



From: Bernadeta Szmudrowska, Integrated Water Management, Credit Valley Conservation

Date: March 14, 2018

Re: Smart Blue Roof Technical and Financial Feasibility Study

In September 2017, Credit Valley Conservation (CVC) submitted a funding application to the Federation of Canadian Municipalities (FCM), under the Climate Change Adaptation stream, as part of the Municipalities for Climate Change Innovation Program (MCIP). The funding request to conduct a feasibility study titled “**Automated Real-time IoT Blue Roof Rain Harvesting Systems for the IC&I Sector for Flood and Drought Resilience and Adaptation**” has been approved by FCM’s Executive Committee. To date, this project has received support from FCM, the Region of Peel, the City of Mississauga and Partners in Project Green, among many other supporters.

This technical and financial feasibility study will investigate the possibility of retrofitting CVC’s existing Building A flat roof into a blue roof with real-time controls to detain stormwater over an extended period of time while simultaneously building capacity and resiliency in Mississauga’s municipal stormwater system. This project will be transferable to the industrial, commercial and institutional sector (IC&I), as many IC&I buildings have large, flat roofs which generate high stormwater runoff volumes.

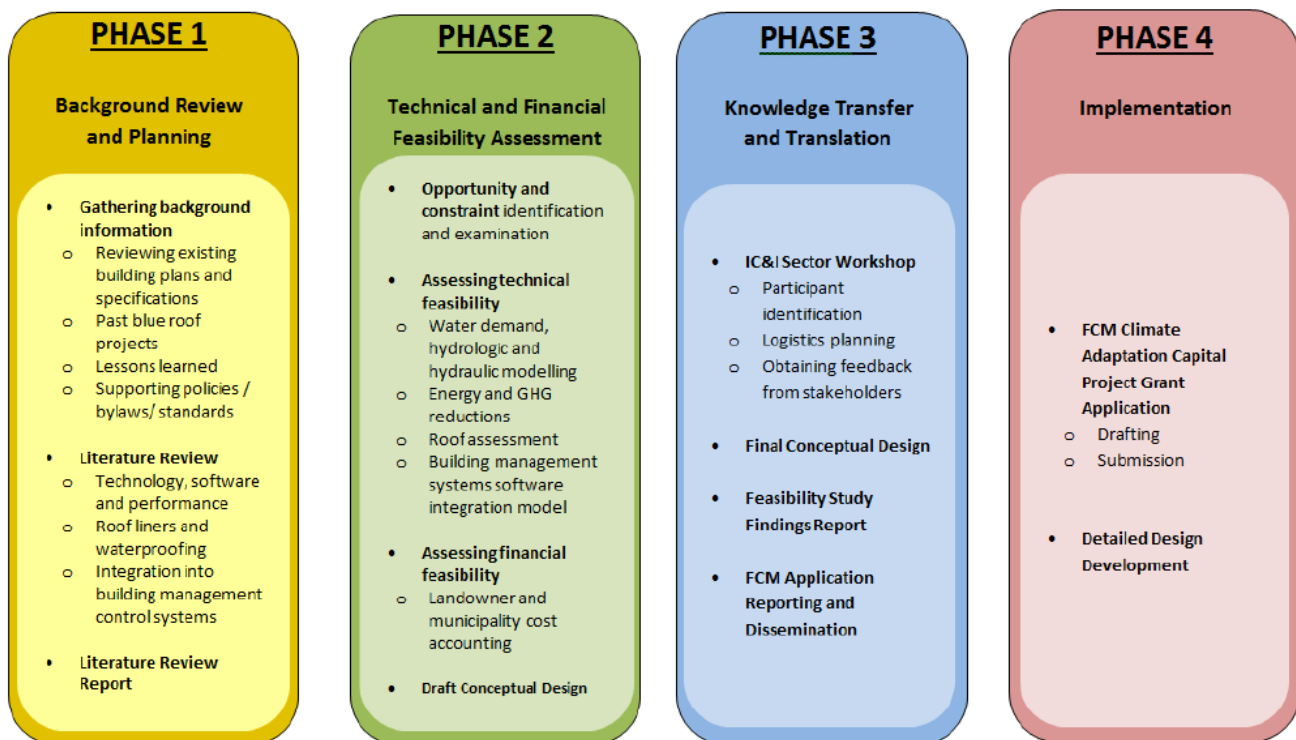


Figure 1: Smart Blue Roof Project phases. The project is anticipated to be completed by early 2019.

Depending on the outcomes of the feasibility study, CVC will move forward with implementing the recommendations and showcasing the real time stormwater management and potable water offsetting controls that can be achieved by retrofitting IC&I flat roofs common across the GTA. Following this feasibility study, CVC anticipates applying for FCM capital projects funding to construct a demonstration smart blue roof. Ultimately, the goal of this feasibility study is to demonstrate how the IC&I building sector can implement cost-effective stormwater and potable water efficiency technologies with shorter payback periods while meeting capital investment criteria. In addition, blue roofs provide potential savings to municipalities due to reduced greenhouse gas (GHG) footprints and improved climate change resiliency for stormwater and potable water infrastructure.

Sharing the Project

FCM and the Government of Canada announced the approved Municipalities for Climate Innovation Program funding for our feasibility study by means of a news release on the [FCM website](#). For a list of all 72 FCM-funded infrastructure initiatives across Canada, see this [link](#). The announcement is also published on the FCM Twitter, Facebook and LinkedIn social media accounts. We encourage you to please share this exciting project announcement with your networks!

For inquiries about the smart blue roof feasibility study, please contact:

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