

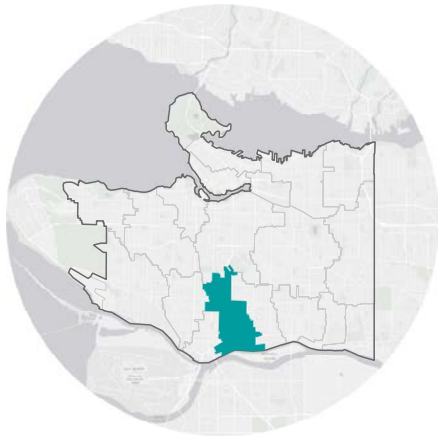
Yukon & 63rd

Rain City Strategy Green Infrastructure Implementation

Last Updated: 2022

About Yukon & 63rd

Location



Manitoba Watershed



Location of bioswale



Project overview

Within the Marpole Community Plan, the intersection of 63rd Ave and Yukon St was identified as an opportunity to increase access to green space, enhance rainwater management, and improve neighborhood amenities. An historic stream runs underground near the GRI asset, and this informed the design of the plaza, which evokes the image of fallen trees across a typical British Columbia creek. The soils and plantings were selected to clean pollutants typically found in urban rainwater run-off and it allows rainwater to soak back into the ground; restoring a more natural water cycle. Plantings are predominantly native species, supplemented with non-native species to improve the asset performance and resiliency. In addition to GRI, the plaza contains seating, bicycle racks, trees, and a drinking water fountain.

Project delivery

This project was designed and constructed using new sustainable approaches. It pilots innovative inlet design, planting schemes, and onsite soil amendment and reuse. Native topsoil amendment proved to be a sustainable, cost-saving measure compared to the usual strategy of topsoil removal and importation of an engineered bioretention media. The innovative inlet design allows for improved access and ease of maintenance while also collecting sediment and debris before it enters the GRI asset. Ongoing monitoring of inlet function, groundwater levels, and plant health is in place to evaluate design performance and inform future GRI design standards.

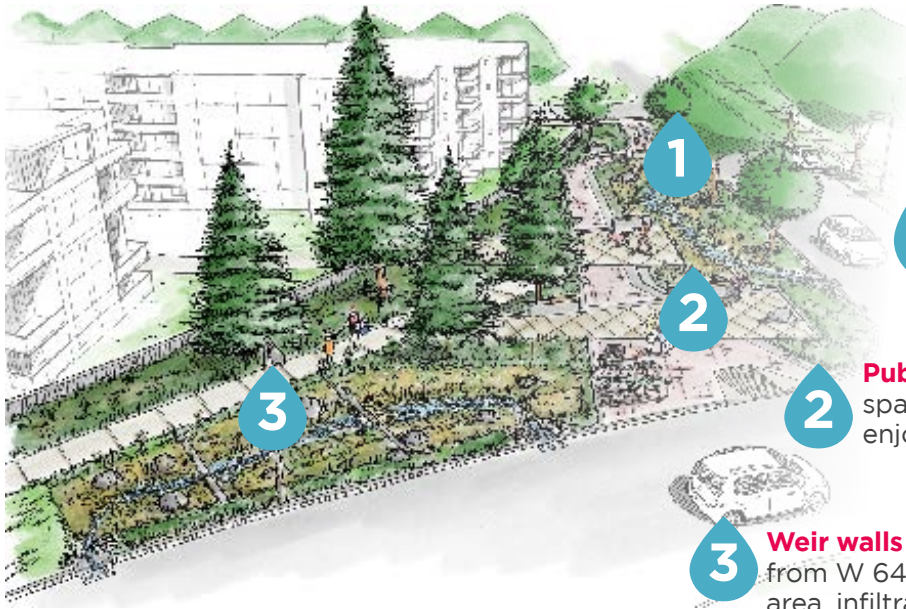
What is Green Rainwater Infrastructure (GRI)?

GRI is a cost-effective approach to rainwater management that protects, restores, and mimics the natural water cycle. It uses soils, plants, trees, and engineered structures to capture, store, and clean urban rainwater runoff before returning it to our waterways and atmosphere.

GRI delivers essential drainage services as well as additional co-benefit services such as reducing climate change risks, providing ecosystem services, and offering opportunities to stimulate the local economy.

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Project design Project elements

1

Bioswale captures rainwater runoff from 63rd street and allows for infiltration and pollutant filtration before reaching an overflow catch basin.

2

Public Plaza allows for seating and gathering space for residents and visitors to stop and enjoy the bioretention planting and artwork.

3

Weir walls help to slow rainwater runoff collected from W 64th Ave and in turn, increases ponding area, infiltration, and reduces risk of erosion.

Design Components



Signage informs public of the function and key design components.



Seating provides comfortable places to rest and enjoy the site.



Inlet provides accessible walking surface and ease of maintenance.



Trees provide shade to help reduce urban heat as well as increase local biodiversity.

Design considerations



Soil Amendment allowed for cost savings as the existing soil could remain in place with minimal additions to increase infiltration and suitability for planting.



Historic Stream was located near this site, and helped to inform the overall design.



Planting palette emphasizes the use of hardy, native species.

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Reconciled Futures

In March 2019, the Museum of Vancouver hosted a one-week Reconciled Futures Art Camp for Indigenous youth. Nine Indigenous youth aged 12 to 17, including seven members of local Nations and two urban Indigenous youth, took part in the program. The camp was led by Art Project Coordinator and Mentor Karen Francis, Gitksan Wet'suwet'en. Youth took part in workshops, attended exhibits at the Museum of Vancouver, met special guest artists, and were mentored while they designed their own sculptures. The sculptures were then prepared and installed by City of Vancouver staff in a rain garden plaza at 63rd Avenue & Yukon Street.



Reconciled Futures



Heron and Sun

Heron: Brandon and Vincent Morgan, Tsawwassen Nation
Sun: Ethan Baker, Tsawwassen Nation



Hummingbird

Pia Bond, Nlaka'pamux Nation



Raven

Madison Corkum-Gallon, Haida Nation



Spawning Salmon I

Top: Madelyn Hourston-Baker, Squamish & Ojibway Nations
Bottom: Katelynn Aquash, Squamish Nation



Spawning Salmon II

Top: Scarlett Sparrow-Felix, Musqueam Nation
Bottom: Kaleigh Goetzinger, Musqueam & Haida Nations



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102 m²
Bioretention planting area



1.1 thousand m²
impervious area managed



2.2 thousand m³
urban rainwater runoff diverted
from sewer system annually

Timeline & partners for GRI

The GRI components of the project were **internally designed and constructed, led by the Green Infrastructure Implementation Branch**. In the timeline below, key partners that supported the delivery of GRI are identified at each stage of the project.

