

Thornton A. Sullivan Park

Stewardship Plan

May 2013



Property Name and Location:

Thornton A. Sullivan Park
11405 W. Silver Lake Rd., Everett, WA 98208
Section 19, Township 28N, Range 5E

Landowner Management and Contact Information:

City of Everett Parks & Recreation
802 E. Mukilteo Blvd.
Everett, WA 98203
T: 425-257-8300 / F: 425-257-8384
E: parks@everettwa.gov

Prepared by: Amanda Goffard for the *Green Everett Partnership*
School of Environmental and Forest Sciences
University of Washington
425-248-1305

Forterra contact: Kim Frappier, *Urban Forestry Project Associate*
901 5th Avenue
Seattle, WA 98164
206-905-6919

Table of Contents

Introduction.....	4
Property Description	5
Site Assessment.....	6
Methods	6
Social Inventory.....	8
Forest Inventory.....	8
Forest Health and Invasive Species.....	11
Soils.....	12
Water Quality, Riparian Areas and Wetlands.....	12
Wildlife Habitat	12
Stewardship.....	14
Resource Protection and Enhancement Recommendations by HMU	14
Invasive Plant Management	16
Wildlife Habitat	18
Plant Selection.....	19
Crime Prevention through Environmental Design (CPTED).....	20
Monitoring.....	20
Volunteers and Public Engagement.....	21

Management Recommendations Timeline22

Appendices25

 Appendix A: Soils Map and Legend25

 Appendix B: Best Management Practices27

 Appendix C: Native Plant Information and Resources27

 Appendix D: CPTED Principles for Trails.....28

 Appendix E: List of primary parks department or nonprofit staff29

 Appendix F: Images30

Introduction

In the city of Everett, as in other areas of Puget Sound, urban forests face many challenges to their health and long-term sustainability. These challenges include invasive species, declining tree canopy, climate change, air pollution, and many more. While threatened by these challenges, urban forests remain valuable natural resources and provide services such as improving air and water quality, retaining stormwater, and helping to mitigate greenhouse gas emissions. The urban forest of Thornton A. Sullivan Park also functions as a restorative place where people of all ages, abilities, and backgrounds can participate together in outdoor recreation. As the City of Everett continues to grow and development of the area around Silver Lake increases, protecting and enhancing the forested areas of Thornton A. Sullivan Park will be of utmost importance.

To address these issues, the City of Everett and Forterra have joined forces to create the Green Everett Partnership. The Partnership has developed a 20 Year Forest Management Plan to restore Everett's urban forest and create an urban forest management program that includes a volunteer forest steward program. The purpose of this stewardship plan is to assist the volunteer Forest Stewards of the Green Everett Partnership in the ongoing restoration and management of Thornton A. Sullivan Park's forested areas.

The objectives for the management of this park include:

Short-term objectives (during the first five years):

- Create an inventory of current conditions in the forested areas of the park.
- Create restoration site plans for each Habitat Management Unit (HMU).
- Provide a framework for engaging the Silver Lake Action committee and surrounding neighborhood and building support for forest restoration at Thornton A. Sullivan Park.
- Remove invasive species.
- Promote forest health and habitat functions by planting native conifers and understory species throughout Thornton A. Sullivan Park.

Long-term objectives (for the next 20 years):

- Cultivate a resilient urban forest that is resistant to invasive plant species and able to sustain habitat for diverse native vegetation, fish, and wildlife.
- Promote biodiversity and forest health
- Provide guidance regarding restoration activities for the volunteer Forest Stewards of Thornton A. Sullivan Park.
- Promote an informed and engaged community of neighbors and park goers who value and care for the park's natural resources.

Property Description

Thornton A. Sullivan Park is a 35.3 acre park located in southeast Everett and is managed by the City of Everett Parks Department. The park is adjacent to the Silver Lake residential neighborhoods and is very close to the Silver Lake shopping complex.

The amenities at Thornton A. Sullivan Park include restrooms and showers, trails, a swimming beach, picnic shelter, picnic tables and BBQ grills, a meeting hall, viewpoints, a playground, a golf Frisbee course, and fishing. The park hosts several special events throughout the year, the most notable being the Kids Fish-In in May, the Silver Lake Hydro Plane and Hawaiian Canoe Races in June, and Cinema Under the Stars and summer camp programs at Camp Patterson from July to August. It is also the site of a wide range of other activities, from outdoor concerts to organized scavenger hunts to a youth aquathlon.

This stewardship plan is specific to the forested areas of the park and does not include beachfront, ornamental landscape or hardscape such as Silver Lake Swimming Beach, Camp Patterson, or the parking lot (See Appendix A for the park site map). It also does not include the fenced-off Silver Dome, an old 7th Day Adventist Camp which is currently being used for storage by the Parks Department or Botheny House, an old residence, and its orchard. The Parks Department has no plans for these sites at this time.

Property Access

Pedestrians can access the park from either side of Silver Lake Road. The main entrance to the park is located on the west side of Silver Lake Road, where the parking lot is located. The golf frisbee course, beachfront, walking trails, and Camp Patterson are all accessible through the main entrance. Across the road, an extensive system of multi-use trails can be accessed from the north or south trailheads. The east side of Silver Lake Road leads into the parking lot near Camp Patterson. There is currently no signage for the trailheads or trail system on Silver Lake Road.

Driving directions are as follows:

From the north, take I-5 exit 186 and turn left onto 128th St. SE. Proceed east on 128th to 19th Ave. SE (Bothell-Everett Hwy) and turn left onto 19th Ave. SE. Continue north to 112th St. SE. Turn left onto 112th St. SE. Proceed about four blocks to 14th Ave. Turn left onto 14th Ave. Road becomes Silver Lake Rd. The park is on the left.

From the south, take I-5 exit 186 and turn right onto 128th St. SE. Proceed east on 128th to 19th Ave. SE (Bothell-Everett Hwy) and turn left onto 19th Ave. SE. Continue north to 112th St. SE. Turn left onto 112th St. SE. Proceed about four blocks to 14th Ave. Turn left onto 14th Ave. Road becomes Silver Lake Rd. The park is on the left.¹

¹ http://www.everettwa.org/Get_PDF.aspx?pdfID=801

Site Assessment

Methods

Baseline ecological data was collected using a data collection protocol called the Forest Landscape Assessment Tool (FLAT). This is a rapid assessment tool that captures canopy characteristics, primary and secondary understory species, invasive species, and a number of overstory forest health indicators. A rapid assessment is one where average conditions are documented while walking through the park rather than setting up monitoring plots.

Prior to field data collection, forest stands within Thornton A. Sullivan Park were identified using a digital ortho-photo. Each stand was first categorized based on its landscape features into one of five categories: forested, natural, open water, hardscaped, or landscaped. These initial categories were then verified in the field to ensure accuracy. These categorized stands are referred to as Habitat Management Units (HMUs). HMUs provide discrete areas for forest stewards to use when creating restoration site plans and monitoring progress. All HMUs were assigned unique numbers and begin with the code THSU for Thornton A. Sullivan Park. Thornton A. Sullivan has seven HMUs. HMUs 1 through 5 consist of forested parkland. HMU 6 and 7 are landscaped and hardscaped areas and will not be assessed for management as they are not suitable for restoration activities.

Two of the variables collected through the FLAT were tree canopy and invasive species cover, both measured as High, Medium, and Low. These two parameters were then subjected to Tree-iage Analysis, an approach used to assess habitat conditions and prioritize restoration efforts in urban forests. Tree-iage analysis was used to create a high-level overview of conditions found within each HMU. For more information on Tree-iage analysis, see the Green Everett Partnership 20 Year Forest Management Plan found at www.greeneverett.org. Refer to the map and legend of Figure 1 to review the tree-iage categories for Thornton A. Sullivan Park.

Figure 1. Map of Thornton A. Sullivan Park with Tree-age categories and Tree-age matrix diagram.



Social Inventory

Thornton A. Sullivan Park provides recreation and meeting space for a variety of groups of all ages and backgrounds. The most popular year-round areas of the park are the playground and fishing piers. In summer, the beach, picnic areas, and Camp Patterson are heavily used. Activities on the west side of the park near the lake include swimming, boating, fishing, picnicking, walking, golf frisbee, and using the playground. The east side of the park contains a series of intertwining trails which are used for hiking, dog walking, and cyclocross. Despite its heavy use, a trails map does not currently exist for the park, nor are trailheads clearly marked. Thornton A. Sullivan Park would benefit from a trails inventory, mapping, and signage to improve access and safety by park users.

There are restrooms, showers, and a reservable meeting hall on the west side of the park. As previously mentioned, the park hosts several events throughout the year, mostly in the summer. These include cyclocross meets, boating events, aquathlon, and an outdoor cinema. The park is also cared for by several volunteer organizations; please see the stewardship section for more information.

Forest Inventory

This plan encompasses 5 HMUs of urban forested parkland. The following describes the existing conditions, resource protection and enhancement by HMU. For a list of the most abundant native species in the park, see Table 2 at the end of this section.

THSU 1 (3.18 acres)

This forested area at the northeastern end of the park partially surrounds Camp Patterson and contains multiple trails. It also extends around the parking lot to the fire station; this more open area is used as an overflow picnic space. The forest stand has a canopy closure is 40-69% with an age class of 50-99 years. The high-value mixed canopy is made up mostly of Douglas fir (dbh 21"+), western redcedar (dbh 21"+), and bigleaf maple (dbh 21"+). Regenerative trees include western redcedar and bigleaf maple. Native species such as salal, sword fern, and red huckleberrymake up a generally healthy understory across the HMU. However, in many spots the native understory is competing with and at risk of being overrun by Himalayan blackberry and English ivy. Invasive plant cover is between 5 and 50 %.

THSU 2 (0.39 acres)

This narrow HMU has essentially become a large patch of Himalayan blackberry, Scotch broom, Bohemian knotweed, and thistle species between 14th Avenue and I-5. It also contains a few Douglas firs and red elderberry, but these are being smothered by the invasive species. Overall, the composition value of this HMU is low, while the threat from invasives is high.

THSU 3 (5.74 acres)

This HMU is very large and could be considered in roughly two halves, divided down its drainage corridor. Conditions across this HMU vary, however, overall it has a high value canopy composition. The dominant canopy species include mature western redcedar (dbh21+), and Douglas fir (dbh 21"+). Together with many bigleaf maples (dbh 11"-20"),they provide 40-69% crown closure. Regeneration trees include western redcedar and western hemlock. In some areas, the conifer crown is less than 40% living, also known as low vigor. Low vigor and openings in the canopy are likely caused by butt rot on western

hemlock or root rot on Douglas firs. The understory is healthy across most of the HMU and consists mainly of dull Oregon grape, swordfern, salmonberry, bracken fern, and red elderberry. Invasive species cover is medium (5-50%) consisting of Himalayan blackberry, English holly, English laurel, reed canary grass, and buttercup.

THSU 3 includes a stormwater detention pond, installed and managed by Everett Public Works department. This is found on the East side of the HMU along Silver Lake Road across the street from the parking lot to the park. This controls runoff from the adjacent highway and roads. Himalayan blackberry is encroaching on the ponds, but there are a few wetland species including carex and rush species.

THSU 4 (1.37 acres)

This HMU is composed of a young, mixed stand of red alder (dbh 0"-5"), bigleaf maple (dbh 0"-5") and western white pine (dbh 6"-10"). It lies between the older forest of THSU 3 and the residential neighborhood on the southwest side of the park. The canopy composition value is medium with a crown closure greater than 70%, however there is evidence of low vigor. Regeneration trees include western redcedar and western hemlock. Common understory plants in this HMU include salmonberry and swordfern. Invasive cover is between 5% and 50% across the HMU and consists of Himalayan blackberry, yellow archangel, English holly, evergreen blackberry, and English ivy. The largest patch of invasive species lies along the south edge of the HMU adjacent to the residential neighborhood, where yard waste dumping has occurred.

THSU 5 (0.88 acres)

This HMU, located in the southwest corner of the park bordering Silver Lake Road, is enclosed by a locked fence. Crown closure in this HMU is between 40-69% and consists primarily of mature Douglas fir (dbh 21"+), western redcedar (dbh 21"+), and red alder (dbh 6"-11"). Regeneration trees include western redcedar and red alder. Evidence of laminated root rot was observed. As in HMU 4, the invasive species cover is between 5% and 50% and is heaviest along the southern edge of the HMU, adjacent to the residential area, where yard waste dumping has occurred. These invasive species include Himalayan blackberry, morning glory, evergreen blackberry, English ivy, and English holly. The native understory is dominated by sword fern and salal.

Table 2. Native species of Thornton A. Sullivan Park

Species Type	Common Name	Scientific Name
Trees	Bigleaf maple	<i>Acer macrophyllum</i>
	Douglas-fir	<i>Pseudotsuga menziesii</i>
	Grand fir	<i>Abies grandis</i>
	Pacific crabapple	<i>Malus fusca</i>
	Red alder	<i>Alnus rubra</i>
	Red osier dogwood	<i>Cornus sericea</i>
	Shore pine	<i>Pinus contorta</i>
	Western hemlock	<i>Tsuga heterophylla</i>
	Western redcedar	<i>Thuja plicata</i>
	Western white pine	<i>Pinus monticola</i>
Shrubs	Dull Oregon grape	<i>Mahonia nervosa</i>
	Indian plum	<i>Oemleria cerasiformis</i>
	Nootka rose	<i>Rosa nutkana</i>
	Orange honeysuckle	<i>Lonicera ciliosa</i>
	Red huckleberry	<i>Vaccinium parvifolium</i>
	Salal	<i>Gaultheria shallon</i>
	Salmonberry	<i>Rubus spectabilis</i>
	Sword fern	<i>Polystichum munitum</i>
	Thimbleberry	<i>Rubus parvifloris</i>
	Vine maple	<i>Acer circinatum</i>
Herbs	Bleeding heart	<i>Dicentra spectabilis</i>
	Foamflower	<i>Tiarella trifoliata</i>
	Galium (bedstraw)	<i>Galium sp.</i>
	Piggy-back plant	<i>Tolmiea mensiesii</i>

*Note- the rapid assessment method does not capture all species present but accounts for dominant species. A more detailed vegetation assessment will be conducted as individual site plans are drafted.

Forest Health and Invasive Species

The HMUs of Thornton A. Sullivan Park vary somewhat in terms of forest health. Overall, the composition value of each THSU ranges from low (less than 25% native cover) in THSU 2 to medium (1-50% conifer or capacity to restore up to 50% conifer cover) in THSU 4 to high (greater than 50% conifer cover) in THSU 1, 3, and 5. Invasive species and root diseases comprise the largest threat to forest health across the park. All HMUs face a medium-level threat (5-50% cover) from invasive species except for THSU 2, which is almost completely overrun by them and is a category 9 on the tree-age matrix. See Table 1 for a list of the most abundant invasive species in the park.

Restoration activities should first focus on the removal of Himalayan blackberry, English holly, and English ivy from THSU 1, 3, and 4 as these are the most feasible projects for volunteers. THSU 2 will require extensive treatment by a Park’s staff or a skilled field crew before it can become plantable. THSU 2 is so overrun with Himalayan blackberry and Scotch broom; it will need more intensive mechanical and/or chemical treatments which are not feasible for a volunteer crew to execute.

Low vigor (less than 40% live tree crown) and disease such as laminated root rot were also observed throughout HMU 3 and 4. Low vigor is dangerous because it means that the trees are more susceptible to pests, disease, and unfavorable environmental conditions such as drought or high winds. Additionally, Annosus root, butt rot, and/or laminated root rot has caused openings in the canopy of THSU 3. THSU 5 contains evidence of laminated root rot on some of the Douglas fir trees. Low vigor and disease are important forest health issues because they can lead to the death of trees in the park, and can spread to other mature trees and new seedlings planted in that area. Many infected trees have already been removed. Further tree removal may be necessary as they can become hazard trees, particularly when located adjacent to trails. Areas where trees have been removed due to disease should be replanted with disease resistant species such as western redcedar or western white pine.

Table 1. Invasive species

Common Name	Scientific Name	WA State Weed Class
Bohemian knotweed	<i>Polygonum x bohemicum</i>	Class B
Bull thistle	<i>Cirsium vulgare</i>	Class B
Cherry laurel	<i>Prunus laurocerasus</i>	not listed (monitor list)
Creeping buttercup	<i>Ranunculus repens</i>	not listed
English holly	<i>Ilex aquifolium</i>	not listed (monitor list)
English ivy	<i>Hedera helix</i>	Class C
Evergreen blackberry	<i>Rubus laciniatus</i>	Class C
Herb Robert	<i>Geranium robertianum</i>	Class B
Himalayan blackberry	<i>Rubus armeniacus</i>	Class C
Morning glory	<i>Convolvulus arvensis</i>	Class C
Periwinkle	<i>Vinca minor</i>	not listed (monitor list)
Reed canary grass	<i>Phalaris arundinacea</i>	Class C
Scotch broom	<i>Cytisus scoparius</i>	Class B
Yellow archangel	<i>Lamium galeobdolon</i>	Class B

Soils

According to the NRCS Web Soil Survey, the soils at Thornton A. Sullivan Park are classified as Alderwood-Urban land complex with 2 to 8 percent slopes. Alderwood soils make up the greatest portion of the park at 60%, while Urban Land comprises 25% of the park. McKenna, Normand Terric medisaprists, all considered minor components, make up about 6% and are most likely found in depressions. Restoration and management activities will be focused in the forested areas of the park, which contain Alderwood soils. Parent material for this soil is basal till. These soils have a gravelly ashy sandy loam composition and are moderately well draining with a moderately low infiltration rate when thoroughly wet.

Water Quality, Riparian Areas and Wetlands

Thornton A. Sullivan Park includes both the lakefront of Silver Lake and a small unnamed stream that flows through THSU 3. This stream starts near the parking lot of Everett Mall, comes under the freeway, and eventually drains into Silver Lake. These water features provide valuable habitat for many aquatic species at the park. Keeping the forested areas of the park in good condition enhances the quality of these riparian areas, as forests play an important role in controlling water quality. Specifically, they act as buffers, filtering polluted runoff from roads and other paved surfaces and preventing that pollution from entering the water. Forests also stabilize the soil, reducing the impacts of heavy rains by preventing eroding soil from washing into bodies of water.

Yard and lawn care practices of the private landowners surrounding the park could potentially have a large impact on water quality and riparian habitat adjacent to the park. As much as possible, neighbors should be encouraged to become aware of their impacts on the quality of the park and engage in best practices. These could include choosing non-toxic lawn care products and refraining from dumping trash and yard waste into adjacent parkland. Evidence of yard waste dumping has been observed adjacent to residential areas in HMUs 4 and 5. This has increased invasive species spread in these areas. Additionally, some neighbors are also dumping trash. This presents a hazard as smaller pieces of trash could potentially be washed into the lake, or chemicals could wash off from the trash and enter the water. A healthy forest can go a long way in protecting water quality and riparian areas, but cooperation from all sides will be needed to sustain the health of these areas.

Wildlife Habitat

Thornton A. Sullivan Park's forested areas provide several types of wildlife habitat including lowland conifer-hardwood forest, riparian zone, and open water. The forested areas of the park provide hiding, forage and nesting opportunities for a variety of birds and small mammals. There are a few snags and tall stumps with evidence of use by cavity nesters, especially in THSU 3. However, coarse woody debris (CWD), an important habitat component for many species, are somewhat lacking throughout the park. The many mast-producing trees and shrubs in the park provide a valuable source of food for most insect, mammal, and bird species in the form of leaves, bark, buds, fruits, and berries.

Perhaps the greatest indicator of the high value of Thornton A. Sullivan Park's forested habitat is the presence of a mature male coyote, which has been spotted in THSU 3. Due to urban development, the coyotes' habitat has been significantly fragmented into smaller and smaller areas over time, and Thornton A. Sullivan Park provides one of the remaining valuable pieces of habitat in which the coyotes can successfully hunt..

In addition to forested areas, Thornton A. Sullivan Park also provides extremely valuable open water and shoreline habitat. There is at least one known pair of nesting killdeer on the edge of the lake in the southwestern corner of the park. The park is also home to Canada geese, coots, and mallard ducks. There have even been Bald eagle sightings at the park.

Based on the species composition and structure of Thornton’s mixed conifer/deciduous forest and small riparian area along the creek in HMU 3, wildlife species which have high likelihood of living at Thornton A. Sullivan include little brown bat, deer mouse, raccoon, Townsend chipmunk, creeping vole, and mole species. Table 3 provides an overview of those species which have been confirmed to live at the park.

Table 3. Known wildlife of Thornton A. Sullivan Park

Common Name	Scientific Name
American coot	<i>Fulica americana</i>
American crow	<i>Corvus brachyrhynchos</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>
Canada goose	<i>Branta canadensis</i>
Coyote	<i>Canis latrans</i>
Eastern gray squirrel	<i>Sciurus carolinensis</i>
Hummingbird	<i>Trochilidae sp.</i>
Killdeer	<i>Charadrius vociferus</i>
Mallard	<i>Anas platyrhynchos</i>

Stewardship

Thornton A. Sullivan Park represents a valuable cultural and natural resource to the city of Everett. The primary management concerns for the forested areas of Thornton A. Sullivan Park include invasive species and a lack of long-lived conifer tree species in the overstory. The vision of this stewardship plan is to improve the health and long-term sustainability of the forest in addition to maintaining safety and aesthetics for the public. This will be completed by volunteer forest stewards, Everett Parks and Recreation staff and if needed, additional skilled field crews.

In each HMU, forest stewards will employ a four-phase approach to site stewardship as outlined in the Green Everett Forest Steward Field Guide:

- 1-Invasive removal
- 2-Secondary invasive removal and planting with native trees, shrubs and groundcovers
- 3-Continued invasive removal, watering (where necessary and feasible) and mulching
- 4-Monitoring and Maintenance

Resource Protection and Enhancement Recommendations by HMU

This section describes recommended restoration activities for each of the five forested sections of the park. Please see the table at the end of this section for an overview and timetable of management activities by season and year.

As noted above, forest stewards will be conducting restoration using the four-phase approach that includes invasive removal, planting, continued maintenance and monitoring. Planting with native species is recommended following removal of invasive plants in each HMU. To increase forest health, forest stewards should increase structural diversity within the shrub layer of the forest and plant conifer trees to regenerate the canopy.

The park experiences a temperate forest climate, with warm summers and cool winters, and receives on average about 38 inches of rain per year. This means that the growing conditions in the park are fairly cool and moist from October to April. Planting should be conducted during this time to ensure sufficient soil moisture which will allow plants to establish. Northwest native plants in USDA Hardiness Zones 7 through 9 should be selected for planting as they are appropriate for the climate of the region. For more information, please see the plant selection section.

Ongoing maintenance will be a key factor in the success of restoration at Thornton A. Sullivan Park. This involves ongoing removal and control of invasive species for several years. Regular mulching of native plants is important to plant establishment and weed management. Mulches help retain soil moisture and can help prevent surface soil erosion. The materials recommended by Partnership staff are a combination of wood chip mulch and burlap.

Forest stewards, in collaboration with Green Everett Partnership program staff will be responsible for creating site-specific restoration plans that include the number and species of plants to be installed and outline of additional management strategies for invasive control, mulching, slope stabilization etc.

THSU 1

Restoration activities at this site will include spot removal of invasive species, mulching, and planting where possible. Invasive plant removal has already begun on the west side of this HMU adjacent to the lawn by Camp Patterson. Volunteers and Washington Conservation Crew members removed 2500 sq. feet of English Ivy and created on-site composting piles. In addition, volunteers and crews removed English holly using weed wrenches. Continued removal of invasive species should continue through the north, east and south section of this HMU. Care should be taken not to harm the native vegetation, which is often mixed in with the invasive species on this site. Survival rings should be used to control remaining patches of English ivy near the camp buildings and in the northern part of the HMU. A skilled crew will be needed to carry out cut-stump treatments on the larger English holly trees on the south-facing side of the HMU near the boat launch, and also on the English laurel along the driveway of Camp Patterson. Additionally, bare ground patches in this HMU (the largest being in the north end, adjacent to the camp driveway) should be planted with native understory species following invasive plant removal.

THSU 2

THSU 2 runs along Silver Lake Road across the street from the main parking lot of the park. Due to this HMU's high visibility to the park entrance and the fact that it serves as a weed seed source to the adjacent higher quality forested THSU 3, Green Everett Partnership staff may want to consider enrolling this site in the first couple of years. Plans for this site have been scheduled later in Management Timeline, but they could be conducted at any time concurrently with work in other HMUs.

THSU 2 will require a multifaceted approach to invasive plant control that includes mechanical removal such as mowing and brush cutting as well as hand removal. This site has over 50% invasive plant cover and few natives. Off-site disposal of this plant material is recommended. After invasive plants have been mown and roots grubbed out, the disturbed soil will be ripe for re-invasion.

Everett parks urban forestry staff plan to install conifers along the edge of the road to highlight and delineate the park entrance. They would like to have Western redcedar, salal, and swordfern planted in an even row along the roadside and continue with a more diverse native plant palette which mirrors the forest of HMU 3 behind this curtain. After planting, this site will need extensive maintenance and monitoring in order to successfully outcompete invasives and establish a native plant community.

THSU 3

The restoration activities at THSU 3 will focus on invasive plant removal and planting with native species. At the northeast entrance to the HMU, there is a large patch of creeping buttercup which can be hand-pulled. In September 2010, invasive plant removal was conducted on the small hill adjacent to the northeast entrance and along the Silver Lake Road. This hill is now bare soil and could be stabilized with native understory species such as salal, swordfern or dwarf oregon grape. Follow-up mulching, planting and maintenance is needed as Himalayan blackberry is re-establishing itself in this area. Continuing down the trail, patches of Himalayan blackberry need to be removed and native species planted. Because of the stream, native understory species should be selected per water quality standards.

Toward the center of the HMU, there are small pockets of Himalayan blackberry and English ivy which need to be removed. There are also pockets of open space. These could be planted with conifer species

such as western redcedar, western white pine and shore pine. Due to evidence of root rot in this area, planting Douglas firs is not recommended. Along the outer loop trail on the west side of the park, there are mature thickets of Himalayan blackberry which are growing into the trees and need to be taken out. In the southern portion of the HMU, some intensive Himalayan blackberry and English holly removal will be needed. It is important to note that laminated root rot has been found in the southern end of the HMU, so rot-resistant species such as Western white pine will need to be planted, and the Western hemlock and Douglas firs on the site will need monitoring. Overall, conditions in the north half of the HMU are slightly wetter than the south side.

The retention ponds on the east side of the HMU along Silver Lake Road will continue to be managed by Public Works. It is recommended that parks staff contact Public Works when stewardship activities commence in this area of the park. GEP forest stewards will not be responsible for maintaining wetland species within the ponds, but will be involved in removing invasive species adjacent to them.

THSU 4

Restoration activities at this site will focus on removing invasives, mainly Himalayan blackberry and English ivy, and reestablishing the native conifer canopy. There is a large patch of invasives along the fence next to the neighboring residential area where garbage and yard waste dumping occurs. Along the trail, there are a small thickets of Himalayan blackberry which should be removed.

THSU 5

This HMU requires the removal of Himalayan blackberry, morning glory, evergreen blackberry, English ivy, and English holly. Restoration activities should focus on the south edge of the HMU, adjacent to residential areas, where dumping occurs. This HMU has a high value canopy, so the primary objective following invasive removal will be continued suppression of invasive plants through mulching and competition with native understory species. If additional tree planting is desired or necessary at a future date, species should be chosen that are tolerant of or immune to laminated root rot, such as western redcedar or western white pine.

Invasive Plant Management

Invasive plant removal will be a primary focus of stewardship activities on this site. Aggressive, nonnative shrubs and vines cover the ground, blocking sunlight from and competing for nutrients with the native species. Himalayan and evergreen blackberry bushes spread along the ground in large dense thickets, choking out native plants and destroying native habitat for wildlife species. Invasive species pose a threat to the future plant composition of the forest by suppressing native understory herbs, shrubs and trees.

The following information describes common methods for removing the most prevalent invasive species in the park:

Himalayan blackberry

Himalayan blackberry (*Rubus armeniacus*) is a vigorous evergreen shrub armed with sharp thorns and prickles on the stem. The plant thrives in open, disturbed areas but also invades forested areas on wet and dry sites. This plant forms dense thickets that exclude other species and can also climb and smother

trees. Control of Himalayan blackberry will require monitoring and maintenance over a number of years. Removal methods include manual removal, mechanical methods such as mowing, cutting and dabbing stubs with herbicide or a combination of these treatments. Volunteer forest stewards will primarily use manual removal methods which includes cutting blackberry canes with loppers and pruners one foot above the ground. Depending on the size of the plants, the root balls should be grubbed out using a hand tiller, shovel, Pulaski or pick mattock. Canes can be piled on top of cardboard and left to decompose. Root balls should be removed to avoid re-rooting. Mechanical methods such as mowing or brush cutting can also be effective and would be conducted by Everett parks staff. Herbicide treatment has also been effective in controlling large infestations especially when combined with mechanical control. Chemical applications would only be conducted by Parks staff or licensed field crews. For more information on Himalayan blackberry and management practices go to:

<http://www.invasive.org/gist/moredocs/rubarm01.pdf>

English Ivy

English ivy (*Hedera helix*) is not as prevalent as Himalayan blackberry, but slowly taking hold in three of the HMUs. It is one of the most invasive plants in the Pacific Northwest. This plant is an evergreen vine that forms dense mats in the forest understory and climbs up trees. Vines prevent light from reaching the leaves and add weight to the canopy, causing the tree to weaken and fail during storms. According to the FLAT assessment, English ivy is found in 3 of the 5 HMUs.

The most effective method for controlling English ivy is manual removal. This can easily be done by forest stewards and community volunteers as well as Parks staff. Manual removal involves installing “survival rings” around trees by cutting or prying vines off the tree at shoulder height. This will essentially kill any remaining vines left above that point on the tree. Lower vines should be cleared along with roots to within a five foot radius of each tree.

For large continuous swaths of ivy on the ground, an “ivy log” can be created by clipping the edges of a five to ten-foot-wide section and rolling it into a log. All root connections should be severed and the log should be placed on top of the compost pile to decompose or moved off site.

On-site composting of English ivy is accepted as long as the ivy is up off to ground to prevent stems from re-root. Chemical control of English ivy is typically ineffective due to the waxy nature of its leaves. The waxy coating prevents the plant from easily absorbing herbicides causing the chemical to run off and affect neighboring vegetation. More detail on control methods can be found at:

<http://www.invasive.org/gist/moredocs/hedhel02.pdf>

English holly

English holly (*Ilex aquifolium*) is an evergreen tree that can reach up to 50 feet and are often seen as understory trees. This tree can form thickets in the forest understory and can grow in low-light conditions making it a fierce competitor with native understory trees and shrubs as well as regenerative native conifer trees. The most effective method of control is to remove the entire root when the tree is still small. On larger trees, it is impossible to adequately remove the entire root system. Simply cutting down the tree is not effective because English holly “suckers” and spreads when cut. Therefore a “cut-stump”

treatment is recommended where an herbicide such as Garlon 4 or Rodeo is directly applied to the cut portion of the trunk immediately after cutting. Cut-stump treatments will be administered by Everett Park's staff or licensed field crew. Detailed Best Management Practices for English holly removal can be found at: <http://your.kingcounty.gov/dnrp/library/water-and-land/weeds/Brochures/English-Holly-Fact-Sheet.pdf>.

Knotweed species

Knotweeds (*Polygonum sp.*) are perennial bamboo-like plants from Asia that grow in dense rhizomatous mats with plants reaching between 3 to 16 feet tall. Species commonly found in Snohomish County include Bohemian, Giant, Himalayan, and Japanese knotweed. Rhizomes can spread at least 23 feet and possibly as far as 65 feet from the parent plant and penetrate up to 7 feet in depth. Knotweeds spread and easily establish from plant fragments. For this reason, mowing is not a successful control strategy and is strongly discouraged. It is most commonly found along creeks, rivers, wetlands, and ditches but can also be found in upland areas. Despite the thick rhizomatous mat, knotweed provides poor erosion control.

Successful eradication will require an integrated approach of manual removal and herbicide over several years. Stems with a diameter greater than $\frac{3}{4}$ " can be successfully treated by stem injection in late summer. A foliar spray can be used on the leaves of smaller stems. If the ground is moist, small isolated plants can be removed manually. All herbicide treatments will be conducted by a licensed field crew or Everett Parks staff.

Knotweed areas should be actively monitored for at least five years in a 25 foot area around original infestation. New sprouts can be treated with a foliar spray, with care taken to minimize damage to adjacent healthy native plants. Knotweed crowns and rhizomes should always be collected and disposed of off-site in the trash or transfer station. Knotweed removal should be followed by planting with desired native species. Currently, knotweed is only documented in HMU 2 at Thornton A. Sullivan Park. However, treatment should be prioritized to prevent its spread.

Wildlife Habitat

Habitat fragmentation, caused by increasing residential and urban development, poses a significant threat to the wildlife of Everett. Thornton A. Sullivan Park provides extremely important habitat and resources for wildlife and needs to be protected and enhanced in order to support the health and survival of these populations.

Wildlife habitat features should be integrated into restoration sites within the park such as course woody debris (CWD). These provide valuable nesting and hiding spaces for many species of wildlife. The few snags in THSU 3 which show activity by cavity nesters are good examples of this. Throughout Thornton A. Sullivan Park, there are some fallen branches and stumps in places, but more CWD should be added as invasive species are cleared and the native understory is enhanced. CWD can be easily integrated with plantings.

Thornton A. Sullivan Park contains a number of trees with high wildlife value. This refers to native hardwood trees and shrubs that produce soft or hard mast (fruit or nuts) that is favored by many bird and mammal species. Examples include bigleaf maple, willow, and red-osier dogwood. However, the number and diversity of species could be enhanced throughout the park. Potential species include vine maple, red huckleberry, evergreen huckleberry and beaked hazelnut, to be chosen depending on the specific habitat conditions of each site. In addition to the plants and CWD, owl boxes and bat boxes could be added around the park to further encourage the establishment of healthy wildlife populations.

Plant Selection

For information on developing a plant palette and site plan for restoration sites at Thornton A. Sullivan Park, there are a number of useful resources available. The Washington Native Plant Society website has plant lists that can be referenced by light requirements and soil conditions:

<http://www.wnps.org/landscaping/herbarium/index.html>. In addition, Sound Native Plants, a native plant nursery based in Olympia, WA has a “calculator” to assist in determining plant quantities and spacing for plant installation:

www.soundnativeplants.com/sites/default/files/uploads/pdf/calculating_plant_quantities.pdf

This information can also be found in the Green Everett Partnership’s Forest Steward Field Guide. See Appendix C of this plan for list additional plant selection resources.

Another approach to guide the plant selection process is the use of *Target Forest Types*. An important aspect of urban forest restoration is the identification of a reference plant community (a.k.a. target forest type) that serves as a guide for planning projects as well as a benchmark for evaluating projects in the future. Target forest types are based on a range of agreed-upon attributes that is desired for a site, but could also be based on measurements from a real forest in which to emulate (www.greenseattle.org/files/forest-steward-resources-2/habitat-resources)

This framework can be used as a guide for plant selection for Green Everett Partnership forest restoration projects. Measured over time, the attributes of a particular forest type will also serve to evaluate the project. As an example, a restoration goal might be to move toward a Douglas fir / salal / sword fern forest community. Then, the plant palette of our restoration site should closely model the plant community of an old growth Douglas-fir / salal / sword fern forest.

These target forest types are consistent with a statewide effort to characterize the plant associations that naturally occur in forest ecosystems in the Puget Trough ecoregion. The “associations” are named by dominant plant species (the dashes in the names separate trees, shrubs and herbs in the same canopy layer; slashes in the names separate species in different canopy layers).

For more information on Target Forest Types go to:

www1.dnr.wa.gov/nhp/refdesk/communities/index.html

Crime Prevention through Environmental Design (CPTED)

CPTED is a crime prevention concept used to evaluate and improve the physical security of a landscape or structure. CPTED aims to deter crime and other undesirable behaviors by reducing or eliminating opportunities found in built or landscaped environments by controlling access, providing opportunities to “see and be seen,” demonstrating ownership of the property, and encouraging maintenance of the area.

CPTED, as applied to forested parks and trails, is aimed at maximizing visibility along pedestrian pathways and trails. CPTED principles should be applied when doing plant selection and maintaining existing vegetation along trails. Park users should have good visibility of immediate and approaching surroundings along pedestrian pathways. This can sometimes be as simple as pruning the lower branches of large trees and planting low growing understory plants along trails such as sword fern and dull Oregon grape.

Maintaining visibility off trail throughout a forested park is not feasible, however, forest stewards should keep these principles in mind when doing restoration activities along trails or near public gathering or picnic areas. Any questions regarding CPTED principles can be directed to the urban forester at Everett Parks and Recreation or a Green Everett Partnership staff member. See Appendix D for an overview of CPTED Principles for trails and suggestions for further reading.

Monitoring

Monitoring is the important step in restoration that provides ongoing information on the condition and actions needed to ensure long-term success. Monitoring can be done via visual inspections, photo documentation and scientific monitoring.

One basic method of monitoring is to simply walk through the site and do a visual inspection. Factors to assess include plant mortality, presence of invasive plants or other negative impacts to the site. Periodic monitoring assists in developing site plans and management actions. This should be done at least twice per year, once during the growing season.

Photo documentation can be done along with visual inspections to assist in record keeping and tracking progress of the site. Photo points should be established so that the photograph of the site is taken from the same place. This allows for more accurate comparison of site conditions year to year. Both visual inspection and photo points provide qualitative data that can easily be done by volunteers and forest stewards.

Scientific monitoring is a quantitative methodology that requires setting up permanent plots and a more rigorous data collection approach. The Green Cities program has developed standardized monitoring protocols for baseline and long-term data collections that can be conducted by trained volunteers, staff, or contractors. Permanent plots allow volunteers to evaluate site conditions in greater depth and even evaluate the effectiveness of management strategies. Data collected could include plant survivorship, tree density, vegetative cover of native versus non-native species, presence of coarse woody debris and soil conditions. For more information on the Green Cities Forest Monitoring protocols contact the Green Everett Partnership program staff at greeneverett@forterra.org.

Volunteers and Public Engagement

The Partnership has developed a 20 year forest management plan to restore and protect the urban forested parkland in Everett and create a volunteer forest stewardship program charged with conducting restoration activities. In addition to being trained in restoration practices, Forest Stewards will also have the opportunity to attend specialized trainings in volunteer management, monitoring, native plant identification and more.

Volunteer forest stewards will be trained to remove invasive plants, replant native trees and understory plants to improve the ecological health of the forest. And with the assistance of Partnership staff, Forest Stewards will educate and engage the public in caring for this valuable natural and public resource. Residents, on-site boat owners, and neighbors will be invited to participate in restoration work parties. We also hope to engage school groups, corporations and community groups to participate in restoration work parties at Thornton A. Sullivan Park. Several groups already participate in volunteer activities in the non-forested areas of the park; Girl Scout Troop 1016 has adopted the beach, while Silver Lake Kiwanis have adopted Camp Patterson. The Silver Lake Action Committee is another group which is highly active in the community.

In addition to engaging the public in on-site restoration, we also plan to engage private property owners who live adjacent to Thornton A. Sullivan Park. There is evidence that some neighbors have been dumping their yard waste (grass clippings, weeds etc.) along the edges of the park in THSU 1 and 3. This contributes to the threat of invasive species in the park and can actually cause harm to the understory plants and threaten slope stabilization. Positive engagement will be of key importance. Education will focus on how they can use best management practices on their own landscapes while maintaining the ecological integrity of their neighborhood park. Engaging neighbors and Everett residents will be done in a variety of ways including through social media outlets (neighborhood blogs, websites), Everett Parks department and Forterra newsletters and publications, flyers at popular community venues and in-person outreach at community events.

By educating and engaging the community that utilizes Thornton A. Sullivan Park and cultivating an ethic of environmental stewardship for the park, the long-term health of the forest will be improved as well as the long-term viability for recreation.

Management Recommendations Timeline

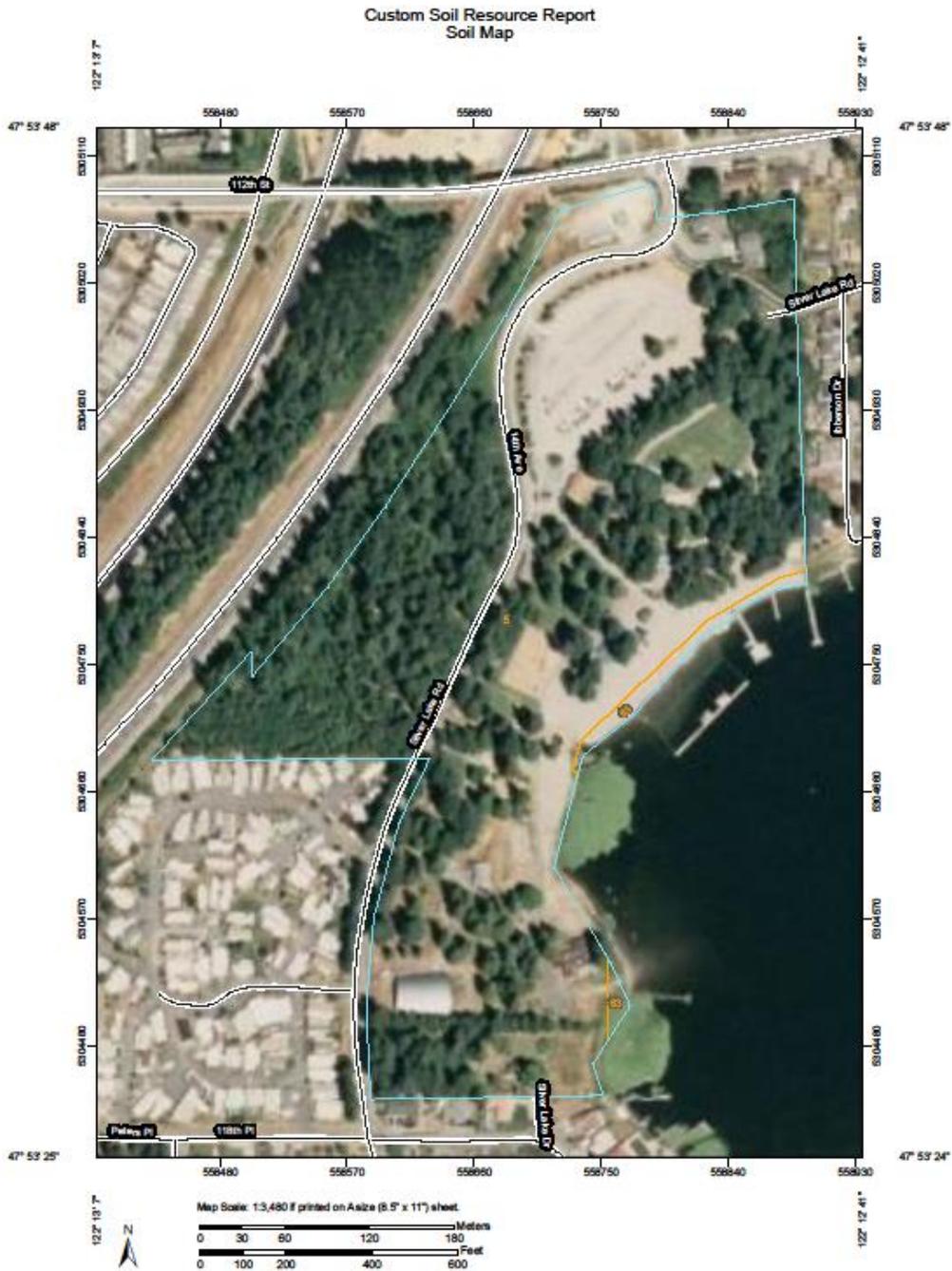
Thornton A. Sullivan Park			
Year	Season	HMU	Activity
2013	<i>Create annual work plan - walk through sites and assess maintenance needs</i>		
	Spring	1	English ivy, English holly, and laurel removal along the western strip between the parking lot and Camp Patterson
	Summer	1	Continue invasive removal around Camp Patterson and start working down the trails
	Late summer	1	Create a planting plan for the HMU
	Early autumn	1	English holly cut stem treatment by Parks staff or skilled field crew
	Autumn	1	Himalayan blackberry, English Ivy, and English holly removal along the western fence and around the trails in the southern portion of the HMU
	Late autumn	1	Begin planting and start mulching to suppress weed growth
2014	<i>Create annual work plan - walk through sites and assess maintenance needs</i>		
	Winter	1	Continue invasive removal in the overflow picnic area around the parking lot
	Late Winter/ Early Spring	1	Spot invasive removal as needed; continue planting and mulching; ongoing maintenance.
	Spring	3	Invasive removal at the 2010 restoration site in the NE corner of the HMU
		3	Remove buttercup near the NE entrance and English ivy further down the trail
	Summer	3	Mulch where invasive species have been removed
		3	Continue blackberry and ivy removal in the northern half of the HMU
	Autumn	3	Begin removal of reed canary grass along the stream
		3	Densely plant area with species which will shade out any reemerging reed canary grass including red osier dogwood and/or willow species
	Late Autumn	3	Create a planting plan for the northern sections of the HMU

2015		<i>Create annual work plan - walk through sites and assess maintenance needs</i>	
	Winter	3	Begin planting areas which have undergone invasive species removal and mulch new plantings
	Late Winter/ Early Spring	3	Begin removal of Himalayan blackberry, English ivy, and English holly throughout the central trails and the outer loop trails
		3	Continue maintenance and monitoring of cleared and planted areas in the northern sections of the HMU
	Spring	3	Create a planting plan for the central and outer loop trails restoration sites
	Late Spring	3	Plant areas of the central and outer loop trails which have undergone invasive species removal and mulch new plantings
	Summer	3	Begin removal of Himalayan blackberry, English ivy, and English holly in the southern sections of the HMU
	Autumn	3	Begin planting the southern restoration sites and mulch new plantings
		1, 3	Continue maintenance and monitoring of cleared and planted areas
2016		<i>Create annual work plan - walk through sites and assess maintenance needs</i>	
	Winter	3	Continue invasive plant removal throughout southern sections of the HMU and create a planting plan for newly cleared areas
	Late Winter/ Early Spring	3	Continue native plant installation in southern restoration sites and mulch new plantings.
	Spring	1, 3	Continue maintenance and monitoring of cleared and planted areas
	Summer	4	Begin removal of Himalayan blackberry and English ivy along the fence adjacent to residential areas
	Autumn	4	Create a planting plan for the HMU
		4	Begin planting where appropriate in areas where invasive species were removed and mulch new plantings

2017	Create annual work plan - walk through sites and assess maintenance needs		
	Winter	1, 3, 4	Continue maintenance and monitoring of cleared and planted areas
		2	Remove invasive species. Note this area would benefit from Parks staff or skilled field crew support. All work in HMU 2 could be conducted concurrently with work in other HMUs
	Spring	2	Mulch the entire HMU with 6 inches of arborist mulch and, where possible, sheet mulch for maximum weed suppression
	Summer	1, 3, 4	Continue maintenance and monitoring of cleared and planted areas
	Summer	2	Create a planting plan
	Autumn	2	Begin planting with native species and mulch new plantings
2018-2022	<i>Assess work to date and update stewardship and site plans for next five years</i>		
2018 or 2019	Winter	5	Begin removal of invasive species along fence adjacent to residential areas
(depending on work in HMU 2)	Spring	5	Continue removal of invasive species throughout the HMU
	Summer	5	Create a planting plan for the HMU
	Autumn	5	Begin planting understory species where appropriate in areas where invasive species were removed and mulch new plantings
		3	Explore possibility of creating trail maps and signs; also consider adding interpretive displays throughout the park
		1	Consider creating a model native understory display garden on the large patch of bare ground directly west of Camp Patterson
	Year round	1-5	Maintenance and monitoring of restored areas
2023-2027	<i>Assess work to date and update plan for next five years</i>		
	Year round	1-5	Maintenance and monitoring of restored areas
2028-2032	<i>Assess work to date and continue with maintenance of restoration areas.</i>		

Appendices

Appendix A: Soils Map and Legend



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)
 Area of Interest (AOI)

Soils
 Soil Map Units

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spill Area
- Stony Spot

Special Line Features

- Gully
- Short Steep Slope
- Other

Political Features

- Cities

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,480 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Snohomish County Area, Washington
 Survey Area Data: Version 7, Jun 29, 2012

Date(s) aerial images were photographed: 7/24/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Snohomish County Area, Washington (WA661)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5	Alderwood-Urban land complex, 2 to 8 percent slopes	33.8	98.4%
83	Water	0.5	1.6%
Totals for Area of Interest		34.3	100.0%

Appendix B: Best Management Practices

GREEN EVERETT FOREST STEWARD FIELD GUIDE

<http://www.greeneverett.org>.

SLOPE STABILIZATION AND BLUFF MANAGEMENT

<http://www.ecy.wa.gov/programs/sea/pubs/93-30/index.html>

LIVE STAKES & CUTTINGS INFORMATION SHEET:

http://www.soundnativeplants.com/sites/default/files/uploads/PDF/Live_stakes.pdf

FASCINE INFORMATION SHEET

http://www.soundnativeplants.com/sites/default/files/uploads/PDF/Fascine_installation.pdf

INVASIVE SPECIES MANAGEMENT

Snohomish County Noxious Weed Board

www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/Road_Maint/Noxious_Weeds/

English Ivy: www.invasive.org/gist/moredocs/hedhel02.pdf

Himalayan blackberry: www.invasive.org/gist/moredocs/rubarm01.pdf

Reed canary grass: www.invasive.org/gist/moredocs/phaaru01.pdf

English holly: your.kingcounty.gov/dnrp/library/water-and-land/weeds/Brochures/English-Holly-Fact-Sheet.pdf

Appendix C: Native Plant Information and Resources

Washington Native Plant Society: <http://www.wnps.org/>

Washington Forest Stewardship: <http://snohomish.wsu.edu/forestry/resources.htm>

King County Native Plant Guide: <http://green.kingcounty.gov/gonative/>

Plant Nurseries

Sound Native Plants: <http://soundnativeplants.com>

Snohomish County Conservation District: <http://snohomishcd.org/>

Banksavers (Arlington, WA): <http://bank-savers.com/>

Storm Lake Growers (Snohomish, WA): www.slgrowers.com

Native Plant Chart (attached - adapted from the GEP *Forest Steward Field Guide*)

Appendix D: CPTED Principles for Trails

To provide visual permeability; that is, maximum visibility of the immediate and approaching surroundings for users of a space, by creating an unimpeded view across relevant aspects of space, particularly public pedestrian pathways.

- To encourage natural surveillance, along with scheduled surveillance, due to improved visibility and increased use of space
- To provide deterrence, as it gives the impression that offenders and their activities can be observed
- To reduce the vulnerability of users, as it provides the ability to predict what is ahead and makes them visible to others who could come to their assistance if needed
- To avoid entrapment spots, particularly adjacent to pedestrian routes, and eliminate or minimize the safety issues arising from the entrapment spots.
- To remove hiding places for potential offenders that makes users of a space vulnerable to attack.
- To reduce the presence of un-surveyed places in the design of public spaces so that users can see a safe route and have easy access to escape or help.
- Provide good sightlines

CPTED - Further Reading:

Safe Trails Forum: *Better park design can prevent crime:*

<http://www.americantrails.org/resources/safety/designcrime.html>

http://cpted-security.com/atlas/index2.php?option=com_docman&task=doc_view&gid=43&Itemid=63

http://www.ci.everett.wa.us/Get_PDF.aspx?pdfID=2366

<http://www.cpted.net/>

Appendix E: List of primary parks department or nonprofit staff

Green Everett Partnership

www.greeneverett.org

Everett Parks and Recreation:

802 E. Mukilteo Blvd., Everett, WA 98203

Inclement Weather hotline: 425-257-8399

T: 425-257-8300 Ex. 2

F: 425-257-8325

Paul Kaftanski, *Director*

John Petersen, *Assistant Director, Project Planning and Maintenance*

Geoff Larsen, *Supervisor 2, Horticulture and Forestry*

Jeff Price, *Business Program Manager*

Forterra:

901 5th Avenue, Suite 2200

Seattle, WA 98164

Joanna Nelson de Flores, *Green Cities Project Manager*

T: 206-905-6913

Kimberly Frappier, *Urban Forestry Project Associate*

T: 206-905-6919

Appendix F: Images



Himalayan blackberry encroaching on healthy native understory



An example of Large Woody Debris (LWD), a vital component of a healthy forest



A bare patch of ground in HMU 1, next to Camp Patterson, which could be planted



A typical view from HMU 2, which is overrun with invasive plant species



One of the many trails in HMU 3, with healthy understory



The stream in HMU 3