

Information Item:
**Proposal for Sewage Thermal Energy
Recovery at Towerside**

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Wastewater Energy Recovery – How it works

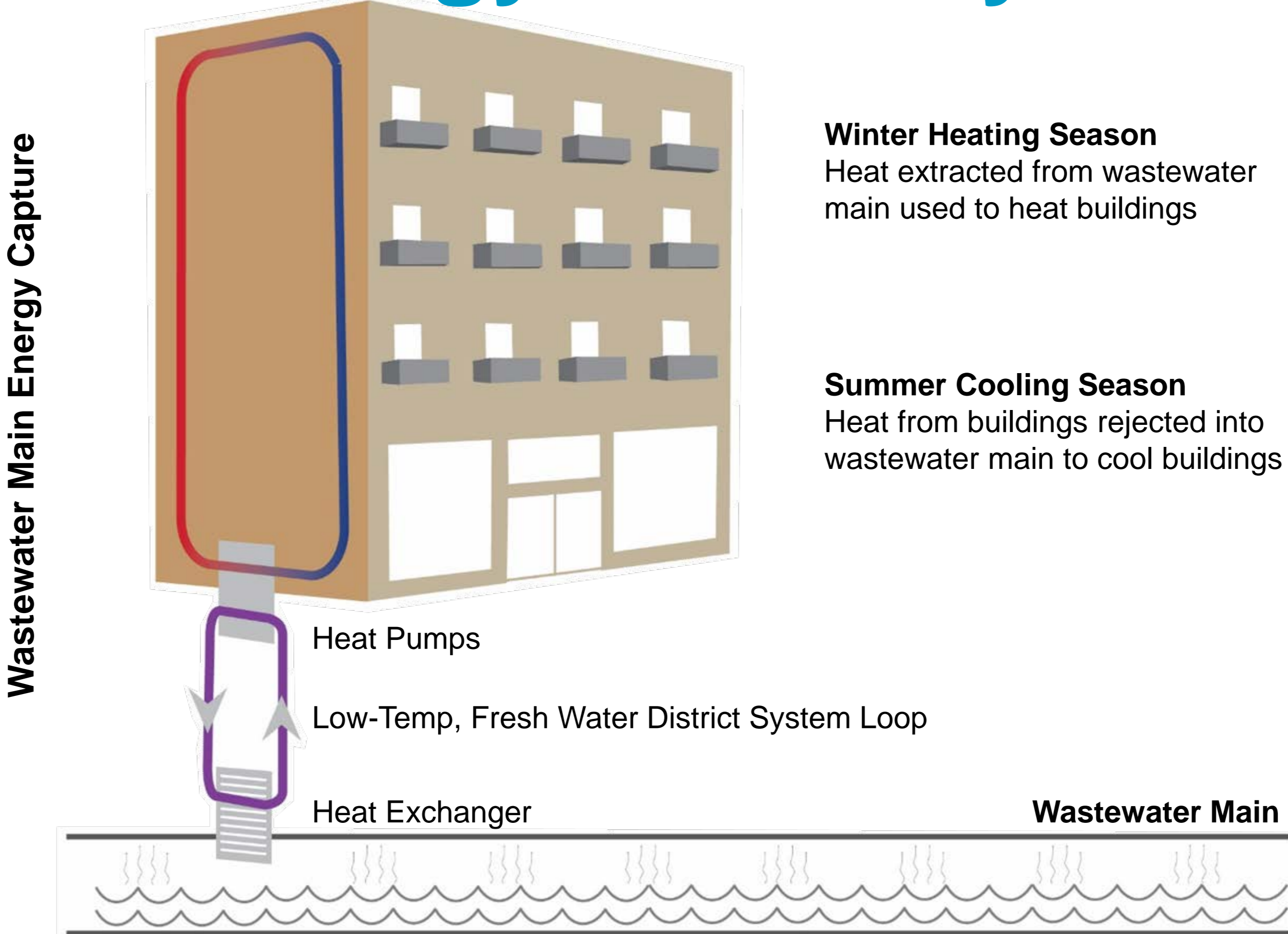
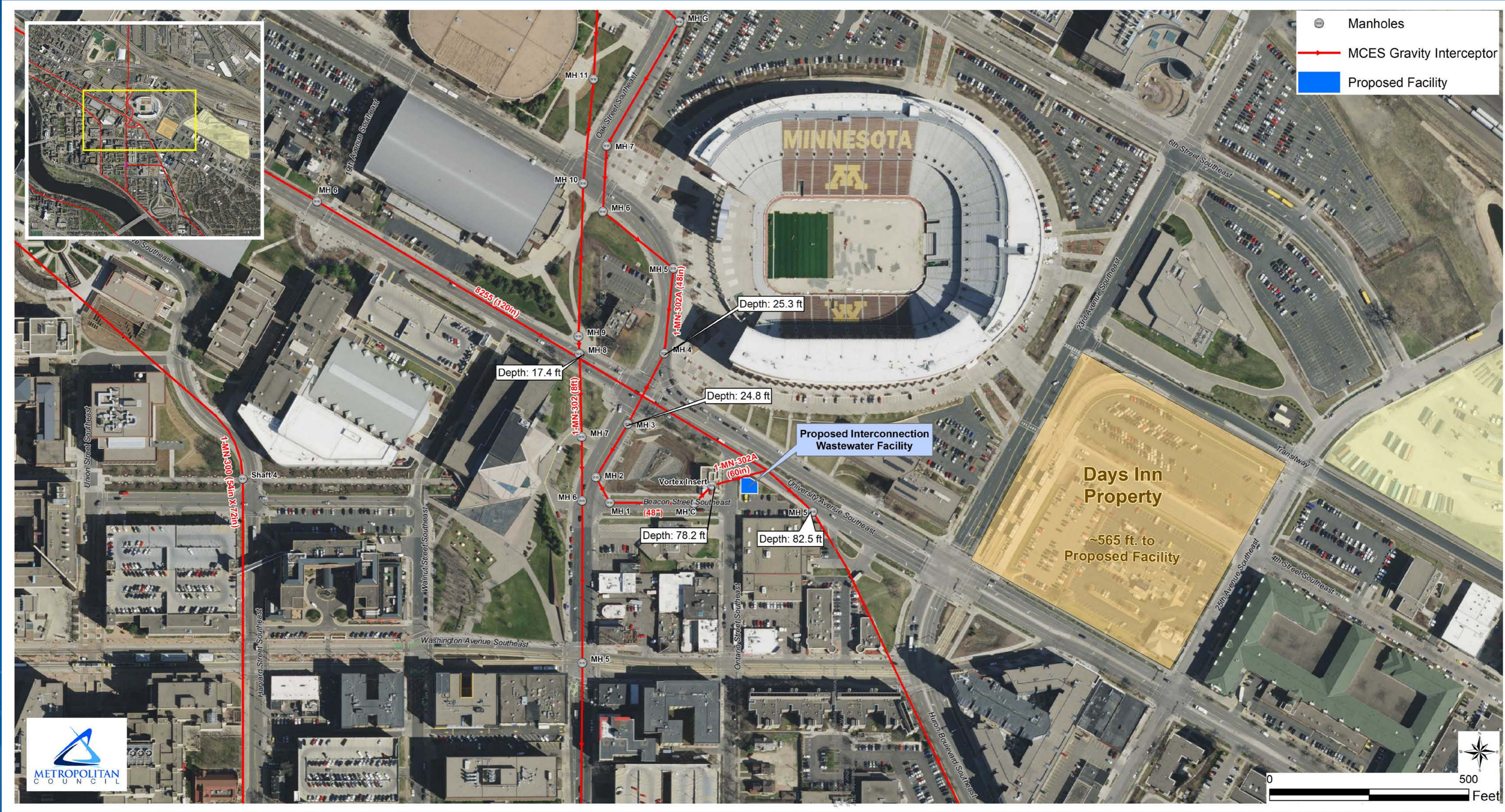


Image Credit: Ever-Green Energy

Proposed Location: Sewage Thermal Energy Recovery at Towerside



Benefits

- Potential reduction in greenhouse gas emissions
- Potential to be less expensive source of energy for the end consumer

Considerations: Operational

- Limited Information / No Established Best Practices
- Corrosion and additional odor
- Solids deposition & flow interruption
- Inspection and maintenance costs
- Access for maintenance crews
- Biological treatment process impact

Considerations: Construction

- Risk of impacts during construction adjacent to an existing interceptor
- Highly urbanized area
- Temporary conveyance needed for construction
- Cost

Considerations: Legal & Regulatory

Legal

Council does not have authority to:

- Provide an energy or fuel source
- Gift heat value to private entity
- Pass costs related to the change in temperature to ratepayers

Regulatory

Council is responsible for regulatory compliance with NPDES permit

Customer Level of Service

FINANCIAL



CHARGES & FEES

Charges and fees should be predictable, justifiable, and provide good value for the region



RETAIN AAA BOND RATING

Retain AAA Bond rating in order to provide the lowest cost debt financing available.



OPTIMIZE BUDGET PLAN

MCES' 5-year budget plan should optimize capital, O&M programs to meet customer service goals.



PRESERVE ASSETS

The region's wastewater assets should be well maintained to preserve their value and performance.



BE FAIR AND TRANSPARENT

Allocation of all charges should be fair, equitable, and transparent to the customer.

HEALTH, SAFETY, & ENVIRONMENT



COMPLY WITH PERMITS

Comply consistently with water, air, and other environmental permits.



MINIMIZE IMPACTS

Convey and treat wastewater safely with minimal backups, spills, and traffic impacts.



LEAD BY EXAMPLE

Be a leader on environmental sustainability, including water/energy conservation and water reuse

CUSTOMER SERVICE



BE A GOOD NEIGHBOR

Mitigate community impacts related to odors, traffic, noise, and visual aesthetics.



MEET CAPACITY NEEDS

Provide conveyance and treatment capacity consistent with regional and local plans.



COMMUNICATE INFORMATION

Communicate with customers about financial info and capital projects & programs that impact them.



ENGAGE CUSTOMERS

Engage customers in a meaningful public process. Provide notice for changes in rules, fees, projects, environmental performance & resolving competing Council policies/interests.



COORDINATE WITH OTHERS

Optimize intergovernmental coordination in all MCES work that intersects with community work.

Potential Next Steps

- A. Continue exploration of the project
- B. Discontinue exploration of the project

Potential Next Steps

A. Continue exploration of the project:

- *Develop an ES project budget to support Towerside Sewage Thermal Energy Recovery;*
- *Explore legislative changes to allow MCES to provide energy and recover costs;*
- *Develop a cost recovery model with customer task force;*
- *Investigate required regulatory approvals;*
- *Evaluate impacts on operations and determine solutions;*
- *Investigate means to mitigate risk.*

Potential Next Steps

B. Discontinue exploration of the project:

- *Communicate status to project proponent;*
- *Continue to operate the Council's regional wastewater system in a sustainable and economical manner through use of renewable energy resources.*

Direction

- Continue exploration of the project
- Discontinue exploration of the project

Questions