



September 14, 2010



YORK REGION AND LOCAL MUNICIPAL I-I REDUCTION PROGRAM I-I Task Force and Reduction Strategy

Presentation to Markham Development Services Committee

Agenda

- **The Cause and Concern of Inflow and Infiltration (I-I)**
- **Regional-Municipal Commitment to I-I Reduction**
- **2013 Allocation linked to I-I Reduction**
- **I-I and the South East Collector Project**
- **I-I Task Force**
- **I-I Reduction Strategy**
- **I-I Reduction – Best Practices Scan**
- **Strategy Submission Schedule**

The Cause and Concern of Inflow and Infiltration

Aging Infrastructure

- Cracks, breaks

Historic Building Practices

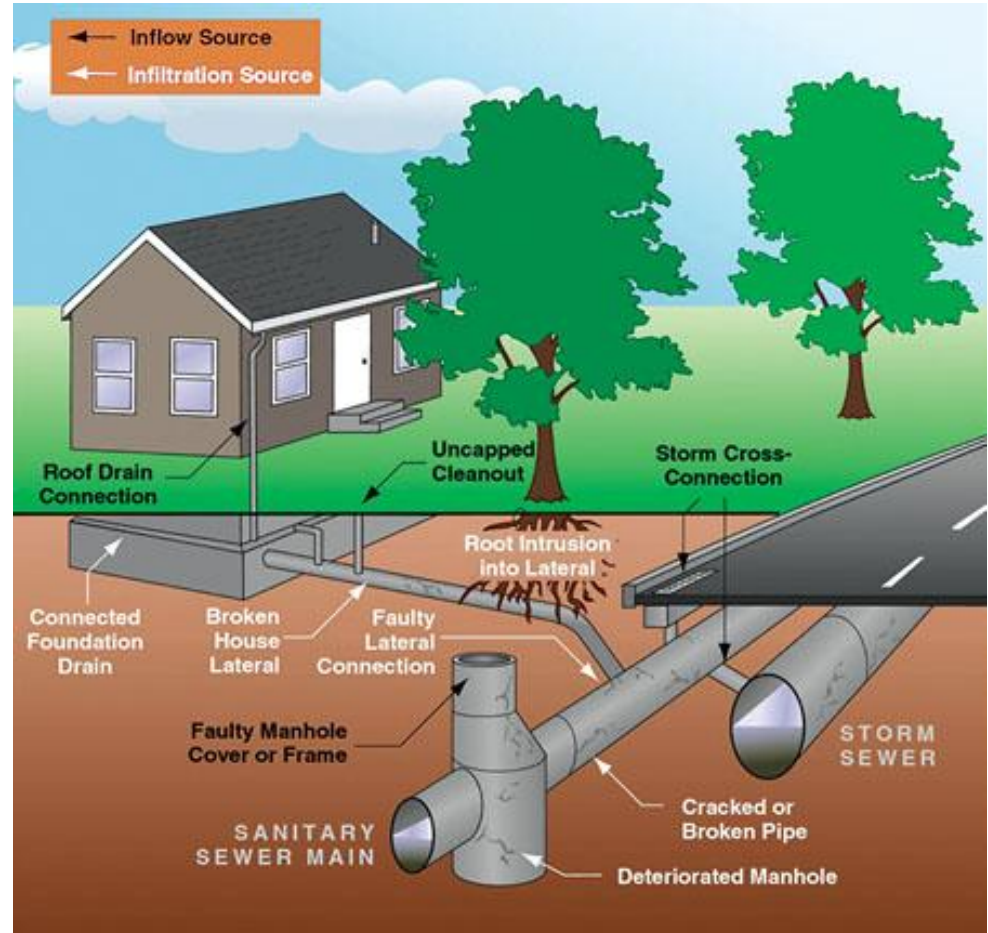
- Roof and foundation drain connections
- Cross connections from storm sewers

Newly Built Systems

- Not enough inspection
- Not built to Regional standards

Issues

- Consumed capacity
- Risk of flooding/overflows
- Cost of transmission/treatment
- Further deterioration



Regional and Municipal Commitment to I-I Reduction

Reducing inflow and infiltration has been an integral part of Servicing considerations by York Region since the first Water and Wastewater Master Plan developed in 1997

I-I reduction efforts were stepped up in 2007 with Regional Council approving a commitment of \$23 million in the 10 year capital plan with ongoing efforts by both Regional and Local Municipal staff regarding implementation

\$23 million in Regional investment on investigations and pilot projects

Regional and Municipal I-I Pilot Reduction Program

System Wide Approach to I-I Reduction

- System management is shared by both
- Plan to find and fix high priority areas
- Provide program management, strategic direction and funding to address inflow and infiltration on local municipal and regional systems

Pilot Program the largest of its kind in Canada

- Will identify industry best practices for asset management and cost effective remediation projects to reduce I-I
- Will provide a full suite of I-I reduction measures that are tested and available for all local municipalities and the Region

I-I Reduction Linked to Future Servicing Allocation

January/February 2010 - Presentations and reports to Environmental Services & Planning Committees on 2013 Servicing Capacity

Prior to assigning 2013 Servicing Allocation, Local Municipalities Will, in partnership with the Region, commit to I-I Reduction by:

- Participation on I-I Task Force
- Seeking out sources of I-I
- Adopting New Standards to Reduce I-I
- Determining Funding/Resource Requirements and Developing Cost Sharing Principles to address I-I Remediation Projects

2013 allocation requires Local/Regional commitment to I-I Reduction



How does Inflow and Infiltration relate to the Southeast Collector?

New SEC Trunk Sewer IEA recommended a 10% reduction in flow due to inflow and infiltration *and* water efficiency Programs

New SEC will:

- Build in system security – existing pipe is full
- Allow repairs to be made on existing SEC

Preferred Solution:

“Construct a new Southeast Collector Trunk Sewer in combination with Implementing Other Water Efficiency and Inflow and Infiltration Reduction Measures”



Long term planning and implementation avoids emergency repair, environmental and community health impacts

SEC IEA and I-I Conditions of Approval

Prepare strategy for reducing wastewater flows in Regional and Local Municipal systems including I-I reduction program (targets, timelines, strategies, tactics, and costs)

Strategy to be reviewed by advisory committee, public, regulatory agencies prior to submission to MOE

Review of “Best In-Class” programs by others worldwide

Peer review of strategy required in comparison with best in class study prior to submission and no later than March 31,2011

Implement and report on success – update on 5 year basis

**Strict Ministry conditions on reducing I-I
in Regional and Local systems**

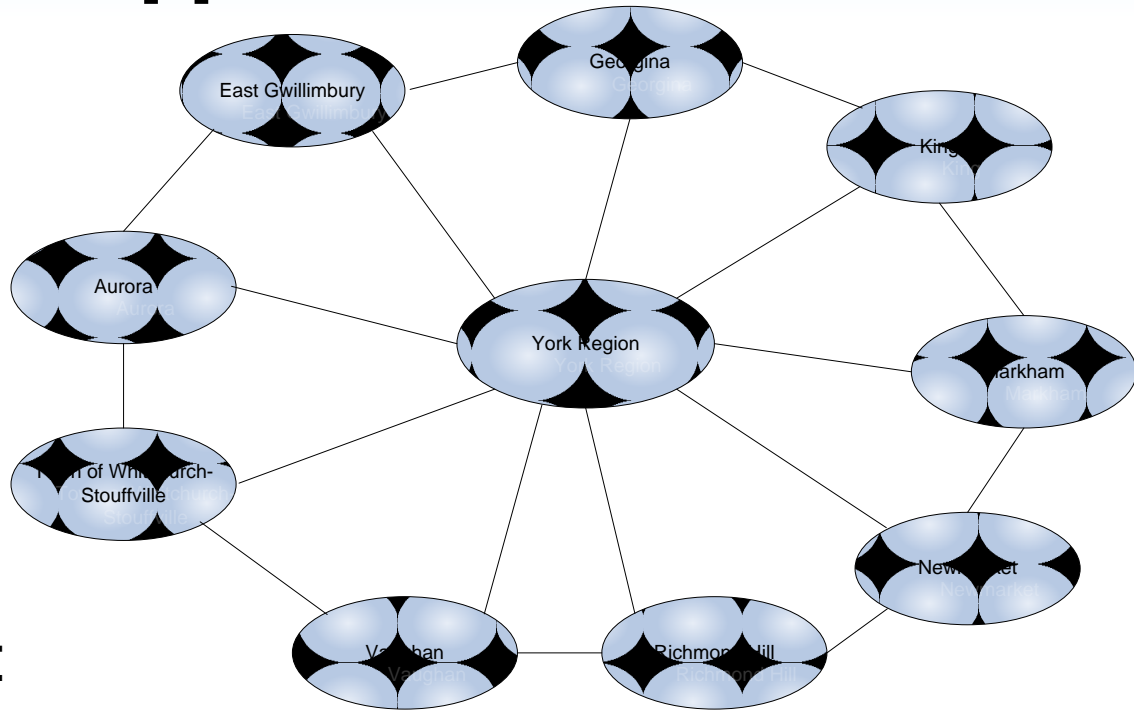
Success – Working together towards a new approach

I-I Task Force

Senior representatives working to make drive success and report to respective Councils.

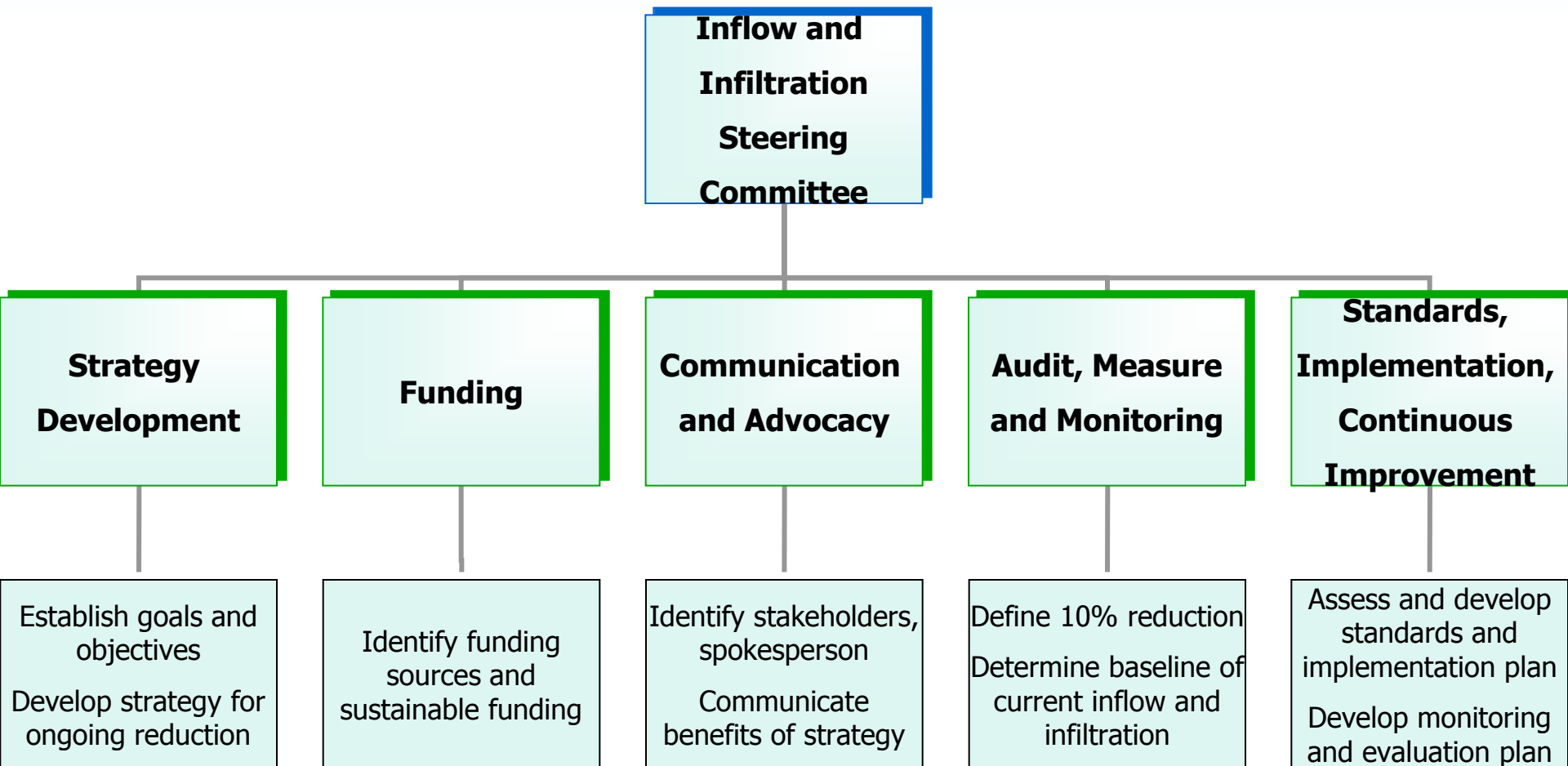
Develop long term integrated Regional and Local strategies to reduce I-I

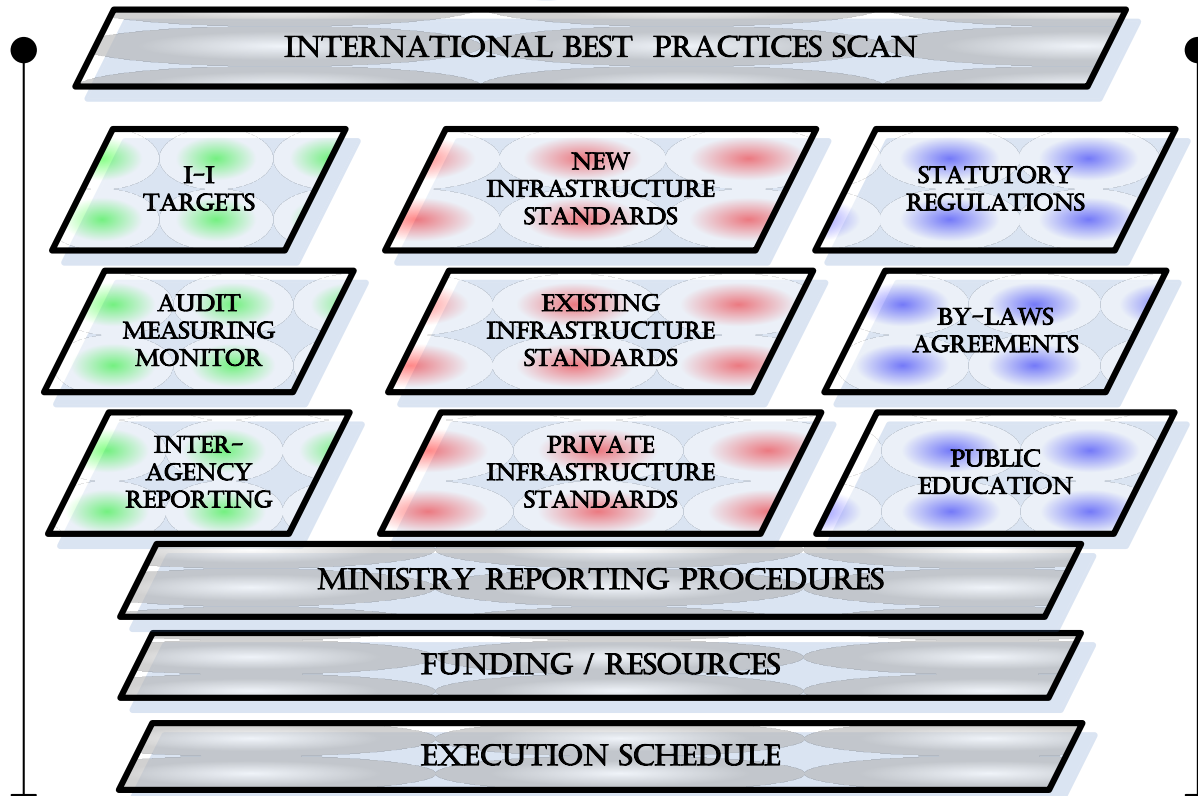
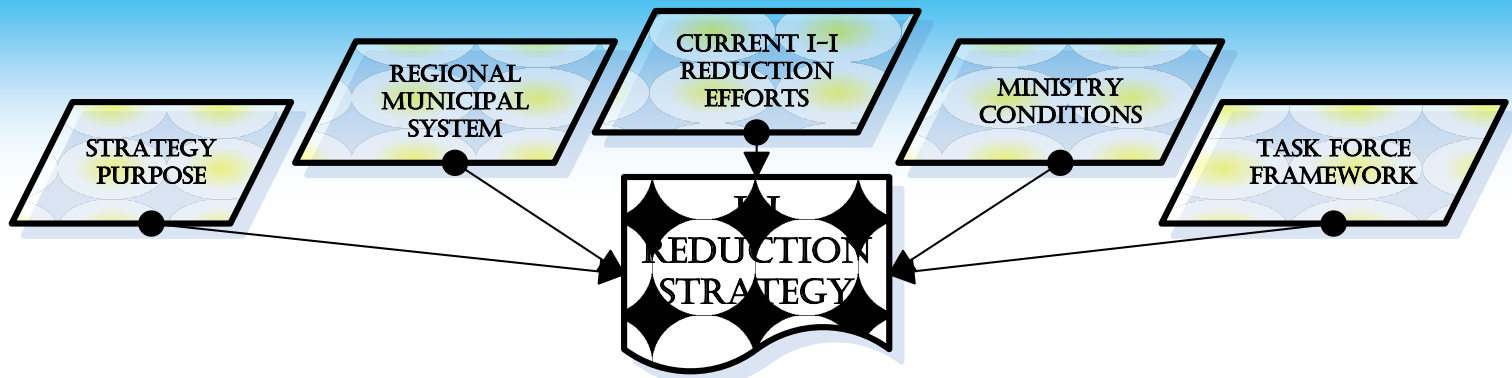
Develop sustainable funding mechanisms and explore cost sharing opportunities



I-I reduction is a responsible, cost effective asset management approach to sustain service and maintain infrastructure integrity

Inflow and Infiltration Reduction Task Force

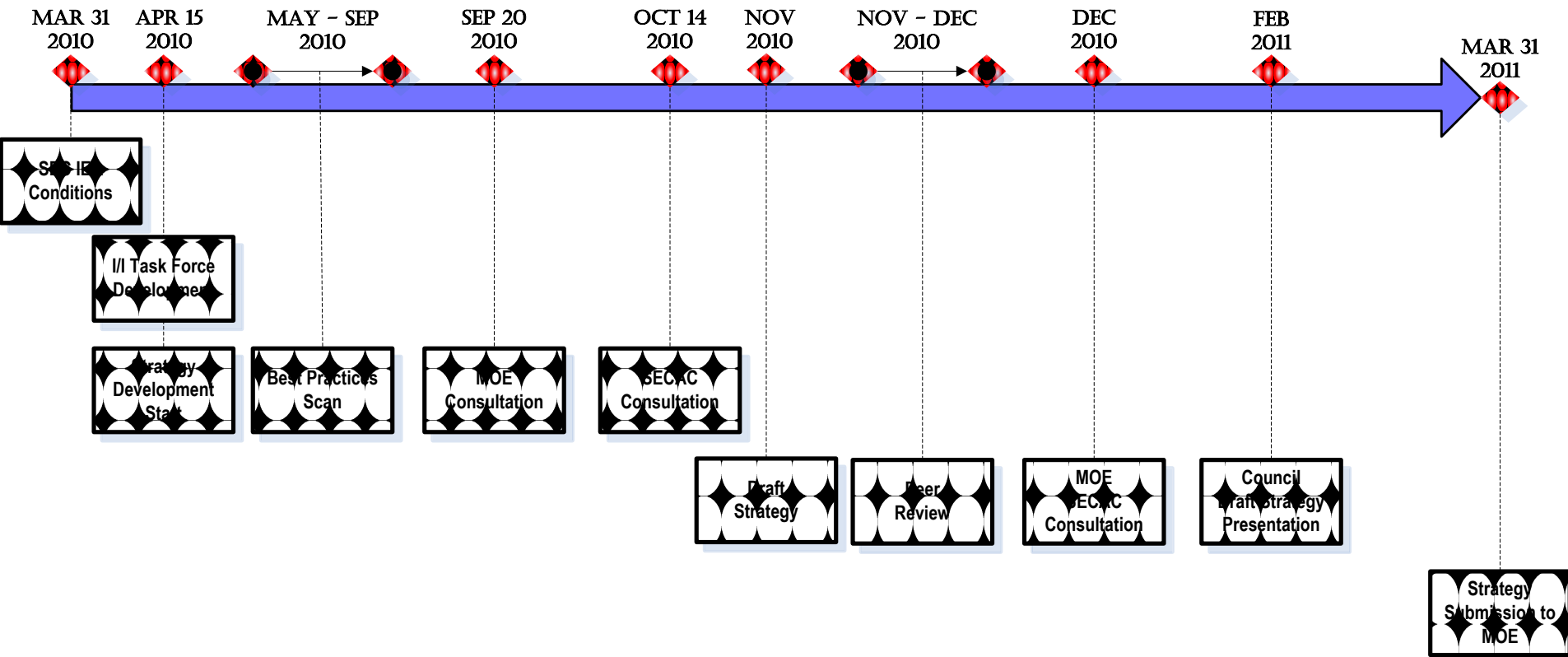




Best Practices Scan

	AGENCY
<i>American</i>	Metropolitan Council, St. Paul Minnesota
	Western Lake Superior Sanitary District (WLSSD)
	Renewable Water Resources, South Carolina
	Milwaukee Metropolitan Sewerage District, Wisconsin
	King County, Washington
	Metropolitan Sewer District of Greater Cincinnati
	Massachusetts Water Resources Authority (MWRA)
<i>Canadian</i>	Metro Vancouver, BC
	Capital Regional District, BC
	Halifax Water
	Region of Niagara
	Region of Waterloo
<i>International</i>	Greater Dublin
	Mullumbimby, Australia
	New Zealand Inflow and Infiltration Control Manual
	Auckland - New Zealand (WaterCare)
	Sydney Water Corporation - Australia

I-I Reduction Strategy Schedule



Questions?

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