

**From:** "Levitt, Karen" <karen.levitt@vancouver.ca>  
**To:** "Direct to Mayor and Council - DL"  
**Date:** 3/16/2023 12:27:34 PM  
**Subject:** Further Information re: Rain City Strategy Funding Announcement  
**Attachments:** NIF Funding Grant KMs FINAL.docx

---

Dear Mayor and Council,

This email provides a bit more information concerning today's Infrastructure Canada funding announcement re: the Rain City Strategy, responding to some questions posed by Councillor Dominato.

**Is there a further Q&A doc related to the strategy and the announcement?**

- Park and Recreation has shared their Q&A doc (see attached)

**The city funds – are they currently included in our 4 year capital plan approved at the end of last term?**

- The Government of Canada is contributing \$18,900,000 to this project from the Natural Infrastructure Fund (NIF), and the City of Vancouver /Park Board is contributing \$17,325,000 towards this project.
- The \$17.3 million City portion of this work is being funded via a combination of funds carried forward from the last Capital Plan, and funds in the current Capital Plan.
- There are four components to this Project: St. George Rainway construction, Still Creek Enhancements, Tatlow Park Stream Restoration, and Prioritized watershed based green infrastructure (bioretention, rainwater tree trenches, infiltration trenches and permeable pavement).

**The federal funds – are these new funds being announced or is this a re-announcement? Did we apply for these funds?**

- The federal fund was announced in June 2021, and the City made an application in October 2021.
- The City is receiving \$18.9 million for the Implementation of the Rain City Strategy Using Nature Based Solutions Project.
- These are new funds being announced, and we don't believe they have been previously announced.

**Beyond the St George's railway example, are there any other specific projects that we can identify that the funds will go to support?**

- The money will be invested in the Rain City Strategy, which outlines a series of actions to improve water quality, increase resilience to climate change, and enhance City ecosystems using natural infrastructure.
- Examples of project the funding will support are St. George Rainway, Tatlow Park Stream Restoration, Still Creek Enhancement in East Vancouver as well as other watershed based green infrastructure including bioretention, rainwater tree trenches, permeable pavement and infiltration trenches.



## NIF Funding Grant Key Messages & FAQs

---

<b>Business Partners:</b>	Chad Townsend, Senior Planner Environment & Sustainability, Park Board Max Scruton, Civil Engineer, Green Infrastructure Implementation Robb Lukes, Manager Green Infrastructure Implementation
<b>Spokespeople:</b>	Chad Townsend, Senior Planner Environment & Sustainability, Park Board Robb Lukes, Manager Green Infrastructure Implementation
<b>Comms Leads:</b>	Eva Cook, Snr Communications Specialist, Park Board Elayne Sun, Snr Communications Specialist, City of Vancouver Godfrey Tait, Communications Manager, Engineering, City of Vancouver

### Overview / Key Messages

The Green Infrastructure and Park Board teams have been awarded grant assistance of up to almost \$19M from the Federal Government's Natural Infrastructure Fund.

Together with contributions from the Park Board and City of Vancouver, this represents an investment of just over \$36M in natural infrastructure that will better manage rain water runoff to improve waterways, habitats and water quality in Vancouver, alongside increasing resilience to climate change.

- **How much money has been granted by National Infrastructure Canada?**
  - Up to \$19M
  - The Government of Canada is contributing \$18,900,000 to this project from the Natural Infrastructure Fund (NIF), and the City of Vancouver/Park Board is contributing \$17,325,000 towards this project.
  - Total: \$36,225,000
- **When was this money awarded?**
  - Today (officially)
- **How and when did the City apply for this grant?**

- 2021 through the Federal Government's dedicated application process.
- **How will the money be spent?**
  - The money will be invested in the Rain City Strategy, outlines a series of actions to improve water quality, increase resilience to climate change, and enhance City ecosystems using natural infrastructure.
  - It must be spent by the end of December 2024.
- **What is the Rain City Strategy and how will it support the city's changing climate?**
  - The Strategy was launched in 2019 to implement natural infrastructure, also called green rainwater infrastructure, across the entire city to help manage rainwater runoff from 400,000 square meters of drainage area.
  - Rain becomes runoff when it falls on hard city surfaces and picks up chemicals and other pollutants, where it can carry them into waterways, harming species that live there. Natural infrastructure uses plants and soil that can filter pollutants from rainwater. It is also absorbent, and works with grey infrastructure like streets to slow down and hold on to rainwater, allowing it to soak into the ground rather than diverting it into pipes where it becomes a lost resource. Capturing rain where it land also helps prevent flooding and reduces the volume of water entering our sewer system.
  - During heavy rains – which are expected to be more frequent with climate change - polluted rainwater can spill from combined systems into waters along our coastline. Vancouver has a legacy of combined pipes that are still being used in some areas, where sewage and rainwater are conveyed in the same pipe. When these pipes reach overcapacity during heavy rain, combinations of sewage and rainwater are sent to areas like Burrard Inlet to prevent sewer back-ups.
  - Initial projects under the Rain City Strategy include Tatlow Park stream restoration, Still Creek Watershed enhancement and St. George Rainway. These projects will implement or enhance 28,700 m<sup>2</sup> of natural infrastructure distributed across the city – roughly the same areas as four soccer fields. Natural infrastructure also helps mitigate greenhouse gas emissions, improves air quality and makes cities more livable by bringing nature into the city.
  - By investing in infrastructure, the Government of Canada is growing our country's economy, increasing the resiliency of our communities, and improving the lives of Canadians.

- **What projects specifically will this money be used for?**

- **St George Rainway** – will improve rainwater management, habitat connectivity, and enhance active transportation routes along 4 city blocks in the Cambie/Heather Watershed, near the existing school and Guelph / Dude Chilling Park. It will also aid in the greenspace provision to some of the new residents from the recent Broadway Plan approval.

Bioswales and rainwater tree trenches will clean the polluted rainwater runoff from local streets and sidewalks and be partnered with a new street layout to create safer cycling and walking routes along St. George Street.

This 1,200m<sup>2</sup> bioretention system will treat runoff from 8,100 m<sup>3</sup> and add 280 m of protected all ages and abilities bike lane. The St. George Rainway is a community-driven project that will incorporate opportunities for education and placemaking, grassroots community building that provide traffic calming, street improvements, active transportation routes, and more greenery and biodiversity to the neighbourhood.

Plantings along the Rainway will help improve neighbourhood tree canopy (currently 5% compared to City's target of 18%), and provide urban cooling benefits within the watershed, which includes several high-risk urban heat areas.

- **Tatlow Park Stream Restoration** – The stream through Tatlow Park was disconnected from its historic catchment area over 100 years ago and was until recently fed by potable water in the summer. The restoration works will reconnect some of its historic drainage area and to English Bay, creating new habitat.

The project includes 260 m of stream restoration, improved public access to the shoreline, enhanced habitat for shoreline birds and other wildlife, treatment of wetlands and green infrastructure to clean runoff from a 97,300 m<sup>2</sup> urban drainage area, amounting to 120,100 m<sup>3</sup> of stormwater treated each year.

- **Still Creek Enhancement, East Vancouver** – Still Creek is one of the few remaining creeks in Vancouver that has not been buried. This natural asset provides flood mitigation, drainage services, and important ecological and social services.

The Still Creek watershed has an extremely low tree canopy cover (7%) and one of the highest median urban heat temperatures in the City.

The enhancements proposed for Still Creek include riparian planting, wetland construction in select catchment area parks, stormwater treatment, and a viewing platform to improve access to nature for residents. This project will help increase

urban rainwater management, enhance biodiversity, reduce urban heat island effect, and improve connections between people and nature in the neighbourhood. When complete, these enhancements will help to manage rainwater runoff from a total catchment area of 247,000 m<sup>3</sup>, add 9,400 m<sup>2</sup> of riparian and greenspace planting to promote biodiversity, and improve access to the natural channel.

- **Other watershed based green infrastructure** – bioretention, rainwater tree trenches, permeable pavement and infiltration trenches.
- **How will this money support the City and Park Board's overall goals to improve natural infrastructure and rain water management across Vancouver?**
  - This grant will support several projects that align with the City's Rainwater Strategy, and Park Board's VanPlay master plan.
  - Additionally, many of these projects are situated in the east of the city, where Equity efforts are being made to increase biodiversity through new and sustainable innovations and natural infrastructure.
- **On these projects, what will be the split of municipal funding and federal grant funding?**
  - 40-60%
- **What are some examples of natural green infrastructure?**
  - Wetlands
  - Urban Forests
  - Bioswales (vegetated stormwater channels)
  - Green roofs
  - Naturalized stormwater ponds
- **How much of the city will be impacted by this grant?**
  - The bundle of projects included in this application will implement or enhance 28,700 m<sup>2</sup> of natural infrastructure distributed across the entire city. In total, this bundle of natural infrastructure will manage runoff from 404,000 m<sup>2</sup> of drainage area, mostly high pollutant generating road runoff.  
  
This drainage area will bring the City 3.7% closer to the Rain City Strategy goal of managing 40% of the city's right-of-way impervious area with natural infrastructure by 2050.
- **What is the Rain City Strategy and how will this grant further its goals?**
  - The Rain City Strategy is a 30-year plan to change how the City of Vancouver manages rainwater. The Implementation of the Rain City Strategy Using Nature-

Based Solutions project supports the City of Vancouver in meeting the goals, objectives, targets and action plans of the Rain City Strategy.

- There are four components to this Project: St. George Rainway construction, Still Creek Enhancements and wetland construction in select catchment area parks, Tatlow Park Stream Restoration, and Prioritized watershed based green infrastructure (bioretention, rainwater tree trenches, infiltration trenches and permeable pavement).
  - This Project will improve water quality and provide climate adaptation, increased flood resilience, species protection, increased biodiversity, and social enterprise and workforce development.
  - It will also improve livability in the City of Vancouver especially for the residents near the Still Creek Watershed (pop. 55,164), the Cambie/Heather Watershed (pop. 62,632) and the Balaclava Watershed (pop. 42,730) by reducing urban heat island effects, improving air quality and creating more access to nature and sustainable transportation opportunities.
- **Previous Experience with Natural Infrastructure Projects**
    - The City has a strong track record of building natural infrastructure projects. In the last 20 years, the City has designed and built 280 GI assets. In 2010, the City completed work on Olympic Village, which features wide-scale use of natural infrastructure throughout the neighbourhood to manage urban rainwater runoff, including a wetland habitat integrated into Hinge Park, green roofs, permeable pavement, rainwater tree trenches, and bioswales (See the Olympic Village Rainwater Management Pamphlet: <https://vancouver.ca/files/cov/olympic-village-brochure.pdf> ).
    - Since the formation of the Green Infrastructure Branch at the City of Vancouver in 2017, the city has built a talented and passionate team of 26 multi-disciplinary professionals dedicated to delivering green infrastructure. The team brings together decades of green infrastructure implementation experience from across Canada and the US. The City has gradually ramped up its investment in natural infrastructure, with 107 sites being built since 2017 using improved design standards that capture and clean between 24-48 mm of rainfall per day.
    - This includes the successful delivery of multi-million dollar green infrastructure projects, such as the eight block blue-green system on Richard St in downtown Vancouver. The team is continuously learning and adapting designs to provide the best environmental, social and financial results.
    - City staff have also developed a series of green infrastructure design standards and guidance to help streamline design and make natural infrastructure a business

as usual practice. The City also has a long track record of success related to protecting and enhancing Still Creek, with three major enhancement projects involving channel daylighting and instream enhancements constructed between 2005 and 2011.

- As natural infrastructure is still a burgeoning field, City staff have been working closely with both internal crews as well as external contractors to help develop their skill sets in the construction of these assets. This includes pre-construction training for construction crews and step-by-step instruction in construction drawings. Proper construction techniques are essential to ensuring that natural infrastructure is built correctly, has a high level of function once complete, and will function as expected through its entire asset lifecycle. An operation and maintenance program is also in place to care for green infrastructure, with trained and qualified landscape and maintenance contractors caring for the 280 built green infrastructure asset in public spaces.