

## Press Release: May 24, 2017 "Cities Over a Barrel: Residential Stormwater Solutions"

On May 23, RiverSides, a Toronto-based environmental non profit, released a timely summary report, entitled "Cities Over a Barrel: Residential Stormwater Solutions." This report documents key findings from RiverSides's 2016 pilot project (made possible by funds from CEC through NAPECA) which tested how automated rain barrels (ARBs) can help alleviate city stormwater stress—increasingly an important issue due to extreme weather events caused by climate change.

By installing ARB systems at residential sites in Toronto's flood-prone Riverdale community, the 2016 pilot tested the effectiveness of an ARB system to collect, store, and divert stormwater from Toronto city sewers. The report verifies that each well-installed prototype diverted 10,000 to 20,0000 L of water annually—or over 50,000 L in the five-month data collection period.

Nationwide floods this spring, and flooding in years past (Toronto in 2012, Calgary in 2013, and so on) caused by heavy rains related to climate change, demonstrated the escalating threat of stormwater to outdated and overwhelmed city infrastructure, which impacts homeowners and communities. Extreme storm events are outstripping our ability to safely manage stormwater, and the economic and environmental costs of this failure are enormous. Insurance claims due to flooding are now considered the most costly in terms of urban property damage. Canada-wide, between 2003 and 2012 more than \$20 billion in property loss was attributable to sewer back-ups and extreme rainfall.\*

Marcus Ginder, Managing Director of RiverSides points out that **"Toronto's homeowners have been left to fend for** themselves in the face of climate change, extreme storm events, and overwhelmed municipal sewers. When floods occur, who is left holding the bag?"

The results of the 2016 pilot project outlined in "Cities Over a Barrel" show a user-friendly solution is available to help homeowners—especially in flood-vulnerable communities— protect their property and to help overwhelmed city infrastructure cope with stormwater.

In describing the system, Andrew Ng, who chairs the RiverSides board, says, **"The ARB system is an exciting new** development: a community-based, scalable, technological innovation. It promises to be an important new tool in the toolbox of stormwater solutions."

The ARB system not only reveals a huge and untapped potential for individual homeowners to directly prevent residential flooding at its source, it also can be integrated into a broader municipal system. It is high-impact, low-cost, and adaptable to climate change–induced weather patterns, using existing technologies in a compact, effective, and tangible way.

To learn more about how an automated rain barrel works and the role it can play in urban stormwater management, see the enclosed summary report.

A final report detailing pilot design, assumptions, recommendations, householder case studies and analysis of technological potential will be released in June and made available at www. riversides.org.

\*Quoted in Daniel Henstra and Jason Thistelthwaite, "Climate Change, Floods, and Municipal Risk Sharing in Canada," in IMFG Papers on Municipal Finance and Governance 30 (2017): 4.

For more information or to arrange an interview contact:

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# **Backgrounder:**

### **RiverSides:**

RiverSides, founded in 2002, is a non profit environmental group dedicated to helping homeowners and municipal governments avoid the environmental and financial costs of stormwater damage and pollution.

We demonstrate innovative green technology that helps manage stormwater easily, efficiently, and at low cost, in a way that sustains and restores Ontario's watersheds.

#### **RainGrid Inc:**

RainGrid has manufactured and supplied the leading purpose-built residential V1 RainBarrel to major municipal stormwater and sewer utility programs since 2003. RainGrid is now transforming the typical stormwater business model into a distributed stormwater utility. We've combined distributed stormwater infrastructure with real-time automation and big data to create a self-regulating, utility-scale network of real-time managed cisterns, or SmartCisterns. Designed, implemented and maintained by RainGrid, the Stormwater Smartgrid guarantees your stormwater program achieves measurable, effective and reliable residential rooftop runoff diversion managed by quantitative precipitation forecasting.

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## NAPECA – CEC:

Recognizing that ecosystems do not follow political boundaries but rather often cross state, provincial, and national borders, and that individual investments made by each country can achieve greater success if a shared sense of responsibility and stewardship for the environment across North America is developed, the Parties, through the CEC, established a grant program, the North American Partnership for Environmental Community Action (NAPECA) in 2010.

NAPECA is intended to support a flexible and diverse set of project types that will improve access to resources provided by the Parties through the CEC for smaller, more hands-on organizations and that build partnerships at the community level with a focus on sustainable communities and urban initiatives.

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