

ST. GEORGE RAINWAY Phase 1 Survey Summary

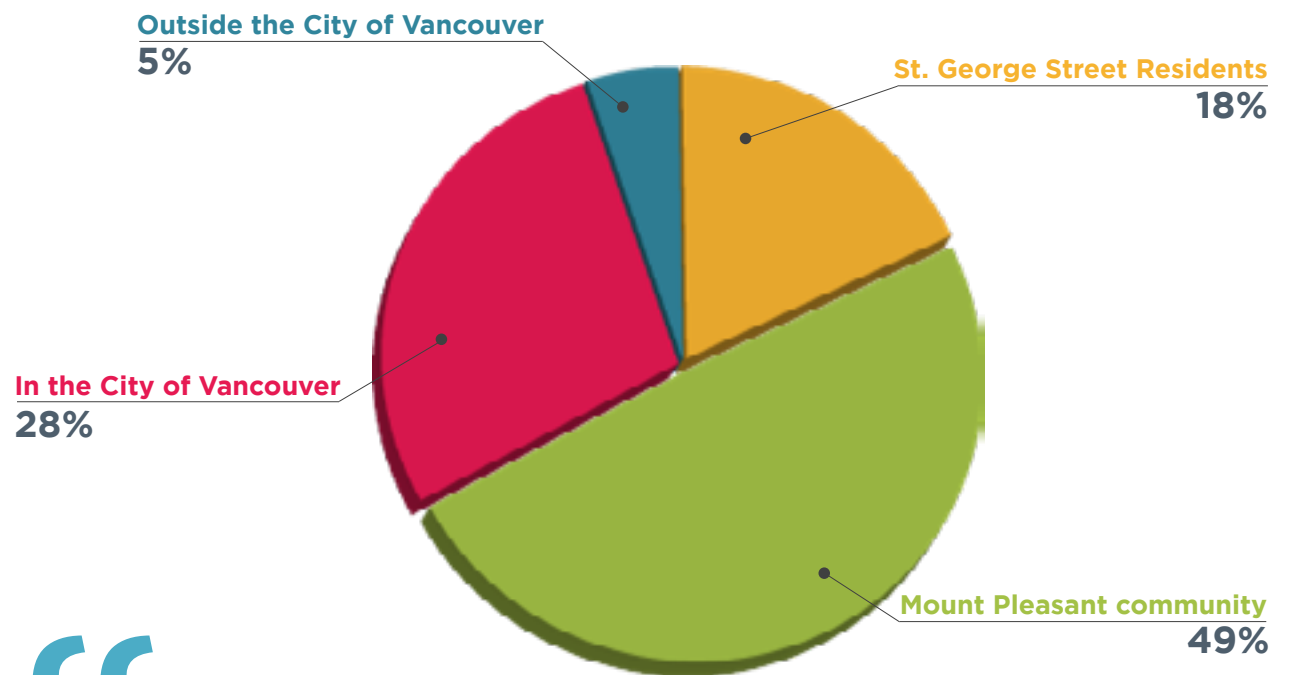
St. George Rainway

The St. George Rainway is a rainwater management project that will deliver core utility services of rainwater management in the neighbourhood using green rainwater infrastructure. The rainway is intended to be a unique blue-green corridor that provides enhanced public space, street improvements, active transportation and more greenery and biodiversity to the neighbourhood.

Vision and Values Survey

In Phase 1 of St. George Rainway public engagement, we asked the community to share their values and vision for the rainway through an online survey that ran from November 3 to December 7, 2020.

Who we heard from



This neighbourhood often has flooding and is very hot in the summer, so anything that will increase the fresh air and reduce flooding is welcome.

2% were either current or former members of the St. George Rainway Project community group, and about 8% were not members but had participated in past events held by the group.

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Favourite Parts of the Neighbourhood

What do you like best about St. George Street and the Mount Pleasant Neighbourhood?

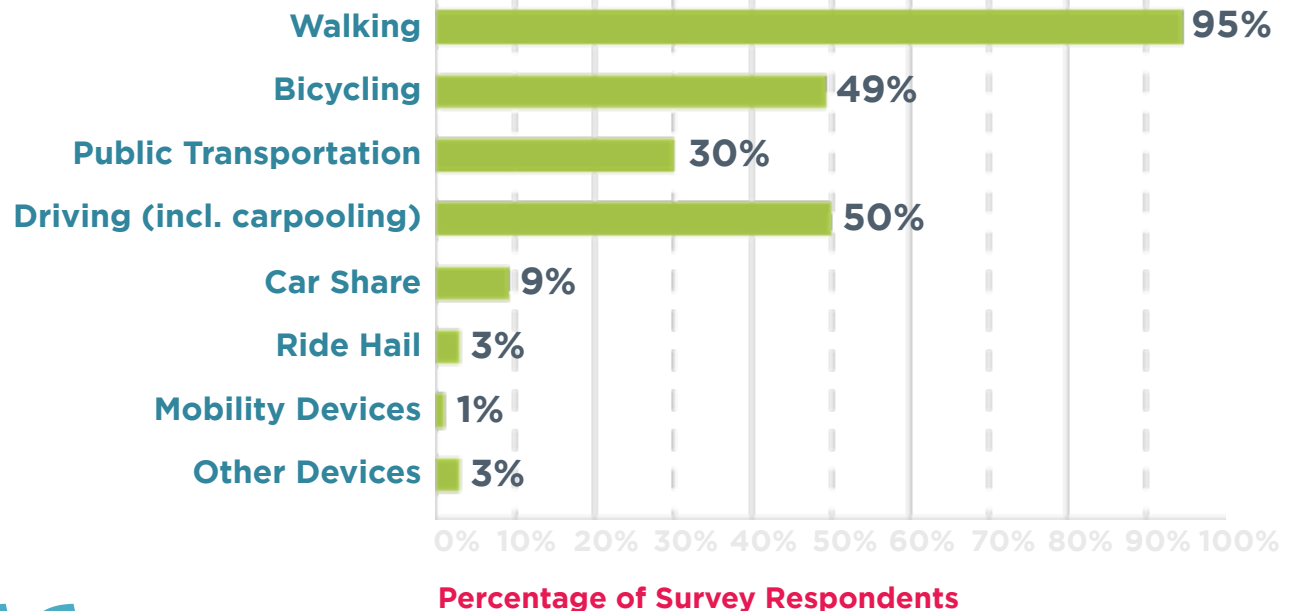
-  **People and Community**
-  **Nature, Green Space, Parks and Gardens**
-  **Walkable**
-  **Amenities**



I like that it is walkable and cycle friendly.

Types of Transportation Used Most Frequently

Which types of transportation do you use a few times a week or more?



Beautiful, lively area, great for walking, dog walking, birding, observing nature and discovering history.

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Use of street space

How do you want street space prioritized along St. George Street?

Average rankings from most important (1) to least important (6)



Use of street space prioritization for St. George Street residents only

Average rankings from most important (1) to least important (6) 1. Walking and Cycling 2. Urban Nature 3. Rainwater Management 4. Gathering and Relaxing 5. Car Parking 6. Car Movement



These could be fabulous spaces to bring kids into everyday contact with nature - a key element to them being happy, healthy, conscientious adults.

Street improvements

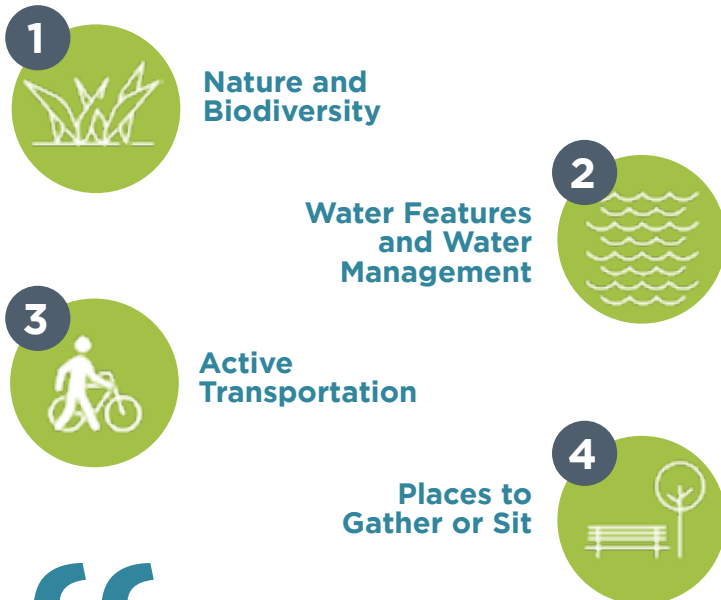
Which three of these five street improvements are most important to you?



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Desired features on St. George Street

What features are you most interested in seeing incorporated into the future St. George Street?

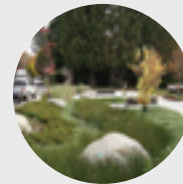


I love the concept of having back-to-nature solutions to human made problems such as no place for rain to go.

Preferred Green Infrastructure systems

What green infrastructure tools would respondents like to see considered for the St. George Street Rainway?

Rain Garden
86%



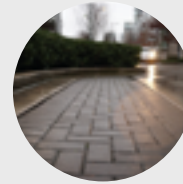
Rain gardens capture and clean rainwater using layers of rocks, specific soils, and vegetation such as trees, shrubs and flowers. They are often long gardens between the street and sidewalk or small gardens in traffic bulges.

Rainwater Tree Trench
76%



On the surface, these look like regular street trees. Below ground, they have been placed in a structural soil that helps to give their roots plenty of room to spread out and absorb rainwater.

Permeable Pavers
52%



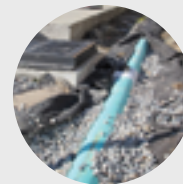
A style of paver stone that helps manage rainwater on sidewalks and parking areas. They have large joints between pavers that allow water to soak through to the soils below.

Porous Asphalt
34%



This special asphalt mix contains extra pore spaces that allow water to soak through the pavement and into the soils. Porous asphalt can be used on sidewalks and parking areas.

Infiltration Trench
27%



These systems manage rainwater below the surface. Rainwater gets directed into underground storage areas of gravel or modular crates where it slowly releases into the ground.

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Landscape preferences

We asked our respondents to select their preferred landscape look and feel out of four options?

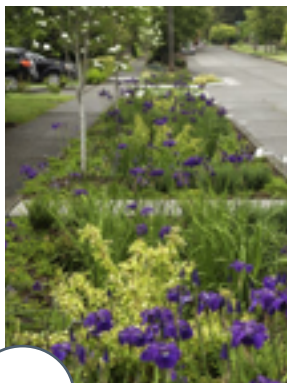


44%



35%

I am so excited to see this become a reality.



17%



4%

The top two most popular options were selected by 79% of respondents. Reasons given for their preference include wild, natural, lush, and biodiverse.

Responses to what we heard

More nature and biodiversity

Our intention is to make the rainway a blue-green corridor that manages rainwater, improves active transportation routes, and enhances green space and biodiversity. Using green rainwater infrastructure tools such as rain gardens and rainwater tree trenches will help add more natural spaces to the neighbourhood and encourage visitors such as pollinators and birds by providing more habitat and food sources.

Stream daylighting

We recognize that many in the community have a desire to celebrate and restore natural systems, including lost streams. In this case, it is not part of the scope to 'daylight' (or bring to the surface) the existing buried stream, as it has been buried too deep underground to make this possible. Instead, the rainway will manage local rainwater run-off at the surface using green rainwater infrastructure along St. George Street. Through thoughtful landscape design, artwork, and signage, we hope to honour the [lost stream](#) while also enhancing the local environment.

Safety

Some survey respondents voiced concern about potential hazards of water along the street. The rainway will not be an open body of flowing water. During rain events, water may be visible at the surface as it moves through the rainway, however it will be designed for shallow ponding that drains quickly to ensure public safety. We hope to incorporate opportunities in the rainway for the community to learn more about the value and importance of water and nature in a safe environment.

Some respondents also enquired about the potential of the rainway to attract pests such as mosquitos and rodents. There is no evidence to suggest rodents are an issue at other green rainwater infrastructure sites in the city. The rainway will be designed to drain surface water within 24 hours after the end of a rain event, preventing the rainway from becoming a mosquito breeding ground.

Access to homes, sidewalks, laneways and driveways

Access will be retained to all homes, sidewalks, laneways and driveways. The rainway design will ensure that no matter what changes are made to the street, emergency vehicles can access all residences.

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Traffic and parking

The City has monitored traffic in the area in the past few years and will continue to monitor traffic and parking throughout the project. Green rainwater infrastructure can take many forms (rain gardens, sub-surface infiltration, permeable pavements, to name a few) and can be integrated with boulevards, sidewalks, bike paths, pavement, parking areas and green spaces.

Some survey respondents had concerns related to current traffic patterns, including speed of vehicles travelling on St. George Street. Staff will develop options that consider concerns of the neighbourhood and the priorities identified on page 3 including nature and biodiversity; water management; active transportation; and places to gather and sit. The design will ensure the safety and accessibility of all users.

Rainway maintenance

The City will provide routine maintenance on the rainway, and will include it in the [Green Streets](#) volunteer program to provide opportunities for stewardship between City maintenance visits. Ease of maintenance will be an important consideration in the design, and we have received great suggestions, including creating a natural landscape design, and posting signage to discourage littering.

Project costs

The rainway is part of City of Vancouver's 2019-2022 capital plan. The project is expected to be phased, with some construction taking place in the next capital plan. Green rainwater infrastructure is a cost-effective approach to rainwater management that provides enhanced services beyond typical grey infrastructure (pipes and sewers). This infrastructure project will do more than improve the streetscape; it will provide core rainwater management services, including capturing and treating rainwater pollutants; reducing combined sewer overflows in local waterways, reducing flooding; and adding climate resiliency to the neighbourhood.

Future expansion of the rainway

Based on available budget, the current project scope is between Broadway and East 5th Avenue. Work is also underway to incorporate green rainwater infrastructure as part of a street closure and new development north of Kingsway at St. George Street. The rainway may be expanded to East 13th Avenue in future phases of the project as funding becomes available.

Some survey respondents made suggestions on how we can create linkages between the rainway and local parks, bike routes, and upcoming development in the area. We will continue to explore potential opportunities to create connections to the rainway.

Next steps

- 1 Public engagement on vision and values
Fall 2020
- 2 City staff to establish a public Advisory Committee
Spring 2021
- 3 Public engagement to co-design for co-benefits
Spring 2021
- 4 Public engagement on initial concept designs
Fall 2021
- 5 Public engagement on preferred concept design
Winter 2022
- 6 City staff develop detailed design
Spring-Summer 2022
- 7 The Rainway is ready for construction
Fall 2022



Projects like this are
why I am proud to call
Vancouver my home.

Want to learn more about the Rain City Strategy, Vancouver's 30-year plan to change how we manage rainwater? [click here](#)