Canadian Approaches to Measuring Water Security: An Inventory of Indicators. (A policy report by Gemma Dunn) Appendix 5: Infrastructure Indicators (including condition & wastewater treatment) – as of March 2009

Appendix 5: Federal, Provincial, Regional and Community Infrastructure Indicators (as of March 2009)

The table lists Canadian federal, provincial and large-scale watershed (regional) infrastructure indicators. Some examples of small-scale (community level) indicators are also included. Note: Indicators under development (red text) are included in the final tally in the main report. The grey text refers to water monitoring and reporting tools, which are not technically indicators per se, these reporting tools are not included in the final tally.

AGENCY	INDICATOR	DESCRIPTION			
FEDERAL LEVEL	FEDERAL LEVEL				
Policy Research Initiative	Canadian Water Sustainability Index (CWSI)	Infrastructure (demand, condition & treatment)			
Environment	National	Urban Water Indicators – Wastewater Treatment:			
Canada	Environmental	Level of metered residential water use			
	Indicator Series	Municipal population served by wastewater treatment.			
	2	Levels of municipal wastewater treatment (primary, secondary or tertiary).			
Commission for Environmental Cooperation (CEC)	Children's Health and the Environment in North America	DRINKING WATER: (a) Percentage of children (households) without access to treated water, (b) Percentage of children living in areas served by public water systems in violation of local standards SANITATION: Percentages of children (households) that are not served with sanitary sewers			
PROVINCIAL LEV	PROVINCIAL LEVEL				
Alberta	Drinking Water Safety Indicator	Facility Design: Indicates if continuous improvement and upgrading is occurring at regulated facilities			
Manitoba	The treatment needed for potable purposes	Public water treatment plants use four classes of treatment, depending on the quality of source waters. These classifications will be used as the indicator under development			
NF&L	Langlier Index	Water supply operators can optimize their water supply systems and identify leakage potentials with the Langelier Index.			
NS	Annual Accountability Report	Percentage of population served by municipal water supplies that meet the health-based criteria for bacteriological quality, as stated in the Guidelines for Canadian Drinking Water Quality, at all times during the calendar year (NB: This is a performance measure)			
Saskatchewan Environment		 Infrastructure produces water that meets the national drinking water quality guidelines: Percent of facilities that meet bacteriological guidelines 90 per cent of the time Percent of waterworks that meet disinfection requirements 90 per cent of the time Number of waterworks that do not meet Saskatchewan Environment's minimum treatment requirements 			

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Saskatchewan Environment Saskatchewan		 Infrastructure produces water that meets the national drinking water quality guidelines: Percent of facilities that meet bacteriological guidelines 90 per cent of the time Percent of waterworks that meet disinfection requirements 90 per cent of the time Number of waterworks that do not meet Saskatchewan Environment's minimum treatment requirements Waterworks systems and operations are financially sustainable: Number and percentage of municipalities that have waterworks rates that cover waterworks expenditures and debt payments Risks associated with water management infrastructure 			
Water Authority		The number of dams requiring upgrades to meet dam safety criteria			
REGIONAL LEVEL					
Great Lakes (Superior, Huron, Michigan, Erie and Ontario) Management Plans	Great Lakes Indicator Assessments	Wastewater Treatment			
Upper Great Lakes Region	GEM Center for Science and Environmental Outreach	Socioeconomic sustainability indicators: • Wastewater Treatment			
Alberta Saskatchewan and Manitoba	Composite index of vulnerability for Prairie water resources	Water Policy Programs Industrial, commercial advice of water conservation Public Advert on water conservation in RM Installation of water efficiency equipment			
COMMUNITY LEV	/EL:				
Fraser Basin Council (BC)	Sustainability Indicators	Wastewater treatment			
Southeast False Creek Steering Committee (BC)	Sustainability Indicators	 Water Consumption (residential), litres/capita/day Storm Water Drainage (Effective Impervious Area (EIA), as % of total site area) 			
Metro Vancouver	Infrastructure	Ratio of current annual losses to unavoidable annual losses			

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Pembina	Ontario Community	Percentage of population served with tertiary water treatment. (Rationale - this reflects
Institute	Sustainability Report	stress being placed on local water bodies from sewage loadings.
The Clear	Community of	Volume of Sewage per person (per capita),
Network	London	Sewage plant efficiency (removing phosphorus)
(London,	Environmental	Sewage treatment bypass.
Ontario)	Awareness	
,	Reporting Network	