

Appendices

Appendix A. Detailed Engagement Methods

Table 1: Key audiences and considerations

Key audience	Details and considerations
Local business owners	In addition to businesses already identified that provide services or products in and around the project area, this audience category may include entrepreneurs who own a business in the neighbourhood, those who operate mobile or “pop-up” business in the neighbourhood or home-based businesses who use the park.
Local residents	Formal residents’ groups in or near the project area, including those who represent residents of multi-unit residential buildings.
Neighbourhood groups or associations	Formal neighbourhood groups or associations in or near the project area.
Special interest groups	This audience includes community and neighbourhood groups with particular experiences or interests in the project area (e.g., children and youth, older residents and Elders, 2SLGBTQ+ communities, environmental groups).
Community Advisory Group (CAG)	The CAG will continue to be a key audience and advisor as the project team develops and implements Round 2 engagement tactics. Their expertise will inform outreach, content development, session formats, and feedback collection, particularly as it relates to reaching unrepresented and equity-denied communities.
Government	This audience category may include City/Park Board Advisory committees and Staff and representatives of the Musqueam, Squamish, and Tsleil-Waututh Nations.
Community organizations	This audience category includes organizations that serve the local community, such as non-profits and arts organizations, as well as organizations that serve specific populations in Vancouver (e.g., UNYA). It also includes organizations who have indicated interest but did not have capacity to take part in Round 1, including QMUNITY and Rainbow Refugee.
General public	Recognizing the significance of the West End Waterfront to locals and visitors to Vancouver from both within and outside of the region, this broad audience includes members of the public who visit or travel through the project area.

Table 2. Engagement tactics

Tactic	Purpose
Community Advisory Group (CAG)	<ul style="list-style-type: none"> ▪ Gather input and insight from CAG members to inform the engagement approach in Round 2.
Shape Your City site and online survey	<ul style="list-style-type: none"> ▪ Provide overall portal for project ▪ Provide key updates and access to all ways to engage ▪ Serve as a resource library and educational tool for the project ▪ Gather input on preliminary design concepts, considerations and preferences to inform a preferred design concept
Workshops	<ul style="list-style-type: none"> ▪ Provide an in-depth engagement opportunity for key groups to contribute input and experiences related to the design of the West End waterfront. ▪ Allow the project team to investigate specific design challenges and tradeoffs more deeply with key groups.
Special Interest Group engagement sessions	<ul style="list-style-type: none"> ▪ Provide an in-depth engagement opportunity for key groups who are traditionally excluded or marginalized to contribute input and experiences related to the design of the West End waterfront.
Drop-in engagement sessions	<ul style="list-style-type: none"> ▪ Pop-up sessions on site in the project area to raise awareness about the project and the opportunities that accompany a new design and plan for the waterfront. ▪ Collect feedback on the spot and lead people to other engagement opportunities (such as the survey). ▪ Provide fun and interactive input opportunities for people of all ages.
Survey support session	<ul style="list-style-type: none"> ▪ Provide an accessible way for individuals requiring assistance to understand more about the project and provide input through the survey, with a focus on connecting with residents in the area.
“Love letters” to the West End waterfront	<ul style="list-style-type: none"> ▪ Provide a written way for people to submit what they love about the West End waterfront and what they would like to see incorporated into the design.

Table 3. Communications tactics

Tactic Name	Description
Promotional postcards	Postcard for Imagine West End Waterfront project <ul style="list-style-type: none">▪ Support information sharing and participation in engagement▪ Included QR code directing to SYC survey
West End project postcards	Postcard about all West End projects underway <ul style="list-style-type: none">▪ Support information sharing and clarity about various projects and opportunities to engage▪ Included QR code to the WE Community Plan, which then linked to engagement pages for all West End projects
Signage and posters	Signage and posters to support information sharing for on-site and drop-in engagement
E-newsletter updates	Updates in City/Park Board and community newsletters, and project mailing list to promote Round 2 engagement opportunities.
Social media campaign	Posts to promote and encourage people to share feedback through the survey

Appendix B. Detailed Findings

Vision, Principles and Goals: Detailed Findings

The project team received 615 responses (42% of all survey responses) regarding **anything else that should be considered in the draft Vision, Principles and Goals**.

Key takeaways:

- **Ecological Spaces:** respondents appreciate the green qualities of the current site and expressed that preserving local ecologies and adding biodiversity would be valuable for future designs. Relatedly, quiet, peaceful spaces throughout the area were seen as important.
- **Spaces to Gather, Linger, and Celebrate:** we heard an interest in social spaces, including spaces to gather, linger, and celebrate. Respondents would like to see spaces that allow for small and large celebrations, and both commercial and non-commercial activities.
- **Clarity in Charting the Path Ahead:** respondents raised questions and concerns about the terminology chosen, with some feeling the words and descriptions were too abstract to achieve a common understanding.
- **No Change Needed:** we heard that the site already meets the goals outlined and that no further changes to the West End Waterfront are needed.

Ecological Spaces:

The top quality cited (13%) was **ecological spaces**, which included comments about preserving local ecologies, restoring nature, and environmentally sustainable spaces. Respondents indicated they would like to see the final design prioritize restoring nature and biodiversity, climate-conscious planning, resiliency, including effects on intertidal wildlife, and protecting the land from development. Some felt the West End waterfront should be an extension of Stanley Park. **With quiet, peaceful spaces** (5%), respondents pointed to three main elements: peaceful enjoyment, quiet open spaces, and serene paths within the area. Respondents preferred to be able to hear the ocean and birdsong and wish to have vehicular traffic sounds minimized.

Clarity and Specificity:

Respondents would like more **clarity and specificity** in the Vision, Principles and Goals (10%). We heard questions and concerns about the words chosen, with some expressing the conceptual nature of the VPGs was too abstract. Greater clarity and specificity would help achieve a common understanding of where we are going.

Spaces to Gather, Linger, and Celebrate:

Respondents indicated a desire for **social spaces** (5%): this included a vision for the area that prioritizes revitalization, social interactions, and non-commercial activities. Spaces for gathering, lingering, and celebrating were important; some felt the principles currently lack elements of tourism, events, celebration, and gathering. The area should be dynamic, lively, and considered one of the most enjoyable parts of the city, with an emphasis on community and activity. Connecting with young people is important, so the space should incorporate aspects of fun and energy. There was a preference for various types of gathering spaces over open spaces.

Other Qualities:

Other qualities included

- Safety (5%) was noted as a key element of the VPGs. Public safety should be included as a key consideration in the design and management of the space, and the area should be a safe place that embraces diversity and promotes inclusivity.
- Creating a sense of place (4%) was also mentioned: the area should have a strong connection to the West End community and design should celebrate its unique characteristics.

Respondents also shared their thoughts on specific activities and transportation considerations for the site. Those additional comments are captured in their respective sections below.

While there were opportunities to review and provide feedback on the Vision, Principles and Goals in Stakeholder and Special Interest Group workshops, it was not a focus of those engagement opportunities; the results included in this section are solely from survey responses.

Table 4. General qualities and features

Theme	Ecological	Quiet, peaceful	Social	Safe	Sense of place
Examples	Preserving local ecologies, restoring nature, and environmentally sustainable spaces	Peaceful enjoyment; quiet open spaces; quiet paths through the area	Non-commercial; places to gather, linger, celebrate; dynamic spaces	Safety and sense of security; address safety concerns with cyclists	A place for everyone; iconic; connected
Percentage of comments	13%	5%	5%	5%	<5%

Activities and Uses: Detailed Findings

When asked to share more about their thoughts on activities and uses for the project area, participants were most interested in commercial and retail opportunities, followed by natural spaces, and space for active recreation. There were 530 comments altogether (36% of all survey responses).

Commercial and Retail Opportunities:

- Respondents were interested in a variety of food and drink choices and spaces along the beach.
- Suggestions include covered outdoor seating, farmers markets, sit-down restaurants, cafes, food truck courts, and concession stands.
- Respondents shared that more commercial space would create more opportunities for people to use the area and foster community.

Quiet, Unprogrammed Greenspaces:

- Respondents appreciated the quiet, undisturbed nature of the area and would like to see these qualities preserved.
- The desire to prioritize the natural environment was important to survey respondents.
- This included examples like nice gardens, places for birdwatching and spaces to enjoy the natural environment.
- Tied to the theme of natural spaces, respondents expressed an appreciation for beautiful and calm areas.

Active Recreation:

- Desire for activities for all seasons – not just the warmer months.
- Active recreation, including running, skateboarding, rollerblading, paddleboarding, volleyball, pickleball, yoga, canoeing, and kayaking, were important.
- There was a focus in the comments about roller skating and desire for suitable space for roller skaters with more even pavement.
- There was also a desire to see an area which houses outdoor fitness equipment which encourages healthy activity.
- Comments expressed that adding swimming lanes, adding swim platforms and ensuring the beach is clean and safe to swim in the ocean.

Cycling:

- Comments related to cycling infrastructure moving to and throughout the West End waterfront, including more dedicated bike lanes, AAA biking infrastructure, and facilities for bike parking. Respondents were concerned that cycling needs will not be prioritized in the plan.

Other:

Respondents also shared input about activities for the site in other sections of the survey. Active recreation such as volleyball, basketball, and roller hockey were mentioned. Ideas for a skatepark on the West End waterfront site was mentioned several times in the Vision, Principles and Goals section of the survey. Similarly, spaces to accommodate food and dance were included in the answers of other survey sections. In addition, commercial and entertainment offerings were also referenced throughout the survey. This included spaces that would allow businesses, performers, and groups to gather, fostering a vibrant and lively atmosphere. Additionally, respondents expressed the importance of water access to enjoy and play in the water. Suggestions included adding a pier at Sunset Beach, reminiscent of the historical pier, as well as building in opportunities for swimming, wading, boating to maximize enjoyment of the beachfront location.

We also noted the following feedback from in-person engagement:

Pop-ups¹:

- Importance of public art and performance space to foster connection and vibrancy

¹ Three pop-up engagements were held along the pathway at English Bay in May 2023; any person could stop by, learn about the project, and share their feedback. Another pop-up was held at Gathering Place, a community centre in the West End that offers programs and services, primarily serving vulnerable populations, including people on lower income, people with disabilities, seniors, people of diverse ethnic backgrounds, the 2SLGBTQ+ community, youth, and people who are experiencing homelessness.

- Suggestion for expanded busking areas, adding wider pathways for people to stop and linger, and space within the proposed plaza for mini shows
- Desire for local food and beverage vendors, and generally, for having more options and choices
- Concerns about locating a skatepark under the Burrard Bridge due to noise and disturbance for nearby residents
- Interest in community participation in clam gardens
- Desire for designated campfire spaces
- Interest in more sculptures reflective of Indigenous cultures
- Character of Alexandra Park, keep quiet and intimate within the density of the neighbourhood
- Integrate an areas on the beach for cultural activities like drumming
- Appreciation for gathering decks and platforms
- Activating the area for nighttime, including lighting and more businesses for liveliness

Stakeholder workshops:

- Space for music and spoken word performances
- Idea of "72 seasons" of activities (a Japanese concept of seasons where each season is divided into micro-seasons), where the nuances of seasonality are reflected in the site design and programming
- Interest in space for campfires and ceremonial fires
- Support for Land-based places and practices for Indigenous communities
- Add capacity with observation platforms and piers or elevated walkways such as at sθəqəlxenəm ts'exwts'áxwi7 (meaning 'rainbow' park)
- More structures that provide shade in plazas, including canopy trees, soft landscape, with preference for alternatives to grass.
- Integrating rotating indigenous artwork on basketball courts
- Appreciation for dog park but concerns about placement (RE: access for local residents); some preference for a central dog beach
- Exercise areas must be shaded and accessible for people of all ages
- Idea for interactive fountain (touch activated)
- Interest in boat launch (with spaces for storage and convenient vehicle access)

Special Interest Group workshops:

- More trees and flowers, e.g., cherry blossoms, dogwood
- Community based programming for fall and winter (see North shore Shipyards)
- Food trucks throughout the site

- Idea for enclosed, glass winter garden with programming
- Incorporating activity hubs with greenspace in between
- Play structures would take up a lot of space; prefer to keep natural spaces
- Concerns about noise and disruption from large, active gathering spaces like amphitheatres
- Dislike expressed for adding more beach volleyball courts

Public Life: Facilities and Amenities: Detailed Findings

A total of 375 comments (25% of all survey responses) were received when respondents were asked for more information related to facilities and amenities. The top considerations were: general improvements, commercial activities and washroom and changeroom/storage facilities.

General Improvements

- Many respondents emphasized the need for various amenities and facilities. These included picnic areas, barbecues, and drinking water fountains (for humans and dogs). Requests were also made for more benches, seating areas, and grassy spots for relaxation and picnics.
- Concerns were raised about the potential increase in pedestrian and bicycle traffic on the seawall [Seaside Greenway]. Respondents pointed out the need to ensure the greenway is wide enough to accommodate the additional activity without creating congestion.
- Many respondents stressed the importance of proper maintenance, including regular cleaning, trash cans, and compost bins, to keep the area clean and address waste management problems.
- Improved lighting was mentioned not only for the pathway but also for other areas such as sports courts and the Seaside Greenway. Respondents highlighted the desire for aesthetically pleasing lighting designs that create a sense of place.

Commercial Activities

- Respondents expressed a desire for a variety of food and drink choices along the beach. Suggestions included small individual kiosks with power and cooking facilities, covered outdoor seating, sit-down restaurants, cafes, food truck courts, and concession stands.
- Several respondents proposed incorporating commercial activities, such as retail stands for beach-related items (e.g., clothing, sunscreen, hats, blankets), gift shops, and pop-up markets.
- The survey responses highlight the need for programmed event spaces, performance venues, and areas for street performers. Respondents suggest hosting music performances, community-led events, and neighborhood gatherings. The adaptability of the beach area for large public events, such as fireworks and festivals like Pride, was also mentioned.

Washrooms and Changerooms/Storage Facilities

- The need for more washrooms, especially during peak times and events, was a common concern among respondents. Some suggest adding additional washroom facilities along the pathway, while others highlight the importance of maintaining and improving existing washrooms. The need for wheelchair accessible washrooms was also emphasized.
- Outdoor showers for beachgoers to rinse off sand and saltwater are mentioned as a desirable amenity. Respondents appreciate the availability of showers for post-swimming purposes and for general cooling off during hot days.
- The importance of separate men's and women's change rooms was mentioned by some respondents. Some would also like to see the historic integrity of existing change rooms at the English Bay Bath House be maintained in some way.

Other

- The open space and natural beauty of the park, along with the logs that were originally placed on the beach are highly valued by many participants.
- Maintenance and improvement of existing amenities, such as the beaches, and garbage/recycling services, are important.
- Concerns were raised about bylaw enforcement, noise pollution, trash reduction, and safety.
- Issues related to homelessness, drug addiction, and crime were mentioned, with calls for increased security measures and law enforcement.

Overall, the survey responses demonstrate the importance of maintaining the natural beauty and open spaces of the West End waterfront while addressing the need for improved amenities, commercial activities, transportation and parking, and washroom facilities to enhance the experience for visitors.

We also noted the following feedback from in-person engagement:

Stakeholder workshops

- Consulting with girls and young women to design seating that they can use to gather (for example, lounge chairs of wooden "Muskoka" chairs).
- Providing items to rent, like beach chairs or umbrellas, would encourage people to visit without having to drive and carry all their necessities.
- Desire for lockers, change rooms, and shower facilities to encourage active recreation, including swimming or water activities.

Special Interest Group workshops

- Interest in having more washroom facilities throughout the site rather than one central building,

- Ensuring amenities are accessible (e.g., avoiding steep slopes near washroom buildings, having clear sightlines, large print and colour contrasted signage),

Pop-ups

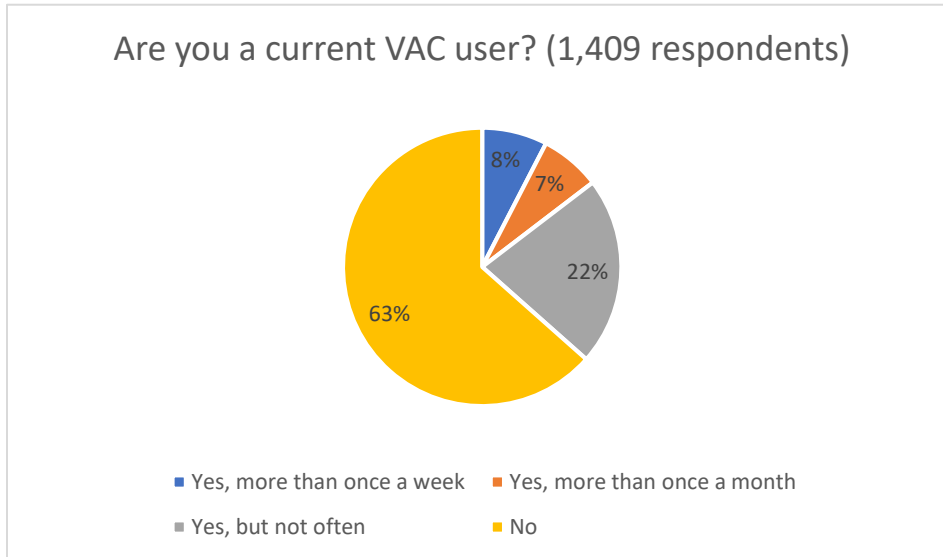
- Lockers would be helpful for those paddle boarding and kayaking using Sunset as a launch.
- More bathrooms overall, and more facilities/areas for families and children.
- The sentiment that whatever new structures are put in must be cleaned, maintained, and policed.

Vancouver Aquatic Centre: Detailed Findings

To understand how residents use the VAC and what they would like to see improved, respondents were asked a series of questions about VAC services and qualities.

Of the 1,409 respondents (95% of all survey responses) who answered the question: “Are you a current VAC user?”, 15% said they are a regular user (more than once a month); 22% said they use it occasionally, and 63% said they do not use the VAC. Figure 7 shows the breakdown of responses.

Figure 7. Frequency of VAC Use



**Values may not equal the number of respondents due to ability to choose multiple responses.*

When asked about the **services and qualities they like about the current VAC** (387 responses, representing 26% of all survey responses), respondents expressed appreciation for current amenities and programming; building qualities and design elements; some offered suggestions for improvements to the building, facilities, and other elements including daily programming and rates for different groups.

Key takeaways:

- **Facility Features:** The VAC was appreciated for its 50-meter pool, diving tank, sauna, hot tub, and fitness centre. Many comments spoke to its positive qualities, like the size of the pool, availability of long lanes for lap swimming, high diving boards, and the sauna.
- **Variety of Programs, Activities, and Classes:** VAC users shared that they enjoy the variety of programs, activities, and classes offered, including aquafit, , and swimming lessons. Programming for all ages was noted as a positive feature. Respondents appreciate the adults' programs, and would like to see more programming including aquafit and other fitness activities.

- **Building Qualities and Design Elements:** The facility's convenient location, open and spacious design elements, and proximity to the water were noted as positive qualities; suggestions were heard to improve the building's exterior and interior to address some outdated features and improve the overall appeal.

Facility Features:

Pool: The positive comments related to the pool highlight the large size of the pool and the 50m lanes. Many appreciated features such as the 50-meter lanes, diving tank, and high diving boards. However, we also heard about issues such as pool maintenance and a lack of swimming lessons for children.

Sauna, steam room, and hot tub: Comments about the sauna, steam room, and hot tub were mixed. Some appreciated the sauna's size, while others mentioned that it does not get hot enough. The hot tub was mentioned frequently, with some users enjoying it, while others finding it overcrowded and in need of improvement. Other commenters suggested adding a steam room.

Fitness centre: Most respondents shared positive feedback about the gym, mentioning the weight room, flexibility for multisport training, and a sense of community. However, there were also concerns expressed about the inadequate size and outdated nature of the fitness centre, suggesting there is room for improvement.

Kids' area: The wading pool, swimming lessons, and other kids' programs were important to respondents. Some mentioned the availability of separate areas for young children. Some felt the wading pool could benefit from updates or improvements.

Variety of Programs, Activities, and Classes:

Adults' programs: Respondents appreciated the adults' programs and would like to see more programming including aquafit and other adults-only fitness activities.

Other comments: Some respondents would like to see a childcare facility, as well as programs for education and crafts.

Youth and kids' programs: Swimming lessons and other children's programming were important; some mentioned the need for more swimming lessons and a pool specifically for children (in addition to the wading pool). We also heard a need for team meet/competition space and programs for different age groups.

Building Qualities and Design Elements:

Location and functionality: The convenient location of the facility was highlighted as a positive, particularly for residents living nearby. Parking availability was also noted as an asset. However, some comments expressed the need for renovations to improve the functionality and overall appeal of the VAC.

Architecture: Respondents enjoyed how the building is integrated into the shoreline and proximity to amenities like the seawall. The unique and distinctive building design was also noted. Some would like to see renovations to address the dated aspects of the architecture.

Size and spaciousness: The spaciousness, natural lighting, high ceilings, spectator seating, and open spaces of the facility were favorably mentioned. Again, a few suggestions to address outdated aspects were noted.

Additional comments included: appreciation for quiet and peaceful qualities; space for both activities and relaxation; and the sense of community. Some mentioned the tranquility of the space, especially in contrast to other crowded or noisy aquatic facilities in Vancouver.

Other Comments:

General: Many comments highlight the age and outdated infrastructure of the VAC, which detracts from its appeal. Respondents noted issues with cleanliness, lack of natural light, and cramped spaces, along with a desire for improvements to the gym and hot tub areas. Overall, responses indicated the VAC requires repairs, updates, and modernization to enhance its functionality and attractiveness to users.

Other suggestions (including changing rooms, rates): Several comments suggested upgrades and renovations are needed for the changing rooms. Some individuals appreciate the affordability of the facility and its local, friendly, and safe atmosphere; a few respondents would prefer a lower rate for seniors.

To understand what should be considered for the new VAC, respondents were also asked if **there are missing features from the list that they want to be considered for the new VAC.**

Of the 247 responses (17% of all survey responses), the majority would like to see improved or expanded swimming facilities, collocated facilities (e.g., sauna, steam room, hot tub, cold plunge pool, fitness centre), a wider variety of programming and events (e.g., fitness classes, more instructors, more local events, and fitness centre improvements).

Key takeaways:

- **Improved Pool Facilities:** Change or additions to the pool should be considered, including: addition of an outdoor pool, hot and cold pools, dry sauna, and steam room.
- **Green Design Elements:** Incorporating visible green building features, views to the water, as well as materials and design strategies to connect to the outdoors were suggested. Respondents would like to see connections to the Burrard Inlet/False Creek including public dock space, and kayak and paddleboard rentals.
- **Wider Variety of Programming and Events:** Respondents enjoy the quality and variety of programming and would like to see a greater variety of aquatic and exercise classes, more swim instructors, and more support for local events.

Improved Pool Facilities:

20% of respondents would like to see changes to the swimming pool, including: adding an outdoor pool, adding a cold plunge pool, and enhancing programming (e.g., swimming lessons).

Some respondents (12%) would prefer additions or enhancements to collocated facilities to the pool, such as a dry sauna, steam room, and a larger sauna/hot tub connected to the rest of facility.

Another 12% of respondents specifically called for a hot tub, with suggestions including an outdoor or semi-outdoor hot tub.

Other comments (5%) included: improvements to the fitness centre, appreciation for the kids' area, and suggestions to add an outdoor wading pool.

Wider Variety of Programming and Events:

Increasing the variety of programming was suggested by 8% of respondents; suggestions were heard for a greater variety of aquatic classes, and more swim instructors.

Finally, 4% of respondents would like to see greater support for events, such as local swim team competitions, with Watermania in Richmond, B.C., cited.

Accessibility and Mobility:

8% of respondents noted that proper access for those with different mobility needs is important; some highlighted the need to improve the elevator and stairways. From a mobility standpoint, more bike racks with sizes that accommodate different types of cycles would be helpful.

We noted interest in a **boat launch or dock** (4% of comments), including suggestions to add a public dock space, kayak and paddleboard rentals, and generally connecting better to the VAC's waterside location.

Green Design Elements:

When it came to design, 10% of respondents suggested incorporating visible **green building features**, use of glass, and other design strategies to connect to the outdoors.

Additional comments included valuing quiet, peaceful, spacious building qualities, desire to increase spectator space, and a call to maximize views of the water.

Other Amenities:

A few comments about other amenities were noted, including:

Desire for larger lockers and the option for cheaper, long-term use lockers (9%) would support those who often use the VAC (including for open-water swimming). Some would also like more spacious locker rooms, spray/cooldown areas, and swimsuit dryers to enhance user experience. Additional suggestions for amenities were a sunbathing area, warming/cooling areas, and better food options.

Interest in specific improvements to washroom and changing facilities (4%), such as a separate changing room, facilities for open-water swimmers, and a public washroom with outside access.

Other Comments:

We received a few comments about related topics, including:

- General improvements needed for access and transportation to the VAC.
- Other programming and design suggestions, including using renewable energy sources.
- Sentiment that the VAC is fine as is, and that no changes are needed.

Table 5. VAC Facilities

Theme	Pool	Sauna	Fitness centre	Kid's area
Examples	Lane swimming, spectator areas	Sauna, hot tub, steam room	Like the gym	Area for kids is important
Percentage of comments	54%	16%	10%	6%

Table 6. VAC Programs and Activities

Programs and activities		
Adults' programs	Other	Youth and kids' programmes
Aquafit/water fitness/adults only swim programs	Childcare facility, education and crafts	Lifeguard classes, youth swim classes, swim clubs/competitions/meets, coaching programs
<5%	<5%	<5%

Table 7. VAC Design Elements Appreciated

Theme	Location/functionality	Architecture	Large, spacious
Examples	Location near the water	Unique architecture	Large and spacious
Percentage of comments	16%	5%	<5%

Table 8. VAC Amenities

Themes	Other amenities	Changerooms and washrooms
Examples	Larger lockers	Change facilities for open water swimmers at English Bay
Percentage of comments	9%	<5%

Table 9. VAC Other Improvements Needed

Theme	General	Other improvements suggested
Examples	Facility is old and outdated	Improve changerooms
Percentage of comments	10%	<5%

Table 10. VAC Design Elements Suggested

Themes	Architecture	Accessibility and mobility	Boat launch / dock
Examples	Visible green features	Accommodating different mobility needs	Public dock space
Percentage of comments	10%	8%	<5%

Moving Around: Detailed Findings

Respondents were also invited to share more about their responses in an open-ended question about **any design elements [related to transportation] missing from the lists above.**

338 people responded. They made design suggestions for walking, using mobility aids, cycling, using micro-mobility devices, driving, and using transit.

Make it safe and comfortable for people to walk and roll

Overall, many respondents preferred to have cyclists separated from sidewalks and pedestrian pathways – allowing the areas closest to the water to be first and foremost for people walking and travelling at slower speeds. Feedback and design suggestions included:

- Separate areas for people walking and/or mobility aids, bicycles, and other higher-speed modes, like rollerskates and skateboards.
- Use consistent design for pedestrian and cycling paths and highly visible signage along the entirety of the Seaside Greenway (noting different design treatments at Coal Harbour, Stanley Park).
- Widen paths for both walking and cycling to reduce potential conflict zones between pedestrians and cyclists (e.g., along Beach Avenue).
- Design for people running, e.g., relatively straight path, no steep inclines, and wide paths for avoiding crowds.
- Improve crossings to/from neighborhood streets to create safer conditions, particularly for people walking slowly.
- Improve/adjust transit routes to make the area more transit accessible and alleviate car traffic congestion.

“In peak tourist times it is not physically safe or comfortable to use the seawall so I generally walk or ride a few blocks away from the regular seawall.” – Survey respondent

Make it easy for people with all abilities to move around

Respondents wanted accessible design to improve people’s experiences getting to and through the West End waterfront and being able to enjoy the many amenities. Respondents would like to see accessibility prioritized and would like to see design improvements to alleviate safety concerns associated the high volume of cycling and micro-mobility traffic. Feedback and design suggestions included:

- Accommodate people taking transit and driving to the area to reflect its prominence as a destination for many families and seniors who travel to the area from other neighbourhoods.
- Provide legible signage and other cues along pathways so that all users understand which path to use.
- Offer clearer guidelines around the use of the various mobility devices, such as e-bikes and scooters.
- More parking spaces, including dedicated parking for seniors, people with disabilities, and wheelchair-accessible parking, as well as parking near washrooms and other facilities and amenities.

“Walkers, children and people with disabilities need a Seaside Greenway Walking Path that has no bikes or other wheeled recreational vehicles in close proximity.” – Survey respondent

All Ages and Abilities (AAA) Infrastructure:

Most comments in this section of the survey related to cycling infrastructure, regulations and route specific feedback. Feedback and design suggestions included:

- Ensure well-signed and uninterrupted connections to nearby cycling infrastructure, e.g., bike lanes on Burrard Street and Pacific Street) and improve connections to nearby commercial streets, e.g., Denman and Davie Streets.
- Preference for wider bike paths that allow two people to ride side-by-side; however, some concerns about the impacts of having extra wide pathways on reducing park spaces for other uses; for some, these wide pathways would be a barrier.
- Desire for better signage and traffic calming elements to enable cyclists and other pathway users to share space.

- Preference for physical separation between cycling and motor vehicle traffic, as well as distinct and well-signed areas for cyclists, pedestrians, and other rollers (e.g., skateboarders, rollerbladers).
- Mixed responses for the location of the cycling path: some preferred an All Ages and Abilities (AAA) bike lane along Beach Avenue (which is the current location) whereas others would like the path closer to the water.
- More bicycle parking (including spaces wide enough for e-bikes, and parking outside washrooms and other facilities) would allow people to enjoy the park area, beaches, and amenities.
- Mixed responses to complete, physical separation: some preferred permanent infrastructure like concrete barriers between cycles and motor vehicles; others expressed that the existing concrete barriers hem in cyclists, creating safety concerns.

Other feedback related to mobility, accessibility and transit included:

- Ensure that people can drive and park on Beach Avenue; this is important for seniors, people with disabilities, and people who can't walk or wheel long distances.
- Keep Beach Avenue for vehicular traffic and move the bike lane.

We also noted the following feedback from in-person engagement:

Stakeholder workshop: transportation feedback

- Cycling, micro mobility and rolling facilities and infrastructure (including connections)
 - Covered bike parking and secure bike facilities for people biking to the area for longer periods of time
 - Bike route to connect the entire site
 - Secure bike valet/bike parking near activities like the VAC and False Creek Ferries dock to address safety concerns, especially at night
 - Improved connections, particularly farther east towards the Burrard Bridge

“Bike/active connections become increasingly important further east where there are more destinations near the water and it’s valuable to have those connections closer to the water where the destinations are.” – Participant, Stakeholder workshop

- Mobility and accessibility for non-cycling and walking modes
 - Increase transit and better connections within site area and to rapid transit
 - Consider accessibility on steep grades
- Safety for active transportation users

- Increase safety for pedestrians by reducing vehicular speed and safer crossing options (Beach Avenue), explore traffic calming measures, reduce car dependence in area
- Variable speed lanes for different active transportation modes
- Reduce conflicts between pedestrians and wheeled active transportation users (cyclists, micro mobilities, all modes of rolling)

“Reduce conflicts between all modes (peds, bikes, vehicles). For example, Beach Avenue has lots of driveways which takes away from the cycling experience.” – Participant, Stakeholder workshop

Special Interest Group sessions: transportation feedback

- Pedestrian considerations/walkability
 - Interest in convenient pathways down to the beach for people walking and wheeling.
 - Concerns about safety for seniors and older residents with busy pathways and faster moving skateboards, e-bikes, e-scooters, etc.

“[Would like to see] consideration to micro mobilities and how it intersects with seniors’ safety considerations.” – Participant, Seniors and older residents-focused session

- Mobility and accessibility for non-cycling and walking modes.
 - Desire to see accessibility features throughout the site, including vehicular access points, accessible parking, seating options (with shade), washrooms.
 - Clear signage, wayfinding, and unobstructed movement pathways for people of all ages and abilities.
 - Interest in seeing accessibility features and design elements for the big ideas throughout the site, including how people using wheelchairs and other mobility devices would access features like open plazas and seating nooks.
 - The need for ramps and smooth surfaces (fixing uneven surfaces on existing pathways) was also brought up.
 - Vancouver Pride Society perspective: the Pride parade route was moved as there is a whole community of people who cannot attend the festival at the Sunset Beach event grounds. Accessibility is a vital consideration in this plan.
 - Reduce grade change where possible and to include wide ramps to allow people of all ages and abilities to access and enjoy the area (particularly moving from Beach Avenue to the beach).

[Regarding Big Ideas for Morton Park] "I would like to see accessibility features, [such as] the grade and how I could travel through the space using a wheelchair, as well as accessing seating." – Participant, Accessibility and Mobility-focused session

Pop-ups: transportation feedback

Major themes included:

- Desire to prioritize active transportation (less space for cars) and to ensure safe conditions for walking and hanging out.
- Adding facilities, e.g., bike stands, safe places to lock up bikes (including daytime and overnight), and enhanced lighting along the seawall.
- Preference for locating the bike lane along the water.
- Re-opening the bike lane between 1000 Beach Avenue and Bidwell Avenue.
- Residential traffic concerns, including need for traffic calming elements on Beach Avenue.
- Suggestion to remove paid parking.

"Better, safer crossings on/off interim Beach Avenue to get in and out of the West End."

"Address traffic on Beach Avenue. It is a residential area and calming measures are needed."

"Biking in the park is a top priority (bike parking). Re-open bike lane between 1000 Beach and Bidwell." – Pop-up participants

- Design suggestions to improve accessibility and mobility
 - Use different tactile surfaces to accommodate people using mobility aids and/or with low vision who use shorelining²
 - Ensure signage (e.g., right way/wrong way for cycling) is larger print and placed at shoulder height for legibility.
 - Add QR codes for text in alternate languages so all park visitors understand directional signage.
 - Locate features like railings and sand dunes in a way that allows people of all heights to have sightlines to the water.

² Shorelining is often a way in which people with low vision using a cane navigate; it refers to following a wall, curb, hedge or other contrasting surface to the ground surface to maintain a specific orientation while travelling through environments to arrive at a decision-making point

- Integrate seating that works for wheelchair users.
- Improve access to areas like Sunset Beach by integrating gentle slopes.

“Think about the visual height of wheelchair users as well. When you plan to add features like railings or dunes, consider how that affect sight lines. Tiered seating [is] not welcoming.” – Survey respondent

Table 11. Cycling facilities, infrastructure, and connections

Theme	Enforcing cycling regulations	Separated bike lane/path	Bike parking	Keep bike lane on Beach Ave	Remove bike lane on Beach Ave
Examples	Signage, traffic calming for bikes	Preference for separation	Wider bike parking for e-bikes	Prefer to keep on Beach Ave	Move bike lanes to waterfront
Percentage of comments*	17%	17%	5%	<5%	<5%

**Comments may be coded to more than one theme.*

Table 12. Mobility and accessibility – non walking/cycling modes

Theme	Comments about cars/motor vehicles	Improve accessibility	Add/improve basic facilities	Encourage sustainable transportation (including transit)	General comments about the built environment
Examples	Robust vehicle traffic; keep Beach Ave as a through street	Accessibility for seniors, accommodating mobility needs	Washrooms, water fountains, lighting, waste management	Discourage car use, improve/adjust transit routes	Smoother ground, even surfaces
Percentage of comments*	8%	5%	5%	4%	4%

*Comments may be coded to more than one theme.

Table 13. Pedestrian considerations/walkability

Theme	General comments about walking/running paths	Wider paths	Safety
Examples	Pedestrians need to be considered	Managing pathway congestion	Separation from pedestrian and car and bike traffic
Percentage of comments*	3%	3%	3%

*Comments may be coded to more than one theme.

Environment: ecology, adapting to sea level rise, climate change: Detailed Findings

When asked if they had **any additional comments about these ideas**, 323 respondents (22% of survey respondents) shared the following.

Major themes included:

- Ecological restoration / naturalization

Most comments received in this section were related to prioritizing nature conservation and ecological restoration over human use and experience in the West End waterfront.

- **Design and activity suggestions**

The second most commented on theme was related to the different activities and experiences of users. A few comments expressed concerns about the usability of these ideas, for example how families would be able to use spaces like the terraced foreshore.

“How could I be anywhere near the water having a picnic with my family? I would sit at the top of the stairs and the rest of my family would want to be by water’s edge. Doesn't give me any options.” – Survey respondent

We also noted the following feedback from in-person engagement:

Stakeholder workshops

During the stakeholder workshops, participants had the opportunity to review each of the shoreline approaches in detail. Much like what was heard in the survey, participants shared that it is important for the design of shorelines to ensure ecological restoration and biodiversity are prioritized. There was no clear preference for any of the approaches as participants would like to see different sea level adaptation options throughout the site. For most of the discussion, participants shared ideas for specific design elements. For example, participants would like to see more seating, beach logs and shaded or covered areas. Participants also wanted the design approaches to consider the ebb and flow of visitors during the different seasons. Questions were raised about the size and distribution of park and beach space and the need for flexible and fluid spaces that are not overly segmented.

Table 14. Habitat Island and Salt Marsh

Theme	Like - habitat island	Concerns and dislike - salt marsh	Concerns - habitat island
Example of comments	Barrier islands and extending the beach below the water line would reduce the impact of large wave events; could also create a great viewing platform	Salt marsh seems less inviting; suggestion to limit marshes to smaller, strategically located marshes to expand further on other habitat areas; need for usable beach space	Be realistic about dedicating space for habitat (not for human use)
Percentage of comments*	8%	7%	4%

*Comments may be coded to more than one theme.

Table 15. Terraced Foreshore

Theme	Concerns - terraced foreshore	Dislike- terraced foreshore	Like - terraced foreshore
Example of comments	<i>Slippery/unsafe don't like the concrete; would like more diverse plants</i>	<i>Looks sterile; hostile to wildlife</i>	<i>Likes concrete stairs but concerns about how it would support marine habitat restoration</i>
Percentage of comments*	<5%	<5%	<5%

Table 16: Ecological Restoration and Conservation

Theme	Like - naturalization	Concerns - naturalization
Example of comments	Appreciation for habitat restoration; would like to see climate-adapted coastal ecologies and more green elements	Focus on people's enjoyment and comfort in the space (rather than habitat creation)
Percentage of comments*	20%	<5%

Table 17: Non-Shoreline Approach Related Comments

Non-approach related themes	
Theme	Maintain and/or do not change
Example of comments	Do not change/keep/maintain what is already there: shoreline, beach, maintain sandy beach area, maintain seawall/current walking path, maintain easy access to beach, immediate access to beach
Percentage of comments*	14%

Table 18: Accessibility Concerns

Theme	Accessibility concerns
Example of comments	Stairs and slopes: need to consider wheelchair users or other physically challenged folks & their access too
Percentage of comments*	<5%

Habitat island related comments

Commenters preferred the habitat island adaptation over the other options. However, this preference was also paired with some concerns about how habitat islands would be used by people. Key concerns about the use of islands were linked to garbage and loitering. Other concerns were related to how to protect habitat islands and ecological functions from human activity, with many drawing from the example of Habitat Island in Vancouver’s Olympic Village (False Creek).

Salt marsh related comments

Most comments related to salt marshes were related to it being an undesirable area to gather or be around. Survey participants raised questions around bugs, the potential smell of marshes, safety, ecological impacts, and barriers to the ocean. A small handful of survey participants left positive comments related to how it creates opportunities for wildlife.

Raised beaches and sand dune comments

A small number of comments were related to raised beaches and sand dunes. On the other hand, several respondents shared their preference for keeping the beach in its current form. A few respondents like the idea of raised beaches as they would maintain this treasured aspect of the site.

Terrace foreshore related comments

Comments related to the terraced foreshore approach were mostly related to participants disliking the form and raising concerns about its design. Respondents thought concrete terraces create sterile environments and do not embody the idea of the existing beach. Additionally, others shared concerns over safety and accessibility. Some expressed that visitors to the site who use wheelchairs or other mobility aids will not be able to access the water.

Others commented on how they prefer more natural design features over stairs. While there were respondents who expressed preference for a terraced foreshore, some comments were paired with questions related to biodiversity.

Comments related to ecological restoration and conservation

While many respondents shared their thoughts on the different approaches to shoreline adaptation, some survey participants were more focused on how the site should be prioritized for conservation and ecological restoration over human use.

Activities and general qualities

While the approaches to sea level rise did not directly ask respondents about activities, we received about 45 comments related to keeping the site's existing activities, in particular access to ocean swimming and access to large beach space were prominent. Other comments in this category relate to keeping things the way they are.

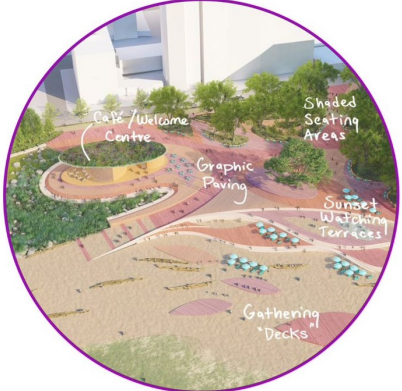
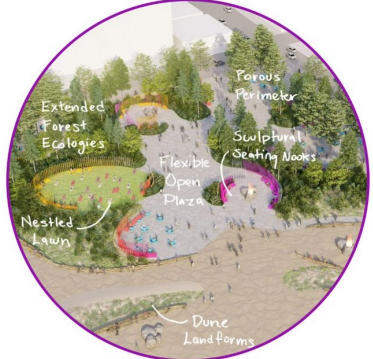
Possible Big Ideas: Detailed Findings

Morton Park

Overall feedback for Morton Park included:

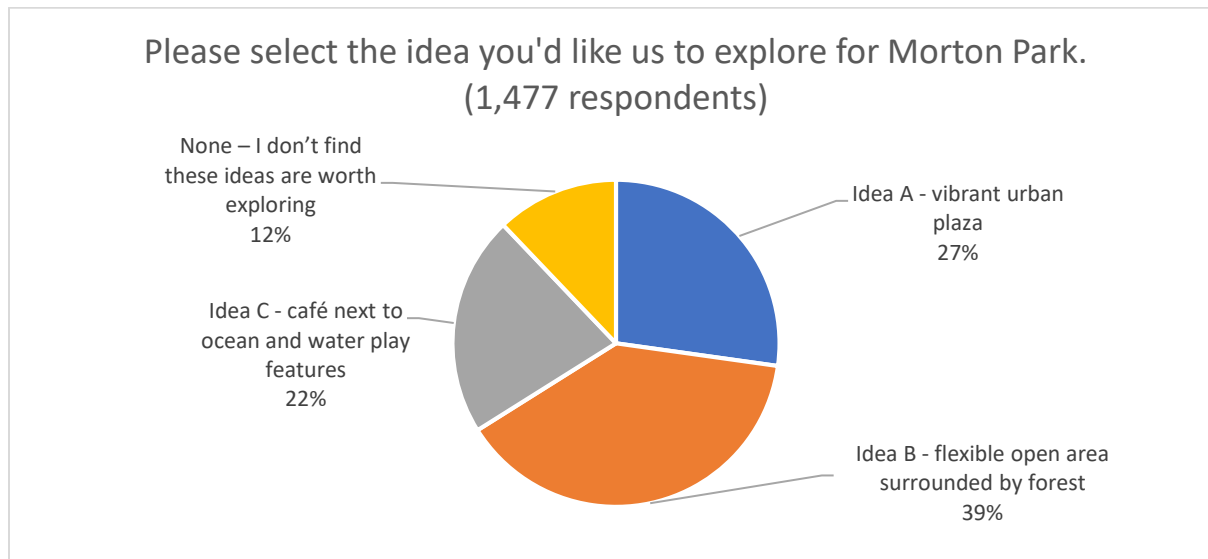
- Appreciation for multi-functional gathering spaces
- Concern about removal of A-maze-ing Laughter sculptures
- Considering the accessibility of pavements, specifically for people who use wheelchairs
- Interest in adding a pier for proximity to the water
- Adding water uses, including kayak rentals, splash areas and access to fresh water would enhance enjoyment
- Considerations for nighttime experience and lighting to activate space
- Desire for additional amenities including: benches, coffee shop, water filling stations, misting stations, washrooms

Table 1. Summary of feedback received on big ideas for Morton Park

Big Idea	Feedback Received
 <p>Idea A from 'Weave': This image shows a welcoming centre/café within a vibrant and flexible urban plaza. It includes terraces to sit and watch the sunset, and decks for gathering on the beach. Pockets of planting create intimate spaces within the larger plaza.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Small gathering spaces • Gathering decks and walkways • Shaded area but would also like to see space covered for when it rains • Welcome centre/café • Gathering decks – allows for seating without a towel <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Logs on beach • Accessibility in relation to parking • Building materials such as concrete
 <p>Idea B from 'Seed': This image shows flexible open spaces with sculptural</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Forest canopy and extended forest ecologies • Space that is multifunctional, including small gathering spaces, green spaces, and gathering spaces on the beach • Dunes – appreciation for protection of bird migration and dampening storm surges • Integration of different spaces and ecosystems makes for a good outdoor classroom concept <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Integration of different uses feels abrupt

Big Idea	Feedback Received
<p>seating nooks, including potentially a lawn area, nestled within a forest landscape and generous urban tree canopy. The plaza opens onto a sandy beach with naturalized sand dunes and grasses.</p>	<ul style="list-style-type: none"> • Questions and concerns related to accessibility, location of washrooms and navigating different surfaces (i.e., with wheelchair or strollers) • Concern about removal of A-maze-ing Laughter sculptures
<div data-bbox="247 483 653 883" data-label="Image"> </div> <p>Idea C from 'Carve': This image shows a new change/washroom facility with a café and water play area outside. A flexible plaza space connected to the sandy beach creates gathering spaces of different sizes. Terraced seating and rain gardens along the street frontages are also featured.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Forest canopy, large trees • Café, but should have affordable options and enjoyable outdoors • Flexible space – particularly for youth • Gathering spaces, but interest in covered areas for weather protection • Passive gathering spaces are preferred particularly for youth • Appreciation for the unique design of the elevated pathway and shape of building • Tiered stairs work well • Mixing of surfaces – concrete and beach, the concrete makes space more accessible for people with wheelchairs and strollers <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Consideration for safety (suggestion to have multiple exit and entrance points) behind the large building

Figure 18. Preference for ideas to explore for Morton Park





Headlands

Overall feedback for the Headlands included:

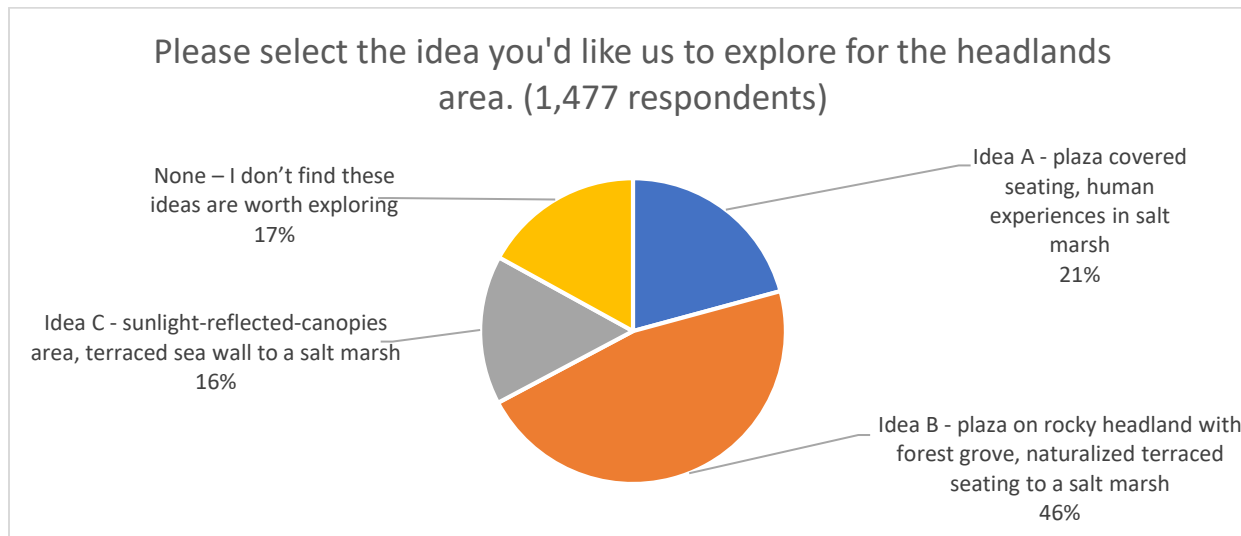
- Strong support for the terraced seawall, with some minor concerns it would become slippery from the tides and rain
- Desire to see more programming space in the headlands area

Table 2. Summary of feedback received on big ideas for the Headlands

Big Idea	Feedback Received
 <p>Idea A from 'Weave': This image shows a plaza and covered area with terraced seating leading down to platforms for informal gatherings within a salt marsh area. Tidal paths allow people to walk along the water's edge.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Space to explore natural ecology • Raised lawn makes for interesting experience and will be able to respond to sea level rise/flooded areas • Covered spaces • Tidal paths that allow people to view water ecologies • Ability to gather in small groups • Like terraced seawall (with seating) as it brings people closer to the water • Like gathering decks and platforms <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Disconnected paths and platforms – accessing these could be difficult for many people
	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Promenade • Salt marsh ecologies • Serene and quiet space offered by the forest grove • Natural seawall approach <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Overlook plaza

Big Idea	Feedback Received
<p>Idea B from 'Seed': This image shows an overlook plaza nestled within a forest landscape atop a rocky headland, with informal terraced seating and foreshore planting stepping down to a salt marsh.</p>	
<div data-bbox="262 440 646 818" data-label="Image"> </div> <p>Idea C from 'Carve': This image shows terraced seating down to a salt marsh beside the ocean. A playground and splash pad are below a canopy. Another canopy structure provides shade and shelter for seating below.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Swings • Terraced seawall • Spaces that are carved out specifically for children to enjoy <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Splash pads • Salt marsh • Light reflecting canopies

Figure 19. Preference for ideas to explore for the headlands area



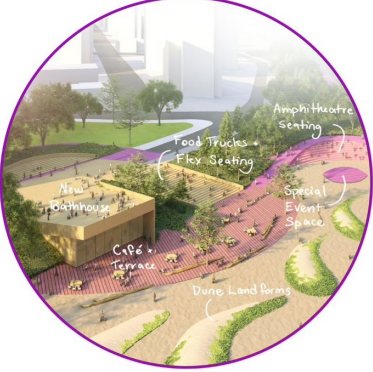

Bathhouse area

Overall feedback for the Bath House area included:

- Interest in seeing the structures be informed by Indigenous architecture
- Recognition that the beach logs are iconic and interest in keeping them a part of English Bay
- Questions about how the bathhouse could be moved/adapted/redesigned
- Preference for gender inclusive bathrooms that are clean and dispersed throughout the site
- Appreciation for amphitheater seating and event space opportunity
- Appreciation for accessible beach mats

**Note: Feedback was not directly requested on the bath house area in the online survey at this stage of the project. Most of the input below comes from the Stakeholder Interest Group workshops and Stakeholder Workshops.*

Table 3. Summary of feedback received on big ideas for the Bath House area

Big Idea	Feedback Received
 <p>Idea from 'Weave': A re-imagined bath house is envisioned in this scenario with a café washrooms and roof top viewing areas. It also envisions amphitheatre seating for lounging and viewing of the beach or as a seating area for larger events.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Lawn area • Amphitheatre seating – steps and open area in front, and the layered levels and experience it provides • Design of new bathhouse, the combination of seating, event space and beach space and dunes • Organic shaped building <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Dune land forms • Stairs – would like to see ramps for greater accessibility
	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Amphitheatre seating • Special paving connecting both sides of the road • Maintaining the historic façade • Ability to accommodate large crowds which is particularly important for big events like parades • Offers good movement <p>Features participants disliked/had concerns about:</p>

Big Idea	Feedback Received
<p>Idea from 'Carve': In this approach, the current bath house building is retrofitted in consideration of sea level rise to provide a similar function as it does today. The roof area of the building is enhanced with the creation of a viewing area.</p>	<ul style="list-style-type: none"> • Dune landforms • Could benefit from flowerbeds or greenery
<div data-bbox="254 548 653 946" data-label="Image"> </div> <p>Idea from 'Seed': The bath house area is re-imagined as a garden with the roof removed and multiple walkways connecting Beach Avenue to the beach through the building. It maintains the memory of the current bath house while allowing the green space to take over and create a garden that spills out onto the beach.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Strong interest in green roof/garden space on top of the retrofitted bath house • Flexible space for different uses • Maintaining the historic façade • Like the lawn landform but would like to see this use away from busy road • Dunes • Carving station • Mural space • Bathhouse gardens <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Lack of connection to the rest of the wider site (particularly Beach Avenue) • The bathhouse design appears to block views of the beach from Beach Avenue • Would like to see the historical architectural features such as the steps of the bathhouse maintained



Big Idea	Feedback Received
	<ul style="list-style-type: none"> • Question around whether or not mural festival could be hosted here and whether the mural wall would invite graffiti • Would like a ramp along Alexandra Park over Beach Avenue • Concept has few trees and greenery • Too many stairs, would like ramps for greater accessibility

General site features

Overall feedback for big ideas throughout the site area included:

- Appreciation for gathering spaces throughout the park, including a variety of different types and formats
- Appreciation for designs that allow for a connection and access to nature and the water

Table 4. Summary of feedback received on big ideas for throughout the site area

Big Idea	Feedback Received
 <p>Idea A: This image shows a concession hall for food and beverage services, with outdoor tables and seating for the enjoyment of refreshments and conversation beside the beach.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Flexibility of gathering spaces and places to meet friends in general • Possibility of nighttime activities/space to accommodate evening activities <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Both excitement and questions around firepits on site • Missing feature is a space that can accommodate musical performances • Interest in having spaces for small and local food vendors
	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Meadow landscapes very well received • Camas meadows and picnic nooks • The mowed pathways in meadows and the space it creates • Small gathering spaces • Quiet, calm space for gathering and walking in nature • Firepits are a unique feature <p>Features participants disliked/had concerns about:</p>

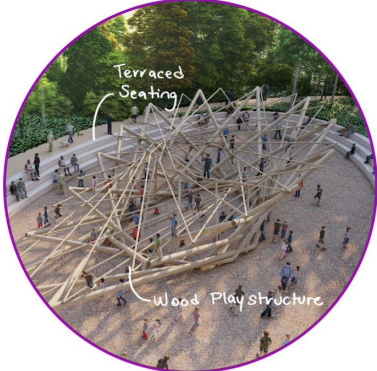

Big Idea






Idea B: These images show how the natural environment can shape the experience of the waterfront parks. Meadow landscapes set the stage for picnics and gatherings, while providing support to pollinators such as bees and butterflies.

Feedback Received

- Would like to see other varieties of local/native plants or potentially a garden
- Safe burning and potential hazardous fires
- Desire for less grass as a part of the landscape

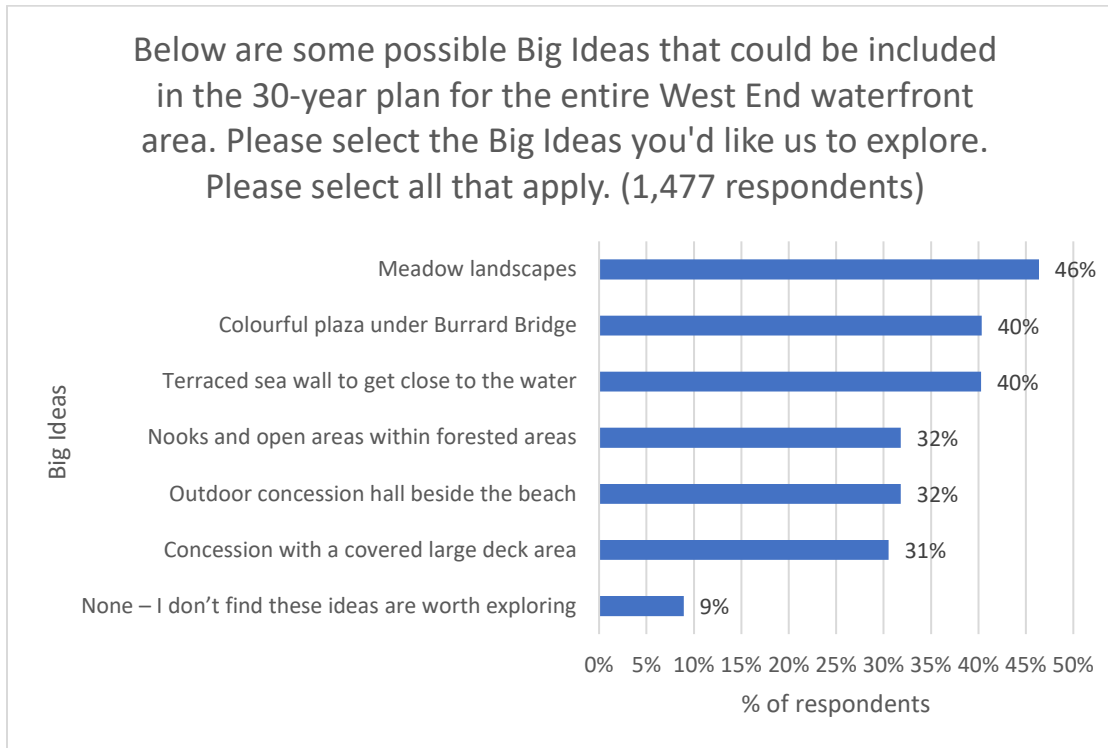
Big Idea	Feedback Received
<div data-bbox="310 233 684 602">  <p>Terraced Seating</p> <p>Wood Playstructure</p> </div> <div data-bbox="310 613 684 982">  <p>Outdoor Classroom</p> </div> <p data-bbox="201 997 774 1195">Idea C: These images show what can happen in the nooks and open areas within forested areas, including outdoor seating areas that can also serve as classrooms, as well as natural play structures tucked away amongst the trees and forest plants.</p>	<p data-bbox="821 228 1205 261">Features participants liked:</p> <ul data-bbox="871 264 1381 496" style="list-style-type: none"> • Wooden play structure • Outdoor classroom • Seating considerations for different class sizes varying age groups • Different seating types contribute to different types of gathering, conversations, and experiences <p data-bbox="821 529 1297 597">Features participants disliked/had concerns about:</p> <ul data-bbox="871 626 1404 859" style="list-style-type: none"> • Questions around the wooden play structure's safety • Considerations for this space include: proximity to school, logistics for booking the space, how it would be integrated to nature and play spaces for lessons

Big Idea	Feedback Received
 <p>Idea D: This image shows the existing sea wall re-imagined as a terraced seating area. It creates a more resilient shoreline while supporting activities in the park and providing ways to get close to the water and see how the changing tides rise and fall.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Terraced seating and flexible stage pavilion <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Terraced seawall, concerns about accessibility of the steps and slippage <p><i>*Note: Many comments on the terraced seawall approach were received in response to the headlands area ideas above.</i></p>
 <p>Idea E: This image shows a vibrant plaza space under the Burrard Bridge. It could include activities such as an outdoor classroom and a movie wall on the bridge structure or a farmers' market. The bridge structure provides shelter for the activities below.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Movie wall, outdoor classroom and flexible plaza well received • Desire for space for concerts and festivals • Plaza would be suitable for dancing • Design allows for the community to gather and connect • Opportunity to employ local and Indigenous artists to incorporate murals /art <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Question around whether or not this location would be suitable for a skatepark

Big Idea	Feedback Received
	<ul style="list-style-type: none"> • Would like to see electrical outlets for events and programming
 <p>Idea F: This image shows a concession with a covered large deck area, with places to sit, eat and drink, and enjoy the view. The building could also provide space for a canoe and kayak storage or rental facility, including a potential for a non-motorized craft launch area.</p>	<p>Features participants liked:</p> <ul style="list-style-type: none"> • Overall environment being dynamic and romantic while embracing nature • Features encourage water culture and good meeting spaces for those who do water activities • Variety of gathering spaces • Space to land stand up paddle boards • Design allows for the community to gather and connect <p>Features participants disliked/had concerns about:</p> <ul style="list-style-type: none"> • Some dislike for the boat storage idea • Some would like to see water sport vessel launch spots and should be able to launch from multiple spots on the shore to expand exploration of the entire site

Respondents were also asked to share which of seven ideas they would like to see explored for the entire West End waterfront area; results are shown in Figure 17.

Figure 20. Preference for ideas to explore for the entire area



Preference for status quo

Throughout the engagement events (notably the pop-ups at English Bay) and open-ended survey questions, the project team noted several comments indicating preference for status quo, or little to no change to the West End waterfront. Themes included:

- Preference to keep any changes simple and minimal, as the area functions well as it is.
- Concerns about spending taxpayer money for limited benefit.
- Questions about why such dramatic changes are being considered.
- Prioritize reducing impacts on neighbours, with an emphasis on practicality.
- Abstractness of the vision for the site (within Vision, Principles and Goals); some expressed that it was difficult to understand the driving force behind changes being proposed.

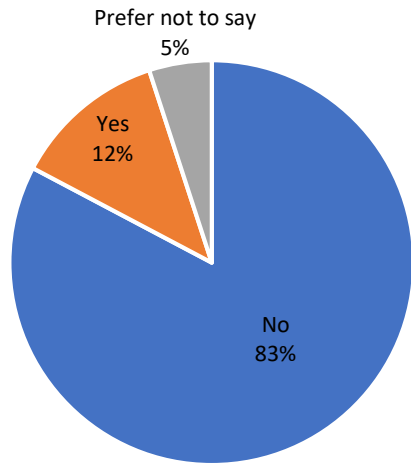
Design suggestions and examples

Several valuable design suggestions and examples from other places arose through general discussion about the site during engagement events as well as throughout the open-ended survey questions. Highlights noted were:

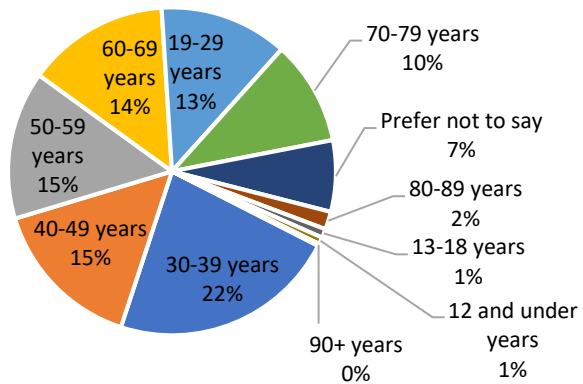
- A number of suggestions related to environment and shoreline approaches:
 - Integrating a diverse and rich palette of plants from local ecosystems.
 - Adding a boardwalk over a small section, leaving more space for wildlife.
 - Combining harder and softer edges.
 - Ensuring adequate drainage on site after high tides.
 - Adding tide pools for swimming.
 - Including covered areas as well as quiet spaces for people and wildlife.
 - Exploring opportunities to add more greenspace, e.g., linear corridors, pockets, raised areas.
- We also heard about successful approaches to climate change adaption from other cities and how respondents would like to see similar approaches in Vancouver. Examples included tactile play zones, play structures for all seasons and bringing back salmon streams into urban areas.
- Other locations cited were: Crissy Field, San Francisco; the sea organ in Zadar, Croatia, the Glass Palace in Madrid, Aterro e Parque do Flamengo in Rio de Janeiro, Brazil (to adapt to large wave runup).

Appendix C. Demographic summary (from online survey)

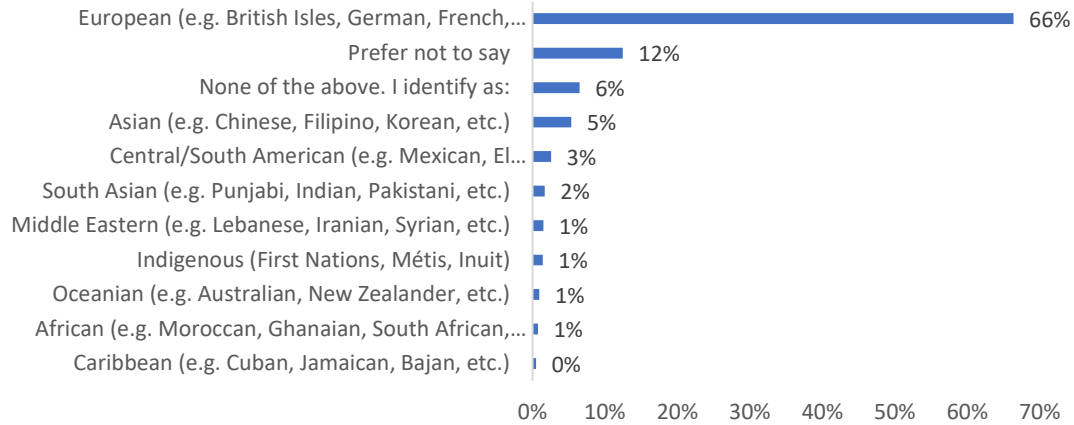
Do you have children under the age of 19 in your household? (n=1,477)



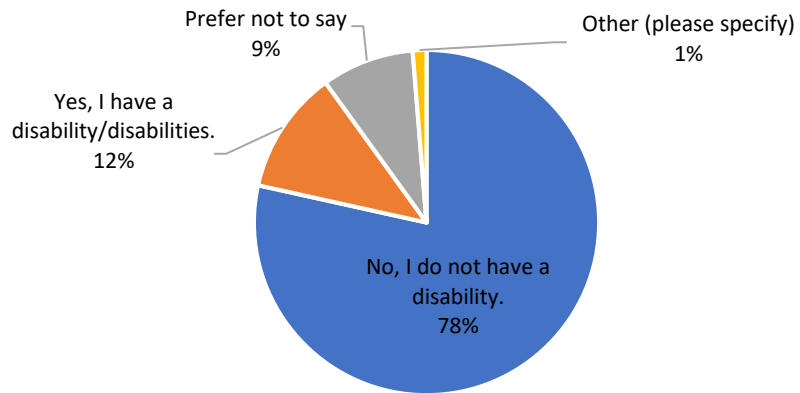
Which age group do you belong to? (n=1,477)



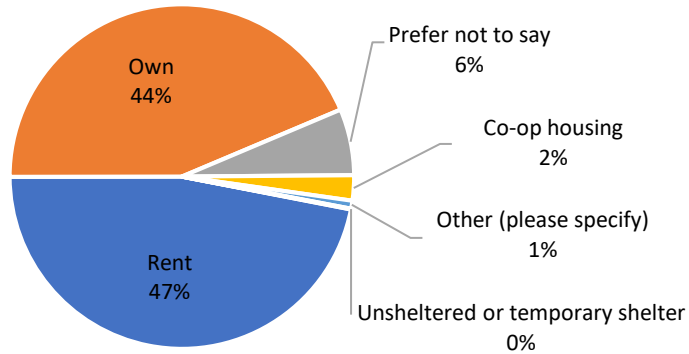
What do you consider your main ethnic origin or that of your ancestors? Select all that apply. (n=1,477)



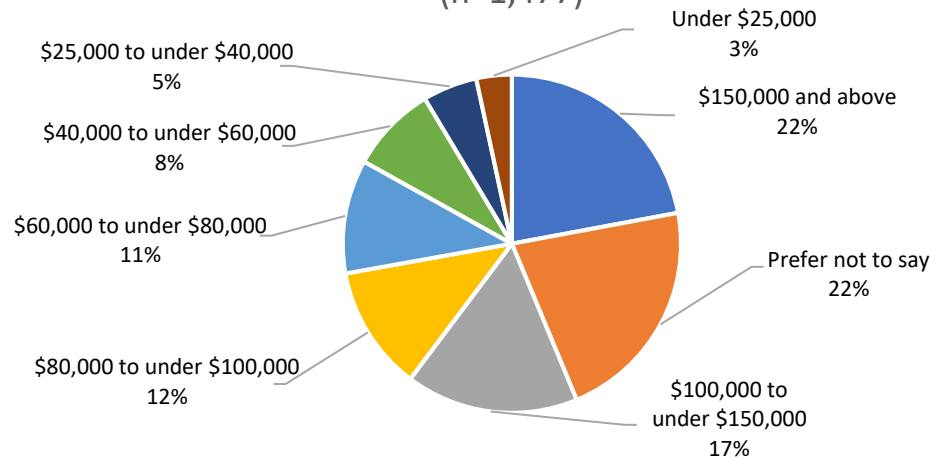
Do you identify as having a disability? (n=1,477)



How would you describe your housing situation?
(n=1,477)



Which of the following categories best describes your total household income per year, before taxes?
(n=1,477)



Appendix D. Youth findings

URBAN EXPLORERS 2023

Imagine West End Waterfront

Child and Youth Engagement in Park Planning
Final Report





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Engagement Highlights

"I learned that civic engagement is important and that anyone can contribute to changing our city."

Student, grade 11/12



"My biggest learning was how much transportation, pollution and other things humans do can affect the Earth."

Student, grade 6/7



"I learned that a fully conceptualized plan requires input from many sources to best fit the needs of a community."

Student, grade 11/12



Children and Youth shaping the West End Waterfront – 30 years and beyond

The Vancouver Park Board is planning for a West End Waterfront that is a welcoming and joyful place for everyone and a place where humans and nature can thrive together for generations to come. Park Board and City of Vancouver planners worked in collaboration with the Society for Children and Youth of BC to gather youth input as part of the public engagement to help shape this area for the next 30 years and beyond.

Urban Explorers is a Participatory Planning Pedagogy (PPP) and curriculum designed for meaningful public engagement in planning with children and youth. Urban Explorers is:

- Civics and sustainability education.
- Real world problem solving
- Project and inquiry based experiential learning.

The West End Waterfront Urban Explorers Program:

- Engaged 28 high school students and 57 elementary students ages 10–18
- Through 18 in-class lessons, 2 workshops, 3 fieldtrips, 2 showcases and with 12 expert guest speakers

Student highlights:

– Model Building – Inquiry Based Research – Presenting to Park Board

Biggest Learning:

– Civic Engagement – Collaboration & Group Work

85
Students

2
Workshops

3
Fieldtrips

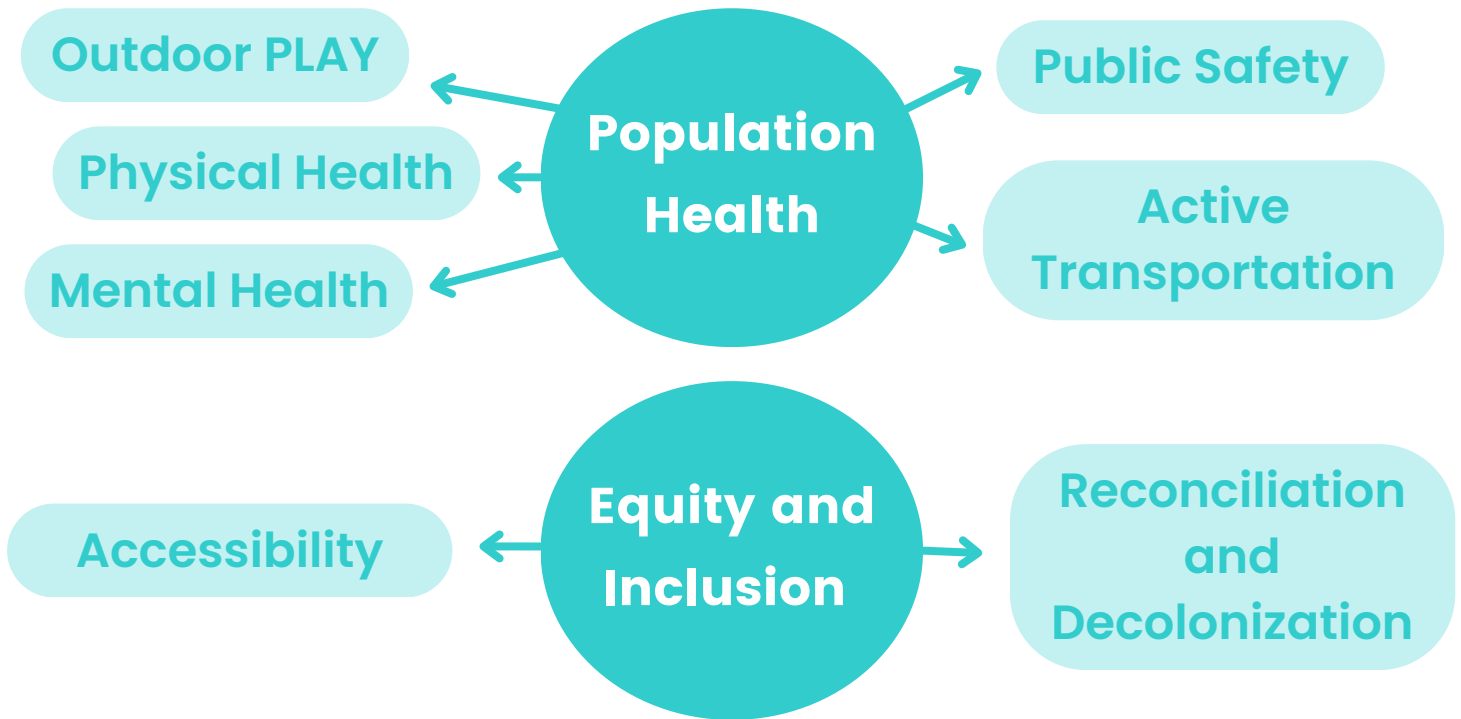
2
Showcases

12
Guest
Speakers

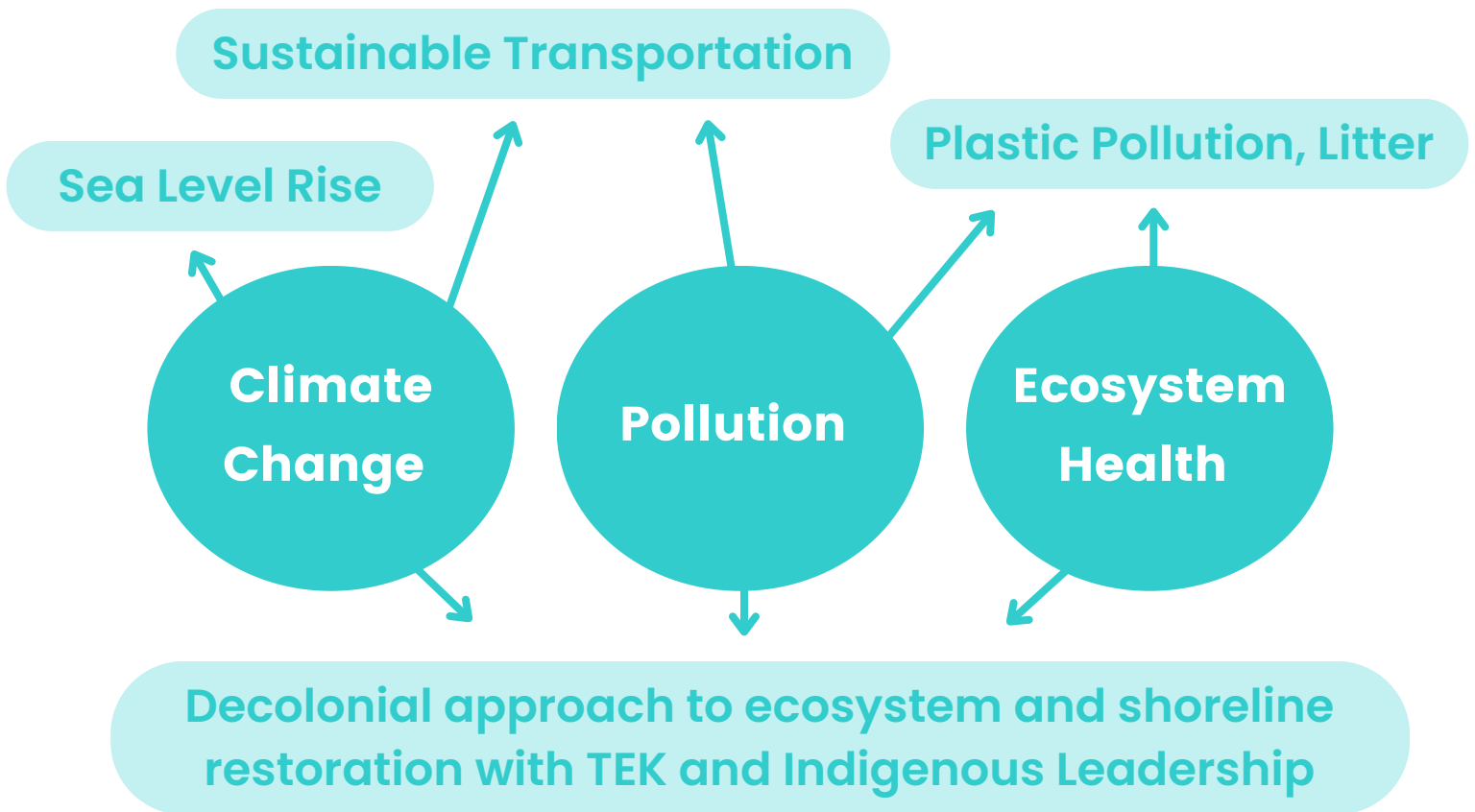
"My biggest takeaway was working collaboratively with others and making sure our ideas were fairly making it into the end product."

"I like that we got to add our ideas to the plan"

Youth-Identified **Social Sustainability** Issues



Youth-Identified **Environmental Sustainability** Issues



Summary of Key Recommendations

1

ADOPT A HOLISTIC SYSTEMS APPROACH MERGING ENVIRONMENTAL RESTORATION AND CULTURAL REDRESS

Youth envisioned a West End Waterfront that is stewarded by the local Host Nations and is undergoing Indigenous-led, and Traditional Ecological Knowledge (TEK) informed ecosystem restoration. The vision includes creating spaces for Indigenous Cultural Practices as well as habitat islands and a restored shoreline with a marshy soft barrier to address sea level rise and provide wildlife habitat. Youth identified how this systems approach will address multiple social and environmental sustainability challenges in the area and build long-term social, cultural and environmental resilience.



This model was made using the game engine Minecraft

2

CREATE EXCITING AND UNIQUE PLAY OPPORTUNITIES FOR ALL AGES AND ABILITIES

Younger students focused on traditional and themed play structures, with requests for more exciting and adventurous play that incorporated healthy risk-taking (height-speed elements) as well natural water features. Ziplines, giant slides and structures in or above the ocean water dominated children's requests. Older youth requests were more sport-oriented: a skate park and various sport courts (basketball, volleyball, soccer) were among the recommendations. All students would like the various play areas and food-social gathering spaces to be in proximity to each other in order to meet the needs of all ages and abilities within an extended family.



EXPAND AND IMPROVE THE SUSTAINABLE TRANSPORTATION NETWORK

3

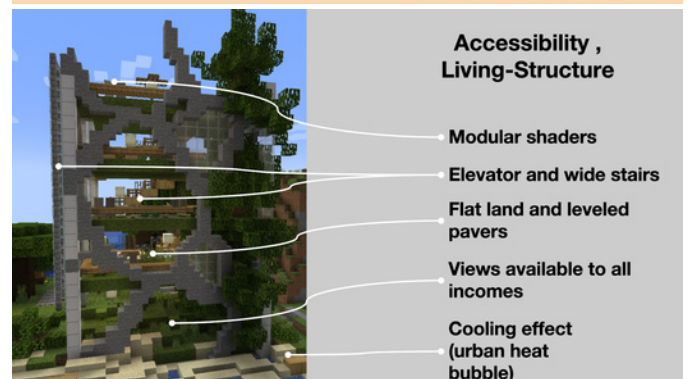


A major request from all age-groups was to improve and expand the public transportation network, including bus lines, sky trains and sea buses, making the area much more accessible by transit. A significant observation from one youth group was how the lack of an adequate transit and transportation system harms seniors and those with disabilities the most. Older high school youth prioritized public transit over other modes of sustainable transportation, while elementary aged youth requested improvements in the active transportation network equally with requests for improved public transportation.

IMPROVE ACCESSIBILITY

4

Students identified various barriers to accessing the site and its facilities or amenities. Most students focused on mobility challenges and envisioned various ways to reduce physical barriers on site at the West End Waterfront. Some students also identified economic factors and the lack of a good transportation network as barriers to equitable access. Redesigning with accessibility in mind and removing financial barriers (e.g. to food or transportation) were some major recommendations.



This model was made using the game engine Minecraft

Introduction

SCY's Child and Youth Friendly Communities Initiative

The Society for Children and Youth of BC (SCY) is a provincial non-governmental organization. Our mission is to improve the well-being of children and youth in BC through the advancement of their civic, political, economic, social, cultural and legal rights. SCY works on building child and youth capacity through direct engagement with young people and by providing consultation for local governments or community organizations.

SCY's Child and Youth Friendly Communities projects support child-friendly city building with young people. Over the past eight years we have worked in collaboration with various Metro Vancouver municipal planning teams to ensure that children and youth have a strong voice in their community's planning initiatives. Our aim is to ensure that public engagement is a deep and meaningful experience for young people.

Urban Explorers

The [Urban Explorers program](#)* provides opportunities for child and youth participation in urban planning. The program builds on decades of research and experience from the [Child Friendly Cities](#)* and [Growing Up in Cities](#)* initiatives taking place internationally. The program was developed by researcher and planner Ildiko G. Kovacs under the Society for Children and Youth of BC's (SCY's) Child and Youth Friendly Communities projects. Urban Explorers delivers the [Participatory Planning Pedagogy \(PPP\)](#)* based sustainability and civics education curriculum, joining a student-led inquiry based learning approach with participatory planning. **Links at the end of Report*

At SCY we understand that it is the basis of socially just democratic governance to ensure that young citizens – like all citizens – have a voice in the development of their city, community and parks and recreation spaces. As a Children's Right to the City initiative, Urban Explorers ensures that children and youth are not only passive recipients of city services and amenities, but can also shape their city's future to meet their community needs.

Following the most up-to date research and work in childhood studies, we know that children and youth have the capacity and competence to meaningfully contribute to democratic debates and community planning processes. Young people are citizens of today with rights and responsibilities to be stewards of their local environments and changemakers of their communities.

Methods – 'What We Did'

Imagine West End Waterfront Urban Explorers

Vancouver's Board of Parks and Recreation and the City of Vancouver began the West End Waterfront planning process and public engagement in 2021. The West End Waterfront Plan will help shape the direction of the area for the next 30 years and beyond. The Park Board and the City – committed to engaging with many diverse publics, including children and youth living in the community – invited SCY to run their Urban Explorers program with local elementary and high school students for child and youth public engagement.

Working in close collaboration with the Park Board and the City of Vancouver Engineering Services' Transportation Planning branch, the Imagine West End Waterfront Urban Explorers program was delivered during the 2022-23 school year (phase 3 – Initial Concepts and Ideas – of the planning process). Two West End neighbourhood schools' (one high school and one elementary) and one South-East Vancouver elementary school's classes were recruited for this engagement. The two elementary groups participated together as buddy classes – an approach that supports peer-to-peer learning and has been shown to improve young people's sense of community connectedness.

Participants

Eighty-five Vancouver School Board students participated in the West End Waterfront Urban Explorers program. Participants' ages ranged from 10-18 (grades 5-7 and 11-12).

- 28 grade 11-12 Urban Studies high school students (Vancouver West End - King George Secondary).
- 30 grade 5 elementary school students (Vancouver West End – Lord Roberts Elementary).
- 27 grade 6/7 elementary school students (East Vancouver – Sir Wilfred Grenfell Elementary).

Urban Explorers Engagement Activities

High School

Summary

10 in-class 60–70 minute sessions, with two fieldtrips, including one site visit and one Final Showcase.

<p>Week 1</p>	<ul style="list-style-type: none"> • An introduction to the program and the Imagine West End Waterfront Project (SCY-led). • A group knowledge co-construction activity, mapping out student’s knowledge of existing local sustainability challenges (SCY-led).
<p>Week 2</p>	<ul style="list-style-type: none"> • 2 <u>City Hive</u> guest sessions introducing cities and local government. • 1 half-day fieldtrip to the West End Waterfront: walk led by park planner Brittany Morris with guest Mandy Yu (Landscape Architect).
<p>Week 3 - 4</p>	<ul style="list-style-type: none"> • 3 deep-dive inquiry sessions with CoV/Park Board expert guest speakers presenting on three main sustainability challenge(s): reconciliation and decolonization, climate change/sea-level rise adaptation and sustainable transportation.
<p>Week 5 - 7</p>	<ul style="list-style-type: none"> • 3 project-building sessions (SCY-led)
<p>Week 8</p>	<ul style="list-style-type: none"> • One Final Showcase where students presented their projects with visions and recommendations to Park Board and CoV staff at a half-day event.

SCY Lessons: Introductory Session + Sustainability Issues Mapping

The first lesson introduced settler colonization, urban development, local governance, and the Imagine West End Waterfront plan. This was followed by the Sustainability Issues mapping exercise, which is a central component of student-led inquiry, as it allows students to work on problems they are most connected to and to build on their existing knowledge of these issues. Students are asked to individually identify all the local and global sustainability issues they are aware of, and then as a group knowledge co-construction activity, we pool all these issues onto a large matrix. Next, the issues are grouped and if necessary we select ones applicable for the current planning project. Finally, youth can begin thinking about relationships between the various issues identified, and select the ones they would like to learn more about and find possible ways to address.



2 City Hive guest lectures: Guest Olivia Shaw, Civic Education and School Program Coordinator held two sessions:

- Cities and Systems 101
- Civic Agency



3 Park Board/City of Vancouver expert speakers:

- Rena Soutar – Manager of Decolonization, Arts and Culture for the Vancouver Board of Parks and Recreation: Rena led a deep discussion with the class on Truth and Reconciliation.
- Angela Danyluk – Senior Environmental Specialist at City of Vancouver, Project Lead Sea2City Design Challenge: Angela presented on ecosystem health and resilience, and climate change and sea-level rise adaptation.
- Sherwood Plant (Transportation Planning Engineer): Sherwood held a presentation and budgeting workshop on transportation planning.

1 in-house showcase:

- Students presented their projects with visions and recommendations to Park Board and City of Vancouver staff at a half-day event.

Urban Explorers Engagement Activities

Elementary School

Summary

A total of 16 in-class 60-70 minute sessions (8 for each class), one in-class workshop help by Park Board staff, and three combined full-day field trips, including one site visit and one Final Showcase.

Week 1 – 8	<ul style="list-style-type: none"> • 2 x 8 in-class sessions (SCY-led).
Week 9	<ul style="list-style-type: none"> • One in-class ‘Design Jam’ with Park Board staff
Week 3 and Week 6	<ul style="list-style-type: none"> • Two full day fieldtrips combined for the two elementary classes. The first a site visit to the West End Waterfront, the second a ‘Parks and Nature in the City’ fieldtrip to Creekside Park, Habitat Island (Hinge Park), and sθəqəlxenəm ts'exwts'áxwi7 in downtown Vancouver.
Week 10	<ul style="list-style-type: none"> • 1 Final Showcase where students from both classes presented their projects with visions and recommendations to Park Board, CoV staff, peers and community members.



SCY Lessons

The eight sessions held by SCY's facilitator included introductory presentations on settler colonization, urban development, local governance, and the Imagine West End Waterfront plan, followed by city asset mapping, then sustainability issues mapping. Students then began their research on chosen sustainability challenges with an Intro to Inquiry lesson, followed by independent teacher-supported research. The SCY facilitator also offered deep-dive presentations on Reconciliation, climate adaptation/sea-level rise, and sustainable transportation, adapted from the expert guest presentations to high school students. Over the final weeks students developed their ideas and recommendations into 3D design models of the West End Waterfront. These projects were presented back to the city planners, peers and the community at a Final Showcase event.



Student Design Jam - Introduction to Park Design

Park Board staff held a design jam for the Lord Roberts elementary class for students to bring their park visions to life. The workshop introduced nature play, the importance of kinship with nature, and park design in a fun and creative environment. Students were asked questions to stimulate their curiosity and imagination, and invited to share their memories and stories of playing in nature and play spaces. Following these brainstorming activities, students collaborated in small groups to create their own imaginative nature park, incorporating play features that interested them and built a physical model using recycled and reusable materials.

Fieldtrip 1

West End Waterfront Site Visit

Park Board planner Brittany Morris led students through the site, addressing the topics of Truth, Healing, & Reconciliation, Environmental Resilience, Equity, Wellbeing, & Pride, and Active & Sustainable Mobility at various points along the way.



Fieldtrip 2

Nature and Play in Public Green Spaces

- Creekside Park: focus on nature and play in cities. Students participated in a pollinator workshop with Shannon Mendes, Environmental Stewardship Planning Analyst (Park Board) and Jack Tupper, Landscape Architect (Park Board)
- sθəqəlxenəm ts'exwts'áxwi7 (meaning 'rainbow'): focus on play and Host Nations art and gifting the park its Indigenous name with guests Mandy Yu, Landscape Architect and Jess Carson, Reconciliation Planning Analyst (Park Board)



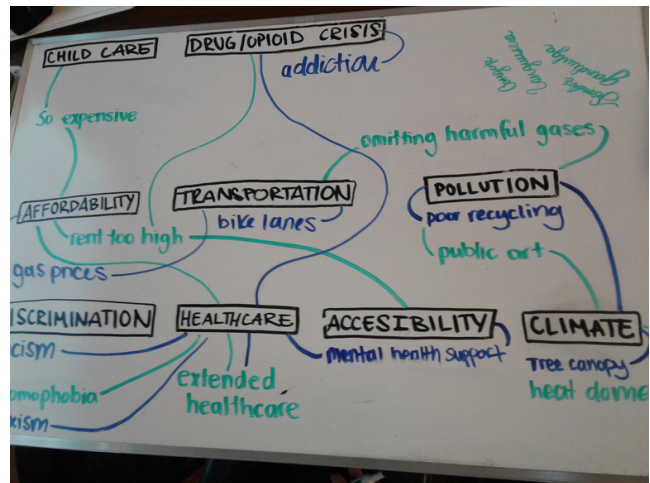
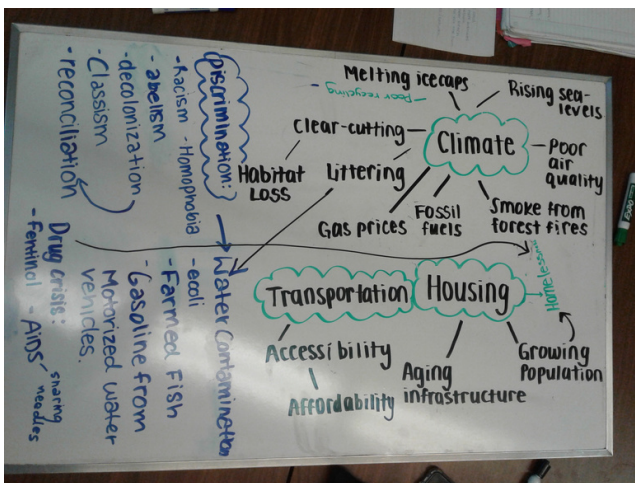
Results - 'What we Heard'

A. Sustainability Challenges

Sustainability issues mapped out by students were grouped into social and environmental sustainability.



Relationship Mapping



High School Students

Social sustainability challenges youth focused on were mental health, public space safety and some outdoor play within the population health theme, and Truth-Reconciliation-Decolonization as well as accessibility within the equity-inclusion theme.

Environmental sustainability challenges identified by youth fit under the main themes of climate change, pollution and ecosystem health. Subthemes that students focused on were sea level rise adaptation and sustainable transportation within the climate change adaptation theme, land and water pollution (i.e. littering and garbage that ends up on the oceans) within the pollution theme, and loss of native vegetation and environmental degradation within the ecosystem health theme.

Overall, all ages of students identified similar areas of focus (climate and specifically sea level rise adaptation, pollution, ecosystem health, Truth-Reconciliation-Decolonization, accessibility, and population health and wellbeing). Notable differences between the elementary and high school groups are:

- A more prominent focus on outdoor play for the younger elementary aged youth, and
- A stronger focus on Truth-Reconciliation-Decolonization, and safety in public spaces for the high school youth.

Elementary School Students

The two main social sustainability challenges that students focused on were *population health* and *equity-inclusion*, while *climate change* and *pollution* (land, air and water) were the two main environmental sustainability challenges of interest.

The most prominent sub-theme that emerged within the population health theme was *play*. Other subthemes were *mental health*, *physical health* and *active transportation*. The physical and mental health subthemes significantly overlapped with play, as well as with active transportation: with their proposed solutions to the identified social sustainability challenges, many students demonstrated an understanding of a complex systems approach to health and wellbeing – recognizing how both active play and active transportation benefits everyone’s physical and mental wellbeing. Within the equity-inclusion theme Truth-Reconciliation-Decolonization and accessibility were the two most dominant subthemes.

Within environmental sustainability climate change and the resultant sea level rise was identified by far as the most significant concern by students. Next, concerns about air, land and water pollution and habitat loss and degradation were also expressed. Yet again, many students were showing a developing understanding of the complexity of these issues – for example how air pollution and habitat loss are interconnected with the main challenge of climate change (e.g., how heat waves lead to wildfires.)

B. West End Waterfront Area Recommendations

Students' visions and recommendations addressed their identified sustainability challenges. These visions and solutions to sustainability challenges were then depicted in final projects. 3D physical models were the most common choice of project for both elementary and high school students. A short written description accompanied each student group's model. For analysis we collectively examined student's 3D designs and their accompanying written and verbal descriptions. A handful of high school students chose to create digital models, and/or PowerPoint presentations, and a few decided on 2D designs (drawings or paintings) to present their ideas. One elementary student created a video and two accompanying images to present their ideas.

High School Students Recommendations

Social Sustainability: Population health

MENTAL (& PHYSICAL HEALTH)

- The most dominant recommendation in this theme was related to the healing effects of nature for mental well-being, which many youth did not know about and suggest this information be made more available. Related to this, youth also requested easier/more equitable access for all people to nature, as well as 'more lively plants,' and more trees in general.
- The second most common recommendation within this theme was related to Truth-Reconciliation-Decolonization and urban Indigenous health. Specifically, recommendations were for more visible Musqueam, Squamish, and Tsleil-Waututh Host Nations' art, culture, and spaces for traditional First Nations' activities.

PUBLIC SAFETY

- The main recommendation from many youths was to add more lighting to park areas, such as Alexandra Park and the waterfront in general to improve safety. This would ensure more people can use the space at night (and afternoon during dark winter days) and higher use will discourage criminal activities such as drug dealing.
- Youth suggest that well maintained/renovated bathrooms will also improve general safety in the area.

PLAY

- Playground and additional gazebo/family picnic areas in Alexandra Park
- Skate Park at current Sunset Beach parking lot area, and added skate-roll elements and improvements on greenways/bikeways, which currently are perceived to only work well for bicycles.
- Add a basketball court on site.
- Keep/maintain the existing beach volleyball courts.

Social Sustainability: Equity-Inclusion

TRUTH-RECONCILIATION-DECOLONIZATION

While not all student groups included Truth-Reconciliation-Decolonization goals in their projects, the youth who did elaborated deeply and insightfully.

- Improve public education about Canada’s colonial history and genocide.
- Build Indigenous history into the West End Waterfront design. Follow other Indigenous-led Canadian projects for inspiration, (such as the Promontory and River Valley Park Plan in Toronto, or the Grandview-Woodlands Community Centre Renewal in Vancouver).
- Return stewardship of the area to Musqueam, Squamish, and Tsleil-Waututh (MST) Host Nations and “under the direction of the elders restore Indigenous place names and language presence and include spaces for Indigenous land-based practices.” This later request – creating spaces for First Nations’ land-based practices – was present in multiple projects and its connection to mental health and wellbeing was also highlighted by many students.
- Strengthen the current Colonial Audit at the Park Board and use this as a blueprint to decolonize the Vancouver Aquatic Centre.
- Use both western expertise and Indigenous Traditional Ecological Knowledge (TEK) in ecological planning and restoration and recruit Indigenous planners, experts, activists, youth for this work.

ACCESSIBILITY

While most students focused on physical access, some mentioned financial barriers to access as well.

- Build/upgrade accessible washrooms. Multiple student projects included a redesign of the current bathhouse into accessible and inclusive washrooms downstairs.
- Improve overall accessibility on site for those with mobility challenges. For example, add sidewalk ramps, handicap washrooms, separated bike lanes, elevators, wider sidewalks and doorways.
- Create city guides for people with disabilities: “Websites or brochures that indicate easily accessed areas and where some areas may be more challenging.”
- Add more beach mats for water access with wheelchairs/strollers and make sure these extend to the water, and also have seating around.
- Seating can be made more effective: modular/movable to “increase accessibility and comfort for all.”
- Remove financial barriers (e.g. ensure that there is affordable food at the concession stands.)

INCLUSIVITY

- “Input community voices in [planning decisions] specifically youth voices.”
- Make Alexandra Park more family-friendly and inclusive by adding more gazebos, picnic areas, a play structure and lighting.
- More benches, tables, seating around the entire area to make it more welcoming.
- Washrooms should have a gender neutral, a women’s and a men’s section.

Social-Environmental Issues Overlap: *Transportation*

Notably the youth group’s focus within sustainable transportation was not as much on reduced fossil fuel emissions, and more so on making sure that there is an equitable, accessible, and efficient public transit network developed.

- A main request from numerous groups was to improve the existing transit access to the area by adding more frequent and varied service and/or larger buses.
- Singapore’s heavily subsidized transit system was used as an example by one group focusing on this specific topic. This group outlined the many benefits of a well-connected transit network (“improved accessibility, safety, connections, economic opportunities, quality of life, emergency response due to reduced congestion and reducing the negative effects of a fossil fuel dependent transportation network, such as air and noise pollution, congestion, habitat loss, accidents”). Their recommendation was for BC to follow the Singapore example by better funding/subsidizing the transit system in order to expand it, and *then* encourage its use with a congestion pricing system.
- Maintain the existing bike lane on Beach Avenue as it is well used. Of note however, is that very few high school aged youth focused on cycling as a sustainable transportation solution – instead the dominant recommendation from this age-group was to focus on improving public transportation.



Environmental Sustainability: *Climate Change Adaptation*

SEA LEVEL RISE ADAPTATION

- A great number of projects showed habitat islands to provide wildlife habitat with zero or minimal human impact.
- A large number of projects incorporated soft barriers such as wetlands and rain gardens to address seal level rise.
- About a third of the youth suggested raising the sea wall in order to address sea level rise on site.

STORMS AND HEAT WAVES

- Use of vegetation for cooling and shade, such as more trees and vertical-garden style sunshades made from native plants.
- Cooling/shade structures and improved building design for passive heating/cooling

Environmental Sustainability: *Ecosystem Health*

The restoration of natural and native ecosystems came as a recommendation within many of the above themes such as Truth-Reconciliation-Decolonization, mental health, and climate change/sea level rise adaptation, but was also identified as a sustainability issue of its own.

ENVIRONMENTAL DEGRADATION + RESTORATION

- Habitat islands were recommended by a number of groups.
- Vertical gardens – “more space = more biodiversity” were suggested as a way to address the need for more green space in growing and densifying cities.
- Planting more trees was a recommendation (for this and many overlapping concerns).
- Creating human-free zones for wildlife were also highly recommended, either through designing a number of habitat islands, or by creating shore areas that use persuasive design techniques and hostile architecture for example, to keep people out.
- ‘Beach guides’ and signage can also help with public education and lowering the human impact.
- One student focused on the negative environmental impacts of geese in the area and recommended that parks implement an annual geese cull, followed by egg addling. The recommendation included that hunted geese can become a food source for food banks.
- Barriers and regular clean-ups were also recommended to keep animal excrement (be it from dogs or geese) out of the water.

NATIVE SPECIES

- Restoring the site with native species was a priority for most student groups for a variety of reasons (as per above note, for Truth-Reconciliation-Decolonization approaches and cultural restoration as well as improving environmental and population health).

Environmental Sustainability: *Pollution*

LAND

- The majority of land pollution focused on the issue of littering and garbage disposal on site. Recommendations included more garbage and recycling bins, making these animal secure, and maintaining/emptying them more often. One group explained how “nobody wants to touch the lid of the current bins, so [people] leave the garbage on top” and suggested that better design can address this issue.
- Education on the 3Rs and enforcement of litter laws was also suggested.
- Proactive suggestions included ‘bring your own mug cafes,’ and beach cleanups.

WATER

The main pollutants students were concerned about were garbage/litter from land ending up in oceans (and most specifically, plastic waste), and e-coli contamination.

- For the prior the land-based measures (outlined above) were suggested
- In order to decrease e-coli levels students suggested restoring coastal marshes and encouraging more plankton and sea life to thrive in the area. To achieve this many students suggested having shore areas specifically for wildlife, and not accessible for humans.
- Another suggestion was to “Implement strict restrictions on dog and goose waste and possibly create a team of ‘beach janitors to prevent E. coli contamination.”



Elementary School Students Recommendations

Social Sustainability: *Population Health*

PLAY

- Every student model incorporated a play area into their 3D design of the West End Waterfront.
- Traditional play features: slides, swings and monkey bars were common design features, and some students created themed playgrounds (‘Fruit Park’ with cherry swings, pineapple tower and grape slide.)
- Risky play elements: providing opportunity for thrill and excitement through speed and height included zip-lines/zip-park, giant slides, trampolines, treehouses and waterslides.
- Water play: overlaps with risky play. Students designed docks and/or water-rafts with slides into the water. One raft also had a treehouse. A public pool was also recommended by some groups.
- Sports courts: older youth often designed basketball or volleyball courts near the play area.
- All-ages inclusive: Students created play spaces for different aged youth, from toddler-specific play areas to ‘teen corners with WiFi.’ They also created social and/or ‘eating areas’ for families and seniors to relax while watching their children/grandchildren play.

MENTAL HEALTH

- Nature/respice for mental wellbeing: students suggested that flower-beds and gardens (e.g. “Zen garden”) surround the social/eating area, that more trees be planted on site and by designing fishing docks and providing ‘beach areas to relax on’ – all of which signify the importance of interacting with water features and natural flora for mental health and wellbeing.

PHYSICAL HEALTH

- Design for healthy active lifestyles: the majority of students' recommendations relating to physical activity focused on improved access to active outdoor play areas (i.e. green spaces) as well as improved active and independent mobility options (i.e. walk-bike-roll and public transit.)
- Water fountains (for drinking) and public washrooms: were part of many student models.
- Food retail: many of the models included various food stands, (e.g. a "Snack Shack") offering affordable food for park users.

ACTIVE TRANSPORTATION

- Walk-bike-roll and transit options were promoted by some student groups in response to the climate crisis.
- One group recommended advancing a shift to electric vehicles.
- The importance of improving the public transportation system was highlighted by many groups, with one group noting that the lack of a good transportation system harms seniors and those with disabilities. This group's solutions to the challenge were to improve all modes of public transportation – SkyTrain, bus lines, seabus – in order to reduce parking issues.

Social Sustainability: *Equity-Inclusion*

TRUTH-RECONCILIATION-DECOLONIZATION

- Student recommendations to advance Truth-Reconciliation-Decolonization included incorporating more Indigenous (First Nations, Inuit, and Métis) and Host Nations' artwork into public space design, as well as providing space for an Indigenous art and craft store on site.

ACCESSIBILITY

- Creating play areas that work for all ages and abilities was a strong priority for some groups. One specific suggestion for this was including more 'quiet areas' for children (e.g. next to a pond) where youngsters – whether neurotypical or neurodivergent – can "wind down" when feeling overstimulated.
- Wheelchair access paths in the sand leading down to the waterfront.

Environmental Sustainability: *Habitat Loss and Degradation*

- Habitat islands were proposed as a major recommendation for creating more habitat for wildlife by a number of student groups.
- Planting more trees, shrubs, and other vegetation was recommended by most groups (and as a solution to various other sustainability issues as well as environmental degradation).
- Properly disposing of toxic chemicals can help reduce soil contamination.

Environmental Sustainability: *Climate Change*

SEA LEVEL RISE ADAPTATION

- Ecological adaptation approaches:
 - Planting more vegetation in the area “because plants absorb water.”
 - Fully restoring the coastal marshes or wetland
- Design-based approaches:
 - Seawall: permanently raising the sea wall higher, or a “sea wall that rises when it senses the water is too high.” Some groups combined the design and ecological approaches suggesting that adding vegetation to the seawall or building a seawall “made of plants if possible” will help.
- Building an underwater barrier
- Making buildings and playground structures taller/higher

GENERAL CLIMATE ADAPTATION

- Increasing the tree canopy for “shade and sun protection” and to reduce temperatures during heat waves.
- Transitioning away from fossil-fuel consumption to renewable energy sources (e.g. solar panels, electric cars) and active modes of transportation.



Environmental Sustainability: *Pollution*

AIR

- This category had a significant overlap with general climate adaptation, as the majority of air pollution students were concerned about were greenhouse gases.
- Reducing carbon emissions, for example with the following strategies: “Don’t burn garbage, drive less, take public transit, walk more or ride a bike, burn less coal, plant more trees, reduce the number of airplane travel trips, reduce the use of fireplaces and wood burning stoves.”
- Many groups recommended increasing/improving the area’s bike-walk-roll and transit options to reduce inner city vehicle emissions.
- Carbon sequestration through “liquid trees (trees made out of microalgae and water) and bio solar leaf.”

LAND & WATER

- Many groups were concerned about how plastic, oil and other pollutants end up in the water even if they were disposed of on land. Some recommended solutions were to support the public in disposing garbage and toxic chemicals properly.
- Other recommendations included cleaning up the waters by removing garbage, limiting the use of plastic bags, plastic containers, cleaning up land-based litter before it ends up in the oceans (e.g. “The city and citizens can pick up the trash from the shoreline when they go to the ocean.”)

C. Student Feedback on the Urban Explorers Program

A post-program survey was administered to all participating students, asking the following four questions:

- 01 — What was the highlight (best part) of the Urban Explorers - Imagine West End Waterfront engagement program?
- 02 — What was the most challenging part (hardest) of Urban Explorers?
 - Why?
 - How would you change this to make it better?
- 03 — What was your biggest learning or take away from the Urban Explorers - Imagine West End Waterfront engagement?
- 04 — Any questions you have or is there anything we forgot to ask?



High School Students Recommendations

The grade 11-12 students reported three main highlights of the West End Waterfront Urban Explorers engagement program:

1. The Final Showcase providing an opportunity to present ideas back to Park Board staff,
2. The model building process; and,
3. Working collaboratively with friends.

Main challenges interestingly were the same as major highlights:

1. Model building in general and depicting ideas in a physical model: Students reported that the challenge here were the need to compromise on ideas and work efficiently in groups; the need to *“connect the Park Board ideas with ours;”* and the challenge of wanting to add something unique *“but knowing the reasoning why it can’t be done.”*
2. Presenting to Park Board and *“a big crowd”* caused great anxiety for many.

Biggest learning or takeaway:

1. For over half of high school students their biggest takeaway was related to the experience of civic engagement a) How important civic engagement is and how easy it is to get involved – “that anyone can contribute to changing our city” and that there are organizations out there to support youth in having a voice, and b) the basics of Park Planning, including the importance of including diverse views and needs: “a fully conceptualized plan requires input from many sources to best fit the needs of a community.”
2. Other major takeaways reported were related to students’ various inquiry topics, such as Sea Level rise adaptation, plastic pollution, ableism and accessibility.
3. The experience of collaborative work was also reported as a major learning by many: “Working collaboratively with others and making sure our ideas were fairly making it into our end product.”

Elementary School Students Recommendations

This younger age-group reported three main highlights, two of which were also reported as main challenges, and somewhat aligned with high school student feedback:

1. Model building: developing applied design skills and working together with friends. *“The highlight for me was building our model because I loved using critical thinking to solve sustainability challenges. Also, there were lots of challenges we faced and that is fun”*
2. Inquiry-based research.
3. Pizza!

Main challenges reported:

1. Model building: Collaboration, group work, communication, deciding on which ideas to incorporate and making sure the researched sustainability solutions are part of the model.
2. The research: For many students this was their very first time researching about a school topic on the internet and the process was slow and required continuous guidance *“I had to spend so much time at home looking on the internet. [...] But the biggest learning was the research.”*

What students would change about the program:

1. Have more time: more time to research, more time to build, and more time to present. *“At the showcase I would have liked if we had more time to speak about our project. Two minutes is not enough.”*
2. More fieldtrips. *“Maybe explore more parks?” “My biggest learning was the physical learning, like the field trips.” “Explore more nature and parks and see more of the other class”*
3. More opportunities to exchange ideas with other schools’ participants.

Biggest learning or takeaway:

1. For the majority of students in this age-group the facts and various solutions they learned about their chosen sustainability issue(s) – especially climate change, sea level rise, transportation and pollution – were reported as the biggest part of their learning.

*“What I learnt from this project is about all of the research I did on transportation and air pollution before I started building my model.”
And “My biggest learning was how much transportation, pollution and other things humans do can affect the Earth.”*

“I learned that sea level rising is a global issue.”

2. To a somewhat lesser degree, students also reported they learned applied design skills with model building.

“The biggest takeaway was the scale and innovative ideas. It was difficult to find creative and innovative ideas that are a solution to our topic, and because of scale we had to redo lots of our buildings.”

3. Other takeaways included learning from others when exchanging ideas and learning about the local site, the city’s various parks and their sustainability challenges.

“The highlight was learning with my friends and making new friends”

Finally, students greatly appreciated being listened to by city staff!

“I like that we got to add our ideas to the plan.”

Links

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[Urban Explorers](https://scyofbc.org/urban-explorers/)

<https://scyofbc.org/urban-explorers/>

[Child Friendly Cities](https://www.childfriendlycities.org/)

<https://www.childfriendlycities.org/>

[Growing up in Cities](https://www.tandfonline.com/doi/abs/10.1300/J125v14n01_11?journalCode=wcom20)

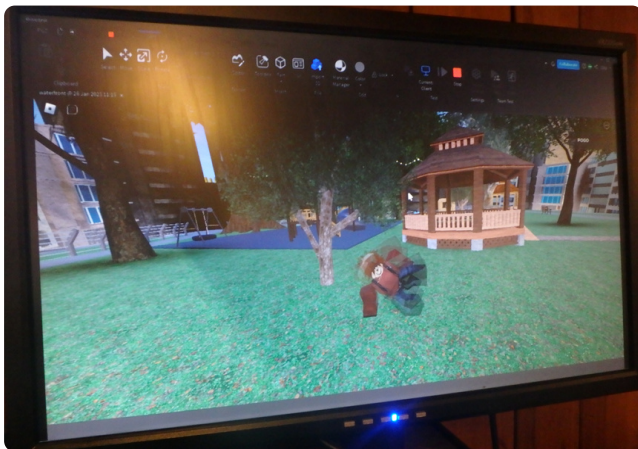
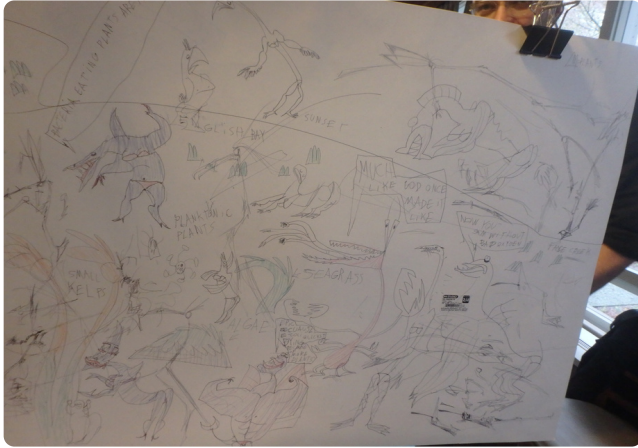
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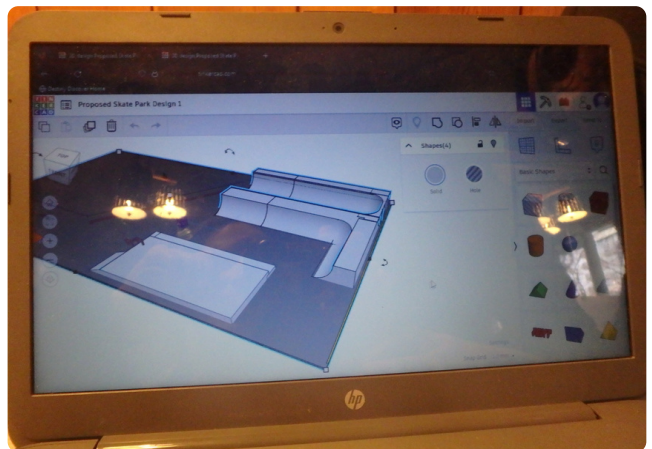
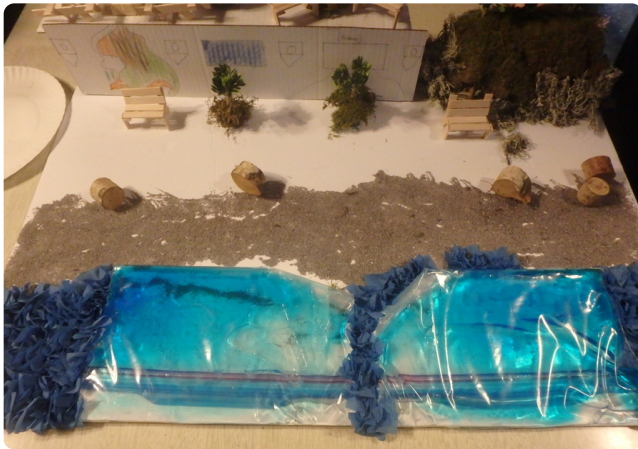
[Participatory Planning Pedagogy](https://ojs.library.carleton.ca/index.php/cjcr/article/view/2576)

<https://ojs.library.carleton.ca/index.php/cjcr/article/view/2576>

Appendix

High School Projects





Elementary School Projects



Urban Explorers: Ocean pollution

save us!

The problem
the problem is that when someone litters on the beach or leaves trash on the ocean when going on a trip through the ocean

What happens?
all the trash that we litter on the beach or on the ocean builds up and most of it usually ends up in the beaches again because of ocean currents.

What can the city do?
the city can have volunteers to go pick up trash and if they keep picking up about 1000 pieces of trash every day, at least 1 percent of the trash in the ocean will reduce.

Solutions
Whenever someone goes to the beach, they can at least pick up some plastic pieces, you can just pick up trash whenever or wherever you are.

CLIMATE CHANGE

PROBLEMS
There are many problems that come with climate change if we don't actively try to prevent it. One of the main problems that come is a much higher average sea level which is caused by global warming. Global warming causes more heat waves and which would cause more electricity specifically for infants and elderly. Other problems that happen if we don't slow or stop climate change is the sea levels will rise reducing level ice caps melting is another problem that arises as higher levels over time can result in a sea level that is 12 feet higher by 2050.

CAUSES
Generating power electricity, heavily burning fossil fuels such as oil, coal or natural gas produces a large amount of global emissions. driving cars and other fossil fuel powered cars emit CO2 which is like a natural blanket which might sound good but this traps in heat making the earth hotter. Producing goods such as iron, steel, cement burn fossil fuels.

SOLUTIONS IN MODEL/SOLUTION
Solutions for climate are many and all good but the main solutions are using your bike instead of car, use led lights, use cold water instead of hot, and planting a tree are all good solutions to climate change. the solutions in the model include a garden and natural light inside of the washroom so that we don't waste electricity.

DEFINITION
The definition of climate change is the long term shift of temperature and weather patterns such as hotter days and high sea levels

Urban Explorers Air Pollution

Definition
Air pollution is the contamination of outdoor and indoor by any chemicals

Issue in the west end
Air pollution caused 11.65 percent of death in 2017
Damage the environment by climate change ozone depletion and habitat degradation

Solutions in model

- Don't burn garbage
- Drive less
- Take public transit
- Turn off engine
- Walk more or ride a bike
- Burn less coal
- Plant more trees or plants
- Reduce the number of trips
- Reduce the use of fire place and wood stove

Mental health

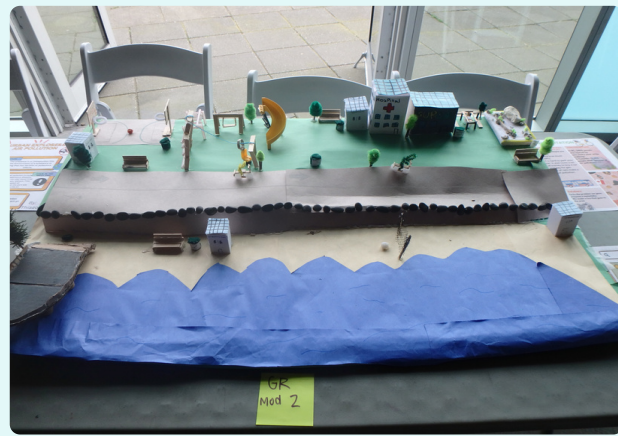
By Alexandra MG

Definition
The dictionary definition of mental health is "A person's condition with regard to their psychological, and emotional well being."

Issues regarding mental health
Some worldwide struggles surrounding mental health is the fact that approximately 800,000 people commit suicide. Another issue is the fact mental illnesses can cause substance abuse, legal issues, suicide rates, physical health problems, family conflict and employment issues.

How we can solve the issue
Some methods that are used to solve the issue is pharmacotherapy, physical activities, activity therapies, psychotherapy, expressive therapies, meditation, self-compassion, social emotional learning, mental fitness, and spiritual counselling.

Solutions in the model
The solutions we incorporated into our model are physical activities, and flowers. Studies have revealed that all plants provide health benefits. Taking this into consideration, we made a flower bed. The flowers we included have benefits like cleaning the room, lowering stress, removing toxins in the air, and much more.



CLIMATE CHANGE

ALEXA ANDRION

What is It?
Climate change (or global warming) is a term for when the Earth's climate drastically changes, fast.

Research Findings
Climate change is happening because of human activity such as burning fossil fuels, polluting the land/ocean and leaving a carbon footprint.

West End Waterfront
Since climate change affects the whole world, this means it affects the West End Waterfront too!

Solutions

- In our model, we are putting more trash cans
- We will also plant more trees around the area
- We're going to place more benches too

TRANSPORTATION

Issue: There is not a lot of bus service and too many cars.

Interesting Facts
In BC, 2400 people are injured by cars every year while walking. In Canada, 15,300 people died because of air pollution.

Solutions
To fix the problem we gave everyone a motorbike. We made a bus that goes to the area

WATER POLLUTION

URBAN EXPLORERS

DEFINITION
Water pollution is the pollution of bodies of water, such as lakes, rivers, seas, the oceans, as well as ground-water

ISSUE

- The issue is spill, leaks from oil and chemicals containers. The main cause is littering.
- Water pollution can also affect us people don't have as much money for clean water than in third world, India, and Africa.

SOLUTION

- Picking up litter and throw it in the garbage can. No plastic bags, deposit toxic chemicals properly, and try to avoid plastic containers.
- Use litter-free vehicles from talking gls.

Nathanael

URBAN EXPLORERS AIR POLLUTION

DEFINITION
The presence in or introduction into the environment of a substance or thing that has harmful or poisonous effects.

ISSUE IN THE WESTEND
Long-term health effects from air pollution include heart disease, lung cancer, and respiratory diseases such as emphysema. Air pollution can also cause long-term damage to people's nerves, brain, kidneys, liver, and other organs. Some scientists suspect air pollutants cause birth defects. And then the park will be kinda ugly and filled with pollution in the air.

SOLUTIONS IN THE MODEL
We have a side walk for bikes instead of cars so no smoke will go to close to the park

By: Thiago

CLIMATE CHANGE

By Jernie

IMPACT
Climate change is a shift in temperatures and weather due to human activities by burning fossil fuels for energy like oil or coal

CHALLENGE
Some effects from climate change is rising temperatures, scarcity of food and water, more common wildfires, melting sea caps resulting in sea level rise and lastly, more natural disasters

SOLUTION
Some ways people can do to slow down climate change is lowering our carbon emissions, that's why in our model we have added more bike racks. We have also put garbage cans to avoid litter and garbage ending up in the ocean and land. Finally, we put a green space to provide shade and to absorb carbon emissions around nearby roads



Climate Change

By: Phoenix Valdez

The issues about Climate Change
Climate change causes water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms, and a decline in biodiversity are just some of the current effects of climate change.

Research
Although climate change might not be the best thing scientists have predicted this to happen! They are also very confident in their theory about climate change. They think the earth will slowly get hotter and hotter because of the gases made from human activity. That also means we're more prone to hot weather and heat waves.

Affects of Climate Change
As I stated in the last paragraph, we are more prone to heat waves and hot weather in Vancouver and other places such as West End. That means we're most likely going to have more wildfires from this year onward.

Solutions
A solution that got added into my model was to plant more trees. Trees absorb carbon dioxide and make oxygen in exchange. That's super good for the environment because we get clean air to breathe and less greenhouse gas.

Climate Change

BY KRISHNA HARWALIA

WHAT IS CLIMATE CHANGE?
CLIMATE CHANGE IS THE CHANGE IN GLOBAL TEMPERATURE AND WEATHER PATTERNS CAUSED DUE TO INCREASED LEVELS OF CARBON DIOXIDE IN THE ATMOSPHERE PRODUCED BY BURNING FOSSIL FUELS.

WHAT CAUSES CLIMATE CHANGE AND WHAT ARE SOME CONSEQUENCES?
CLIMATE CHANGE IS LARGELY CAUSED BY BURNING FOSSIL FUELS, CUTTING DOWN FORESTS AND FARMING LIVESTOCK. IT IS ALSO CAUSED BY GREENHOUSE GASES (WHICH INCLUDE CARBON DIOXIDE, NITROUS OXIDE, METHANE, CHLOROFLUOROCARBONS AND WATER VAPOUR) THAT'S MOSTLY IT.

WHAT ARE SOME SOLUTIONS TO CLIMATE CHANGE THAT CAN MINIMIZE THE EFFECT IT HAS ON THE WEST END WATERFRONT?
SOME EFFECTIVE SOLUTIONS THAT CAN MINIMIZE THE EFFECT OF CLIMATE CHANGE IN THE WEST END WATERFRONT INCLUDE SAVING ENERGY AT HOME, WALKING OR CYCLING INSTEAD OF USING GAS-FUELLED CARS, THROWING AWAY LESS FOOD, REDUCING, REPAIRING, RECYCLING, REUSING AND CHANGING YOUR HOME'S ELECTRICITY SOURCE TO A MORE ENERGY-EFFICIENT SOURCE.

Air Pollution

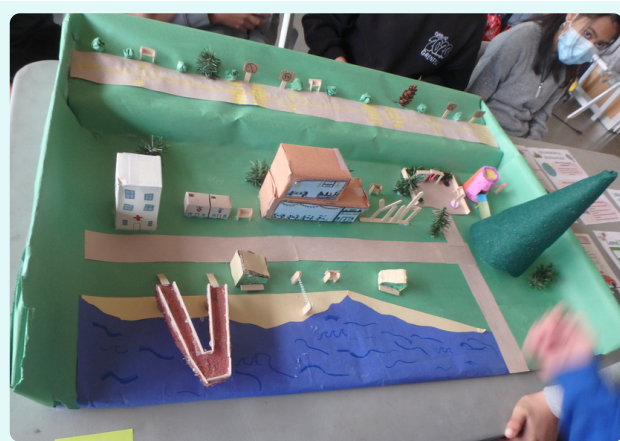
Definition
Air pollution is made out of gas or harmful air particles. It's harmful to the air and not good to breathe.

Why Does It Impact Us
Air Pollution impact us by damaging our health, bad air quality can cause lung cancer.

Issue In West End
If we don't stop air pollution, then the west end and other places would be cloudy. Nobody would like to walk around the walking path.

Solution
Our creative solution is a thing called liquid tree, which is made out of microalgae and water. Another solution is bio water and which is also made out of millions of microalgae.

Victor Huang



Urban Explorers Mental Health

Castalia - Grade 7 - Division 3

Definition: What is Mental Health?
Mental health is an illness that an individual gets when they are in too much stress, anxiety, or depression. This can also involve being highly addicted to drugs, cocaine, and any other illegal substances that is not good for you and any human being's health. This triggers the brain to do uncontrollable actions and Neativism thoughts.

The Solution for this Problem:
Solutions provided by the government:

- Less for more factories and buildings
- More free spaces for kids and adults to go for
- Plant more trees and plants

The solutions I made:

- Increase the community connectivity
- Access to GreenSpace
- Investing in a good, safe, and healthy environment

Research findings/facts:

- Research has shown that about 24.6% from 6th months has brought the new generations of mental illness people from teenagers (14 to 19) to adults (20 to 25).
- On most settings, most of the challenges located in the inner-city and suburban areas. Domestic violence and drug use are high up in that urban area and that location where are increasing going up according to the news and my research, "regional" areas are same to be done in next twelve month for next

The current Problem:
The current problem for this issue in our ongoing year, 2023, is more and more people are getting this type of deadly illness. And for the past few days, the homeless population has been increasing and many of them are teenagers because of how bad the society has grew and grew.

URBAN EXPLORES AIR POLLUTION

Aaron Zhou

Challenges
A really big challenge is to keep us or our family safe from air pollution because it could cause respiratory infections, heart disease and lung cancer which could be fatal.

Issue
A really big issue is keeping our body healthy from air pollution because it could cause lung cancer, heart disease and respiratory problems.

Solution
Some solutions for air pollution are:

- More bike paths
- More bike/scooter rental areas
- Liquid trees
- Biodiesel
- Less smoking/vape
- Car free areas
- Drive car less

Land Pollution

Definition
A disposition of a solid or liquid waste materials on land or underground in a manner that can contaminate soil.

Problem
The problem with land pollution is that it effects the soil around it so it prevents plants from growing. Land waste can affect and the air we breathe also effects the water that we drink.

Solution
Some of the solutions to land pollution is to make less non-recyclable wrappers, properly recycle batteries, eat more sustainable foods and dispose of drugs.

Transportation

Transportation Definition
TRANSPORTATION: the action of transporting, someone or something or the process of being transported.

INTERESTING IDEAS
To help prevent transportation problems we can make the roads wider, manage traffic, promote the use of public transport or bus services, encourage walking and biking more and have more parking restrictions.

Challenges
Without any modes of transportation, it can immensely harm senior citizens and people with disabilities. In the US, Americans spend about 37 hours a year looking for a parking space, but it doesn't just impact drivers; it also impacts the economy.

My Opinion
In my opinion, the transportation system is an excellent mode of transport, as well as the best lines and see that it's the worst. I have to get along at Denver Mountain, but usually take SkyTrain, but bus and the bus route to the bottom of the mountain. It's very good and efficient. When prices increase, it means we won't have to wait about parking.

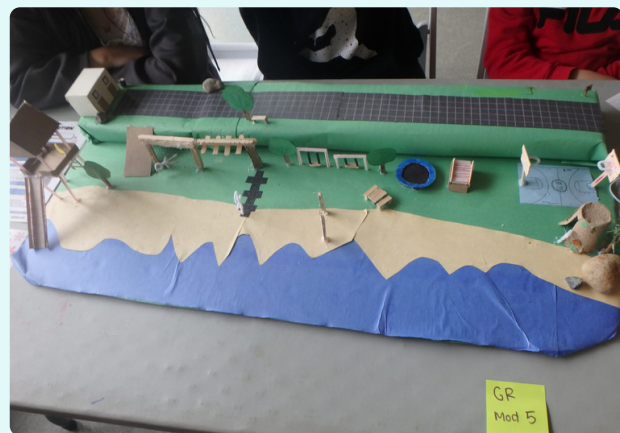
ENVIROMENTAL DEGRADATION

What is Environmental degradation?
Environmental degradation is when the environments starts to degrade and lose resources and cause the extinction of ecosystems.

What is the problem in the world?
The problem is that many ecosystems are dying out and many animals are going extinct. Many of our resources are depleting fast like wood, oxygen, food and water.

What are some solutions?

- We can use less oil and find more green alternatives
- We can ride more bikes and scooters and ride cars less
- We can stop throwing trash and chemicals in the ocean
- We can stop cutting down trees and forests



CLIMATE CHANGE

By Samuel

Definition
The definition of climate change is the long-term shifts in temperatures and weather patterns in the atmosphere.

Causes
Climate change is caused by burning fossil fuels, cutting down forests, farming livestock, volcanic eruptions, fluctuation in solar radiation, and tectonic shifts. They emit greenhouse gases which cause the earth to become warmer.

Solutions for model solutions
We can reduce climate change by saving energy at home, biking, walking, and using public transit, using a different car model, avoiding air travel, eating more vegetables, and the 3 R's. The pollution we put in the world, climate change are not different cars when you drive you will get to cause climate change in the area. The solutions put on our model is also control.

Problems
There are many problems that climate change make and here are them, there will be hotter temperatures, more severe storms, more moist temperatures, worsened extreme rain, floods, sea level rise, and heat waves.

TRANSPORTATION AIR POLLUTION

Urban Explorers - Skyline Division 3

Solutions
Using public transportation like TRANSLink's SkyTrains, Buses, and their Shastus ferries are a great alternative as they are ecologically friendly. Even if you can't take public transit, biking, walking, or any other similar activities are even better ways of helping improve air quality.

Non-electric vehicles
release pollutants that contribute to air pollution. Significant ones are carbon dioxide (CO2), nitrogen oxides (NOx), and volatile organic compounds (VOCs).

Why is air pollution bad?

WHAT'S THE ISSUE?
Air pollution is pollution in the air. Long term health effects from air pollution include heart disease, lung cancer and respiratory disease such as emphysema.
*Some scientists suggest air pollution cause birth defects.

HOW IT HAPPENED?
Air pollution started at least 2000 years ago this was evidence from the Greeks. (That was documented)
*vehicle emission, fuel oil, natural gas. Gases from chemicals are the primary source of human made air pollution.

HOW CAN WE FIX IT?
There's many ways we can help for example:
*More plantations
*Less cars and more biking/walking
*Recycle and reuse
*No plastic bags
*No smoking
*Using a filter for stoves

WATER POLLUTION

DEFINITION
Water pollution is the contamination of water sources by substances which make the water unusable for drinking, cooking, cleaning, swimming, and other activities.

SOME ISSUES OF WATER POLLUTION ARE

- OIL SPILLS & LEAKS FROM VEHICLES
- TRASH BINS SWEEP UP FROM THE LAND INTO THE OCEAN
- WATER POLLUTION ALSO COMES FROM TOXIC CHEMICAL NOT BEING DISPOSED PROPERLY

SOLUTION
YOU CAN HELP REDUCE WATER POLLUTION IN TONS OF DIFFERENT WAYS. USE, REDUCE THE USE OF YOUR VEHICLES. DISPOSE TOXIC CHEMICALS PROPERLY AND DON'T PUT GARBAGE DOWN THE DRAIN, AND TAKE RISE ON BIKES, SCOOTERS, SKATEBOARDS, ETC.



GR #6

Our playground is colorful, challenging, it's combination of different elements to give the kids an opportunity for maximum play.

Our playground should be accessible and fun for all kids to grow and develop.

Playground equipment should respect the needs of kids with disabilities and be inclusive so everyone can experience the benefits of active, social, imagine play.

Our playground: colorful, challenging, safe

- Created quiet areas, to let the kids wind down from energetic play, more inclusive for kids with disabilities further away from loud noises (to decompress) (from noise)
- we added shade structures (more trees)
- we made space for additional toys and activities (sand box, we created pool table to experience)
- we added another element to our playground (pool table) gives kids and an opportunity to interact with others.
- we added trampoline, so everyone can experience

GR #6

the joy of being active and enjoy the...

GR #6

The Goal of this project is to Create an inclusive space for the kids with special needs to experience the benefits of active play.

Interactive play: We added addition elements, such as: Sand box, pool table, trampoline to everyone to experience a fun environment.

Quiet area: to let the kids wind down from energetic play, more inclusive for kids with disabilities, away from noises!

Shade areas: (Natural shades) we added trees to reduce the Sunburn for kids and parents (Sun protection).



LR #1

West End Waterfront Playground Proposal:

Key Features:

- Zip line
- Snack shack
- Water slide
- Inukshuk
- Trampolines
- Small play area
- Large slides

Challenges:

- Sea level rising - when the sea level rises
- Pollution (land air)

Solutions:

- Greenery in front of ocean - greenery absorbs water.
- Inukshuk - reconciliation.
- Tall play structures - just in case the sea level rises too high.
- Wheelchair path in the sand - for people with wheelchairs for accessibility

Description:

Our group has designed a playground that both younger and older kids can enjoy. The key features of our 3D model are the zipline, the snack shack, the large slides, and the smaller play area. To tackle sea level rising, we added greenery in front of the ocean, because plants absorb water. The Inukshuk and totem pole we built is there for reconciliation because indigenous culture was taken away a long time ago. We built tall structures because the sea level will increase, and we do not want our playground to sink. We added a zipline because there are not many playgrounds that have big ziplines and we wanted to make a fun and unique playground. If this playground was built, we would use less resources to prevent pollution. This playground is inspired by Rainbow park in Downtown Vancouver BC.

Elementary School Projects



West End Waterfront Plan Proposal

Key Features

- ZIP line-To the shoreline
- High-Tide water slide
- Fruit park-cherry swings, pineapple tower and grape slide
- First Aid-Near the Beach
- Zip zip park

Problems

Sea Level Rise-Ocean Rising because of pollution, Green House Gas, plastic, and Climate Change.

Solutions

A sea Wall that rises when it senses the water is too high, High slides, and tall parks.

Description

Our 3D model is focused on safe and fun play areas for children, teenagers, adults, and seniors. The Zip Zip Park is for teenagers while Fruit Park is for children and a bench for adults and seniors for relaxing. The fruit park has a cherry swing, pineapple tower, carrot monkey bars, and a grape slide. While the zip zip park has a zipline, bench, slide, monkey bars, and a baby swing. We also put a first aid near the beach to help kids that are injured. There is also a Mac Ronald slide that rises with the ocean tide.

Emerald, Mia, Ashley, and Falcon

LR #2



West End Waterfront Community Plan for The Future:

Key Features:

- Solar panel for solar energy,
- Water slides for people on in the summer,
- Dock for the people fishing,
- Sea wall to stop the water,
- Water purifier for drinking,
- Beach to relax on sunny days,
- Road for the vehicles to drive on,
- Park with playground for the kids to enjoy the place,
- Teen corner for teenagers who want to relax outside,
- A tree house for younger kids.

Challenges:

Sea Level Rising -icebergs melting caused by climate change makes the sea level rise higher due to the melted ice.

Solutions:

Our model was designed addressed with a higher sea wall to temporarily stop the sea from getting to us. Until we figure out how to stop the sea from rising higher.

Description:

Our 3D model was focused on making the West End waterfront more enjoyable for children and adults. Our model was inspired by the summer slide at English bay before COVID 19 started because we want something like that slide in English bay back, so we built 2 slides like them so more people could enjoy the slides like we did. We built a park because we want more kids to have an experience like we had. We built a tree house and a swing set for the younger children to play on. And we built a teen corner with free Wi-Fi so the teenagers can relax by the park.



West End Waterfront Plan
(Ema, Eva, Jose, Cruz)

Key features:

- Forest
- Playground
- Fountain/well
- Snack shack
- Picnic tables
- Underwater barrier
- Dock

Sustainability Challenges:

- Climate change- when climate changes during seasons and causes animals to get surprised and die from the heat/cold weather
- Sea level rise- sea rising from melting ice and flooding communities

Solutions:

- Climate change: using fountains instead of plastic water bottles for drinking water
- Sea level rise: building underwater barrier helps in preventing the sea level reaching communities
- Having trees and forests helps with keeping the air cleaner and cooler, which helps the ozone from trapping heat, thus causing less ice melt

Proposal Description:

Our 3d model design was inspired by Rainbow Park because our park design is made for people of all ages to enjoy their time there. We also included a forest in our design so people get some fresh air and oxygen inside their lungs, while the trehousess and the playground are for younger kids that need some exercise in their bodies. We also added a dock for people to go fishing and a fountain for anybody to admire. Just a space for people to walk through and relax. Finally, we added a barrier in the water to reduce floods, a snack shack, and some picnic tables in case someone got hungry!

LR #4

LR Mod 4

Elementary School Projects



West End Waterfront Community Plan

Key Features:

- Charging station for electric cars
- E-bike kiosk
- Treehouse over water
- Bars with a slide for kids
- Habitat island
- Plants lining the water

Sea level rising-Greenhouse Issues: Trap heat from the sun, making Earth warmer, leading to melting glaciers that cause sea level rise. Air pollution-when dust and gas particles get trapped in the air, making the air unsafe and dirty.

Solutions:

- Try to drive cars less and walk more/bike/collapsible.
- Build higher seawalls, made of plants if possible.
- Do not burn leaves or trash.
- Quit smoking/vaping.
- Use less perfume.
- Powering building and other electronics with solar panels.
- Try not to grow plants in greenhouses.

Description:

Our project focused on our challenges that we had. It includes a treehouse over water and a charging station for electric cars and E-bikes. The charging station for electric cars is a solution to the problem that is air pollution. We want to promote the usage of electric vehicles to reduce the risk of cancer and other diseases caused by air pollution. We also included a high seawall so people can still get to the beach. We also want to inform people that using greenhouses makes greenhouse gases that trap heat from the sun, making the Earth warmer. A warmer Earth means melting glaciers, leading to sea level rise and the reason for high seawalls.

Goals:

- Make healthy, clean air for people to breathe.
- Prevent flooding so people can live safely.

LR #5



WEST END WATERFRONT PLAN
(Devan, Mohammed, Selim, Tehya, and Eleonora)

Key Features

- Wetland
- Playground
- Pool
- Green space with a Zen Garden
- A land acknowledgement
- An Indigenous art and trinket shop
- A habitat island
- Walk and bike path

Sustainability Challenges/solutions

1. Sea level rising-the added water-from melting ice and glaciers caused by global warming.
Solution: having a wetland (it is a soft barrier)
2. Decolonization and reconciliation-building a relationship with indigenous peoples.
Solution: land acknowledgement and indigenous art and trinket shop
3. Pollution-introduction of harmful substances to the environment.
Solution: no littering signs, and lots of garbage, recycling, and compost bins
4. Habitat loss-the reduction in space for animals and plants to live and prosper.
Solution: Habitat loss- habitat island

Description

Our 3D model focused on creating a fun environment for children with ways to help the planet. Our plan includes a wetland to reduce the sea level from rising. We also incorporated a land acknowledgement and an indigenous art and trinket shop to honor the Indigenous peoples. There are a few no littering signs and lots of garbage, recycling, and compost bins to address the amount of garbage being thrown into the environment. We wanted to create a fun environment for children, so there is a public pool, a rainbow playground, a hot dog, and an ice cream stand. In conclusion, we hope you consider this for our west end waterfront because we think these small additions will make our city a better place.

LR #6



WEST END WATERFRONT PROJECT

By Atrisa, Fontaine, Imogen and Tira.

For our project, we imagined what the West End Waterfront would look like in 30-40 years and what are the natural causes affecting the area around the waterfront. The issues that we researched were Habitat Loss, Pollution, and Sea Level Rise. The way we incorporated some solutions for these problems into our project was that we added some animal islands for animals and local birds to relax on. We also showed where the seawall is now and where we want it to be in 30-40 years. If the sea wall is too low, as climate changes, there could be more increasing flooding so if we raise the sea wall, there can be less of a chance people get injured by natural causes. We also made a park so more kids can play and have fun. The waterfront needs more parks! We also added an eating and refreshment area, so in the summer people can eat and chat with friends and family while watching the sunset. We hope these ideas inspire you and make you realize that you can make the Waterfront a better place.

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