

## *Inflow and Infiltration Mitigation Efforts* Metropolitan Council region-wide system improvements

For the past several years, the Metropolitan Council has been working with local communities to reduce the amount of clear water flowing into the sanitary sewer system. This flow is known as Inflow and Infiltration, or I/I, and it is cause for concern because it consumes available reserve capacity in the wastewater system.

### What is I/I?

During high water flow events, such as heavy rainstorms, I/I can overwhelm the regional wastewater treatment system with water that doesn't need to be treated. Excessive I/I could require building additional capacity – an expensive proposition – to assure appropriate levels of reserve capacity.

Wet weather events can more than double normal wastewater flow rates – about 350 million gallons daily – to nearly 800 million gallons, or nearly the full capacity of the system. These events can result in basement backups and spills to the environment.

Initially, the Council thought it would need up to \$1 billion in repairs to manage current levels of wastewater and projected growth for the region. However, mitigation efforts done collaboratively between the Metropolitan Council and local communities have pushed back the consequences for at least a decade.

“The work that the communities have done in conjunction with the work that MCES has done on the regional system has contributed to the reduction.

All that work is paying off.”

*Bill Moeller, assistant manager, MCES*

### Methods of identifying I/I

- Closed-circuit television inspections of the regional sewer pipes
- Observation of the land near and surrounding the regional sewer pipes to identify potential trouble spots where surface water can flow into the pipes
- Metering to measure water flow within the pipes and identifying unusual events

### MCES mitigation efforts

- Regular sewer pipe inspection and repair
- Replacing manhole covers so they are water-tight
- Repairing leaking grout or seal