Introducing the Water and Wastewater Task Force

Presentation to:
2020 Annual Consultants Meeting
April 1, 2020

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Introduction and Purpose

- Background
- Inflow and Infiltration Reduction
- Water Efficiency

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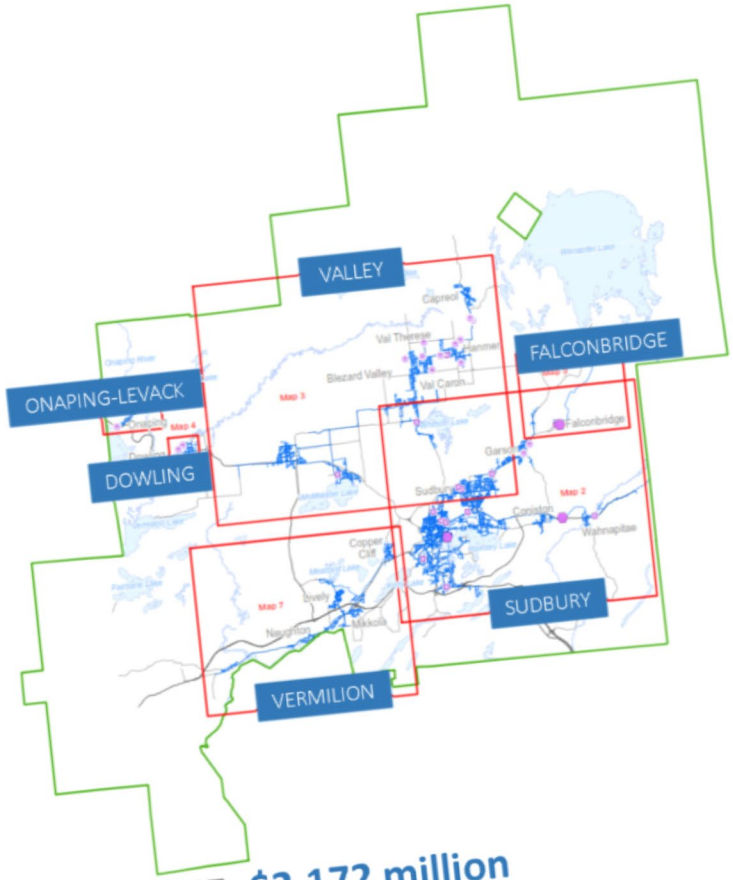
STATE OF LOCAL INFRASTRUCTURE

WATER ASSETS

6 Individual Water Systems

Watermains:	997 km
Hydrants:	5,699
Valves:	8,950
Valve Chambers:	2792
Service Connections:	906 km
Control Valves:	90
Water Meters:	47,940
Meter Stations:	6
Treatment Facilities:	28
Supply Facilities:	35



LINEAR REPLACEMENT VALUE: $2,172 million

VERTICAL REPLACEMENT VALUE: $179 million

WSP

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STATE OF LOCAL INFRASTRUCTURE

WASTEWATER ASSETS

13 Individual Wastewater Systems

Gravity Mains:	791 km
Service Connection:	381km
Pressurized Main:	9.7km
Service Connections:	382km
Force Main:	53km
Maintenance Holes:	11,726
Control Valves:	70
Drop Shafts:	21
Collection Facilities:	69
Treatment Facilities:	14

LINEAR REPLACEMENT VALUE: $1,473 million

VERTICAL REPLACEMENT VALUE: $656 million

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Water and Wastewater Master Plan

- Official Plan – growth where and when
- City to identify long term replacements/expansion of the water and wastewater servicing networks
- Considers:
  - Safe & robust
  - Accommodate planned growth
  - Ensure system performance and efficiency
  - Comply with existing legal and regulatory requirements

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Asset Management Plan

- Plan helps the City to make decisions regarding the building, operating, maintaining, renewing, replacing, disposing and funding of water and wastewater assets
- Considers:
  - State of infrastructure
  - Levels of service
  - Asset Management strategy
  - Financial strategy

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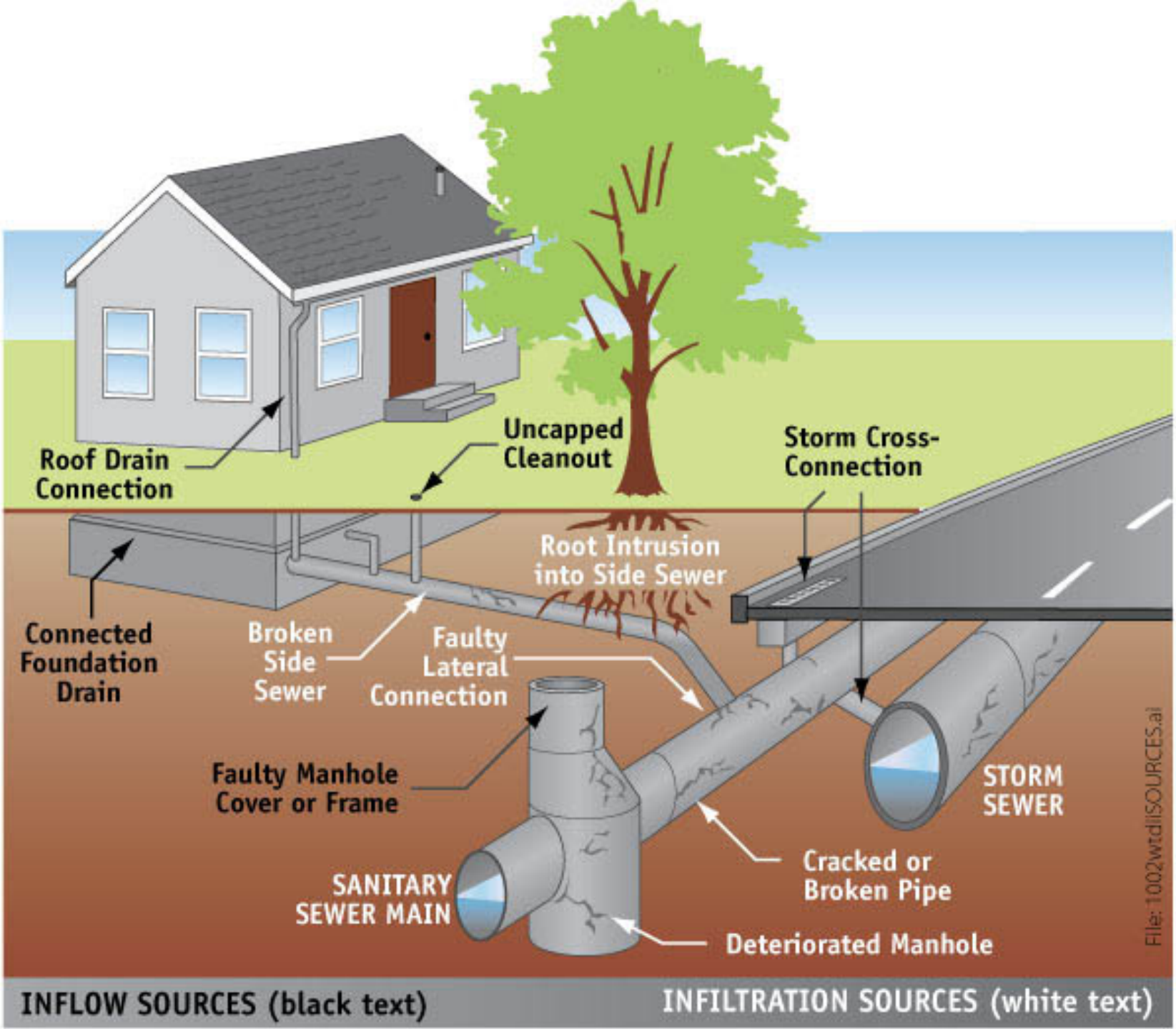
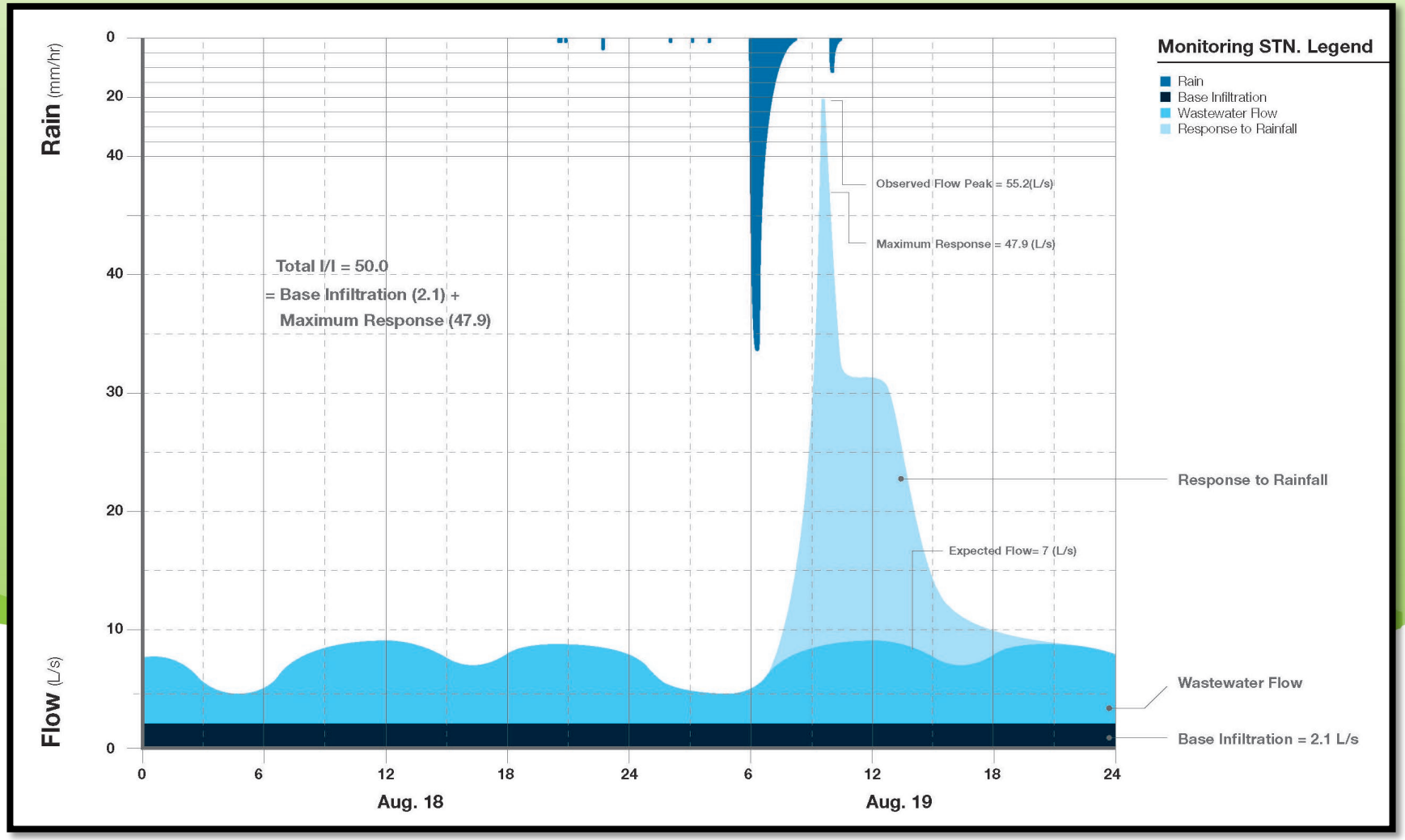

Roof Drain Connection
Uncapped Cleanout
Storm Cross-Connection
Root Intrusion into Side Sewer
Connected Foundation Drain
Broken Side Sewer
Faulty Lateral Connection
Faulty Manhole Cover or Frame
STORM SEWER
Cracked or Broken Pipe
SANITARY SEWER MAIN
Deteriorated Manhole
File: 1002wtdISOURCES.ai
INFLOW SOURCES (black text)
INFILTRATION SOURCES (white text)

Inflow and Infiltration Reduction

- Flow monitoring new subdivisions



Inflow and Infiltration Reduction

- Waterproofing elements for new construction - testing
  - Waterproof membrane around riser
  - Internal frost straps
  - Flexible watertight connectors (factory cast)
  - Chambers outside ROW >150mm above grade with marking post
  - Composite risers
  - Heavy duty water tight frame and cover (easement)

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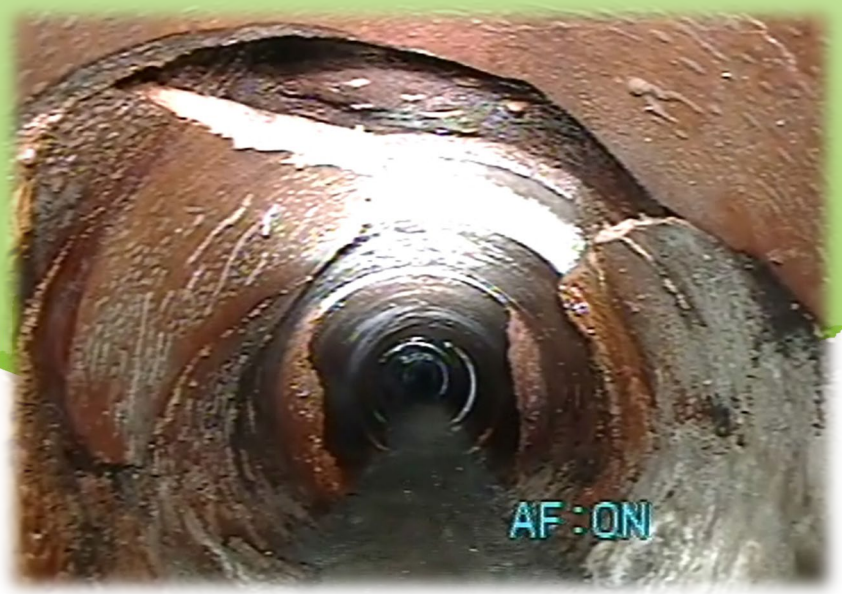
Inflow and Infiltration Reduction

- Condition assessment
- Targeted maintenance hole rehabilitation



Subsidy Program

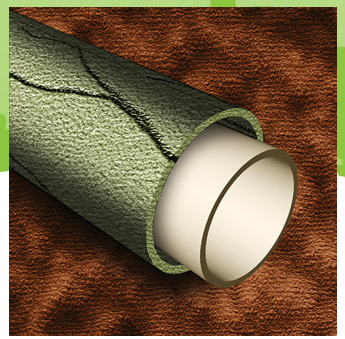
Installation of an approved Backwater Valve (75% Subsidy with a maximum of $1,500.00)

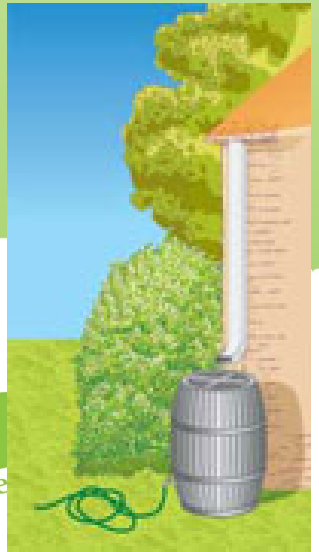
Installation of Sump Pit/Pump System (75% Subsidy with a maximum of $ 1,875.00)

Installation of Eavestrough Extenders (100 % Subsidy of $10.00 per extender with a maximum amount of four (4) extenders per residential property)

Installation of Rain Barrels (50 % Subsidy of $60.00 per Rain Barrel with a maximum amount of two (2) per residential property)

Installation of a Liner for a private sewer lateral service (50% Subsidy with a maximum of $1,100.00 per residential property)





Inflow and Infiltration Reduction

- Private disconnection solutions
- Education and outreach
- More water and wastewater condition data into enterprise GIS

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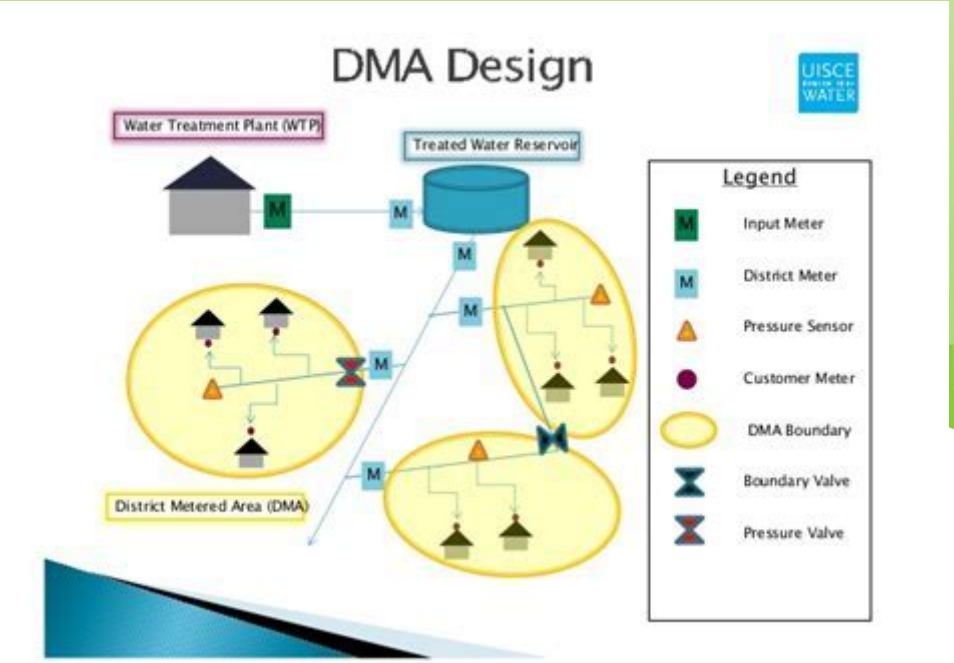
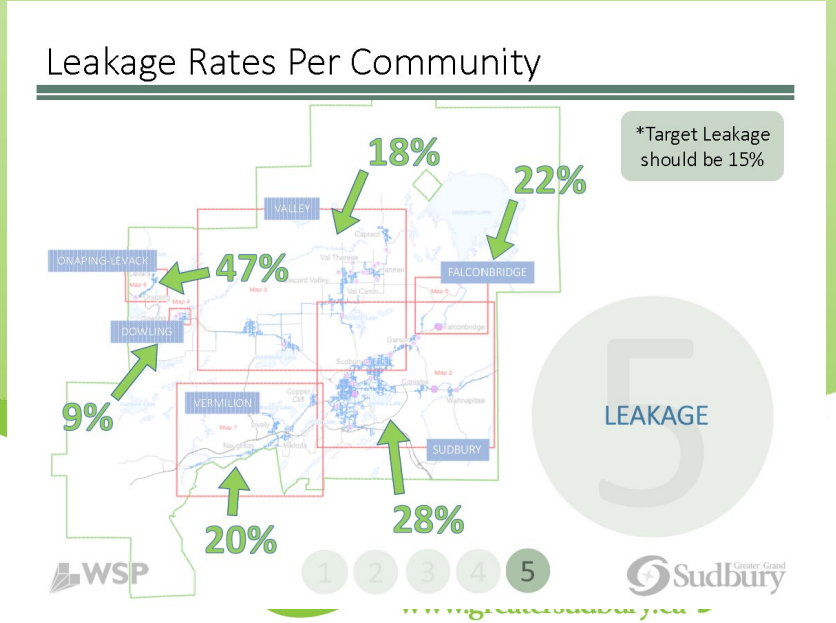
Water Efficiency

- District Metered Areas
- Water Efficiency Plan
- Condition Assessment

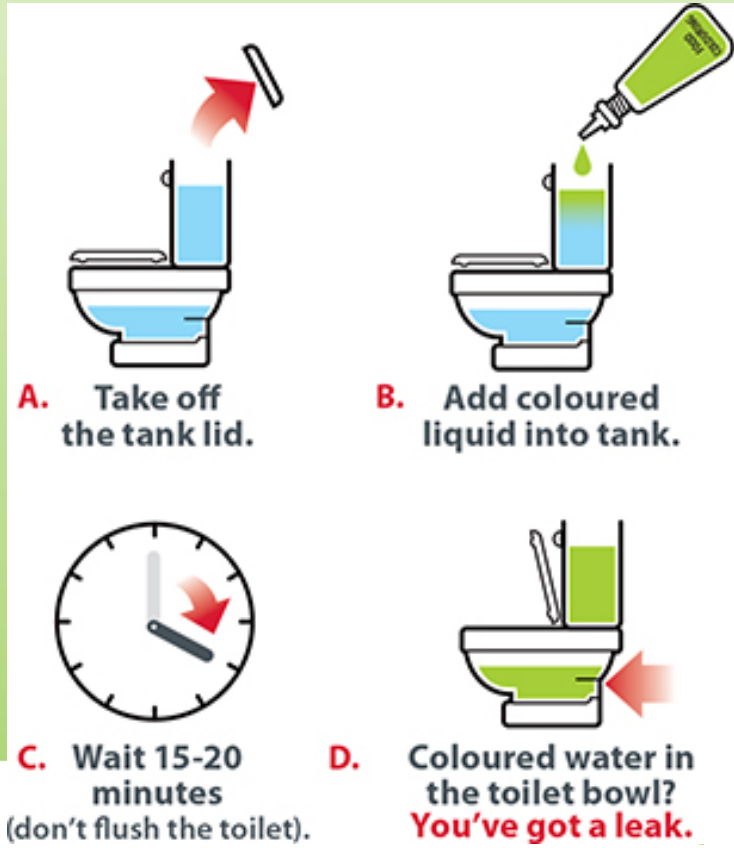




Water Efficiency

- Education and Outreach

Program educator job opportunity closes today!



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Community Energy and Emissions Plan

- Net-zero emissions target by 2050
- Goal: reduce carbon emissions to as close to zero as possible
- Offset any leftover emissions through renewable energy production, re-greening and new technologies.
- Offset major capital expenditures anticipated in the Master Plan

Thank You

Further questions can be directed to:

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Working Together: Being part of the solution – not part of the problem

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