

1. Are residents required to pay for a connection to the new storm main?

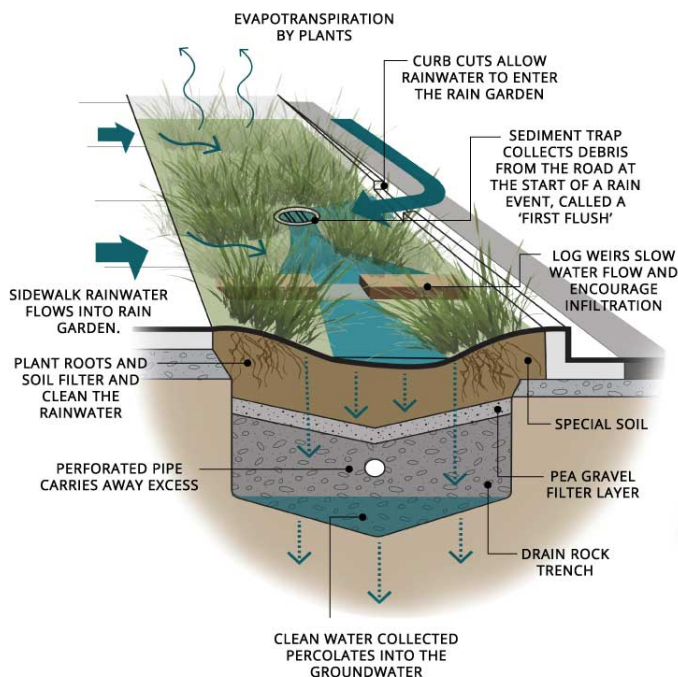
No. There is no payments or work expected from residents at this point or during the project duration. All the ongoing work is being completed by the City and residents are not required to connect to the storm sewer. Residents will only be required to install a new private connection to the new storm sewer at the time of property redevelopment. The City is making no changes to the existing private connections.

2. What is green infrastructure?

Green infrastructure is defined as the natural vegetative systems and green technologies that collectively provide society with a multitude of economic, environmental, health and social benefits by managing stormwater and improving water quality. Types of green infrastructure include absorbent landscapes, infiltration swale, rain gardens/infiltration bulges, pervious paving, green roofs, etc.

3. What are rain gardens?

Rain gardens are a type of green infrastructure. They mimic natural water processes and use plants, soil, trees and built structures to capture and clean rainwater before returning it to nearby waterways and the atmosphere. The image below shows the components of our engineered rain gardens.



4. *What are the benefits of rain gardens?*

Rain gardens are designed with the objective of retaining water, allowing water to infiltrate naturally for a period before overflowing to the sewer systems. This supports the reduction of water in our sewers, improves water quality before entering the Fraser River, and benefits wildlife/pollinators, allowing for a greater diversity of plant species to survive.

Additional benefits of rain gardens can be found [here](#).

5. *Why is the community getting rain gardens?*

The rain gardens are being installed as part of the City's **Integrated Stormwater Management Plan**, which was approved by City Council in 2017. Furthermore, stormwater management is a Metro Vancouver regulatory requirement. Per the regional Liquid Waste Management Plan, Metro Vancouver municipalities are required to implement green infrastructure in order to improve watershed health – specifically the Brunette and Fraser River watersheds in New Westminister.

The West End neighbourhood is serviced by legacy combined sewers that currently generate the greatest proportion of chronic municipal combined sewer overflows in the city. Through sewer separation and implementation of green infrastructure, this project will help meet the following City objectives:

- a. Reduce combined sewer overflows and flooding risk – eliminating all overflows by 2075.
- b. Improve the quality of stormwater that enters the receiving fish bearing waters of the Fraser River.
- c. Provide infrastructure resiliency in a changing climate by allowing green infrastructure to provide peak flow attenuation.
- d. Return rainwater to natural watershed pathways.

The West End neighbourhood is getting **24** rain gardens spread out between the 16th Street, 18th Street and 20th Street catchments, as a result of grant funding from the Investing in Canada Infrastructure Program, between 2025 and 2027.

The West End sewer separation and green infrastructure project is grant funded, with a combined \$10.5 million from the Federal and Provincial governments. The City was awarded this project on the basis of a strong business case to improve stormwater quality in the Fraser River watershed.

6. How much benefit is this green infrastructure project relevant to the costs?

Regulatory conditions aside, green infrastructure is a more cost-effective alternative to upgrading sewers, especially in the face of climate change and more intense storm events, such as atmospheric rivers. Green infrastructure, due to its pervious nature, slows down rainfall. As a result, it reduces the peak flows in the city's sewer infrastructure and is a major reason why the City was able to receive significant grant funding for this project.

7. How were the locations of the rain gardens determined?

A green infrastructure assessment was completed for all streets in the West End area through a technical engineering concept design study. The criteria that determined the most practical locations included: street topography and elevations, existing utility conflicts, existing at-grade obstacles (such as trees, landscaping), transportation considerations such as traffic bulges (which address safety by improving vehicle sightlines at pedestrian crossings and reducing the speed of traffic) and geotechnical considerations such as infiltration potential into the sub-soils.

The chosen locations of the rain gardens cannot be changed.

8. Who is responsible for maintaining the rain gardens?

To ensure the establishment of the plants within the rain garden, the contractor will be watering the plants for the first year. Once established, the maintenance needs of the rain gardens should be minimal, and City staff are building a maintenance program using information from our existing rain gardens.

9. Will these rain gardens attract mosquitos?

No. Mosquitos require a minimum of 5-7 days in standing water to mature from egg to adult. The rain gardens are designed to capture rainwater in a shallow depression and help rainwater to slowly soak into the soil. After the end of a storm, water is intended to drain within 24 to 72 hours. Rain gardens do not provide an adequate breeding habitat for mosquitos.

10. Should I be concerned water is pooling in the concrete pads/sediment basins?

No. The concrete pads are designed to collect the sediments that come with the rainfall runoff before it enters the rain garden. The small amount of ponding of water is normal and will eventually evaporate and transpire back to the atmosphere.