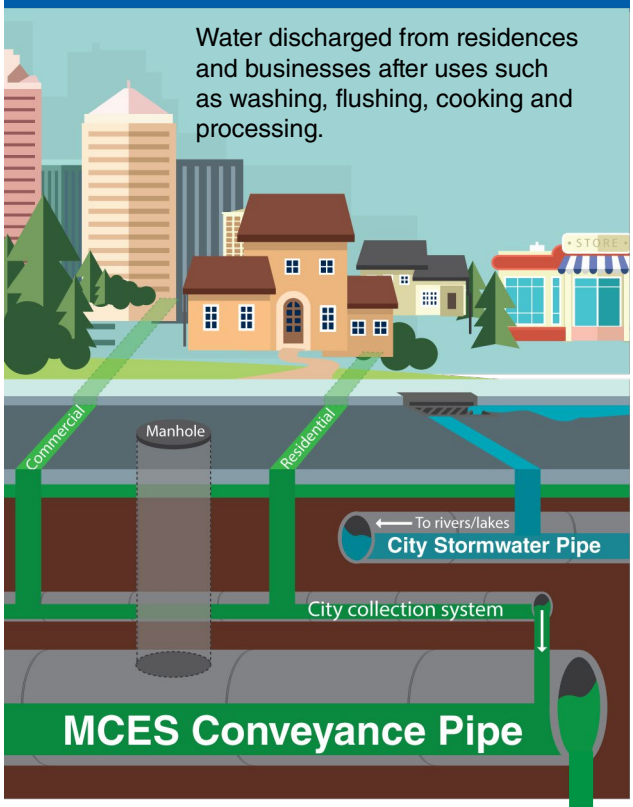
250 million gallons per day (mgd) of wastewater conveyed and treated

OUR ORGANIZATION

600+ employees

$7 billion in valued assets

What is wastewater?



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How does MCES select our wastewater treatment plant projects?

CUSTOMER LEVEL OF SERVICE

Customer Service
- Minimize odor, traffic, noise and visual impact
- Coordinate work with other governmental units
- Meet capacity needs

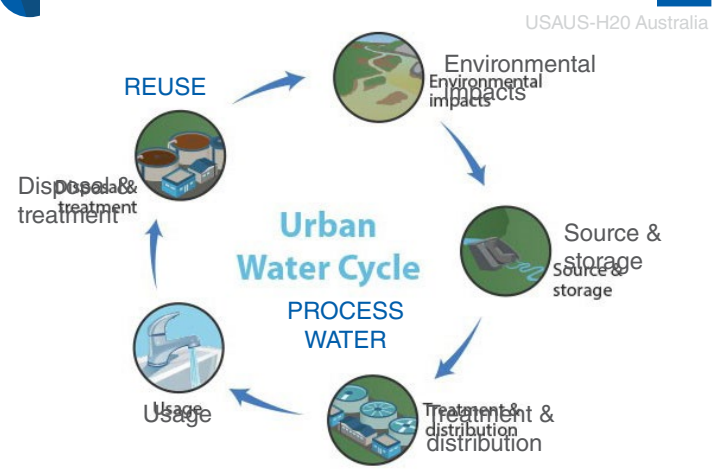
Health, Safety, & Environment
- Preserve environmental resources for future generations
- Comply with environmental regulations
- Convey and treat wastewater safely with minimum backups, spills, and traffic impacts

Financial Responsibility
- Responsibly manage wastewater infrastructure
- Optimize operations to save costs
- Maintain fair, equitable, and transparent service fees

PERFORMANCE

MCES monitors performance and implements improvements necessary to maintain efficient and effective treatment.

WATER CONSERVATION



MCES conserves water by reusing over 17 million **gallons** of treated wastewater per day for cooling and other operational needs - enough water to supply 94,000 homes.

PHYSICAL CONDITION

MCES performs condition assessments to determine when it is the right time to replace infrastructure and equipment.

ENERGY CONSERVATION

MCES used 27% less energy at treatment plants in 2016 than in 1998.

303 billion BTU/year → Heat & electricity for 2,475 households/year

MCES practices energy conservation and recovery by generating significant portions of our electricity and heat from solids collected at the treatment plants and using high efficiency equipment and lighting at our facilities.

RESOURCE RECOVERY

MCES seeks to beneficially use nutrients contained in wastewater solids.

- Biosolids processed at the Blue Lake Plant contain nitrogen and phosphorous and are used to make commercial fertilizer pellets (distributed by New England Fertilizer Co.)
- Biosolids processed at the Empire Plant contain nitrogen, phosphorus, and carbon and are used as an agricultural soil amendment (land-applied by MCES).

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