Point Ellice House
Woodland Shore Restoration Project

Final Report

Prepared by the Gorge Waterway Initiative

December 2014

Executive Summary

In 2006 the Capital Mental Health Association (CMHA), site manager at Point Ellice House, approached the Gorge Waterway Initiative (GWI) with a request to undertake a major ecological restoration project along the shoreline. English ivy, periwinkle and other invasive plants had spread into the wooded shoreline area, smothering the understory and climbing up most of the large trees. The CMHA wanted to restore the wooded shoreline area to the natural state, as it would have been while the O'Reilly family lived there.

Project planning began in 2007, starting with a training workshop led by BC Heritage Branch and University of Victoria and development of a Statement of Significance for the woodland shore. A restoration prescription was developed by the GWI, and a Heritage Alteration Permit received for the proposed work. The ecological restoration work began in 2008, and work parties with community and corporate volunteers were held regularly until project completion in October 2014.

More than 3,100 hours of volunteer labour have resulted in the removal of over 25 tonnes of invasive plants (primarily English ivy and periwinkle) from the shoreline area, and replacement with 950 native trees, shrubs, perennials and grasses. In total, approximately $63,565 was contributed to this major project including cash and in-kind support by local businesses, community groups, granting agencies and local government.

The invasive plants have been mostly eradicated in the woodland shore area and replaced with a variety of native shrubs, trees and perennials typical of a Douglas-fir/arbutus forest. To ensure that the site does not once again become overrun with invasive plants, a detailed plan for ongoing maintenance and monitoring is provided.

Significant amounts of volunteer community labour and public funds have gone into returning this site to its former natural state. It is now up to the site managers and BC Heritage Branch to ensure that this is newly restored site is maintained into the future.

Introduction

Point Ellice House is located on a steeply sloped natural shoreline with pocket beaches and rocky outcrops along the Gorge Waterway in Victoria, BC. This site is a unique remnant of natural ecosystem that stretches 150m along the Gorge, in an urban area that is now industrialized. The site supports a diversity of habitats for native flora and fauna, including a significant stand of mature arbutus (*Arbutus menziesii*), Douglas-fir (*Pseudotsuga menziesii*) and bigleaf maple (*Acer macrophyllum*). The marine shore and woodland area were heavily overgrown with invasive plants that threatened the link between terrestrial and marine habitats. Dense mats of ivy overhung the shoreline, crowding out marine grasses and compromising the stability of the clay banks. This resulted in loss of habitat diversity and reduced ecological functioning of the site.

In 2006 the Capital Mental Health Association (CMHA), site manager at Point Ellice House, approached the Gorge Waterway Initiative (GWI) with a request to undertake a major restoration project along the shoreline. Project planning began in 2007, starting with the Point Ellice House Natural Landscape Conservation Training Consultancy led by BC Heritage Branch and the University of Victoria Cultural Resource Management Program. A Statement of Significance (see Appendix D) was developed outlining the character-defining elements of the Point Ellice Woodland Shore. A condition survey was completed in 2007 that described existing conditions, outlined the problems observed and made recommendations for the restoration work. Historic “shadows” such as pathways, plantings or viewpoints reflecting the cultural history associated with Point Ellice House were also assessed. The survey provided a guide for the GWI, as project managers, to determine priority actions, timelines and project milestones. These documents provided the basis for establishing the project goals and objectives, and the plans for achieving them. A restoration prescription was developed for the woodland shore, and the GWI solicited community volunteer help for regular work parties to carry out the restoration work.

Ecological Restoration Project Details

Project objectives were established as outlined in the Heritage Alteration Permit application granted in 2008. Table 1 lists the character-defining elements of the Point Ellice Woodland Shore at the outset of the project and upon completion in 2014. Table 2 summarizes the project objectives and the final outcomes upon project completion.

The native species chosen to replant the site after removal of the invasive plants were based on consultation with local native plant experts including Dave Polster of Polster Environmental Services Ltd, and are typical of the species associations commonly found in the Coastal Douglas-fir biogeographic zone.

A tree species of note on this site is the Oregon ash (*Fraxinus latifolia*), found in very few other sites in BC as this is the northern limit of its southern range. Several of the Oregon ash are very large and removing the dense growth of ivy on the forest floor will hopefully allow seedlings to germinate and eventually grow to replace these mature trees.

Table 1. Condition of the character-defining elements, as outlined in the Statement of Significance, before and after project

Character-Defining Elements	Condition at start of project - 2008	Condition at end of project - 2014
Any existing archaeological sites	Unknown	None found
Physical access through this area between land and water	Heavily overgrown paths	Well-defined paths
Visual connection between water and land	Obscured by overgrowth of invasive plants	Views of the Gorge Waterway can now be seen from most areas of the formal garden and lawns
Mature trees such as Arbutus, Douglas Fir, Big-leaf Maple, and Yew	Mature canopy, all trees had ivy growing well up their trunks; poor recruitment of young trees	Trees had ivy removed in first year of project, understory is now well-developed and many young trees established to replace older ones
The absence of retaining walls		No change
The natural shoreline with pocket beaches and rocky outcrops	Overhung with ivy; pocket beach near ferry dock had very small marsh grass area	Tidal marsh area at pocket beach now well-developed; ivy removed from upper slopes. Entire shoreline now re-vegetated with native plants
The protective qualities of the landscape which support the evocation of peacefulness associated with a connection with nature	Connection with nature obscured by overgrowth of invasive plants	Connection with nature enhanced with replanting of native understory vegetation
The presence of a built structure, such as a dock, to provide access to the water	Refers to ferry landing	No structures were built during this project
The steep slope to the water	Slope covered with ivy	Slope now replanted with native vegetation
All existing natural species of vegetation, such as ocean spray and snowberry	Native vegetation severely overgrown with invasive ivy and periwinkle	Native vegetation greatly enhanced, increased species diversity
Evidence of the designed woodland landscape seen in such elements as historic paths	Paths obscured, fallen trees across one	Evidence of historic path now visible
The ability to use the land for walking	Very limited due to overgrowth of invasive plants	Greatly enhanced
Existing elements of the natural ecosystem	Suppressed by overgrowth of invasive plants	Greatly enhanced; increased biodiversity throughout site

Table 2: Summary of project objectives and outcomes

Objective	Outcome
Identify and map existing trees, and extent of invasive vegetation	• Onsite vegetation surveys in 2007 by environmental technician Sara Stallard and other GWI volunteers
Assess slope stability	• Bioengineer Dave Polster made two sites visits to assess slope stability, and the effect of removing overhanging ivy from the marine clay shoreline slope
Prioritize areas for invasive plant removal, and most appropriate methods	• Condition survey completed in 2007 provided basis for prioritization
Develop outreach and communication materials	• Info Sheet developed for outreach events • Project information on GWI website • Regular updates at all GWI meetings • GWI annual reports • 3 interpretive signs installed onsite (details in Appendix B)
Engage student and community volunteers for work parties to remove invasive vegetation and replant with native species	• 95 volunteers on email list • Schools, universities, community groups, scouts, service clubs, sports clubs, corporate groups and individuals joined as volunteers • Work parties held weekly starting in 2008, later every 3 – 4 weeks • 3,180 hours of volunteer time spent on project • Over 25 tonnes of ivy and other invasive plants removed from site • 950 native trees, shrubs and perennials planted
Volunteer training workshops	• Consultancy training for conservation work, Jan. 2007 • Onsite training provided to all volunteers before each work party
Establish a monitoring program, including photo point monitoring and detection monitoring of emerging invasive plants	• Photo record has been kept, examples of before and after photos are in Appendix C • Recommendations for ongoing site monitoring are provided later in this report
Establish long-term volunteer management program, and site maintenance program	• Provided in this report
Enhance natural landscape while ensuring O'Reilly and post-O'Reilly history is noted and left in situ	• Communication maintained with site managers regarding historic era artifacts encountered during course of the work • Significant finds were recorded or put into house collection by managers • Pathway to the waterfront in the bowl was discovered, probably the original path to the boathouse
Work to restore natural landscape to meet O'Reilly vision of woodland in a natural state	• Natural landscape has been re-established

The restoration was accomplished in phases, starting with removal of ivy that was climbing up most of the trees. Very steep areas were cleared by trained rock climbers when they were available to assist at work parties. The entire restoration area was worked over by hand twice prior to replanting: first to cut and remove the above-ground growth, then to dig up the soil to remove as many of the roots as possible before finally planting with native shrubs and trees. A detailed project timeline with annual milestones achieved is provided in Appendix A.

At the start of this project, a heavy overgrowth of English ivy (*Hedera helix*) dominated the woodland shore, blanketing the understory beneath the tree canopy and overhanging and shading the upper intertidal area of the foreshore. There was a small area of fringe marsh on the pocket beach adjacent to the ferry dock that managed to survive, and when the overhanging ivy was removed, there were signs of undercutting of the clay bank by wave action. Now that the ivy has been off that area for two years, the marsh area has increased in size noticeably, and the bank above has filled in with a variety of native shrubs. At the opposite side of the site was another area with large amounts of ivy overhanging the beach. When this was removed in 2012, a large cavity in the soil on the bank was exposed indicating that erosion of the bank was occurring beneath the overhanging ivy.

Photographs were taken regularly, documenting the progress of the restoration work and growth of native species replanted to the site. Some “before and after” photos are provided in Appendix C.

Native trees and shrubs planted on the site have generally flourished, and seedlings regularly show up in the spring in the sites that have been replanted with native species. On the bank above the ferry dock, several white fawn lilies (*Erythronium oregonum*) appeared following the removal of the blanket of ivy on the shore. This native lily is associated with the rare Garry oak ecosystem that once flourished throughout the Victoria area.

The views of the Gorge Waterway from the upper formal gardens have improved dramatically since this work began, and the bowl and pocket beach areas are now visible from the lawns above.

Certain invasive plants are particularly challenging to manage at this site, especially the morning glory (*Ipomoea purpurea*) growing persistently throughout a pile of historic-period building refuse at the bottom of the bowl area near the waterfront (see Map 1 in Appendix D). The approved method used for control was a combination of regular manual removal and careful use of short-lived chemical treatment at this location. This was undertaken very occasionally and only by personnel with appropriate training.

Many birds, including several raptors (e.g. barred owl) were observed roosting in the trees and foraging along the shoreline. There is abundant evidence of use by river otters, including latrine sites, paths leading up from shore into the wooded areas and crab remains left on the ferry dock. Raccoons also use the site, and gardeners have reported the occasional deer in the Point Ellice gardens.

A second Heritage Alteration Permit was requested in 2013 to update the project work plan including a completion date of 31 July 2014, later extended to 31 October 2014.

Interpretive Signs

In 2013, three interpretive signs were designed and installed (see photos in Appendix B). These signs explain the significant work undertaken to restore the woodland shore area and the benefits of a natural shoreline for providing wildlife habitat, increasing biodiversity and improving ecological functioning of the shoreline. The sign template design was based on the existing interpretive signs that are in the gardens, and installed without a concrete base to minimize disturbance to the soil, as instructed by the site manager.

Handling of Cultural Artifacts

Onsite training in working on a cultural heritage site as well as training for the ecological restoration work and safe use of tools was provided for all volunteers. Cultural artifacts were frequently uncovered during the project, primarily bottles, bricks, pipe, parts of garden implements, and a significant amount of broken glass, rusty metal fragments and pieces of plastic. Some of this material (e.g. used syringes), posed a safety hazard to volunteers. To address the issue of appropriate treatment of cultural artifacts, the site manager directed the GWI to contact the BC Archaeology Branch. Eric Forgeng visited the site in February 2009, and his recommendations regarding the treatment of historic-period refuse deposits were that "broken glass, hazardous metal and other dangerous materials should be removed from the surface and recycled or disposed of as necessary" with remaining deposits being covered with topsoil and stabilized with native groundcover.

At the top of the bank near the ferry dock a mound (approximately 2m by 1m in area and 0.5m in height) was found where many bricks and other items had been piled in the past. This area was left untouched during the restoration, and is full of Spanish bluebells (non-native, invasive) and daffodils (non-native but not considered invasive) and native snowberry.

Another area with a concentration of historic debris is at the bottom of the bowl where an infestation of morning glory persists. This pile appears to be the remains of an asphalt-shingled wooden shed, and has been left intact. The morning glory throughout this pile poses a problem

that was addressed by careful and occasional use of glyphosate (with prior approval and by trained personnel). As outlined in the ongoing maintenance recommendations, this practice needs to continue until the morning glory is all eradicated. Both areas are marked on Map 1, Appendix D.

Community and Corporate Contributions

To achieve the ambitious goals set out in this project, significant community, corporate and granting agency resources were solicited to provide cash and in-kind support for the shoreline restoration. Tools, equipment, supplies, plants and refreshments for work parties were required, as well as the significant amount of volunteer labour. The community and public resources contributed to this project are detailed in Table 3.

Table 3: Corporate, community and government sponsors and approximate value of services and products donated to this project.

Contributor	Service or products supplied	In Kind	Cash
Capital Regional District	Project management, volunteer coordination, refreshments, tools, equipment, plants; website & outreach, interpretive signs	766 hr. staff time	$11,115
City of Victoria	Labour (tree and brush cutting), leaf mulch	$2,000	
Coca Cola	Refreshments		$200
Diageo – Evergreen National Tree Planting Program	Equipment, 160 trees, refreshments		$3,500
Ellice Recycling	Delivery and removal of bins for removal of invasive plant material	$1,000	
Fido - Evergreen	Prize		$2,500
Garden City Tree & Landscaping	Trees	$50	
Polster Environmental Services Ltd.	On-site consultation: slope stability and invasive plant removal	$400	
Walmart - Evergreen	Grant		$10,000
Coca Cola	Volunteer and in-kind labour	Total: 3,180 hr.	
Camosun College			
Community volunteers			
Community Service youth workers			
Deloitte			
Diageo			
Esquimalt High School			
Eves of Destruction (roller derby team)			
Greater Victoria Green Team			
Rotary Club of Victoria			
St Michaels University School			
Sea Scouts			
University of Victoria			
TOTAL		**$3,450 in-kind value 3,946 hr labour**	**$27,315**

Project Expenses

Total project costs, outside of volunteer labour, were $27,315 (Table 4). The Capital Regional District (CRD) provided a significant amount of support for this restoration project, including $11,115 in cash and 766 hours of staff time for project management, volunteer coordination and development of the interpretive signs. CRD staff volunteered their time during the actual work parties.

Table 4: Expenses for Point Ellice shoreline restoration project, 2006 - 2014

ITEM	EXPENSES
Supplies, plants: • native plants, fertilizer • supplies, tools, hoses, sprinklers	 $8,765 (plants) $2,430 (supplies)
Volunteer support: • refreshments • volunteer appreciation event	$3,180
Outreach: • development of InfoSheet about restoration project • interpretive signs (3) • facility rental	$1,915
Contract labour	$2,265
TOTAL	$27,315

Ongoing Maintenance

Monitoring and maintenance of this restored woodland area is essential to ensure that invasive plants do not regrow and take over the shoreline area again. In the temperate climate of Victoria, “ivy never sleeps” and there is no doubt that it will regrow and smother the site again if it not monitored and removed on a regular basis. The majority of the work has been done, and regular ongoing maintenance will preclude having to undertake a project like this at Point Ellice House in the future. The amount of community input and effort, especially volunteer time, and the substantial amount of public funding invested in this ambitious project warrant a similarly significant commitment from the site managers and BC Heritage Branch to maintain the site in its current state, and continue to improve it. Table 5 outlines the activities required for ongoing maintenance of the restored shoreline, and the approximate amount of time and resources necessary.

Other recommendations:

- Train garden volunteers to recognize invasive species that are a problem along the shoreline, and remove them wherever they occur throughout the site (other than designated heritage planting sites in the formal gardens).
- Do not compost ivy, periwinkle, morning glory and other invasive plants onsite; they should be disposed of in the garbage.
- Snowberry: this native shrub can be trimmed to maintain viewscapes (e.g. top of the bank near the ferry dock)
- The wooden staircase to the pocket beach near the heart-shaped garden must be replaced. It is completely rotten and poses a serious safety hazard to visitors. . Safe access to this small beach will make it easier for maintenance of the native vegetation along the shoreline above, and would be a valuable addition to the visitor experience.
- Monitoring and maintaining the wooded shoreline area will provide vigilance for people who occasionally set up campsites near the shore.
- An arborist should be engaged to assess health of all canopy trees, and to prune as needed for hazard reduction as well as tree health.

Resources needed:

- Someone on the site management team to champion the restoration project and ensure that the monitoring outlined in Table 5 takes place.
- In summer 2015, the most recently planted area near the garden shed needs to be watered occasionally to ensure the shrubs survive the summer drought period.
- The site should be walked over completely to check for invasive plant regrowth about twice a year. This would involve about 20 – 30 hours/year
- A pool of 3 – 5 volunteers available seasonally should ensure that one or two people are available to conduct the maintenance
- Hire an arborist to assess tree health and provide advice regarding ongoing tree maintenance

Table 5. Activities and time frame for ongoing maintenance of the Point Ellice House Woodland Shore. Refer to Map 1 in Appendix D for specific locations.

Activity	Optimal time of year
Find a project champion: • someone with restoration and/or gardening experience to oversee ongoing maintenance • engage community volunteers to help at seasonal work parties. •	Year-round
Monitor and remove: • **English ivy**: throughout the site • **Periwinkle**: throughout the site, focus on top of the bowl, and near the north end of waterfront • **Blackberry**: throughout the site	Rainy season: October - May
Monitor and remove: • Garden escapees such as money plant *(Lunaria annua*), bluebells • Weedy annuals such as wall lettuce *(Lactuca muralis*), dandelions, thistles • Ensure that weeds are removed before they set seed, and do not compost seed heads	May – Sept, and throughout the year as observed.
English elm (*Ulmus procera*)**:** • Near garden shed there are many large elms, and these send out shoots via the roots • Short term - ongoing monitoring and cutting of new shoots • Long term - recommend removing all English elms as they will continue to be a problem	Annually in winter when easiest to dig out roots
Morning glory (*Ipomoea purpurea*) • Main infestation is near the waterfront at the bottom of the bowl. • Careful application of glyphosate is necessary to eradicate this species without disturbing the cultural artifacts underlying the morning glory	Annually in spring or summer as necessary until all morning glory is eradicated **Glyphosate must only be applied by qualified personnel**
Oregon ash (*Fraxinus latifolia)* • This locally rare native species needs to be monitored and nurtured • Engage an arborist to assess tree health and make recommendations for ongoing maintenance of this rare stand	Late spring or summer when trees are in full leaf

Future Opportunities

The restored woodland shore now provides an excellent opportunity for education of visitors to this heritage site. The three interpretive signs now in place tell part of the restoration story, and site managers can build on this to design a full program for visitors about ecological and cultural restoration, a natural complement to the restoration of the formal and kitchen gardens adjacent to the house. Managers can now make full use of the entire site by creating a path to the waterfront, and at some point re-building the boat house that the O'Reillys once kept there. Garden benches can be installed along the top of the bank so visitors can enjoy the view of the Gorge Waterway that is now visible from the upper lawns. A rebuilt stairway to the pocket beach near the ferry dock will provide an interesting new dimension to the visitor experience.

Some of the learning opportunities that now exist at Point Ellice House because of the restoration project:

- Enhance the house tours to include woodland shore tours, showing visitors the area where the O'Reillys kept their boats, and the pathways where they enjoyed the native woodland flora. The value of ecological restoration could be incorporated into the tour, focusing on:
    - Importance of native plants for providing habitat for wildlife, birds, insects
    - Value of maintaining native shoreline vegetation to prevent erosion
    - Help mitigate the effects of sea level rise
- Participation in ongoing maintenance of the woodland shore ecosystem can provide leadership opportunities for school children, hands-on training for environmental studies students
- Incorporate ecological restoration into the programming already in place at Pt Ellice House. Potential for partnerships with the Cultural Resource Management Program and/or the Restoration of Natural Systems Program at University of Victoria would bring students and learning opportunities to the site.

Acknowledgements

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Regular Community Volunteers: Bruce Hardy, Emily Heidendahl, Judith Kelsey, Kitty Lloyd, Roni Luo, Sara Stallard, Jody Watson; June Pretzer: Preparation of Site Condition Survey, help with work parties; Point Ellice House staff past and present, particularly David Easton and Michaela Gatien; Dave Polster, Polster Environmental Services: in-kind services including slope stability assessment; Capital Mental Health Association (past site manager); Point Ellice House Preservation Society (current site manager).

Appendix A

Project Timeline

2006:

- Point Ellice House site managers (Capital Mental Health Association, CMHA) approached the Gorge Waterway Initiative (GWI) to request help in restoring the woodland shoreline area of this heritage site on the Gorge Waterway.
- GWI subcommittee struck, Statement of Significance for the Woodland Shore area developed in collaboration with BC Heritage Branch staff (see Appendix D).
- Project planning and conservation training workshop designed

2007:

- Point Ellice House Natural Landscape Conservation training consultancy held, led by University of Victoria Cultural Resource Management and BC Heritage Branch.
- Ecological restoration prescription developed, area mapped, significant trees and other natural and cultural features identified
- Funding applications submitted to purchase tools, supplies and native plants
- Slope stability assessed by an ecological restoration expert (Dave Polster) and high priority areas identified.

2008:

- Heritage Alteration Permit for the proposed shoreline restoration work granted to CMHA in May (see Appendix D)
- Ecological restoration work began in Sept. Weekly work parties held initially, later moved to monthly events; the work of removing invasive plants that once blanketed the entire shoreline area up to the top of the slope was initiated.
- Volunteer groups at work parties included Sea Scouts, corporate groups; high school, college and university students and community volunteers (see Table 3)
- Between Aug and Dec, volunteers spent 930 hours removing 10 tonnes of English ivy, periwinkle and other invasive plants
- Funding for purchasing the native plants was received through a Walmart Evergreen Green Grant. Corporate groups also contributed funds towards purchasing plants for the site, and covering the cost of removing and composting the invasive plant material

2009:

- Volunteer Appreciation event at Pt Ellice House, where local politicians and the media were on hand to help the organizers acknowledge and thank the many volunteers who helped with the restoration project.
- Volunteer time to date: 1,500 hours
- Invasive plant material removed to date: 15 tonnes
- Native planting started in cleared areas

2010:

- A GWI InfoSheet (see Appendix D) was developed to highlight the project; it was posted on the GWI website and distributed at public events. Copies are available at the Point Ellice House visitors' centre.
- Monthly work parties held, volunteer time to date: 2,000 hours
- More than 400 native trees, shrubs and perennials planted in cleared areas, and leaf mulch donated by City of Victoria applied

2011:

- Volunteer hours to date: 2,500 hours
- Invasive plant material removed to date: 20 tonnes
- Native plants planted: over 500 to date
- Project was one of 10 across Canada chosen by Fido Evergreen to receive $2,500 in funding. Funds were used to hire a consultant to complete work in more challenging areas of the shoreline site

2012:

- Meeting held with PEH site manager Michaela Gatien and Mark Brown from BC Heritage Branch to discuss project and plan final phase
- 12 work parties were held, 251 volunteer hours, for a total to date of 2,750 hours
- Invasive plant material removed to date: 25 tonnes
- Ivy re-growth significantly diminished; native vegetation becoming well-established

2013:

- Updated Heritage Alteration Permit application submitted to continue and complete the ecological restoration work. Permit HB13-19 (see Appendix D) was issued to Point Ellice House Preservation Society, now managing the heritage site.
- Three interpretive signs were designed, approved by site managers, manufactured and installed (see photos Appendix B)
- 12 work parties were held, with 120 volunteer hours
- Total volunteer time to date: 2,870 hours
- Invasive plant material removed to date: 26 tonnes
- Raptors, river otters and other wildlife use the site regularly

2014:

- 16 work parties were held up to the end of October when the restoration project was completed; 310 volunteer hours, for a grand project total of 3,180 hours
- 279 native plants were purchased, and 10 donated, to replant the last cleared area of the restoration site.
- Invasive plant material removed to date: 28 tonnes
- Final report prepared and submitted

Restoration project interpretive signs

Point Ellice Woodland Shore Restoration Project

Shoreline Diversity

Very few intact pocket beaches remain along the Gorge Waterway. The restoration project on the Point Ellice shoreline provides important habitat for wildlife species such as river otters that use pocket beaches to access resting and feeding sites. By re-creating some of the shoreline diversity that once existed along the Gorge, community volunteers are improving habitat, stabilizing eroding banks and controlling the spread of invasive non-native plants such as ivy and blackberry that have overgrown much of the shoreline.

Restoration goals for the pocket beach below here:

- Remove overhanging ivy growth, replant with native plants
- Provide more space for marsh plants to regrow along the high tide line
- Improve habitat and ecological diversity for wildlife that use both land and shore such as river otters, kingfishers and herons

Student volunteers remove ivy from the slope above the beach. All plant material removed has been composted free of charge by a local business.

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Point Ellice Woodland Shore Restoration Project

The Urban Forest

The shores of the Gorge Waterway were once lined with large Douglas-fir, grand fir, arbutus and Garry oak much like those surrounding Point Ellice House. The remnants of urban forest along the Gorge provide critical habitat for birds and other wildlife and help to prevent shoreline erosion and mitigate the effects of climate change.

The goals of the Point Ellice Woodland Shore Restoration project are to:

- Remove invasive non-native vegetation and control its spread along the shoreline
- Restore multiple canopy layers in the forest by planting native shrubs and ground cover
- Plant young native trees to replace the "veterans" that are now mature. Natural recruitment of native trees has been hampered by the profusion of invasive plants.

When restoration started in 2008, the forest was choked with "garden escapees" like this English ivy. By 2013 more than 22 tonnes of invasive plant material had been removed.

Volunteers from the community, corporate groups and schools have spent thousands of hours removing invasive plants and replanting with more than 500 native trees and shrubs.

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Appendix C

Before and after photos

BEFORE: Pocket beach in February 2007, shoreline and beachfront dominated by overhanging ivy

AFTER: Pocket beach in Feb. 2014, with ivy removed and replaced with native shrubs, primarily oceanspray and snowberry (without leaves at this time of year). Expanse of beach grass has expanded naturally following removal of overhanging ivy.

AFTER: Pocket beach in September 2014:

BEFORE: Path near garden shed as it was in December 2008. Both sides of the path were completely overgrown with English ivy. A large blue tarp in background shows where ivy and other invasive plants were piled until removal annually.

AFTER: Path in December 2014. Ivy has all been removed and replanted with Douglas-fir, dull Oregon grape, ocean spray, snowberry, evergreen huckleberry, sword fern, honeysuckle and other native plants.

Volunteer work party photos

Students removing ivy roots (left). Above, volunteers use garden rakes to roll ivy vines up so they can be cut at ground level.

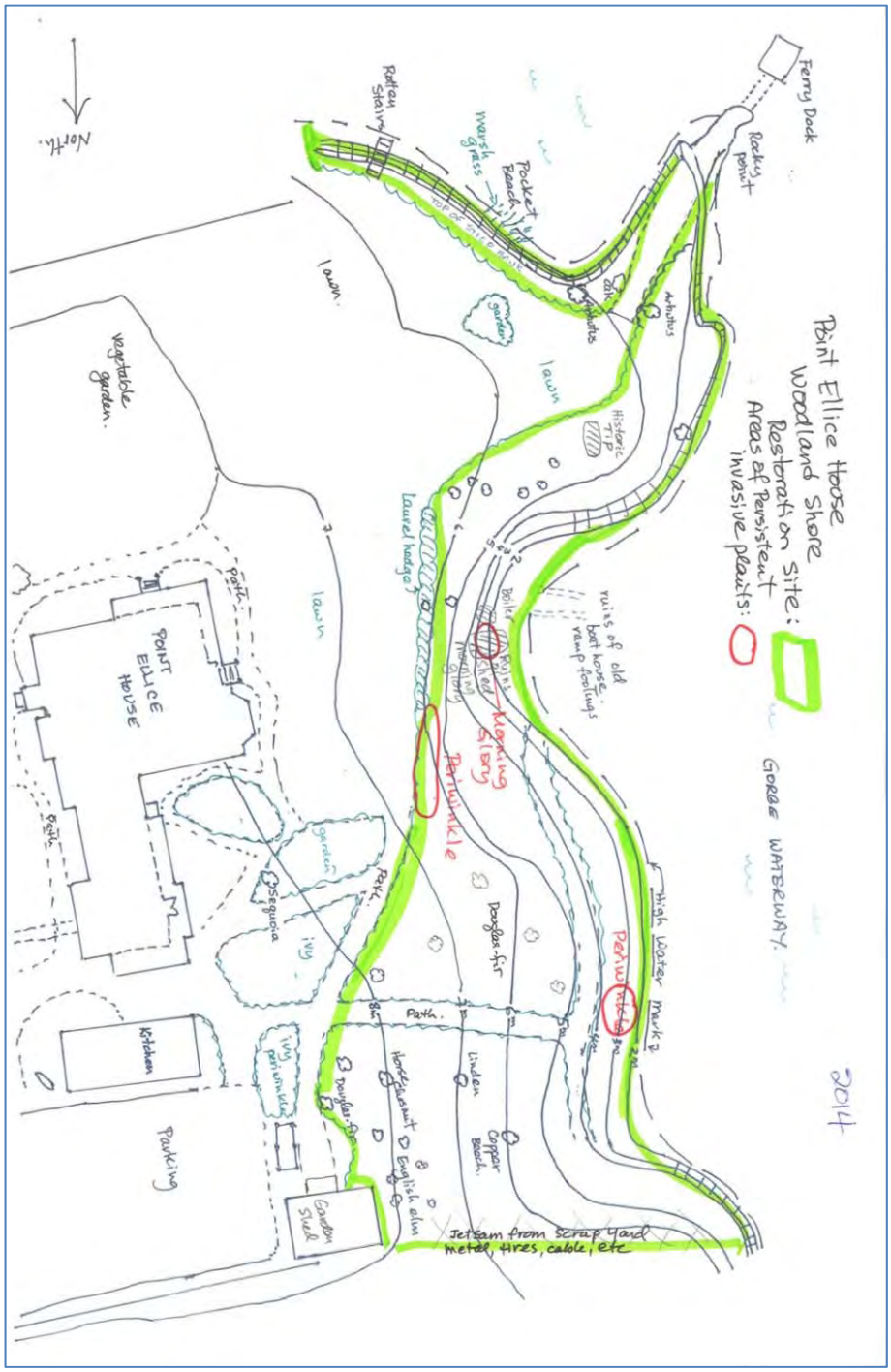
(Left) Volunteers from Coca Cola planting shrubs on slope of the bowl

(Right) Students plant native shrubs beside formal garden path at top of bank

Appendix D

Map and Supporting Documents

Map 1: Outline of restoration project area



Point Ellice House Woodland Shore
Statement of Significance
Draft – August 24, 2006

Description of Historic Place

This historic place is an overgrown pocket woodland on the Gorge Waterway shore of the Point Ellice House historic site. It is characterized by its steeply sloped natural shoreline with pocket beaches, and possesses native and exotic species of plants.

Heritage Value of Historic Place

The Point Ellice House Woodland Shore is valued as the largest surviving natural and heritage landscape on the Gorge Waterway. It is significant that this cultural landscape has survived within the local urban-industrial landscape, and continues to possess the qualities which have made it an urban oasis since the 1860s.

This portion of the Point Ellice House property is an important and unique remnant example of the natural ecosystem of the Gorge Waterway. This historic place is important to the natural heritage of the area because of its qualities which continue to a support a bio-diverse habitat for native flora and fauna, both terrestrial and marine.

This woodland shore is also a significant part of the Point Ellice House historic site. The juxtaposition of this wild area with the cultivated lawn and gardens surrounding the house speaks to the romantic ideals of the Victorian aesthetic in landscape design. This area of the Point Ellice property also retains its original function as a buffer zone between the house and Gorge, providing physical and visual access between land and water while also affording qualities of privacy for the residence.

Character-Defining Elements

The character-defining elements of the Point Ellice House Woodland Shore include:

- Any existing archaeological sites
- Physical access through this area between land and water
- Visual connection between water and land
- Mature trees such as Arbutus, Douglas Fir, Big-leaf Maple, and Yew
- The absence of retaining walls
- The natural shoreline with pocket beaches and rocky outcrops
- The protective qualities of the landscape which support The evocation of peacefulness associated with a connection with nature
- The presence of a built structure, such as a dock, to provide access to the water
- The steep slope to the water
- All existing natural species of vegetation, such as ocean spray and snowberry
- Evidence of the designed woodland landscape seen in such elements as historic paths
- The ability to use the land for walking
- Existing elements of the natural ecosystem