



Western Washington University
Western CEDAR

Salish Sea Ecosystem Conference


2022 Salish Sea Ecosystem Conference
(Online)

Apr 27th, 11:30 AM - 1:00 PM

St. George Rainway: Integrating Environmental Education into Public Engagement

Julie McManus

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McManus, Julie, "St. George Rainway: Integrating Environmental Education into Public Engagement" (2022). *Salish Sea Ecosystem Conference*. 103.
<https://cedar.wvu.edu/ssec/2022ssec/allsessions/103>

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St. George Rainway: Integrating Environmental Education into Public Engagement



VANCOUVER'S OLD STREAMS

August 1991

This map shows historical drainage of Vancouver, as it was before the City was built. Based on old maps, archival records and interviews with pioneers, it reconstructs changes in artificial courses of urbanization as people dug new holes in the ground.

Original stream line
Ancient path/road
Historical path of drainage



Lost creek on
St. George

ST. GEORGE RAINWAY: 4 BLOCKS OF GREEN INFRASTRUCTURE

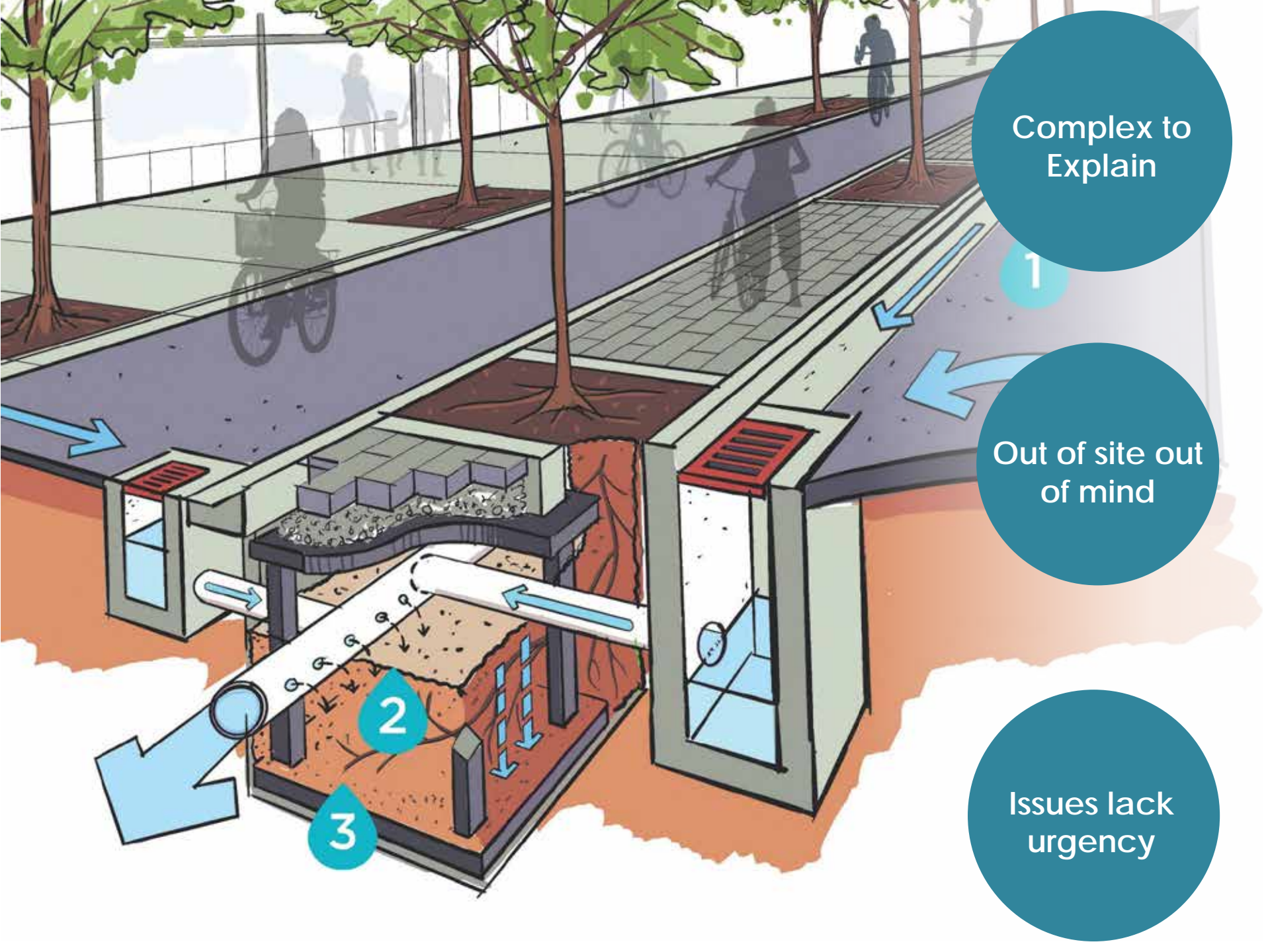
The Rainway
will sequester
335 kg
of carbon
each year

The Rainway
will filter
10,500 m³
of polluted
rainwater
each year

19 new
trees on the
Rainway will
help keep the
street cool

The Rainway
will add
1,100 m²
of natural
habitat





Complex to Explain

1

Out of site out of mind

Issues lack urgency

INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT ADVOCATES VISION

Cost is no
object

Wild, natural
landscape

Daylight the
stream!

No Cars! Don't
listen to the
NIMBY'S



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT SKEPTICS CONCERNS

The city has other problems to address first

It won't be maintained

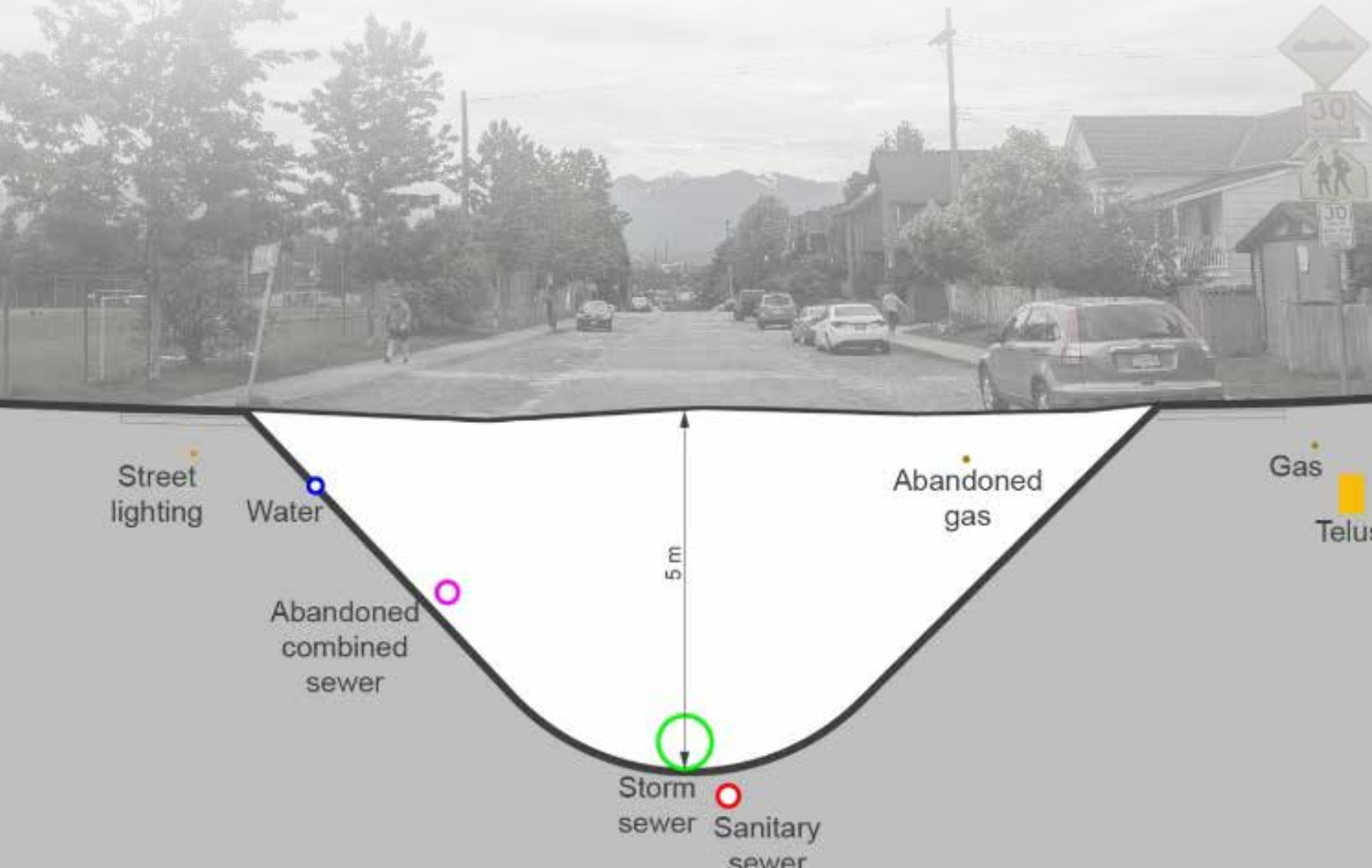
Expensive vanity project

Rainwater isn't an issue

Where will I park?



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT ADAPTIVE AND RESPONSIVE COMMUNICATION



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT MARKET BASED APPROACHES

Demographic

Older Gen Z | 18-24 | 28,275
Millennials | 25-39 | 169,563

(Government of Canada Statistics Canada 2018)

Average Canadian Millennial Income: \$44,100
Average Millennial Income in Mount Pleasant: \$65,000
(Statista & Statista, 2021)
(City of Vancouver, 2020)



"Millennials are the most educated generation with 70% earning post-secondary education in Canada"

(Peters & Schwartz, 2019)



"80% of the Mount Pleasant population between 25 and 64 have a post-secondary certificate"

(City of Vancouver, 2020)

Psychographics

Environmental Concern

- Over 70% of millennials in Canada want to see more environmental action (PewRes, 2017)

Mental Health

- "63 percent of Canadian Millennials are at "high risk" for mental health issues"
- Millennials have a tendency to overwork themselves
- 24% of Millennials stated they have opened up on social media about their own mental health struggles

Environmental Action

- 73% of Millennials willing to spend more on a high quality, sustainable product (Robson, 2019)
- They value self, family, and environmental wellness but there is a disconnect when it comes to taking action
- Older generations proven to take stronger initiative in reducing carbon footprint

Behaviouristics

Transportation Habits

- 40% of commuters use a sustainable transportation mode such as walking, biking, transit, or carpooling (Statistics Canada, 2021)
- 57% of commuters in the Mount Pleasant area either walk, bike, or transit to work (City of Vancouver, 2020)

Social Media



- Facebook is the most popular social network among millennials age 25-34, 93% reached
- Youtube reaches 90% of Gen Z ages 18-24
- Instagram reaches 89% of Gen Z's ages 18-24 (Social Media (s), 2020)
- Over 60% of Snapchat users are ages 18-29 (Somer et al., 2020a)



Meet Jess Garcia

32
Mount Pleasant

Day to Day

- Unaware of GRI but would likely agree with the concept
- Openly posts about personal struggles with mental health
- Takes public transit each day to her office job
- Relaxes with local news channel on in the background



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT SENSORIAL WALK


***Walking with
the Current***
Join Arleya in Residence Holly Schmidt for an
audio tour of the NC-Georgia Boundary project area

STOP # 3 
Stones to Mountains

Look at the stones beneath
your feet and the mountains
on the horizon.

 To begin the audio tour
scan this QR code or visit
theparktrust.org/nc-georgia-boundary

Learn more about the project
and the park at
www.parktrust.org

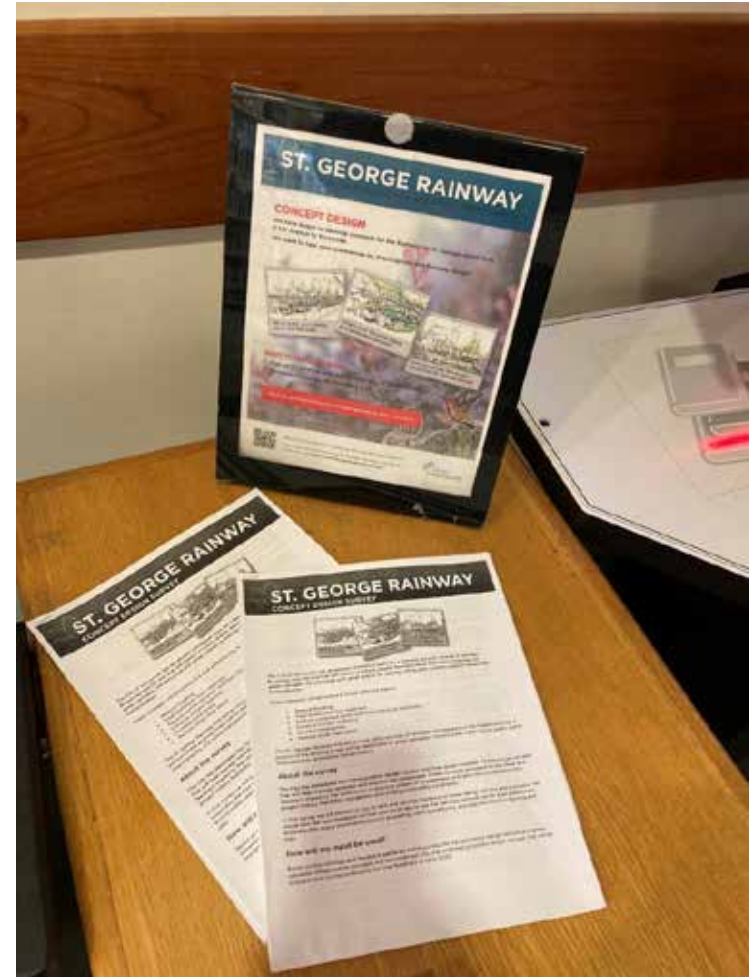

Georgia Department of Natural Resources



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT HEARING FROM DIVERSE VOICES



MEET PEOPLE WHERE THEY ARE AT



CONSIDER TECHNOLOGY BARRIERS

ST. GEORGE RAINWAY PROJECT

MOBILITY

- REDUCE VEHICLE SPEEDS
- REDUCE SHORT-CUTTING
- PARKING ISSUES
- ONE-WAY VE-HICLE TRAFFIC
- REDUCE EMERGENCY VEHICLE RESPONSE
- PURE AIR FOR SENIORS AND PEOPLE WITH DISABILITIES

LEARNING

- SAFE FOR NEIGHBOURHOOD CHILDREN
- ACCESS TO BROADWAY GROCERIES
- STREET IS BUMPY FOR CYCLISTS
- SPACE FOR GATHERING PAUSING ADAPTING
- ENJOYABLE FOR WALKING
- INDIGENOUS KNOWLEDGE
- NATIVE PLANTS THAT WOULD HAVE GROWN ALONG HISTORIC CREEK
- GO BIGGER WITH NATURAL SPACE
- CONNECTION WITH SCHOOL
- INDIGENOUS HERITAGE
- PLACES TO PAUSE & REFLECT
- LOCAL LANDSCAPE
- CONNECTION WITH NATURAL SPACE
- UNDERSTANDING HOW THE WATER FLOWS
- INTERPRETIVE SPACE
- INTERACT WITH THE SPACE
- PEOPLE MEETING TALKING AND GATHERING
- WELCOMING FRIENDLY RELAXED FLOW
- GOOD FLOW
- CELEBRATE INDIGENOUS PLACE NAMES
- DIVERSITY
- COMMUNITY STEWARDSHIP
- RECYCLING AND GARBAGE BINS
- DOE WATER SOWS
- WATER IS AT THE CENTRE OF EVERYTHING
- SEASONALITY PERMACULTURE
- RELATIONSHIP WITH NATURE
- WELCOMING FRIENDLY RELAXED FLOW
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INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT MULTIMEDIA STORYTELLING

INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT YOUTH ENGAGEMENT



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT REPORTING BACK

All the animals,
they should all
have a home and
you're helping
them live!

bees need a place
to live and
raccoons need
more respect

I'm concerned
about mosquitos
and wasps

Raccoons, because
they could knock
down garbage
cans

INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT CITIZEN SCIENCE

ST. GEORGE RAINWAY
CITIZEN SCIENCE BIODIVERSITY PROJECT

Calling All Citizen Scientists:
Help us Collect Important
Biodiversity Data Along St.
George Rainway!

**JANUARY 29, 2022
8- 10 AM**

**Meet at St. George
Street and 7th Avenue**

For more information and to
register visit [https://www.
eventbrite.ca/e/224353807277](https://www.eventbrite.ca/e/224353807277)




EVENT IN PROGRESS

St. George Rainway Biodiversity
JAN 1, 2022 - JAN 1, 2023

About
The City of Vancouver wants to quantify the changes in biodiversity along St. George Rainway by measuring species before and after the Rainway is built.
The Rainway proposed for St. George Street
[Read More >](#)
[Your Membership](#)
[Edit Project](#)
[Project Journal](#)

Overview 283 OBSERVATIONS 132 SPECIES 86 IDENTIFIERS 54 OBSERVERS [Stats](#)

Recent Observations [View All](#)

- 
Red Deadnettle
Lamium purpureum 131
- 
Japanese Andromeda
Pieris japonica 131
- 
Genus Forsythia 131

Most Observations

| Observer | Count |
|--------------|-------|
| floridamatt | 50 |
| jooliem | 26 |
| reaganleaves | 23 |
| lighty78 | 16 |
| k159 | 14 |
| iam305 | 12 |

[View All](#) [View Yours](#)

Most Species

| Observer | Count |
|--------------|-------|
| floridamatt | 25 |
| jooliem | 18 |
| lighty78 | 15 |
| reaganleaves | 13 |
| iam305 | 11 |
| crumann | 10 |

[View All](#) [View Yours](#)

Most Observed Species

| Species | Count |
|------------------------|-------|
| American Crow | 10 |
| Black-capped Chickadee | 9 |
| Rock Pigeon | 8 |
| Song Sparrow | 8 |
| Red-flowering Currant | 8 |
| Golden-crowned Sparrow | 6 |

[View All](#) [View Yours](#)

INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT EXPERENTIAL LEARNING



RAINWAY
POP-UP DISPLAY



GAMEIFICATION



CRAFTING
SOIL CREATURES



COMMUNITY
EXHIBITORS

INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT CONTINUING THE CONVERSATION



LEARNING
THROUGH ART



LEARNING
THROUGH PLAY



LEARNING
THROUGH STEWARDSHIP



INTEGRATING ENVIRONMENTAL EDUCATION INTO ENGAGEMENT KEY TAKEAWAYS



RECOGNIZE THERE ARE
MANY WAYS TO LEARN



BE ADAPATIVE AND
RESPONSIVE



CHANNEL YOUR
INNER MARKETER



MAKE YOUR
STORY RELATABLE



SECONDARY AUDEINCES
BROADEN IMPACT



VALUE CREATIVTY
AND FUN

Want to know more?

Visit shapeyourcity.ca/st-george-rainway

Or contact me at
julie.mcmanus@vancouver.ca