



Municipal Natural Assets Initiative

News Release & Backgrounder

Report: nature helps communities manage flooding

(Feb. 21, 2020 Victoria) – The latest research from the Municipal Natural Assets Initiative (MNAI) finds that natural assets like wetlands, forests and ponds help communities in Canada better manage flood risk, while providing a range of other ecosystem benefits, and at savings ranging from \$0.2 to \$414 million.

These findings are based on six assessments of natural infrastructure values from the District of Sparwood and City of Courtenay in British Columbia; the communities of Florenceville-Bristol, Riverside-Albert, and Riverview in New Brunswick; and the City of Oshawa in Ontario.

In each community, the assessment results demonstrated that conservation and proper management of natural assets helps local governments deliver core services to their residents, such as stormwater conveyance, drinking water supply, water treatment, etc. - all at a reduced cost, compared to traditional engineered or grey infrastructure assets.

“In Canada and beyond, urban infrastructure is in very poor shape,” said Roy Brooke, Municipal Natural Assets Initiative Executive Director. “And every year, local governments face increasing pressures from growing populations, extreme weather conditions, and tightening budgets. These latest MNAI research results demonstrate why more and more local governments are discovering that it makes sense to incorporate natural assets such as wetlands, forests, ponds, watersheds, or creeks into their asset management plans.”

The full technical reports, summary briefs, and overview report are [available here](#). Previously, MNAI worked with the City of Gibsons, City of Nanaimo, District of West Vancouver, and City of Grand Forks in British Columbia, as well as the Region of Peel and the Town of Oakville in Ontario, that also explored economic values of services provided by natural assets. Documents for these communities are [available here](#).

The MNAI team provides scientific, economic and municipal expertise to support and guide local governments to identify, value and account for natural assets in their financial planning and asset management programs, and to develop leading-edge, sustainable and climate-resilient infrastructure. For more information, visit mnai.ca.

Backgrounder follows.

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Municipal Natural Assets Initiative – Cohort 2 National Project – Select Findings

Location	Natural Asset Intervention	Assessed Benefits to the Community	\$ Value of the Benefit
Courtenay, British Columbia	Widening and naturalizing 1,292 metres of the Courtenay River riverbank	Flood attenuation for 1-in-200-year flood event	\$2.4 million In flood damage reduction to properties downstream
District of Sparwood, British Columbia	Protecting a 150 m ² natural pond	Maintaining current water quality benefits the pond provides	\$200,070 Based on cost of an engineered alternative, capable of treating 80% of pollutants (<u>note</u> : pond treats 90-95% of pollutants or total suspended solids)
Florenceville-Bristol, New Brunswick	Protecting 182 hectares of forested area along the St. John River	Flood and stormwater attenuation benefit for 1-in-100 year storm	\$3.5 million Based on cost of replacing forested area with stormwater management ponds (note: the value increases to \$4.1 million if climate change is factored in)
Riverside-Albert, New Brunswick	Protecting ~203 ha of Arabian Vault watershed	Maintaining current drinking water supply the watershed provides	\$0.8 - \$1.2 million Based on cost to construct a groundwater source system (i.e. wells)
Riverview, New Brunswick	Protecting four wetlands, covering 13,791m ² area in Mill Creek Watershed	Flood attenuation for 1-in-100 year flood event	\$1.4 million Based on cost of replacing wetlands with stormwater management ponds or constructed wetlands. (note: the value increases to 2.3 million if climate change is factored in)
City of Oshawa, Ontario	Protecting 7 km of natural area in the Oshawa Creek Watershed	Maintaining the current stormwater conveyance benefit that the area	\$18.9 million Based on cost of constructing an open channel with similar flow rates to Oshawa Creek



Making Nature Count

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		provides	
	Protecting entire 50 km of the Oshawa Creek Watershed	Maintaining the current stormwater conveyance benefit that the watershed provides	\$393 - \$414 million Based on capital cost of full channel realignment project, including land purchase, construction costs and contingency.

**under conditions of more severe storms occurring, driven by climate change*