


Attachment 1: Durham Region Progress on Great Lakes St. Lawrence Cities Initiative - Sustainable Municipal Water Management Milestones

PRINCIPLES	MILESTONES/Indicators	TRENDS/PROGRESS
1. WATER CONSERVATION AND EFFICIENCY	1.1 Promote Water Conservation Indicator: change in volume of water consumed per household per day	The volume of water consumed per day per household has decreased by 20% since 2003 and continues to decline.
	1.2 Install Water Meters Indicator: percentage of system users on water meters	 100% of Regional water system customers have been metered since 1978.
	1.3 Set the Right Price Indicator: progress toward full cost accounting and recovery.	Regional water and wastewater user rates are reviewed and set annually with the aim of recovering all anticipated costs.
	1.4 Minimize Water Loss Indicator: change in water loss in the water distribution system (loss per km of pipe)	Since 2008 Durham's water loss per km of pipe length has declined by 1.39 cu.m. per day (OMBI data). Region's 10 year polybutylene connection replacement program continues to address this issue.
	1.5 Increase Water Reuse and Recycling	No region-wide program at present beyond promotion of rain barrel use.
2. SHARED WATER STEWARDSHIP	2.1 Raise Public Awareness and Engage the Public Indicators: awareness campaign/events, engagement activities, citizen involvement in place	Awareness efforts include durham.ca website, publications such as <i>Durham Works</i> newsletter. Engagement efforts include National Public Works Week activities, odd/even watering days, support to Children's Groundwater Festivals, citizen advisory


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		committees (e.g. Durham Environmental Advisory Committee), Environmental Awards.
	2.2 Regular Public Reporting on Municipal Water Performance Indicator: incidence of regular public reporting of key water management indicators	Reporting includes Annual Drinking Water Reports, OMBI reports, yearly sewer and water servicing and financing studies, asset management reports all of which are available on at www.durham.ca
3. SHORELINE AND WATERWAY RESTORATION AND ACCESS	3.1 Protect and Restore Shorelines/Riparian Areas Indicator: length of shoreline area or riparian corridor that is protected or restored.	This activity is mainly undertaken by conservation authorities, area municipalities and volunteer groups. Area municipalities create waterfront land use plans to restore, enhance shorelines.
	3.2 Increase Public Access to Shorelines, Riverbanks, Waterfronts Indicator: Length of shoreline and or river bank with public access.	About 268 km of the Regional Trail network lies with the flood plain of a watercourse (Conservation Authority regulation limits) or along a lakeshore. New interactive online trails map launched in 2013.
	3.3 Protect Habitats and Biodiversity Indicator: Area of protected site of ecological interest	81,500 ha in the Region are protected by natural heritage policies in the Regional Official Plan. The Region has assisted in purchasing 3520 ha of conservation lands valued at more than \$27 million.
4. WATER POLLUTION PREVENTION	4.1 Prevent Pollutants from Entering the Stormwater or Sewage Collection System Indicator: pollution prevention measures in place	Regional efforts include treatment process at water pollution control plants, sewage use by-law, special collections for household hazardous waste. Regional sanitary sewer system is separated from area municipal storm sewer system. Some conservation authorities have “yellow fish road” program to remind residents not to dispose of liquid

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		wastes, chemicals down storm sewers.
	<p>4.2 Reduce Pollutants from Wastewater Treatment Plant Effluent</p> <p>Indicator: improvements of the quality of treated wastewater effluent, including contaminants of emerging concern.</p>	Upgrades/rebuilds of water pollution control plants (e.g. Whitby) and decommissioning of older, less efficient plants (e.g. Harmony Creek, Corbett Creek). Ongoing capital upgrades will continue to improve the standard of wastewater treatment at Regional plants.
	<p>4.3 Reduce Stormwater Entering Waterways</p> <p>Indicator: reduced overflows</p>	Stormwater management is primarily handled by area municipalities.
	<p>4.4 Monitor Waterways and Sources of Pollution</p> <p>Indicator: water quality parameters (drinking water sources, surface waters)</p>	Since 1999, Durham has participated in the National Water and Wastewater Benchmarking Initiative. The Region's groundwater monitoring program tracks water quality and quantity in 115 observations wells.
	<p>4.5 Improve Beach Quality</p> <p>Indicator: change in number of days beaches are open for swimming</p>	Regional health department provides weekly water testing at 14 public beaches during summer. Daily indicators are not presently available.
	<p>4.6 Reduce Sodium Chloride Entering Waterways</p> <p>Indicator: Adoption of road salt management plan</p>	Salt management plans are in place for Regional Roads to reduce the amount of salt entering ground and surface waters.

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5. WATER PROTECTION PLANNING	5.1 Adopt Council-endorsed Commitment to Sustainable Water Management	✓ The Durham Community Strategic Plan, the Regional Official Plan and Durham Region Climate Change Local Action Plan all contain commitments to more sustainable water management.
	5.2 Integrate Water Policies in Land Use Plan	Regional Official Plan includes policies protecting vulnerable aquifers (e.g. Oak Ridges Moraine Plan), restricting growth in areas dependent on groundwater and directing growth to existing urban areas. Area municipal plans also contain relevant policies.
	5.3 Collaborate on a Watershed Scale Indicator: municipality participates in watershed scale water management planning	Region is a major funder of and works closely with our conservation authorities in the development of watershed plans.
	5.4 Adopt Green Infrastructure Indicator: objective or policy adopted to encourage the use of green infrastructure	The Regional Official Plan contains high level policies that encourage low impact development (LID). Area municipalities create more detailed plans which may include specific LID requirements.
6. WATER PREPAREDNESS FOR CLIMATE CHANGE	6.1 Conduct a Vulnerability Assessment	✓ Vulnerability and risk assessment for Regional operations has been completed as part of the Region's climate change action plan.
	6.2 Address Vulnerability Indicator: climate change adaptation plan for	Region completed a corporate adaptation plan for 2014 to 2017 to the ICLEI "5th milestone" standard ¹ . Development of a community-wide adaptation plan is

¹ Milestone under the International Council for Local Government Initiatives- Canada "Building Adaptive and Resilient Communities Program"

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	<p>water resources in place</p> <p>6.3 Reduce Greenhouse Gas (GHG) Emissions</p> <p>Indicator: energy savings in operation of water and wastewater systems</p>	<p>underway.</p> <p>GHG emissions from Regional operations are tracked and reported annually. Energy use optimization measures have been implemented at Regional water and waste water treatment plants.</p> <p>New Regional facilities are built at a level comparable to, or exceeding, the standards of American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1, 2007 Energy Standard, which compares favourably with Leadership in Energy and Environmental Design (LEED) Silver Certification and has been adopted by the Ontario Building Code (OBC).</p>

Indicator Key	
Milestone completed for static indicators	
Significant progress	
Stability or moderate progress	
Not applicable (goal not or not fully under Regional authority)	