



Joint Meeting of the Parks, Recreation & Cultural Services Board
and Planning Commission
Agenda

April 22, 2010
7:00 p.m.

Shoreline City Hall, Council Chambers
17500 Midvale Avenue N

7:00 p.m.	1. Welcome to Planning Commission & Attendance of both groups	Action	Chair
7:02 p.m.	2. Approval of Agenda		
7:05 p.m.	3. General Public Comment		
7:15 p.m.	4. Levy Lid Lift Presentation	Information	Robert Olander & Debbie Tarry
7:35 p.m.	5. Tree Ordinance & Vegetation Master Plan	Information	Paul Cohen, Maureen Colaizzi & EarthCorps
8:15 p.m.	6. Parks, Recreation and Open Space Plan Update	Information	Dick Deal & Maureen Colaizzi
8:30 p.m.	7. Joint PRCS/PADS/PW Projects: Wayfinding Signs and Town Center Park	Information	Dick Deal
9:00 p.m.	8. Meeting Adjourned	Action	Chair

Park Board Packet Attachments:

- Tree Ordinance Reference Materials
- Vegetation Master Plan: Memo, Executive Summaries & Maps



Memorandum

DATE: April 15, 2010

TO: Shoreline Parks Board and Planning Commission

FROM: Joe Tovar, Director of Planning and Development Services
Paul Cohen, Senior Planner and Project Manager

RE: Tree Code Amendments and Town Center Park

The purpose of this joint meeting is to discuss suggested tree code language that affects park property because the Commission will be making recommendations for the entire tree code in the next several months. We also want to update the Parks Board on the Planning Commission's Town Center draft vision statement, their study of a design review process and standards, and Council's framework goals to develop a park in the Town Center and wayfinding signage.

Tree Code Amendment - Background

In spring of 2008, the Council adopted an Environmental Sustainability Strategy. The strategy makes a number of statements, directions, and recommendations to improve the environmental health of the City's forests and tree canopy.

Environmental Sustainability Strategy

- Guiding Principles #7 – Address impacts on forest health and #8 – Proactive management of ecosystem
- Strategic Direction #10 - Forest canopy enhancement efforts
- Objective #21 – Prevent tree canopy loss & Increase forest health city-wide
- Recommendations #49 – Prioritize forest health data collection and improvement projects
- Appendix FI-34 - Measure and reduce the rate of tree canopy loss due to development

The City adopted policies directing the preservation of trees in Shoreline in the 1998 and the 2005 updated Comprehensive Plan. The below cited goals, policies, and strategies call for tree and natural environment protection while allowing development.

Comprehensive Plan

- FG2: Promote development that is compatible with the surrounding environment.
- FG5: Protect the natural environment.
- Goal LU XV: Protect, enhance, restore habitat balanced with property owner rights to develop.
- LU10: Design and site development in accordance with the natural environment.
- Vegetation Protection LU107-113
- CD22: Encourage the Pacific Northwest environmental character
- CD23: Preserve significant trees and mature vegetation.
- CD53: Preserve the natural character by minimizing the removal of vegetation and mature trees.

In January of 2009 the City Council directed staff to pursue the following 9 design modules to amend the tree code. Staff's goal is to correct these problems with the intent to make the code more clear, equitable, and flexible.

DM-1 Establish a baseline urban forest canopy city wide. This baseline would provide the context for the Council to make a policy decision, most likely in 2010, about a long-range City target for desired tree canopy. The target could be no-net loss of a city-wide percentage of canopy, or an increase or decrease of some magnitude, keyed to specific schedules. With such a baseline and target in place, the City could then monitor the overall City canopy, say every 5 years, to assess its health and identify any further programs or code amendments as needed.

DM-2 Reorganize SMC 20.50.290 to separate clearing and grading provisions into a different subsection because the intent, purpose, exemptions, and regulations are different. Clearing and grading regulations will need to be modified to be consistent with the newly adopted storm and surface water manual.

DM-3 Change the provision in SMC 20.50.310.B.1 that allows the removal of 6 significant trees every 36 months without permit. This is potentially a huge hole in our city-wide tree canopy because we don't regulate or monitor this provision. Theoretically, if we have 16,000 single family lots then as much as 32,000 significant trees can be removed per year without review or monitoring. People sometimes cut trees that they think are not in a critical area and therefore do not notify the City

DM-4 Amend SMC 20.50.310.A to establish clear criteria and thresholds when a tree is hazardous that is reviewed by a City third party arborist. Add requirements for replacement trees when hazardous trees are removed. Currently, property owners use their own arborists to determine a hazardous tree without thresholds to determine when it is hazardous. If the City doesn't agree with the assessment then we can require a third party assessment. This costs the property owner twice and prolongs a basic decision. Requiring the use of a City's arborist makes the assessment more objective and less costly for everyone.

DM-5 Amend SMC 20.50.360 to allow for reasonable tree replacement ratios and the possibility to replace trees on other land within the City. Most development sites do not have the room to plant all the replacement trees. These replacement trees are easily cut down after the 3 year protection period because they are not defined as significant trees.

DM-6 Amend SMC 20.50.350.B.2 to remove code provisions for 30% preservation of significant trees if a critical area is on site because trees in critical area trees are already protected under the Critical Area provisions of SMC 20.80. A relatively small critical area could trigger 30% preservation on the entire site when the intent is to preserve the critical area and its trees. The change would keep the base significant trees preserved as well as all trees in the critical areas.

DM-7 Amend SMC 20.50.350.B.1 to remove and replace the flat code provision for 20% preservation of significant trees. The existing rule is inequitable because, for example, a site that is covered with 100 trees would have to retain 20 trees, while a small site with only 5 trees would only have to save one. We could devise a more equitable system that requires tree preservation based at least partially on lot size.

DM-8 Reorganize and clarify code provisions SMC 20.50.350.B-D that give the Director flexible criteria to require less or more trees to be preserved so that site design can be more compatible with the trees. The current code requires that all trees with the following qualities shall be preserved - in groves, above 50 feet in height, continuous canopy, skyline features, screen glare, habitat value, erosion control, adjacent to parks and open space, and cottonwoods. In general, these are good qualities but if all these requirements are applied inflexibly, the result would excessively preclude development on many lots.

DM-9 Amend SMC 20.30.770(D) to provide greater clarity and specificity for violations of the tree code. Currently, code enforcement has difficulty proving violation intent and therefore exacting penalties.

Parks Department

The Planning Commission has acknowledged that our parks are a large resource for trees and forest habitats. They expressed concern that the code should hold the City to standards the same or above that of the private property owners to set and example. While working on the above “Decision Modules”, it became apparent the uniqueness of how the code would apply to parks property that are zoned single family R-4 and R-6). The challenge is to apply code to parks where their uses vary greatly from wooded reserves (Innis Arden Reserve) to treeless playfields (Paramount Park or soccer fields A and B).

Staff has not received comments regarding trees and park property from the public comment letters, public comments at the Planning Commission meetings, or at either of the two community meetings.

Both Parks and Planning propose code language that holds park property to higher standards and provides ample flexibility to meet those standards. Parks properties are the

only land use that proposes code language using the backdrop of a total tree canopy percentage to be maintained. The draft language gives the Parks Department three options to meet the tree code.

C. City Park Properties

1. Tree removal on City park property is allowed if:

a. A minimum 45% tree canopy coverage is maintained and verified for all City park property; or

b. Removed trees are replaced within City park properties per table 20.50 350.B.1b; or

c. An approved vegetation management plan is implemented.

Town Center - Background

Framework Goals (adopted 2007) - These goals were adopted into the Comprehensive Plan as the framework for development of the land use, capital facility and programmatic aspects of the Town Center Subarea Plan.

FW-1 Articulate a community vision for the town center as an early step in the development of detailed provisions for the subarea.

FW-2 Establish a study area boundary (Figure 1) to provide context for evaluating the opportunities and potential impacts from future development of commercial and mixed uses along Aurora Ave. N.

FW-3 Engage Shoreline residents and businesses in detailed design processes for a) a “heritage park” site on both sides of the Interurban Trail and b) Midvale Ave N.

FW-4 Design roadway, transit and pedestrian facilities consistent with the City’s preferred “Flexible alternative” for Aurora Avenue between N. 165th St. and N. 205th St.

FW-5 Prepare a program of civic directional or ‘wayfinding ‘ signage and evaluate refinements to city sign regulations to reflect the emerging function and visual character of Aurora Avenue.

The Planning Commission has drafted a vision statement for Town Center FW-1 (attached). The vision statement has general statements about how it will look, function, and be experienced. As a part of Town Center, the Commission is now studying a design review process and standards that will address the design of streets, buildings and public spaces. Attached are the results of the Visual Preference Survey 40 citizens filled out at the April 1, 2010 design workshop. Public spaces will include a town center park located somewhere between N 176th and N 183rd along the Interurban Trail (FW-3). Staff does not anticipate a conflict but thought both the Board and the Commission should be aware of these policies and future actions by

the City. Under FW-5 the City is developing a cohesive system and designs for wayfinding signage that direct the public to city amenities and local institutions. Shoreline parks are major amenity that will be a part of this signage system. Currently, staff is applying for community block grants for signage that encourage the use of our trail system.

I look forward to discussing these items with the Parks Board and Planning Commission on April 22. If you would like to talk before then, call me at 206 801 2551.

Attachments

1. Draft Town Center Vision Statement prepared by Planning Commission Subcommittee
2. Results of the April 1, 2010 Visual Preference Survey



DRAFT

SHORELINE TOWN CENTER VISION

By Planning Commission | April 1, 2010

Shoreline Town Center 2030 is the vibrant cultural and governmental heart of the City with a rich mix of housing and shopping options, thriving businesses, and public spaces for gatherings and events. People from all walks of life enjoy living, working and visiting in this safe, healthy, and walkable urban place.

Once a crossroads on the Interurban that connected Seattle and Everett, Shoreline's Town Center has evolved to become a signature part of the City that stands out as a unique and inviting regional destination while gracefully fitting in with its surrounding landscape and neighborhoods. Citizens, business owners and city officials are all justifiably proud of the many years of effort to create a special and livable place that exemplifies the best of Shoreline past, present and future.

Town Center is anchored on one end by the City Hall complex, Shorewood High School, the Shoreline Museum, and other public facilities. The linear park with the Interurban Trail provides a green thread through the center. City Hall not only is the center of government, but provides an active venue for many other civic functions. On the other end, the revitalized historic five-point interchange again attracts people from throughout the community.

(Note: Paragraph focusing on look, scale, texture of area to be developed here using information/feedback from design review workshop)

Town Center has achieved a strong balance between the three primary sustainability components – *environmental quality, economic vitality* and *social equity*. The City has long been committed to the realization of these three E's, and Town Center has integrated them successfully.

Environmental Quality

While respecting elements of its historic character, Town Center has become a model of environmentally sound building and development practices. The buildings themselves are state-of-the-art energy efficient and green structures, with zero carbon impacts. There is an extensive tree canopy and native vegetation, which is part of a strategic system for capturing and treating stormwater right on site. Major transit stops along the mature boulevard built earlier in the century provide quick and convenient connections to major centers elsewhere in the region. There are walkways and bicycle trails that link Town Center and neighborhoods

throughout the City. Civic spaces and parks have been designed for daily use and special events.

Economic Vitality

Town Center attracts a robust mix of office, service and retail development. The boulevard boasts an inviting choice of shops, restaurants, entertainment, and nightlife. The Center is a model of green industry and economic sustainability that generates the financial resources that support excellent city services, health and living standards. As a result, Shoreline is one of the most profitable cities on the West Coast with a very desirable tax rate.

Social Equity:

The Town Center offers a broad range of housing choices that attract a diversity of household types, ages and incomes. Attention to design allows the public gathering places to be accessible to all. People feel safe here day and night. Festivals, exhibits and performances attract people of all ages and cultural backgrounds.

(Note: Final wrap-up paragraph(s) to be developed here summarizing vision, using information from design review workshop)



Memorandum

DATE: April 15, 2010

TO: Members of the Shoreline Planning Commission and
Shoreline Parks, Recreation and Cultural Services Board

FROM: Maureen Colaizzi, Parks Project Coordinator
Parks, Recreation and Cultural Services Department

RE: Vegetation Management Plans for South Woods, Hamlin Park,
Boeing Creek Park and Shoreview Park

In 2007, Earthcorps Science was contracted by the City of Shoreline to survey four parks, including [South Woods](#) (16 acres), [Hamlin Park](#) (80 acres) and [Boeing Creek Park and Shoreview Park](#) (88 acres) (which are connected and were surveyed together). Earthcorps Science mapped habitats and invasive species, surveyed vegetation, analyzed data and wrote vegetation management plans (VMPs) for each park. Specific information collected includes: tree density and regeneration, abundance of snags and coarse woody debris, abundance and percent cover of shrubs and herbaceous plants, and invasive species locations and extents. The VMPs analyze and summarize the collected data and make comprehensive recommendations to guide the management and restoration of these community forests. I have attached a copy of the executive summary and map for each report. To view or download the full vegetation management plans, please use the following link <http://www.cityofshoreline.com/index.aspx?page=179>

At the April 22 joint meeting, you will be hearing a presentation from Earthcorps Science (previously called Seattle Urban Nature SUN) regarding the VMP's and some additional work we have completed as part of the recommendations of the plans.

If you have any questions, call me at (206) 801-2603 or mcolaizzi@shorelinewa.gov.

South Woods Vegetation Management Plan



Prepared for: City of Shoreline

Prepared by:

Ella Elman, Ecologist

Nelson Salisbury, Ecologist

Sarah Zerbonne, Ecological Field Assistant



Seattle Urban Nature

5218 University Way NE

Seattle, WA 98105-4495

December 2007

EXECUTIVE SUMMARY

South Woods is a 16 acre park and is the newest addition to the Shoreline park system as of 2007. In 2007, Seattle Urban Nature (SUN) mapped habitat types and conducted a vegetation inventory in South Woods. The goals of the project were to:

- 1) Delineate and map habitats in South Woods
- 2) Provide an inventory of current vegetation conditions in the park
- 3) Create a management plan based on data collected during the inventory

Two forest types, conifer and conifer/madrone, were mapped in South Woods. Three additional non-forested habitat types were also mapped and include shrubland, grassland and developed areas. To study the current conditions within the forested areas of South Woods, SUN installed seven 0.1 acre rectangular vegetation plots distributed throughout the park. The plots recorded information about trees, shrubs, vines, herbaceous plants, snags and downed wood present in the park. During the 2007 survey, a total of 51 plant species were found: 18 tree species (nine native and nine non-native), 14 shrub species (12 native and two non-native), 19 forb species (eight native and 11 non-native) and one non-native grass species.

Findings from South Woods indicate that considerable management challenges exist in this park. Invasive species found in the park include English ivy (*Hedera helix*), English holly (*Ilex aquifolium*), cherry laurel (*Prunus laurocerasus*) and Himalayan blackberry (*Rubus armeniacus*). English ivy and Himalayan blackberry are present in patches throughout the park and cover approximately 3.5 acres of area. However the main invasive species are English holly and cherry laurel, which are ubiquitously present throughout the entire park in extremely high densities. The survey showed an average of almost 4,000 stems per acre for these two species, compared to only 159 stems per acre of native regenerating trees. In particular, regeneration levels of Pacific madrone and native conifer trees are very low in South Woods. Removal of these trees from the park will require a dedicated and long-term effort, but is necessary to preserve the native forest structure of the park. Additional issues within the park include lack of a tall shrub layer, large snags and coarse woody debris.

To aid in conducting restoration activities, SUN identified and mapped management zones throughout the park. Specific recommendations were developed for each management zone as well as overall short-term, medium-term and long-term priorities for the entire park (see Management Recommendations and 15-year plan sections of the report).

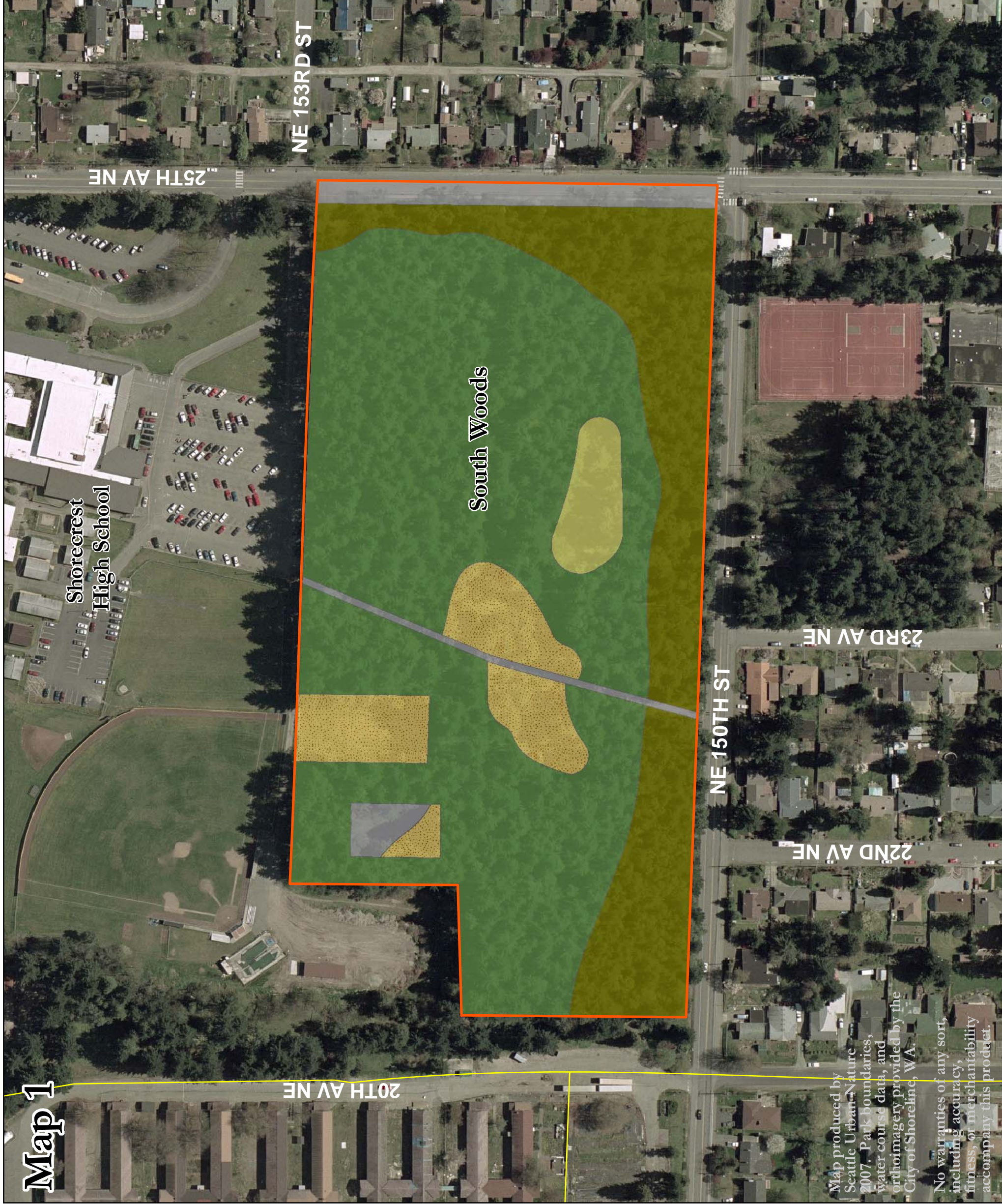
South Woods 15 year plan

Short term management priorities (Years 1-5)	
	These are actions that are of high importance and could be completed within the first five years
Year	Action
1	Conduct inventory of park assets and create Vegetation Management Plan (VMP) (complete)
2	Using information from VMP, create specific restoration action plans for each management zone. This type of information can include specific planting plans, specific invasive removal techniques to be used, specific maintenance activities that will be necessary, as well as a timeline for implementation, maintenance and monitoring
2-5	Implement specific goals identified as short-term priorities in the VMP
	1) Create survival rings around native trees in the park within areas covered by English ivy and continue removing English ivy from contiguous patches in Zone 2
	2) Remove invasive trees in Zone 4, beginning with moderately invaded areas and proceeding into heavily invaded areas and replant with native species
	3) Revegetate Zone 5 with native species and remove invasive trees that are encroaching on this area
	4) Decide the appropriate use for the fenced-off section in the north of the park
Yearly	Conduct monitoring and maintenance of areas in restoration
Medium-term priorities	
	These are actions that will take planning to complete and could be completed within five to ten years
Year	Action
6-10	1) Remove English ivy from Zone 2 and replant with native species
	2) Remove Himalayan blackberry from accessible areas of the park and replant with native species
	3) Remove invasive trees from moderately invaded

	sections of the park
	4) Begin removal of English holly from heavily invaded sections of the park
Yearly	Conduct monitoring and maintenance of areas in restoration
Long-term priorities	
	These are on-going activities that will take many years to accomplish and can be integrated into other restoration efforts
Year	Action
11-15	1) Underplant tall shrubs within the park
	2) Increase coarse woody debris component in the park by retaining existing logs and bringing in additional wood when possible and preserve large snags when possible
	3) Remove patches of herb Robert from Zone 5
	4) Remove invasive trees from heavily invaded sections of the park and replant with native species
	5) Maintain restored areas which have been replanted with native species
16	Conduct park inventory and reassess management strategies

Map 1

Shorecrest High School




South Woods


Habitat Delineations

Legend


 Park Boundaries (16.1 Acres)

 Piped Water Course


Habitat Types (Acres)

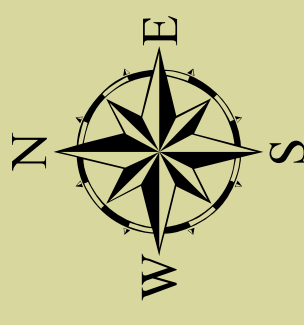
 Conifer Forest (9.9)

 Conifer-Madrone Forest (3.7)

 Grassland (0.4)

 Shrubland (1.3)

 Developed (0.8)



Feet

0 100 200 400

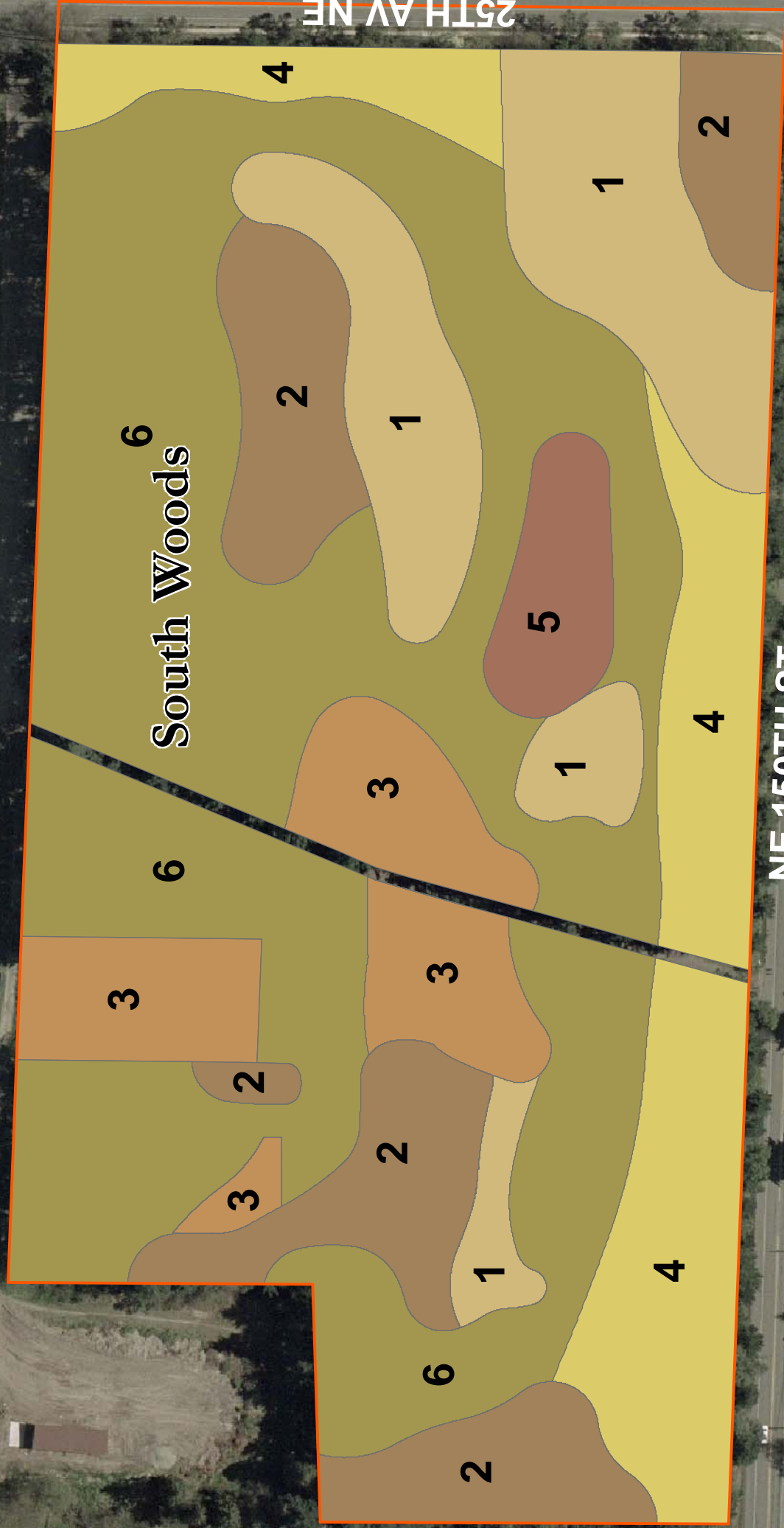
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Map produced by Seattle Urban-Nature 2007. Park boundaries, water course data, and orthimagery provided by the City of Shoreline, WA.

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South Woods Management Zones and Invasive Species Locations

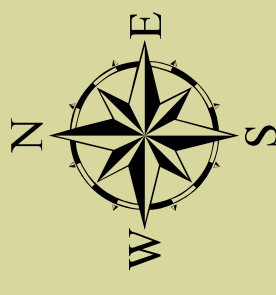


Legend

 Park Boundaries (16.1 Acres)

Management Zones

-  1 Heavy Holly and Laurel
-  2 English Ivy
-  3 Himalayan Blackberry
-  4 Moderate Holly - Madrone
-  5 BMX Grassland
-  6 Moderate Holly - Conifer



Map produced by Seattle Urban Nature April, 2007. Park Boundaries, water, course data, and orthoimagery provided by the City of Shoreline, WA.

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20TH AV NE

22ND AV NE

23RD AV NE

NE 150TH ST

25TH AV NE

Hamlin Park Vegetation Management Plan



Prepared for: City of Shoreline



Prepared by:

Nelson Salisbury, Ecologist

Ella Elman, Ecologist

Sarah Zerbonne, Ecological Field Assistant

Seattle Urban Nature

5218 University Way Northeast

Seattle, WA 98105-4495

January, 2008

EXECUTIVE SUMMARY

Hamlin Park contains 80 acres of land, 59 of which are forested. In 2007, Seattle Urban Nature (SUN) mapped habitat types and conducted a vegetation inventory in Hamlin Park. The goals of the project were to:

- 1) Delineate and map habitats in Hamlin Park
- 2) Provide an inventory of current vegetation conditions in the park
- 3) Create a management plan based on data collected during the inventory

Seven forested and five non-forested habitat types were mapped within Hamlin Park. The majority of forests in Hamlin Park are conifer, with small pieces of conifer/deciduous forest, conifer/madrone forest, deciduous madrone/forest and landscaped forest also present. Of the 49 acres of conifer forest, 15 acres in the central core of Hamlin Park have a completely bare understory, lacking any groundcovers, shrubs or regenerating trees. This forest type was mapped as a unique habitat type within the park.

To study the current conditions within the forested areas of Hamlin Park, SUN installed 32 0.1 acre rectangular vegetation plots distributed throughout the park. The plots recorded information about trees, shrubs, vines, herbaceous plants, snags and downed wood present in the park. During the 2007 survey, a total of 75 plant species were found: 22 tree species (12 native and 10 non-native), 21 shrub species (13 native and 8 non-native) and 32 herbaceous and vine species (19 native, 11 non-native, and two species whose nativity is unknown).

The extent of the conifer forest without understory points to one of the major management concerns in Hamlin Park, which is the lack of a formal trail network and the presence of numerous social trails spanning the park area. This encourages trampling of bare areas and does not limit human activity to well-defined trail corridors. The City of Shoreline recognizes this problem and is currently working on developing an official trail plan for the park.

Invasive species also pose a significant challenge in Hamlin. Although the central core area of the park is free of invasive species, mostly due to lack of any understory or shrubs, the edges of the park are invaded with English ivy, Himalayan blackberry, Scotch broom (*Cytisus scoparius*) and invasive trees such as English holly, sweet cherry (*Prunus avium*), Norway maple (*Acer platanoides*) and European mountain ash (*Sorbus aucuparia*). The 2007 survey recorded an average of 1,083 non-native stems/acre compared to 184 native stems/acre. Other issues within the park include lack of a tall shrub layer, large snags and coarse woody debris.

To aid in conducting restoration activities, SUN identified and mapped management zones throughout the park. Specific recommendations were developed for each management zone as well as overall short-term, medium-term and long-term priorities for the entire park (see Management Recommendations and 15-year plan sections of the report).

Hamlin Park 15 year plan

Short term management priorities (Years 1-5)	
	These are actions that are of high importance and could be completed within the first five years
Year	Action
1	Conduct inventory of park assets and create Vegetation Management Plan (VMP) (complete)
2	Using information from VMP, create specific restoration action plans for each management zone. This type of information can include specific planting plans, specific invasive removal techniques to be used, specific maintenance activities that will be necessary, as well as a timeline for implementation, maintenance and monitoring
2-5	Implement specific goals identified as short-term priorities in the VMP
	1) Remove all discrete patches of ivy in zones 1-A, 1-B, 1-D, 3-A, 3-C and 4-C and replant with native species
	2) Create survival rings in all large ivy-infested areas throughout the park where trees are being threatened
	3) Remove discrete areas of scotch-broom in Zones 1B and 1D and replant with native species
	4) Remove small infestation of yellow archangel in Zone 1 before it spreads further and replant with native species
	5) Remove small, isolated patches of Himalayan blackberry located in management zones 1-A and 1-B, along with the isolated patch in zone 3-B and replant with native species
	6) Remove isolated patches of English holly and cherry laurel infestations throughout the park. A priority area is the infestation spanning zones 3-B, 1-B and 4-B in the center of the park (see the management discussion for zone 4-B for more information)
	7) Remove sweet cherry infestation in zone 4-A and replant with native species.
	8) Establish a scientific study comparing different treatments to re-establish understory in the conifer forest without understory forest type
	9) Establish exclosures to reduce human traffic in

	restoration areas.
	10) Define a permanent trail network and close off unnecessary social trails.
Yearly	Conduct monitoring and maintenance of areas in restoration
Medium-term priorities	
	These are actions that will take planning to complete and could be completed within five to ten years
Year	Action
6-10	1) Remove English holly and cherry laurel in zones 1-A, 1-D, 3-A, 3-B, 3-C, 4-B, 4-C and 8 and replant with native species
	2) Remove larger Scotch broom infestations in Zones 1-A and 5 and replant with native species
	3) Remove large, contiguous areas of English ivy in zones 1-A, 1-D, 3-A, 3-B, 4-A and 6 and replant with native species
	4) Remove large, contiguous infestations of Himalayan blackberry in zones 1-A, 1-D,
	3-C, 4-A, 4-C, 5 and 6
	5) Remove Norway maple from Zone 3-C and replant with native maple species
	6) Remove sweet cherry from Zone 4-C and replant with native bitter cherry
	7) Re-establish understory in the conifer forest without understory forest type using results from the scientific study (number 8 in short-term priorities)
Yearly	Conduct monitoring and maintenance of areas in restoration
Long-term priorities	
	These are on-going activities that will take many years to accomplish and can be integrated into other restoration efforts
Year	Action
2-15	1) Increase CWD component in the park by retaining existing logs and bringing in additional wood when possible
	2) Provide on-going maintenance of restored areas
	3) Underplant tall shrubs throughout the park
16	Conduct park inventory and reassess management strategies

Map 1



Hamlin Park

Habitat Delineations

Legend

- Park Boundaries (80.4 Acres)
- Hamlin Creek
- Piped Water Course

Habitat Types (Acres)

- Conifer Forest (33.9)
- Conifer-No Understory (15.3)
- Conifer-Deciduous Forest (7.0)
- Conifer-Madrone Forest (2.8)
- Deciduous-Madrone Forest (0.4)
- Trail Corridor (1.5)
- Grassland (0.7)
- Shrubland (2.5)
- Landscaped Shrubland (0.3)
- Landscaped Forest (1.3)
- Landscaped Grassland (7.6)
- Developed (7.1)

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Map 2

Hamlin Park

Management Zones and Invasive Species Locations

Legend

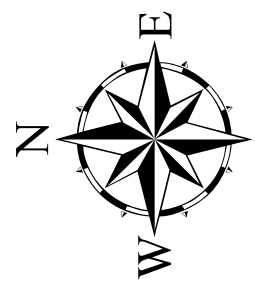
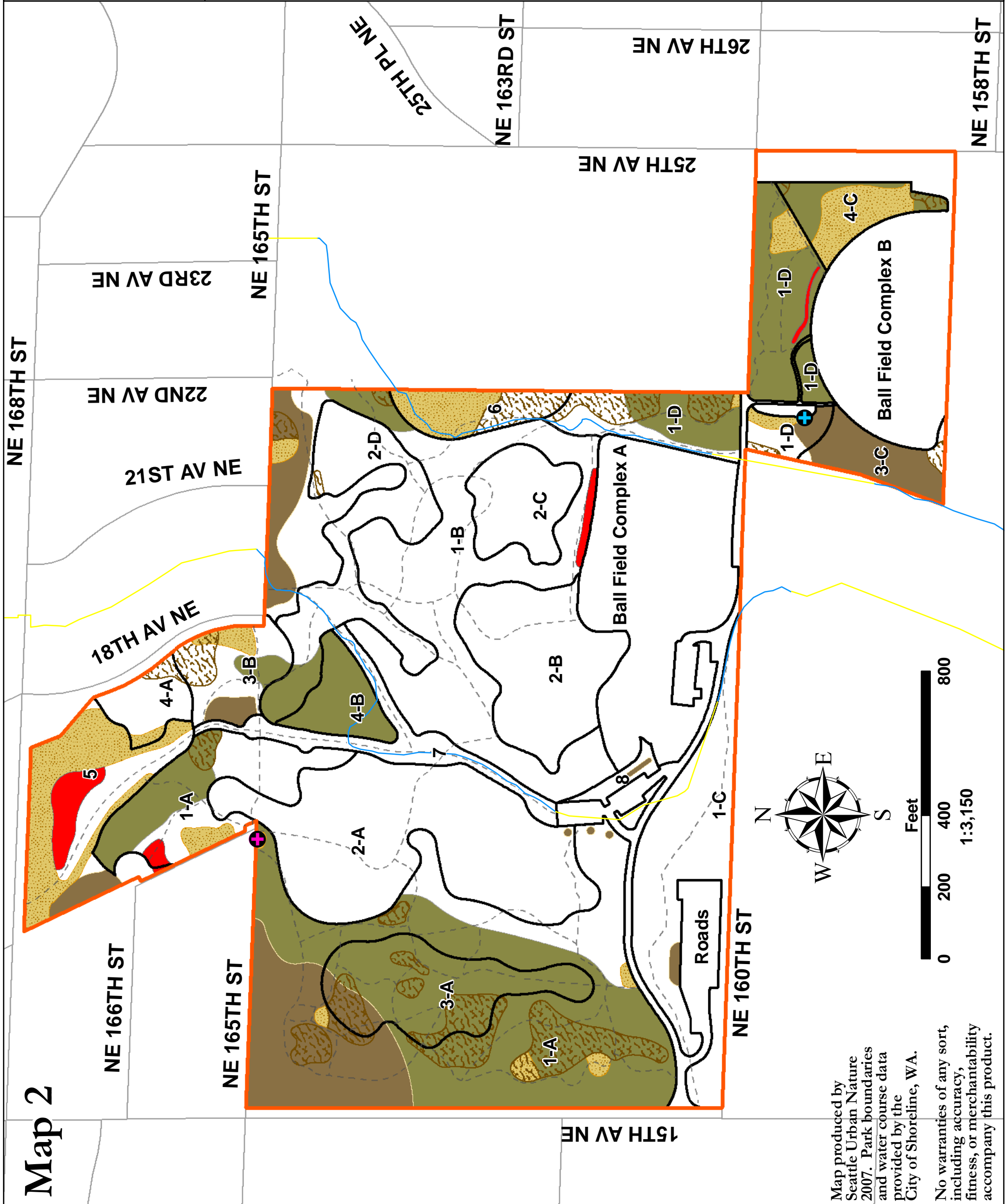
- 1-A Management Zones
- Park Boundaries (80.4 Acres)
- Hamlin Creek
- Piped Water Course
- Trails

Invasive Species

- Contiguous Areas (Acres)
- English Ivy (4.7)
- Himalayan Blackberry (4.5)
- Holly and Laurel - Heavy (6.5)
- Holly and Laurel - Moderate (17.5)
- Scotch Broom - (0.8)

Isolated Occurrences

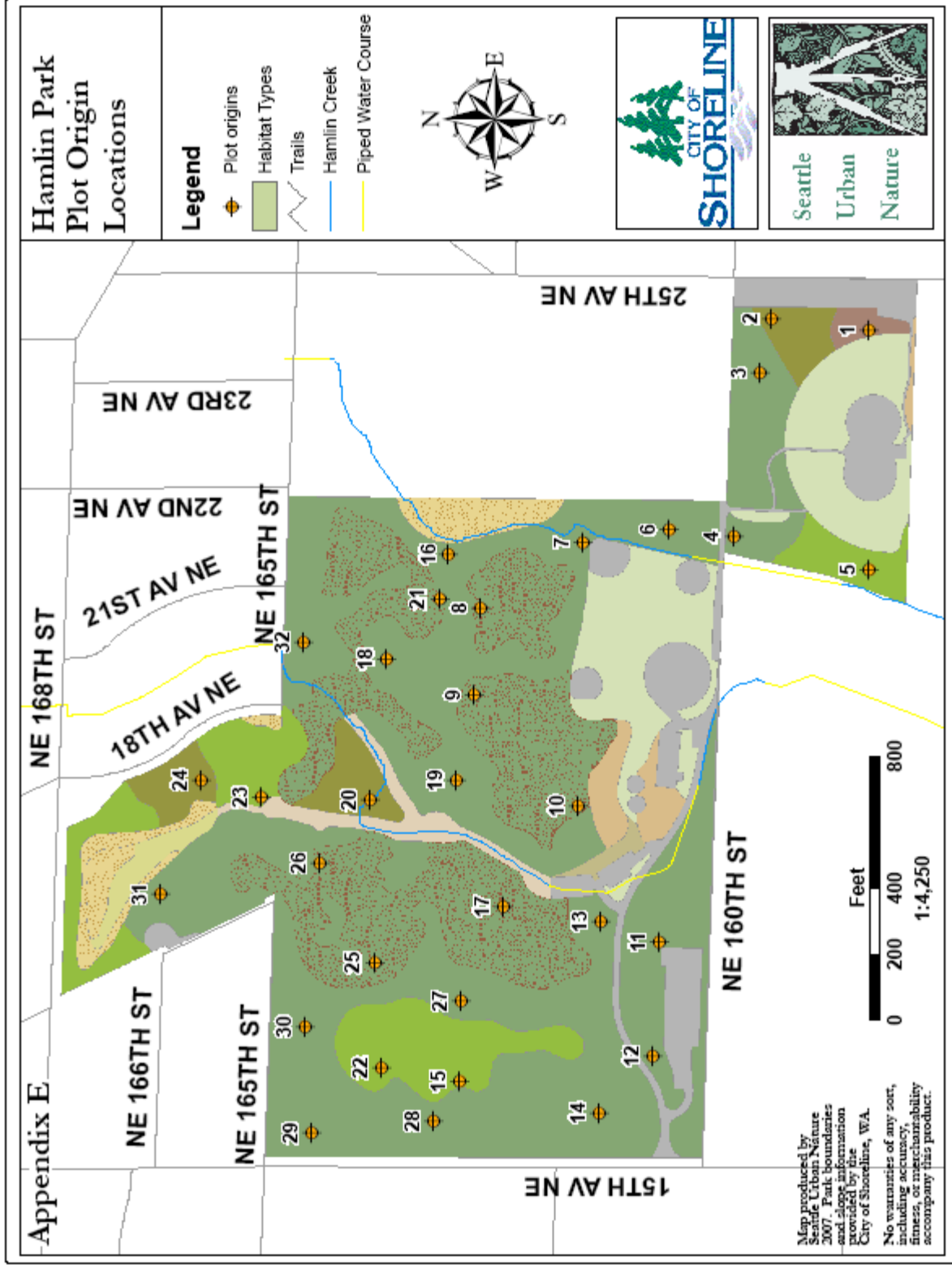
- + Yellow Archangel
- + Creeping Buttercup



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Appendix E. Map of locations for 32 plots established in Hamlin Park. Points show the origins of plots.



Boeing Creek and Shoreview Parks Vegetation Management Plan



Prepared for: City of Shoreline



Prepared by:
Ella Elman, Ecologist
Nelson Salisbury, Ecologist
Sarah Zerbonne, Ecological Field Assistant

Seattle Urban Nature
5218 University Way NE
Seattle, WA 98105-4495

January 2008

Executive Summary

Boeing Creek and Shoreview Parks, which together span 88 acres, represent the gem of the Shoreline park system. In 2007, Seattle Urban Nature (SUN) mapped habitat types and conducted a vegetation inventory in Boeing Creek and Shoreview Parks. The goals of the project were to:

- 1) Delineate and map habitats in Boeing Creek and Shoreview Parks
- 2) Provide an inventory of current vegetation conditions in the parks
- 3) Create a management plan based on data collected during the inventory

Six forested and five non-forested habitat types were mapped in the park complex during the survey. Forest types include conifer forest; conifer/deciduous forest; conifer/madrone forest; deciduous forest; riparian forest and landscaped forest. Non-forested habitats include large areas of shrubland, grassland, landscaped grassland, open water (Hidden Lake) and developed areas.

To study the current conditions within the forested areas of Boeing Creek and Shoreview Parks, SUN installed 27 0.1 acre rectangular vegetation plots distributed throughout the park. The plots recorded information about trees, shrubs, vines, herbaceous plants, snags and downed wood present in the park. During the 2007 survey, a total of 98 plant species were found: 24 tree species (13 native and 11 non-native); 28 shrub species (21 native and seven non-native); 35 forb and vine species (25 native, seven non-native and three undetermined); and 11 grass species (eight native, two non-native and one undetermined).

Although Boeing Creek and Shoreview Parks contain many intact forested areas, considerable management challenges exist within the parks. Many steep and erosion-prone slopes are present in the parks, particularly in the riparian forests along the stream corridor. As a result, riparian areas have the lowest densities of trees, snags and shrubs in the park. This is a significant management concern for wildlife using this important habitat type. In addition, an official trail network does not exist and many social trails run along the steep slopes in the parks. The City of Shoreline is working on a master trail plan in the parks, which will be implemented in the next several years.

Invasive species also pose a significant threat to the park complex. One of the most significant management issues lies in Shoreview Park, which contains 12 acres of disturbed shrublands consisting of Scotch broom, Himalayan blackberry and butterfly bush (*Buddleja davidii*). Other invasive species found in the park include English ivy, herb Robert (*Geranium robertianum*) and yellow archangel (*Lamiastrum galeobdolon*). The majority of English ivy is present in an isolated parcel across the street from Northwest 175th Street in the northern part of the park complex. Invasive trees present in Boeing Creek and Shoreview Parks include English holly; sweet cherry (*Prunus avium*); cherry laurel and European mountain ash (*Sorbus aucuparia*). These trees are present at densities of 201 stems/acre compared to 190 stems/acre for native regenerating trees.

To aid in conducting restoration activities, SUN identified and mapped management zones throughout the park. Specific recommendations were developed for each management zone as well as overall short-term, medium-term and long-term priorities for the entire park (see Management Recommendations and 15-year plan sections of the report).

Boeing Creek and Shoreview Parks 15 year plan





Short term management priorities (Years 1-5)	These are actions that are of high importance and could be completed within the first five years
Year	Action
1	Conduct inventory of park assets and create Vegetation Management Plan (VMP) (complete)
2	Using information from VMP, create specific restoration action plans for each management zone. This type of information can include specific planting plans, specific invasive removal techniques to be used, specific maintenance activities that will be necessary, as well as a timeline for implementation, maintenance and monitoring
2-5	Implement specific goals identified as short-term priorities in the VMP
	1) Remove invasive trees in Zones 1, 2, 3 6, 8 and 9 and replant with native species
	2) Remove discrete areas of Himalayan blackberry in Zones 1, 3, 6 and 8 and replant with native species, including conifers
	3) Remove discrete patches of English ivy from Zones 1, 2, 3, 6 and 9 and replant with native species
	4) Remove yellow archangel from Zone 9 and replant with native species
	5) Remove scattered infestations of herb Robert from interior forested areas including Zones 6 and 7 within the park complex
	6) Remove infestations of creeping buttercup and common periwinkle from Zones 6 and 8 and replant with native species
	7) Formalize trail junctions in Zone 7 and replant with native species to avoid further effects of trampling
	8) Create survival rings around trees in Zone 12 within areas covered by English ivy
Yearly	Conduct monitoring and maintenance of areas in restoration
Medium-term priorities	These are actions that will take planning to complete and could be completed within five to ten years
Year	Action
6-10	1) Monitor cherry regeneration in Zone 1

	2) Create and maintain a buffer zone along the eastern and western edges of Zone 2 and along the eastern edge of Zone 5 to maintain the integrity of the forested areas
	3) Remove Herb Robert from Zones 3, 8 and 10 and replant with native species
	4) Remove Himalayan blackberry from Zones 9, 10 and 11 and replant with native species
	5) Remove Scotch broom from Zones 10 and 11 and replant with native species
	6) Remove ivy from Zone 10 and replant with native species
	7) Remove invasive tree species from zone 10 and replant with native trees
	8) Create a master plan for a trail network and close off and re-vegetate unnecessary social trails, particularly in steep slope areas
	9) Conduct a study focusing on stabilizing and re-vegetating eroded slopes and trails in steep slope areas
Yearly	Conduct monitoring and maintenance of areas in restoration
Long-term priorities	These are on-going activities that will take many years to accomplish and can be integrated into other actions
Year	Action
11-15	1) Underplant shrubs and herbaceous species within the conifer/madrone mixed forests in Zones 2 and 3
	2) Augment the shrub layer by underplanting shrubs in Zones 6 and 7
	3) Increase tree and shrub cover in Zone 8
	4) Remove invasive tree species from Zone 12 and replant with native species
	5) Remove English ivy from Zone 12 and replant with native species
	6) Remove Scotch broom, Himalayan blackberry and butterfly bush from Zone 4 and replant with native species
	7) Remove Himalayan blackberry and Scotch broom from Zone 12 and replant with native species
	8) Maintain restored areas which have been replanted with native species
	9) Increase levels of CWD and preserve large snags throughout the park complex.
16	Conduct park inventory and reassess management strategies








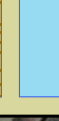



Map 1

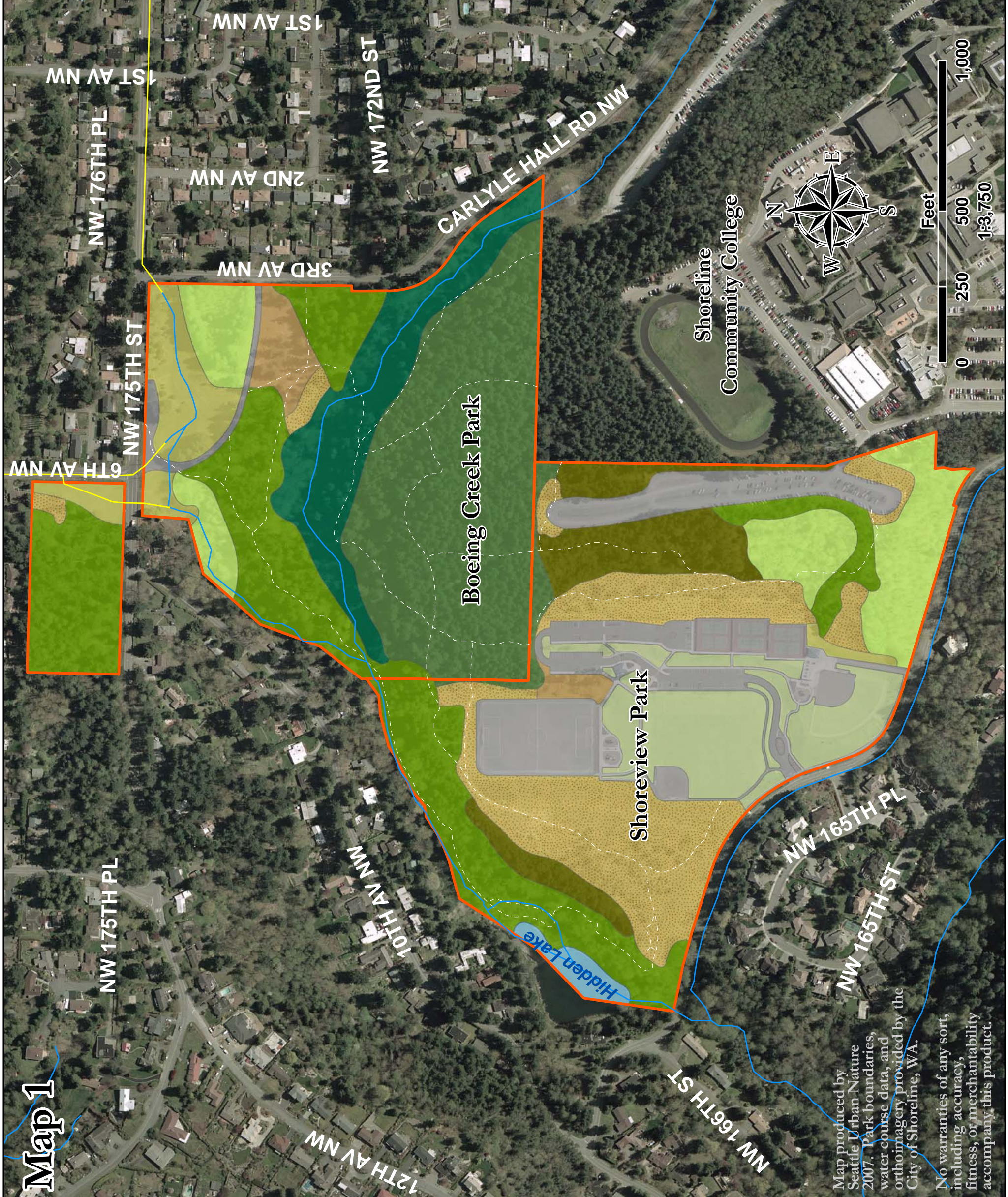
Boeing Creek and Shoreview Parks Habitat Delineations

Legend

-  Park Boundaries (87.9 Acres)
-  Boeing Creek
-  Piped Water Course
-  Trails

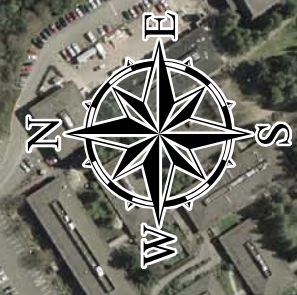
Habitat Types (Acres)

-  Conifer Forest (16.2)
-  Conifer-Deciduous Forest (17.3)
-  Conifer-Madrone Forest (5.0)
-  Riparian Forest (6.4)
-  Deciduous Forest (7.5)
-  Grassland (3.7)
-  Shrubland (11.7)
-  Palustrine Open Water (0.8)
-  Landscaped Forest (1.7)
-  Landscaped Grassland (6.6)
-  Developed (11.0)



Map produced by Seattle Urban Nature 2007. Park boundaries, water course data, and orthoimagery provided by the City of Shoreline, WA.






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Map 2






Boeing Creek and Shoreview Parks Management Zones and Invasive Species Locations

Legend






-  Management Zones
-  Park Boundaries (87.9 Acres)
-  Boeing Creek
-  Piped Water Course
-  Trails

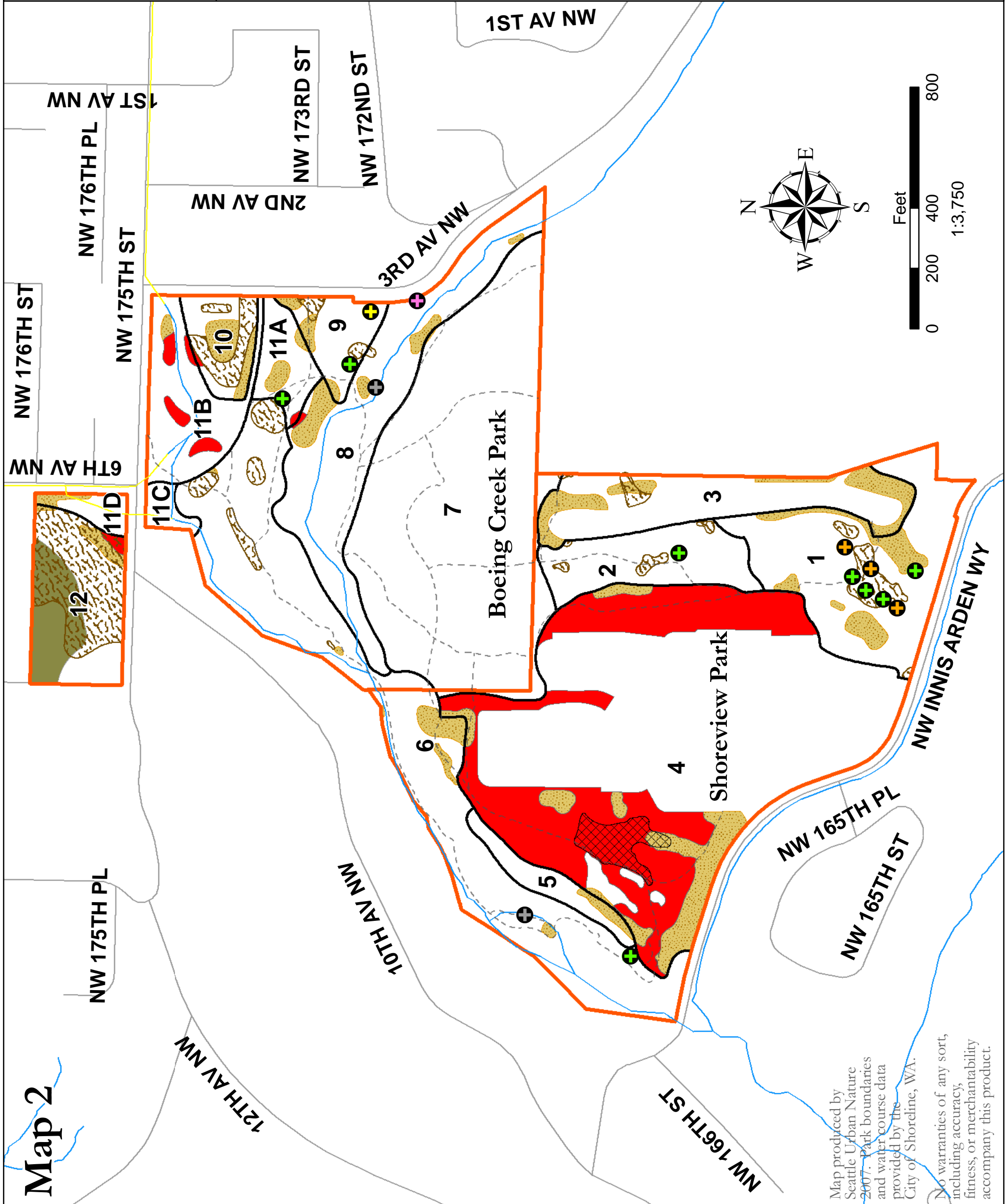
Invasive Species

Contiguous Areas (Acres)

-  English Ivy (4.8)
-  Holly & Laurel (1.6)
-  Himalayan Blackberry (6.4)
-  Butterfly Bush (0.8)
-  Scotch Broom (8.5)

Isolated Occurrences

-  English Holly
-  Cherry Laurel
-  Yellow Archangel
-  Creeping Buttercup
-  Common Periwinkle



Map produced by Seattle Urban Nature 2007. Park boundaries and water course data provided by the City of Shoreline, WA.
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Appendix D. Map of locations for 27 plots established in Shoreview and Boeing Creek Parks. Points show the origins of plots.

