



PLACE-BASED ENVIRONMENTAL EDUCATION

*A FIELDHOUSE FEASIBILITY STUDY
FOR THE VANCOUVER PARK BOARD
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1 EXECUTIVE SUMMARY

To be at all—to exist in any way—is to be somewhere, and to be somewhere is to be in some kind of place. Place is as requisite as the air we breathe, the ground on which we stand, the bodies we have. We are surrounded by places. We walk over and through them. We live in places, relate to others in them... Nothing we do is unplaced. How could it be otherwise ?

- Casey, 1997:ix

Place-based environmental education (“PBEE”) emphasises the reconnection of people to the natural and human worlds in which they live. Learning in place is experiential, contextual and empowering, and focuses on connecting learners to their community. As the city becomes increasingly urban, and as studies indicating that the effects of reduced access to nature in cities is affecting human health and wellbeing, the Park Board has an important role to play in providing improved access to nature for Vancouverites. Increasingly, child care providers, formal and informal children’s educators, parent groups and others are initiating outdoor- and nature-focused learning activities in the city. This place-based environmental education feasibility study explores the potential for the Park Board to utilise fieldhouse, park, and other infrastructure to provide experiential learning opportunities focused on the relationships between nature and people in Vancouver’s diverse urban park landscapes.

Three PBEE models are recommended for the Park Board to explore further:

Model 1 – PBEE Public School Learning Hubs:

Place-based outdoor activities in biodiversity hot spots with strong links to Provincial school curriculum are developed, and teachers self-organise to use the space with modest Park Board support.

Model 2 - PBEE Residencies:

An environmental education organisation would develop place-based educational programming as an environmental educator in residence at a Park Board facility.

Model 3 – PBEE Community Learning Hubs:

Active programming would be provided to support an environmental education focused hub, integrating a variety of placed-based programming in a fieldhouse/outdoor space. Anticipated users could be



▲ Youth-led stewardship activities at the Renfrew Ravine PHOTO | STILL MOON ARTS SOCIETY

diverse and multi-generational. This model could be small and focused, could be in one location or several, could be led by Park Board and/or community partners, and could potentially grow into a purpose-built centre of excellence for PBEE.

This feasibility study makes the following recommendations for next steps:

1. Create an environmental education advisory team to bring together various perspectives and expertise and to lead the development and implementation of PBEE programs where the Park Board can play a leadership/catalyst/partner role. The advisory team could include: Vancouver School Board administrators and teachers; environmental educators and organisations; environmental education students and faculty; other city departments and public agencies including Social Policy, Library, Vancouver Coastal Health.
2. Develop (a) pilot project(s) that considers the PBEE model(s) with the most potential to move forward, and the most feasible location(s) to test considering infrastructure, partnerships, biodiversity, and resources available. Consider piloting more than one model to determine appropriateness and effectiveness of each approach. Develop partnerships necessary to realise pilot(s).
3. Work with potential partners to further discuss and develop models and opportunities. Potential partners include: Musqueam, Squamish and Tsleil-Waututh First Nations; teachers; environmental education organisations and associations; researchers and faculty; community centre associations.
4. Continue to include capital requests to support environmental education projects; work toward increased staff capacity to support environmental education programming and projects.
5. Conduct a more robust budget analysis and risk assessment of potential projects.



2 INTRODUCTION

As a steward of many of the city’s natural spaces, the Park Board plays an important role in providing much needed access to nature. Enhancing place-based environmental education (“PBEE”) in the urban context contributes to the health and wellbeing of Vancouverites. It is also something that is increasingly being requested of the Park Board: non-profits are wanting to offer environmental programs in our parks and community centres; artists are exploring environmental art education initiatives in parks; teachers are asking for accessible outdoor spaces to regularly take their classes. Experiential and place-based opportunities enable children and people to become critically aware of the ongoing and shifting relationships between nature and humans in their immediate urban park environments. Increasing PBEE in park sites also helps promote the diverse wild spaces in the city, encouraging schools and nearby communities to actively engage in and maintain spaces and

their rich biodiversity regions. The Park Board maintains fieldhouses and related natural spaces in various locations in Vancouver, where PBEE spaces can be developed through environmental education, community centre, school and university partnerships.

This report explores the feasibility of converting fieldhouse(s) into PBEE spaces in one or multiple of the biodiversity hot spots in the city. This research provides recommendations and next steps to the Park Board, as well as to project advisors, in regards to three possible PBEE models that integrate urban environmental place-based learning approaches. A critical summary of a sample of Vancouver park fieldhouse locations in regards to indoor and outdoor spaces and ecological surroundings is presented. An overview and assessment of existing environmental education partnerships and resources is also provided.

◀ PHOTO | PIERRE CENERELLI, courtesy of the Stanley Park Ecology Society

3 RELEVANT BACKGROUND

Park Board Strategic Plan

The Park Board Strategic Plan provides a specific vision about stewardship, education and advocacy in Vancouver’s parks. The vision is to be leaders in parks and recreation by connecting people to green spaces, active living and the community. PBEE supports this strategic plan for greater educational awareness of Vancouver’s natural spaces.

Greenest City Action Plan

The Greenest City Action Plan was approved by Vancouver City Council in July, 2011 and outlines 10 goals and 15 targets established to realise the vision of becoming the greenest city in the world by 2020. The goal most directly relevant to this study is Access to Nature: Vancouver residents enjoy incomparable access to green spaces, including the world’s most spectacular urban forest.

Healthy City Strategy

The Healthy City Strategy aims to go to Council in September 2014, and is an integrated plan focused primarily on social issues in the city: active living and getting outside, a good start for children, lifelong learning, and environments to thrive in. This will help encourage experiential and long-term learning in local environments to help counter nature-deficit disorder amongst people living in urban neighbourhoods, particularly children and youth.

Rewilding Vancouver

The Environmental Education and Stewardship Action Plan includes Priority 1: Special Wild Spaces and has an objective that the “Park Board is responsible for caring for many remnants of Vancouver’s ecological history—big trees, bird calls, streams and shorelines, coyote crossings, and the other sounds, smells, and sights of wilder nature,” in which it seeks to “create opportunities for people to have rich experiences with nature in the special wild places in the city while protecting

and enhancing them at the same time” (2014: 24). Park Board is already involved in collaborative relationships between various local environmental organisations, community centre associations and volunteers in ongoing environmental projects such as tree planting and salmon stream clean up, as well as environmental art projects. This report offers new possibilities to bring children and youth into rewilding initiatives such as these.

Biodiversity Strategy

The Biodiversity Strategy is in development, and includes biodiversity hotspots located throughout Vancouver parks. These become a key consideration in determining possible PBEE. As defined in Appendix 1 of the Rewilding Vancouver: Environmental Education and Stewardship Action Plan, biodiversity hotspots are “natural features or sites that support noteworthy components of biodiversity in the City of Vancouver” (2014:42). They are often “representative of regionally rare

ecosystems that were more widespread historically” and some “support species or ecological communities at risk” (Ibid). The biodiversity hotspots provide learning opportunities for terrestrial and marine ecosystems in which each has specific value and sensitivities to consider.

City of Reconciliation

In partnership with Reconciliation Canada, the City of Vancouver and Vancouver Park Board are building on the Year of Reconciliation by addressing the importance of reawakening and sharing traditional cultural/ecological knowledge in First Nations and other communities. In direct relation to this, PBEE in Vancouver’s natural spaces would consider and raise awareness around the impacts of colonialism and the related historical impacts that continue to shape First Nations experiences.

▼ PHOTO | MICHAEL SCHMIDT; courtesy of the Stanley Park Ecology Society



4 FINDINGS AND ANALYSIS

4.1 Place-based Environmental Education

The following section will consider the traditional model of outdoor education in far away wilderness locations in contrast with place-based learning in local urban contexts. It is suggested that local, multidisciplinary, experiential and place-based opportunities enable children to become critically aware of the ongoing and shifting relationships between nature and humans in their immediate urban park environments.

Outdoor Education in Rural or Remote Locations

The well established traditional outdoor school model frames outdoor learning as something that occurs on expeditions or in residential centres (i.e. wilderness camp facilities) located in more remote areas removed from urban locations. Public schools

have, for quite some time, established outdoor education programs in “natural” areas in far away places, but this is often kept separate from the local urban context in which children grow up (Sobel 2005, Smith 2002, Beames, Higgins and Nicol 2012). In this model, children would experience wilderness over an intense period of time of a week to several weeks engaging in such activities as canoeing, hiking and bird watching separated from their regular indoor classroom activities. They would then return to their regular classroom setting to learn subjects such as geography, history and biology removed from any environmental context.

Place-based Education in Local and Urban Locations

In contrast, Beames, Higgins and Nicol advocate for a broader definition of “outdoor education” that covers all kinds of learning outside the traditional classroom setting (2012:5). They argue that although it is beneficial to travel long distances to experience different cultures and contrasting ecosystems, learning through local (and urban) landscapes is highly beneficial and crucial



for enriching children's daily awareness of their everyday environmental surroundings (Ibid:8). To this extent, it is valuable to consider that the following definition of placed-based learning is quite relevant within a local urban context in the development of a potential PBEE site for the Vancouver Park Board (Maple Ridge Environmental School Project website, 2014):

Place-based education emphasises a reconnection of people to the natural and human worlds in which they live. Learners become part of and participants in their community by exploring and connecting to their culture, neighbourhoods, parks, local histories and knowledges. Learners are empowered through a deeper understanding and skills, and participation in civic life and with the natural world. Learning in place is experiential and in context. Learners will work on projects and problem solving in context of their lived experiences.

◀▶ A peek into the diversity of partner-led conservation efforts in Stanley Park
PHOTOS | courtesy of the South Coast Conservation Program & Stanley Park Ecology Society



Findings & Analysis

Place-based learning approaches emphasise a multidisciplinary approach to considering the traditional and divided subject areas taught in the public school system. To encourage public school participation, environmental organisations and educators have created curriculum links to subject areas such as biology, geography, art, history and ecology. This would extend beyond the traditional classroom to emphasise project-based learning, teacher-student collaboration and forming relationships with community, government and volunteers (Sobel 2005). This involves an active component in which students learn by getting involved in projects specific to particular environment locales and encourages valuable knowledge that is connected to their everyday lives. Ultimately, it allows students to become “engaged in activities that are of service to and valued by those they love and respect” (Smith, 2005: 586). Based on interviews with environmental educators during this study, teachers encounter several barriers when considering bringing students outside into parks and other nearby natural spaces. These include cost of necessary outdoor materials and equipment, fear and lack of training around being safe outside, need for easy curriculum linked activities, and having a place that is easy to access either by public transit, or by foot. PBEE spaces would address these teachers’ concerns and support place-based learning to occur in students’ nearby neighbourhoods.

Place-based Education and Critical Inquiry

Deep exploration of particular places and what they may mean from social, cultural, environmental, political, and economic perspectives provides

children with a critical inquiry of the places they inhabit (Grunewald 2003 & 2003b). In this regard, place-based activities and projects in Vancouver park areas could encourage children and teachers to ask key questions of a particular place: What happened here? What is happening now? And what will happen here?

Part of this brings to light the effects of city life and urban living on local ecology and landscape (Grunewald 2003b, Sobel 2005, McClaren 2009), and thus the need for children to become aware and involved in rewilding, restoring and ultimately developing an appreciation for the complexity of Vancouver parks. This also involves a consideration of nonwestern perspectives of indigenous communities and their knowledges of places and relationships to land and nature. In Vancouver, this would include the Musqueam, Squamish and Tsleil-Waututh Nations and the acknowledgement of the colonial uprooting of their traditional lands (Barman 2007, Stanger-Ross 2008, Roy 2010). In this respect, First Nations educational perspectives become a significant component in the understanding of nature.

Forest School Movement and Models

Dating back to the 1950s, nature schools and related forest school models have been influenced by the ever-evolving forest school movement. Models of forest and nature schools can take place in preschool, nursery, kindergarten, and grade levels as well as after school programs with varying degrees of indoor and outdoor activities. Within the forest model of nature schools, “outdoor environmental education happens when

we learn about ourselves as individuals, our role in society and our relationship with the natural environment” (Manole, E. 2010: 103). In forest schools in Denmark, Sweden and Scotland students are involved in outdoor learning activities for at least 1-2 days a week on and off school grounds—this begins in early nursery and primary school education years and in some cases continues into the secondary school curriculum (Knight, 2013: 6). On the other end of the spectrum, there are many preschools and primary schools that spend the majority of the time in outdoor learning environments with limited to no time spent in indoor traditional classroom settings (Ibid).

The Canadian Forest School Movement was greatly influenced by forest models in Europe and has focused on establishing place-based and environmental education for, to a larger extent, preschool and primary level education levels as it is a more flexible time for teachers to incorporate outdoor activities into their regular school day schedules (MacEachern, 2013: 220). Forest School Canada supports a place-based education approach to environmental education with several partnerships between environmental organisations and various public school districts (mainly primary school levels) around the country. At its core is a place-based education approach which grounds “learning in local phenomena and students’ lived experiences” (Smith 2002: 586). For example, Davis Bay Nature Primary Program involves students from kindergarten to grade four in hands-on experiential learning in local outdoor locations while integrating BC curriculum and its guidelines for public primary school levels.

Analysis

Considering a place-based learning focus (Sobel 2004, Smith 2001), there are various forest school models and approaches that could be applied to PBEE models considered (MacEachern 2013, Knight 2013):

- » **Long term learning:** One-two days a week spent in an outdoor space for several cumulative months, and for several subsequent early education and primary school levels. Cumulative, repetitive experiential learning outdoors is a key component of place-based education as children will be more likely to remember and use this knowledge in their young adult and adult lives.
- » **Several hours a day spent outside:** Children should spend a certain amount of time outside in school grounds and/ or their nearby neighbourhoods. This improves their overall health and contributes to experiential learning that they can apply to their daily lived experiences.
- » **Student-led learning in outdoor spaces:** Students initiate and discover their own outdoor interests and projects. This also involves a collaborative relationship between teachers and students to come up with daily activities, schedules and research assignments.
- » **Intergenerational learning with the wider community:** In order for youth to learn about particular spaces, it is also important to encourage their interaction with environmental experts, volunteers, family, and other community members who can share their lived experiences, various perspectives and knowledge on nature and wildlife. This includes active learning in community projects for a certain amount of hours per week for several weeks or months.

4.2 Fieldhouse Infrastructure

Fieldhouse & Other Park Board Infrastructure Assessment

Fieldhouses are small Park Board owned buildings located in parks and are currently used for a variety of purposes including caretaker homes, artist residencies, sports group storage and activity, lifeguard storage and office space, concession stands and other programming. Overtime fieldhouses become available as current caretakers move out, providing space for new opportunities. Several other spaces were also explored to determine their feasibility for potential use in a PBEE site. Not all spaces identified in this study are currently available for use, and some may have other potential uses (i.e. arts, sports) that must be considered prior to moving forward.

Within this research, eight different fieldhouses were assessed for their usability as a PBEE site. Other sites should be considered as current uses shift and new opportunities emerge. Each site was assessed using the following criteria:

- » Size and usability of indoor and outdoor spaces
- » Proximity to biodiversity hotspots
- » Proximity to local schools
- » Potential partnership opportunities with local environmental organisations
- » Proximity to nearby community centres and other Park Board facilities

For the purposes of this report, three clusters of Vancouver Park Board fieldhouse locations were considered for their suitability as a PBEE site. For a more detailed account of each fieldhouse, please refer to Appendix c. For a visual map of related biodiversity hotspots in the city, please refer to Appendix b.

Stanley Park Fieldhouse Locations

NEARBY BIODIVERSITY HOT SPOTS:

The old forest in Stanley Park, the Stanley Park rock bluffs, shoreline, Lost Lagoon and Beaver Lake

Sites Visited

1) The Ceperley A-Frame

OPPORTUNITIES

- » Close proximity to several beaches which would be excellent for shoreline activities



- » Site being considered for a First Nations artist in residence program, which could provide free environmental art workshop opportunities for students
- » A large covered picnic table area with sinks for working on outdoor projects during the rainier fall and winter seasons

LIMITATIONS

- » Distant from primary or elementary school locations. Public or other transport is necessary
- » Limited amount of indoor program space available

2) The Stanley Park Old Farm/Current Storage Space

OPPORTUNITIES

- » Currently underutilised facility which has indoor spaces for storage and a large gated outdoor space that is currently not being used
- » Outdoor grounds including the garden and pond space could improve with implementation of PBEE gardening programs
- » The Beaver Lake bog is located nearby and offers opportunities for learning about the recent bog restoration project

- » The Lost Lagoon provides an excellent viewing location for learning about freshwater ecosystems and the diverse waterfowl community

LIMITATIONS

- » Distant from primary or elementary school locations. Public or other transport is necessary

ANALYSIS

There are a number of other fieldhouses located in Stanley Park, however the Ceperley A-Frame and Stanley Park Old Farm locations have the most suitable indoor and outdoor spaces. Each site is located within a twenty minute walk from each other with the Stanley Park Nature House located conveniently in between. These two sites could work in tandem to support learning and involve environmental organisation partners and interested members of the nearby English Bay community.

◀ *Ceperley A-Frame (2 photos)*

▼ *The Stanley Park Old Farm (2 photos)*

PHOTO | RACHEL ROY





Vancouver West Fieldhouse Locations

NEARBY BIODIVERSITY HOTSPOTS:

Pacific Spirit Regional Park, freshwater wetlands, beach and forest in Jericho Park, and the Spanish Banks and Kitsilano Shoreline

Sites Visited

3) The Hadden Park Fieldhouse

OPPORTUNITIES

- » Has a spacious indoor area for storage and an indoor working space
- » Close to the Maritime Museum, Planetarium, Museum of Vancouver, and Granville Island
- » Benefits from immediate access to the Kitsilano shoreline, providing opportunities for outdoor ecological exploration and related activities

LIMITATIONS

- » There is no sheltered outdoor areas at this facility although there are many picnic tables in the adjacent park area

4) Jericho Service Yard

OPPORTUNITIES

- » Has a large amount of garage storage space that is underutilised and could store materials and equipment for outdoor school activities and longer term conservation projects
- » This is an industrial service station which maybe more suitable for storage of materials and any lunches and backpacks that student groups bring

LIMITATIONS

- » There are lunchroom and sitting areas inside for shelter from the rain, but limited outdoor sheltered areas

◀ Hadden Park Fieldhouse (top 2 photos)

◀ Jericho Service Yard (bottom 2 photos)

▶ Spanish Banks East Fieldhouse

PHOTO | RACHEL ROY

5) The Spanish Banks East Fieldhouse

OPPORTUNITIES

- » Fieldhouse a concession stand as well as lifeguard storage and workspace facility. If coordinated properly, the lifeguard facility could be used during the school season for storing outdoor materials and equipment

LIMITATIONS

- » Indoor lifeguard storage facility is fairly small cramped indoor space, and not necessarily conducive to longer term use for large student groups or wider community involvement

ANALYSIS

There are many elementary and secondary schools in Kitsilano and Point Grey, which could access these areas on a more regular basis throughout the school year. The Jericho Service Yard and the Spanish Banks East Fieldhouse facilities are in close proximity to a variety of biodiversity hotspots which provide opportunities for ecological exploration as well as possibilities for longer term Park Board initiated conservation or restoration projects. Hadden Park Fieldhouse is accessible to shoreline locations, but a less accessible distance to Jericho, Spanish Banks and Pacific Spirit Regional Park and nature areas. In terms of indoor storage and outdoor space and access to biodiversity hotspots, Jericho Service Yard is a more suitable location; however, it may be more challenging to integrate PBEE activities with Park Board operations in that location.





Vancouver East Fieldhouse & Community Centre Locations

NEARBY BIODIVERSITY HOTSPOTS

Avalon Pond, Older Forests of Fraserview Golf Course, Fraserview Wetland and River, Still Creek Corridor and Renfrew Ravine

Sites Visited

6) Champlain Height Community Centre

OPPORTUNITIES

- » Large spacious indoor space that could be rented out frequently for environmental education programming and storage use
- » Access to community centre resources as well as close proximity to many public elementary schools and Sparwood, Captain Cook and Everett Crowley parks
- » There is potential to develop ongoing and continuous programming here for homeschoolers, after-school and preschool programs.
- » As it is a community centre, it is good location for involving active community members who would like to be volunteers as well as knowledgeable staff who deliver programs at the community centre
- » Excellent opportunity for intergenerational learning with student groups. Example: Since 2001, Champlain Heights Community Association has partnered with the Park Bard to host the annual Earth Day celebrations which includes the plantings of thousands of trees in Everett Crowley Park



7) Riverfront Park

OPPORTUNITIES

- » A large sheltered outdoor table area, making it a good location for carrying out outdoor activities
- » Close to numerous elementary and secondary schools so there is potential for ongoing programming with schools in immediate area
- » Many fieldtrip possibilities to Avalon pond, the old forests of the Fraserview Golf Course area, and exploration of the Fraser River park and wetland

LIMITATIONS:

- » Although there is potential to store equipment in a trailer facility, there is no indoor working space appropriate for office type purposes

8) The Renfrew Park Fieldhouse

OPPORTUNITIES

- » Adjacent to the Renfrew Community Centre - potential to establish connections between the two facilities
- » Has a large indoor programming space – potentially valuable office space for environmental educators involved
- » Close proximity to Still Creek corridor and Renfrew Ravine, which provides opportunities for environmental learning and student involvement in intergenerational work in nearby restoration projects

ANALYSIS

Fieldhouses and other Park Board infrastructure located in southeast side park locations provide many opportunities for student and wider community participation. With the support of the Vancouver Park Board, they can help create awareness of the rich biodiversity hotspots that exist in this part of the city.

Although Champlain Heights Community Centre and the Riverfront Park facilities show much potential, Renfrew Park has the added advantage of being both a fieldhouse and having access to the adjacent community centre. From this perspective there is more immediate access and relationship building with community members, community center programming and Park Board staff. The Park Board has already approved a master plan to enhance access to nature while preserving the ecological functions and benefits of the Renfrew Ravine Park. Volunteers from the community are involved

◀ Champlain Heights Community Centre (top photo)

◀ Riverfront Park Fieldhouse (bottom 2 photos)

▼ Renfrew Park Fieldhouse

PHOTO | RACHEL ROY



Findings & Analysis

in garbage clean up, removal of invasive species, planting native species and sampling water quality to improve the health of the Renfrew Ravine and Still Creek watershed with local non-profit organisations. Some strong neighbourhood-based partnerships already exist with the Collingwood Neighbourhood House, the Renfrew Community Centre and Windermere Secondary.



4.3 Potential Partnerships and Resources

This list of potential partnerships is not exhaustive, however it represents some early exploration into organisations that are currently playing a role in PBEE in Vancouver and the Lower Mainland. If the Park Board is to proceed in being a catalyst for PBEE, then partnerships like these, as well as others, will be required.

Environmental Organisations

Stanley Park Ecology Society (SPES), Sea to Sky, Fresh Air Learning, Outdoor and Ecological Learning and TREK are some local examples that offer place-based programs that relate to the BC curriculum. These environmental organisations can provide groups with many services including training for the educators, expert educators in outdoor experiential learning activities, and guided outdoor excursion opportunities, among others. Overall, there has been a stronger emphasis on early childhood education programs within the local environmental education organisations with less attention to high school level related programs.

CityStudio

CityStudio partners with faculty at numerous post-secondary institutions to support city staff on current city projects. Faculty could utilise student energy and course hours to provide multi-disciplinary support for this initiative, including research, demonstration projects, website development, marketing, networking events, etc.

Community Centre Associations

Park Board programmers and project leads could explore ways in which community centre associations may become involved and benefit from the development of (a) PBEE site(s).

University Faculty of Education Program Partnerships

University Bachelors of Education programs offered at UBC and Simon Fraser University also provide courses and training in environmental education. Professors from these faculties could partner with the Park Board and have teachers in training develop PBEE curriculum and evaluation criteria. Teachers in training could be involved in piloting hands-on activities particular to specific fieldhouse, park, and biodiversity sites.



◀▲ Weaving projects, water sampling, and children's educational activities in Vancouver parks

PHOTOS | SHARON KALLIS; KAITLYN FUNG (Still Moon Arts Society), DANIEL ROTMAN, (Evergreen Canada)

Vancouver School Board

BC Ministry of Education's Sustainable Schools Best Practice Guide of 2010 outlines useful organisations and resources for Vancouver schools to develop sustainable school grounds. The Vancouver School Board has a sustainability coordinator who works with students and teachers on environmental issues and sustainability projects. These range from starting food gardens with composting projects on school grounds to introducing solar panels on school roofs for educational opportunities. In this regard, Park Board PBEE sites could act as an extension to green school ground projects, and encourage a networked learning approach about Vancouver's diverse ecological hotspots within students' own local neighbourhoods and school locations. Additionally, instructors could use training and materials from the PBEE sites towards developing outdoor projects at their schools (i.e. sustainable garden projects), thus benefiting the broader community.

Analysis

Many other potential partnerships were not explored, and this is recommended for further work. Some of these include partnerships with First Nations, individual public and private schools and teachers, cultural organisations, artists and arts organisations, and others. In sum, these potential partnerships would:

- » Provide needed support and expertise to the Park Board
- » Bring together valuable environmental education organisations and their expertise in place-based learning approaches
- » Promote valuable environmental educational opportunities for teachers in training and university research
- » Support community building
- » Provide teacher's and schools with accessible place-based learning in nearby and accessible outdoor spaces

4.4 Limitations of Feasibility Study

For the duration of this study there was an ongoing teacher strike. As a result, teachers in the Vancouver public school system were not available for consultation or advice on the advantages, challenges and opportunities they see in the development of Park Board PBEE sites.

The Musqueam, Squamish, and Tsleil-Waututh Nations were not part of this initial feasibility study. As discussion proceeds and potential PBEE sites are refined, local First Nations representatives and organizations should be made aware of this work, and invited to participate.





PHOTO | KRYSTAL PYKE
Courtesy of the Stanley Park Ecology Society

5 POTENTIAL PBEE MODELS & APPROACHES FOR THE PARK BOARD

Given the need for more opportunities for PBEE experiences in local landscapes, the available fieldhouse sites in Vancouver park spaces, and the potential for partnerships with environmental education organisations, three models are recommended.

In all of the models, Park Board would be responsible for building partnerships around the establishment of the facility. This would include basic preparation and ongoing structural maintenance of the fieldhouse (or other space), and engaging environmental education experts as partners in the project. Partners would develop and provide materials available on site which instructors can use when they bring groups. This could be done through a volunteer-based advisory group, utilisation of post-secondary education courses and faculty, and/or a small contract. These partners could provide basic instructor training and any materials (e.g. activities, learning equipment, first aid equipment, outdoor clothing) could be kept on site.

Model 1: PBEE Public School Learning Hubs

Key Words: Provincial curriculum and school system focus; existing infrastructure; limited Park Board role

Description

In this approach, school groups would participate in environmental education sessions over a period of a few weeks or months, and potentially over the years that they are enrolled in a participating school. This is more accessible to many more students than intense immersion experiences, and develops long-term learning and relationships consistent with a place-based learning approach. Children will be able to apply their knowledge more readily into their everyday lives and their future lifestyle choices if they learn and are actively involved in projects over a longer period of time.

▼ PETER WOODS, courtesy of South Coast Conservation Program



Several environmental educators interviewed during this research indicated that teachers in public schools are more likely to book and bring their students to a PBEE facility that has been set up for them ahead of time, and is very easy to use. With busy schedules and limited budgets, teachers need programs that make clear connections to the BC curriculum.

Park Board Role

Once Vancouver Park Board has set up the facility, they would only be responsible for maintaining the fieldhouse site in terms of bathroom cleaning and general building maintenance, and would provide booking support for teachers utilising the space.

Partner's Role

Along with the development of curriculum and provisioning of the space with basic supplies, individual teachers and student groups would be responsible for their own planning, booking, use and upkeep of the space. Teachers could create a network of users to improve upon the curriculum, activities, and space over time and to promote its use.

Model 2: PBEE Residencies

Key Words: Flexible curriculum; community focus; existing infrastructure and program model; leadership from partner organisations; low – to moderate Park Board role.

Description

This model builds from the current artist residency program, and would involve an environmental education residency with a non-profit, public sector, or collaborative organisation for a 1-3 year period of time. The fieldhouse space would be offered in-kind in exchange for programming and community engagement led by partners. This would be an opportunity to develop relationships with various environmental institutions and organisations and also act as a place to try out various programs, which may lead to longer-term programs in particular PBEE spaces. This model could encourage a multidisciplinary approach to environmental education that engages artists, First Nations, cultural communities, and others. This could accommodate programs for public, private, home school and child care centres and even programs focused on adults, depending on what organisation is selected and what place-based education approaches they choose to focus on.

Park Board's Role

Park Board would be responsible for providing studio space for residence partners to establish a necessary working space for program development. A Park Board programmer would need to facilitate the residency, to lead the call for expressions of interest and evaluation, and to assist in annual planning, review and evaluation of the residency.

Potential Models & Approaches

Partner's Role

The environmental educators in residence would be responsible for the establishment and eventual wrap up of the programs being offered at the site. They must build strong place-based connections, regularly report to a Park Board programmer, and share joint copyright of project documentation with Vancouver Park Board and the City of Vancouver. They may need to raise funds for supplies and staffing to support the residency.

Model 3: PBEE Community Learning Hubs

Key Words: Flexible curriculum; community focus; existing and new infrastructure; scale-able; new program models; collaborative leadership with Park Board and partners; moderate Park Board role.

Description

This model involves the development of an environmental education focused hub that offers various services, integrating a variety of place-based educational learning opportunities. This model could start small and build over time, and create an environmental learning opportunity that benefits the surrounding community. Curriculum would not only be built on Provincial standards; rather it would explore best practices in PBEE and could support diverse and multi-generational participants. This model would be scale-able; it could exist in multiple locations and could include everything from a small space in a fieldhouse with some

regular programming for a specific group through to a purpose-built environmental education centre.

Park Board Role

The Park Board role would be varied, depending on the stage of development of this model. At the smaller, more distributed scale, Park Board programmers would actively support and book programming throughout the year in centres and fieldhouses, and operations staff would support education and stewardship projects in parks. Partnerships with appropriate experts would be built for program development and delivery, and customised for specific clients and locations. At the larger, more focused scale of creating a purpose-built environmental education centre, Park Board would likely serve as convenor, facilitator, and partnership builder and provide access to Park Board staff and infrastructure. This larger scale version of the model would require leadership from a network of partners to realise the project.

Partner's Role

Environmental educators would continually maintain relationships with their various student and community groups, and evaluate and adapt environmental education program materials over time. In the larger scale evolution of this model, partners would need to take a leadership role to vision and plan for a purpose built environmental education centre. They would need to convene stakeholders and experts, develop vision and purpose, create concept plans, budget and fundraise, create programming partnerships, as well as many other activities.

PARK BOARD ENVIRONMENTAL EDUCATION MODELS

ENVIRONMENTAL EDUCATION MODEL	PARK BOARD ROLES	PARTNER ROLES	PARK BOARD BUDGET IMPLICATIONS	SPACE REQUIREMENTS	POTENTIAL FIELDHOUSES & INFRASTRUCTURE
Public School Learning Hubs	LOW: » Utilises existing infrastructure	LOW-MODERATE: » Develop programs linked to provincial curriculum » Facilitate teacher's training » Provide associated place-based resources and materials for teachers to use » Network of teachers utilising space » Provide budget for above activities	LOW: » Basic space upgrade (paint, tidy) » Building operating budget remains the same » Minimal staff time to support space booking	INDOOR: » Storage OUTDOOR: » Shelter and Program Space	» Jericho Service Station » Stanley Park A-Frame » Stanley Park Old Farm » Riverfront Park » Renfrew Park Fieldhouse
Residencies	LOW-MODERATE: » Utilises existing infrastructure » PB programmers coordinate and assist EE organisation	MODERATE-HIGH: » Develop flexible curriculum linked programs for public and private school functions » Facilitate place-based experiential learning » Coordinate short term community projects » Provide budget for above activities	LOW-MODERATE: » Basic space upgrade (paint, tidy) » Potential renovations » Building operating budget remains the same » Staff hours for intake process and ongoing liaison tasks	INDOOR: » Storage » Work and Program Space OUTDOOR: » Shelter » Program Space	» Renfrew Park Fieldhouse » Stanley Park A-Frame » Stanley Park Old Farm
Community Learning Hubs	MODERATE: » Utilises existing and/or incorporate new infrastructure » Collaborative leadership with EE partners	MODERATE-HIGH: » Develop flexible programs for multiple users » Coordinate place-based experiential learning for multiple generations » Coordinate short or long term community projects » Budget dependent on scale	LOW-HIGH: » Dependent on scale	INDOOR: » Storage » Work and Program Space OUTDOOR: » Shelter » Program Space	» Renfrew Park Fieldhouse » Champlain Heights Community Centre » Stanley Park Old Farm



6 RECOMMENDED NEXT STEPS

Given the three potential PBEE models, here are four suggested next steps for Parks Board to consider:

1. Create an environmental education advisory team to bring together various perspectives and expertise and to lead the development and implementation of PBEE programs where the Park Board can play a leadership/catalyst/partner role. The advisory team could include: Vancouver School Board administrators and teachers; environmental educators and organisations; environmental education students and faculty; other city departments and public agencies including Social Policy, Library, Vancouver Coastal Health.
2. Develop (a) pilot project(s) that considers the PBEE model(s) with the most potential to move forward, and the most feasible location(s) to test considering infrastructure, partnerships, biodiversity, and resources available. Consider piloting more than one model to determine appropriateness and effectiveness of each approach. Develop partnerships necessary to realise pilot(s).
3. Work with potential partners to further discuss and develop models and opportunities. Potential partners include: Musqueam, Squamish and Tsleil-Waututh First Nations; teachers; environmental education organisations and associations; researchers and faculty; community centre associations.
4. Continue to include capital requests to support environmental education projects; work toward increased staff capacity to support environmental education programming and projects.
5. Conduct a more robust budget analysis and risk assessment of potential projects.

Initiatives in Williams Lake, BC
PHOTOS | GEOFF HARRISON



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8 CONTRIBUTORS

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APPENDIX A

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Additional Environmental Education Resources:

Aboriginal Enhancement Education Branch:
Shared Learning, Integrating BC Aboriginal Content K-10:
<http://www.bced.gov.bc.ca/abed/shared.pdf>

Cedar Song Nature School Reading List:
<http://cedarsongnatureschool.org/resources-and-links/links/>

Forest School Canada:
http://www.forestschoollcanada.ca/wp-content/themes/wlf/images/FSC-Guide_web.pdf

EDUC 440: Aboriginal Education in Canada, UBC Course Syllabus Readings (2014):
<http://teach.educ.ubc.ca/files/2013/08/EDUC-440-052014.pdf>

Environmental Educators Provincial Specialist Association:
<http://eepsa.org/resources/>

Environmental Learning and Experience Guide:
https://www.bced.gov.bc.ca/environment_ed/

Knight, Sara. Publications on Forest School:
http://www.anglia.ac.uk/ruskin/en/home/faculties/fhsce/about/staff/a-z/sara_knight.html

Sustainable Schools Best Practice Guide:
<http://www.bced.gov.bc.ca/greenschools/pdfs/sustbestpractices.pdf>

Teaching for Indigenous Education:
<http://www.indigenouseducation.educ.ubc.ca/>

Young, J., Haas, E., McGown, E. Coyote's Guide
To Connecting With Nature.
<http://www.coyotesguide.com/>

Potential Environmental Education Funding Sources:

The North Face Explore Fund Canada: [http://
explorefund.ca/](http://explorefund.ca/)

TD Friends of the Environment Foundation /
Focus on Forests, Building Outdoor Classrooms:
A guide for successful fundraising: [http://www.
focusonforests.ca/files/TD_Outdoor_Classroom_
Guide_ENG_FINAL.pdf](http://www.focusonforests.ca/files/TD_Outdoor_Classroom_Guide_ENG_FINAL.pdf)

Majesta Trees of Knowledge Competition: [http://
www.majestatreesofknowledge.ca/Message/Winner](http://www.majestatreesofknowledge.ca/Message/Winner)

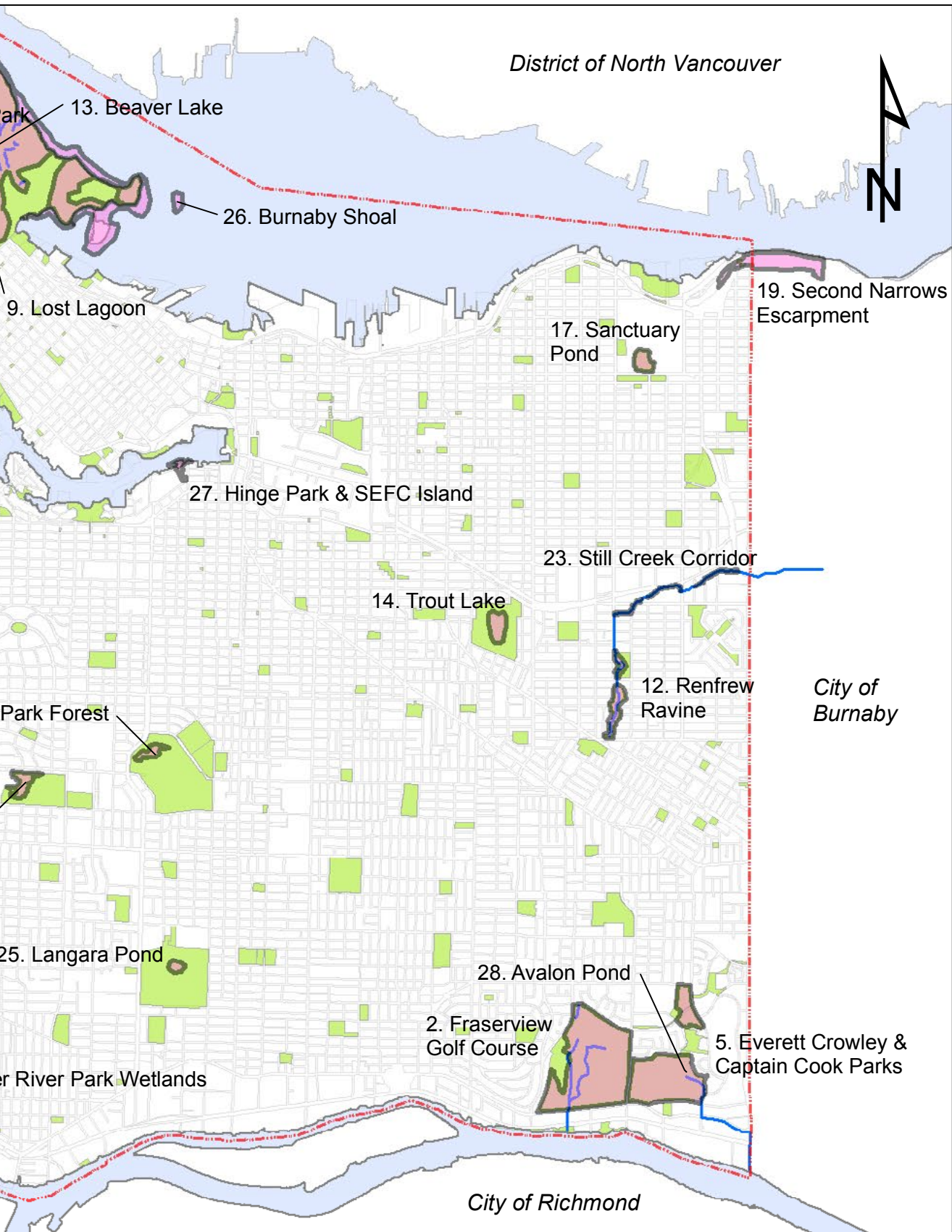
Evergreen: <http://www.evergreen.ca/>

Mountain Equipment Coop Community
Contributions:
RBC Learn to Play Fund: [http://www.rbc.com/
community-sustainability/apply-for-funding/index.
html](http://www.rbc.com/community-sustainability/apply-for-funding/index.html)

Tree Canada: <http://treecanada.ca/en/>

APPENDIX B





APPENDIX C

FIELDHOUSE INFRASTRUCTURE TABLE

FIELDHOUSE

INDOOR

OUTDOOR

CEPERLEY A-FRAME
8701 STANLEY PARK DRIVE



Main fieldhouse suite with office space, kitchen, washroom with shower, attic storage, and adjacent outdoor patio/bbq. Currently used by park rangers as an office and lunch break space, but they will be moving to the Park Board building.

Covered outdoor picnic table area; outdoor (large) sink area; outdoor washrooms.

STANLEY PARK OLD FARM
CURRENT TRAIN STORAGE SPACE



There is a lot of room for storage of outdoor ed equipment. One large area set up originally for zoo animals, but could be turned into a storage area. Also a full kitchen, with cupboards and drawers for more storage potential. This is a shared facility with the staff servicing the train as well as other outdoor public events that happen mainly in the summer (i.e. theatre groups, Coast Salish First Nations groups that carry out summer interpretation and programming), but for the majority of the school year it is not being used. There is one large main indoor space with tables and elevated seats set for a stage performance.

This is a very underutilised space with a large potential for continuous projects (outdoor gardens, overnight camping excursions etc., artist residency workshops etc.) There are many areas to create wild garden spaces throughout the outdoor area. It is gated and protected from the general public.

NEARBY COMMUNITY & PARK RESOURCES	RELEVANT BIODIVERSITY HOTSPOTS	POTENTIAL PBEE MODELS
Prospect Point Picnic; Brockton Residence; Sunset Beach; Second Beach; Third Beach; English Bay; Stanley Park trains/old zoo fieldhouse; Stanley Park Nature House.	Old Forest In Stanley Park; Stanley Park Rock Bluffs; Stanley Park Shoreline; Lost Lagoon; Beaver Lake	Public School Learning Hub; Residencies; Community Learning Hub
Prospect Point Picnic; Brockton Residence; Sunset Beach; Second Beach; Third Beach; English Bay; Ceperley A-Frame Fieldhouse and Stanley Park Nature House nearby.	Old Forest in Stanley Park; Stanley Park Rock Bluffs; Stanley Park Shoreline; Lost Lagoon; Beaver Lake.	Public School Learning Hub; Residencies; Community Learning Hub.

FIELDHOUSE INFRASTRUCTURE TABLE

FIELDHOUSE

INDOOR

OUTDOOR

HADDEN PARK
1015 MAPLE STREET



Very spacious/open studio space conducive to indoor workshop space with adjacent deck looking out to the ocean. One bedroom suite with artist in residence currently occupying it and added storage room in suite.

Spacious Hadden Park with alder trees in surrounding area with Vanier Park, Kitsilano Beach, Granville Island, Maritime Museum and Museum of Vancouver/Planetarium within 5-10 minute walking distance. Apart from exploring the seashore, this area is less diverse for outdoor exploration as Pacific Spirit, Jericho, and Spanish Bank park areas.

CHAMPLAIN HEIGHTS COMMUNITY CENTRE
3350 MAQUINNA DRIVE



Possibility of renting the large upstairs programming space through the community centre for daily outdoor ed. programs. There are tables, chairs and other equipment on hand for use in this space. There is also an outdoor deck here that overlooks the adjacent community centre grounds, park and Champlain Annex School. Bathroom and changeroom facilities onsite. Potential area for longer term storage of outdoor ed. equipment and materials.

There are opportunities here to explore Everett Crowley Park ecosystem and Avalon Pond as well as neighbouring Captain Cook and Sparwood Park.

NEARBY COMMUNITY & PARK RESOURCES

RELEVANT BIODIVERSITY HOTSPOTS

POTENTIAL PBEE MODELS

Vanier Park, Museum of Vancouver, Planetarium, Maritime Museum and Granville Island.

Kitsilano Shoreline

Public School Learning Hubs

Schools in area: Henry Hudson Elementary School; Lord Tennyson Elementary School

Schools in area: Captain Cook Elementary School (adjacent to Captain Cook Park and Fraserview Golf Course); Champlain Heights Elementary (adjacent to Sparwood Park); Champlain Annex School (adjacent to Champlain Community Centre) ; Ecole Anne Herbert Elementary

Avalon Pond in Everett Crowley Park; Community Learning Hub. Older Forests of Fraserview Golf Course.

FIELDHOUSE INFRASTRUCTURE TABLE

FIELDHOUSE

INDOOR

OUTDOOR

RIVERFRONT PARK

2750 EAST KENT STREET



There is a trailer for storage. No real indoor space for having lunches or engaging in any indoor programs/activities during the rainy days during the late fall/winter season.

Large outdoor sheltered picnic table area with a bbq (not covered). Boys and girls washroom facilities. Right on the edge of the Fraser River.

RENFREW PARK

**2929 EAST 22ND AVENUE
(WITH ADJACENT RENFREW PARK
COMMUNITY CENTRE)**



There is one fairly large open indoor space that can be used for indoor programming, one caretaker suite that is currently occupied with kitchen and indoor washroom and shower facilities. The Trojans Football team have been there on a longterm basis and use a substantial amount of the storage area. There is also the Renfrew Community Centre right beside the fieldhouse that could be used for indoor activities and programming. One smaller unit is currently occupied by Parks Board staff who is interested in providing outdoor education to the neighbouring forest and ravine.

There is a large sports field and wild garden on the fieldhouse grounds that is maintained by city staff. Also the Renfrew Park Fieldhouse is located near the Renfrew Ravine.

NEARBY COMMUNITY & PARK RESOURCES	RELEVANT BIODIVERSITY HOTSPOTS	POTENTIAL PBEE MODELS
<p>Schools in area: Captain Cook Elementary School (adjacent to Captain Cook Park and Fraserview Golf Course); Champlain Heights Elementary (adjacent to Sparwood Park); Champlain Annex School (adjacent to Champlain Community Centre) ; Ecole Anne Herbert Elementary; Sir Charles Kingford-Smith; Davi Thompson Secondary School; David Oppenheimer Elementary School</p>	<p>Avalon Pond in Everett Crowley Park; Older Forests of Fraserview Golf Course; Fraser River Park Wetland and River.</p>	<p>Public School Learning Hubs.</p>
<p>Vancouver Public Library and Renfrew Community Centre.</p>	<p>Still Creek Corridor; Renfrew Ravine.</p>	<p>Public School Learning Hub; Residencies; Community Learning Hub</p>
<p>Schools in area: Renfrew Community Elementary, Lord Beaconsville Elementary, Windermere Community Secondary School, Sir Wilfred Grenfell Elementary, John Norquay Elementary, Vancouver Technical Secondary, Nootka Community Elementary, St.Jude's School, Templeton Secondary School, Lord Nelson Elementary.</p>		

FIELDHOUSE INFRASTRUCTURE TABLE

FIELDHOUSE

INDOOR

OUTDOOR

JERICHO SERVICE YARD/STATION 1451 DISCOVERY STREET



A largely underutilised space. There is an indoor lunchroom, suite with washroom and kitchen facilities. There are two large garage doors with a lot of room for storage of outdoor ed. equipment and materials. If it is just used for indoor storage and lunchroom, this space could be useful during the late fall/winter rainy season.

Potential large safety risk would be the service gas station which is in the middle of the yard.

SPANISH BANKS EAST FIELDHOUSE NORTH WEST MARINE DRIVE AT SPANISH BANKS EAST



Outdoor washroom/changeroom facilities, adjoining food concession run during the summer months; caretaker suite upstairs but currently fully occupied; lifeguard storage room and indoor area quite small although if equipment was moved out during the school year it could be used for outdoor ed. storage of materials and equipment.

Outdoor eating area with sheltered picnic tables which could be used. This is adjacent to beach side with logs for sitting and shoreline for exploring.

NEARBY COMMUNITY & PARK RESOURCES

RELEVANT BIODIVERSITY HOTSPOTS

POTENTIAL PBEE MODELS

Schools in area: West Point Grey Academy; Ecole Jules Quesnel Elementary; Lord Byng Secondary; General Gordon Elementary; Trafalgar Elementary; Kitsilano Secondary

Pacific Spirit Regional Park; Kitsilano Shoreline; Freshwater wetlands in Jericho Beach Park; Spanish Bank.

Public School Learning Hub.

Schools in area: West Point Grey Academy; Ecole Jules Quesnel Elementary; Lord Byng Secondary; General Gordon Elementary; Trafalgar Elementary; Kitsilano Secondary.

Pacific Spirit Regional Park; Kitsilano Shoreline; Freshwater wetlands in Jericho Beach Park; Spanish Bank.

Public School Learning Hub.



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