

# Rare Plant and Vegetation Survey of Larrabee State Park



*Pacific Biodiversity Institute*



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## Introduction

Under contract with the Washington State Parks and Recreation Commission, Larrabee State Park, located on the border of Whatcom and Skagit County, was surveyed for rare plant occurrences and mapped according to vegetation communities by Pacific Biodiversity Institute (PBI). Vegetation data was collected for all the mapped vegetation types. This report summarizes the activities and findings of this contracted work.

## Survey Conditions and Survey Routes

Much of Larrabee State Park is covered by dense second-growth forest and wetland vegetation. Trails and roads are absent in many portions of the park. Steep terrain is common in some areas of the park. Public access to the east side of the park and to the northern parcels of the park is difficult. These factors made the survey work more challenging than expected. Despite this situation, we were able to survey much of the area in the park and obtain a representative sample of all habitat types.

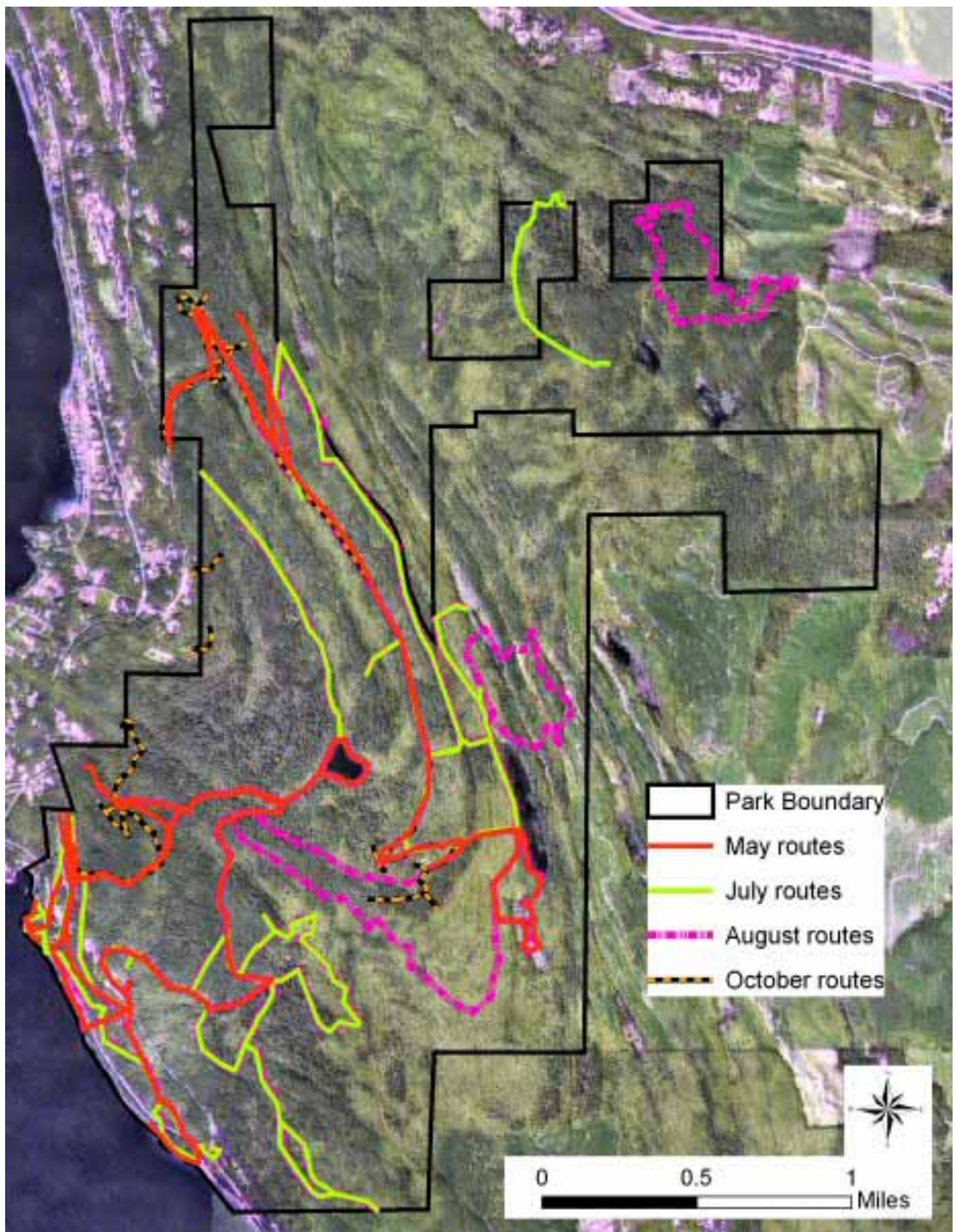


**Steep terrain makes travel slow in some areas of the park.**



**Dense understory vegetation is common in many parts of the park.**





**Map 1. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2004.**

# Vegetation Communities

## **Methods**

Vegetation communities within Larrabee State Park were delineated and classified using a combination of field survey and remote sensing techniques. We relied on descriptions from the Washington State Department of Natural Resources (WADNR) late-seral forested plant associations of the Puget Lowland (Chappell 2004) and freshwater wetland vegetation (Kunze 1994) to make final vegetation community assignments. In some cases, the WADNR descriptions were not adequate in describing existing vegetation associations. In these cases, alternative vegetation communities or plant associations were created by PBI.

To begin with, PBI incorporated an earlier vegetation community and forest stand condition mapping completed by Washington State DNR (Chappell 1993). These vegetation polygons provided the base mapping of polygons which we then cut or modified as needed based on our remote sensing and field work analyses.

Remote sensing techniques consisted of manually delineating plant associations or mosaics of plant associations in a digital environment. We reviewed orthorectified aerial photography from the 1990s and recent LANDSAT Thematic Mapper satellite images for discernable vegetation or landform patterns. Topographic maps and digital elevation models (DEMs) were also employed to assist the process of vegetation community delineation. The final vegetation polygons were created by hand in a GIS by ocular assessment.

Field surveys consisted of visiting sites located within the vegetation polygons created during the remote sensing process. At representative sites within a polygon, vegetation data and site descriptions were recorded in a fashion consistent with the “plant community polygon” format provided by the Washington State Parks and Recreation Commission. Further refinements and editing of the drafted vegetation polygon layers were done by hand on hardcopy maps in the field, and later edited digitally in a GIS.

Interpretation of aerial photography, satellite imagery and environmental gradient modeling was also incorporated to map some of the vegetation polygons that were not adequately assessed during the fieldwork phase of this project. We assessed aerial photo textures and patterns, satellite image spectral characteristics, elevation, slope steepness, northness, eastness and monthly solar radiation levels falling on various slopes across the landscape. Using this information, we completed vegetation community polygon forms for all polygons not directly assessed during field surveys. Vegetation cover data was estimated using both field data from similar vegetation community polygons that were assessed in the field, and through interpretation of aerial photo textures and patterns. Land use data was estimated based on interpretation of aerial photo textures and the presence or nearness of roads, trails, and development.

## **Results**

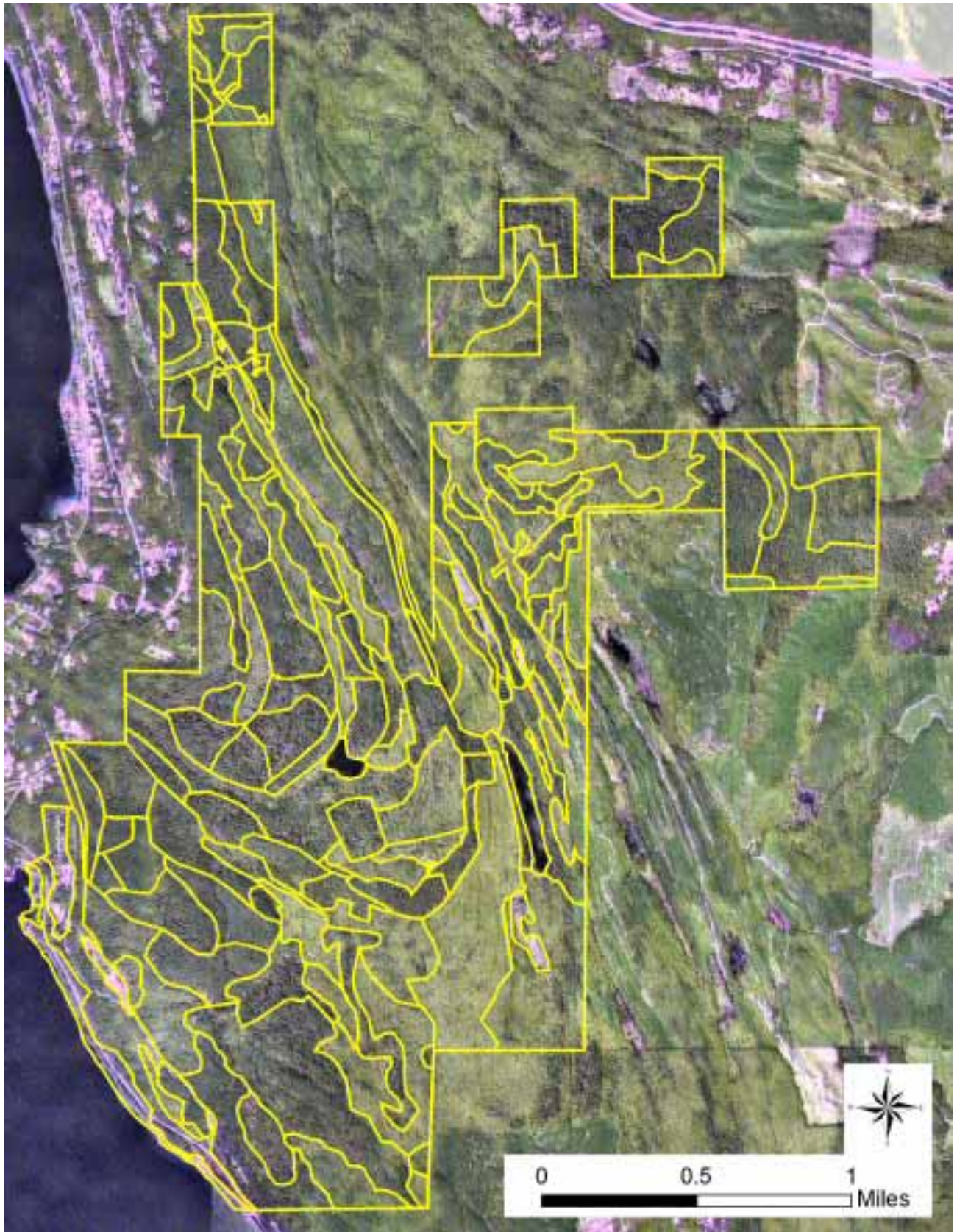
We mapped and surveyed 157 vegetation community polygons, comprised of 20 vegetation community types, within Larrabee State Park. Vegetation community types are either stand-alone plant associations or mosaics of multiple plant associations. The following table lists the vegetation community types mapped. Maps 2 and 3 on the following pages illustrate the location of these vegetation community types. Note that Map 3 only shows the primary plant associations (PA1 in the database). There are only 18 primary plant associations. Two plant associations are only found as secondary or tertiary associations (minor components of a polygon).

The California oatgrass - common woolly sunflower grassy balds are perhaps the rarest and most threatened plant association in the park and are of statewide significance. The wetland community types are also relatively rare in the park.



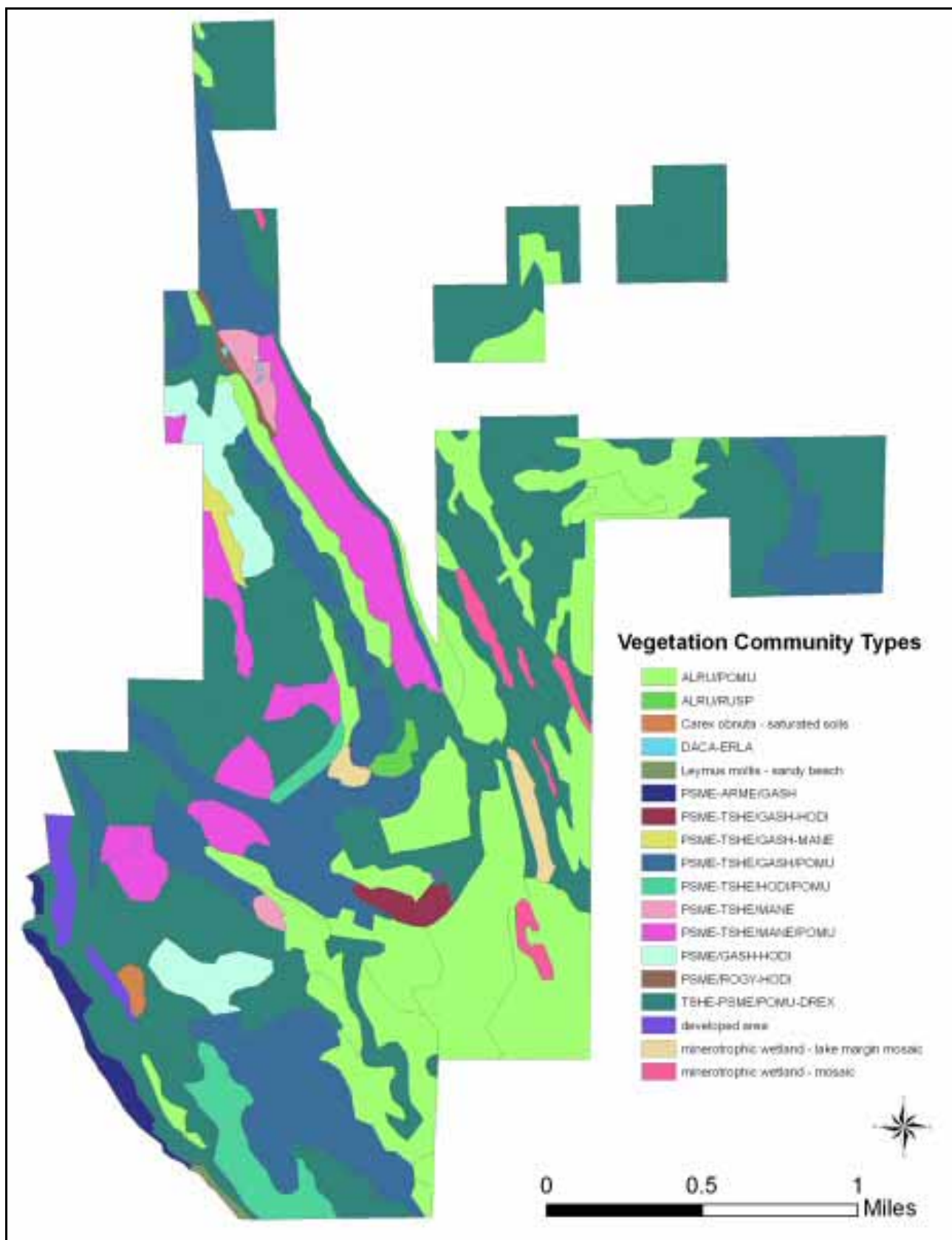
Vegetation Community Types Encountered in Larrabee State Park.

Abbreviation	Association Name	English Name	Reference	Status
ALRU/POMU	<i>Alnus rubra</i> / <i>Polystichum munitum</i>	red alder / sword fern	Chappell 2004	G4S4
DACA-ERLA	<i>Danthonia californica</i> - <i>Eriophyllum lanatum</i>	California oatgrass - common woolly sunflower	Chappell 2004	S1
PSME/GASH-HODI	<i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> - <i>Holodiscus discolor</i>	Douglas-fir / salal - oceanspray	Chappell 2004	G2G3S2
PSME/ROGY-HODI	<i>Pseudotsuga menziesii</i> / <i>Rosa gymnocarpa</i> - <i>Holodiscus discolor</i>	Douglas-fir / baldhip rose - oceanspray	Chappell 2004	G2G3S2
PSME-ARME/GASH	<i>Pseudotsuga menziesii</i> - <i>Arbutus menziesii</i> / <i>Gaultheria shallon</i>	Douglas-fir - Pacific madrone / salal	Chappell 2004	G3S2
PSME-TSHE/GASH/POMU	<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Gaultheria shallon</i> / <i>Polystichum munitum</i>	Douglas-fir - western hemlock / evergreen huckleberry / sword fern	Chappell 2004	???
PSME-TSHE/GASH-HODI	<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Gaultheria shallon</i> - <i>Holodiscus discolor</i>	Douglas-fir - western hemlock / evergreen huckleberry - oceanspray	Chappell 2004	???
PSME-TSHE/GASH-MANE	<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Gaultheria shallon</i> - <i>Mahonia nervosa</i>	Douglas-fir - western hemlock / evergreen huckleberry - dwarf Oregongrape	Chappell 2004	???
PSME-TSHE/HODI/POMU	<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Holodiscus discolor</i> / <i>Polystichum munitum</i>	Douglas-fir - western hemlock / oceanspray / sword fern	Chappell 2004	???
PSME-TSHE/MANE	<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i>	Douglas-fir - western hemlock / dwarf Oregongrape	Chappell 2004	G2
PSME-TSHE/MANE/POMU	<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> / <i>Polystichum munitum</i>	Douglas-fir - western hemlock / dwarf Oregongrape / sword fern	Chappell 2004	G4S3
THPL-TSHE/OPHO/POMU	<i>Thuja plicata</i> - <i>Tsuga heterophylla</i> / <i>Oplopanax horridum</i> / <i>Polystichum munitum</i>	western redcedar - western hemlock / devils club / sword fern	Chappell 2004	G4S4
TSHE-PSME/POMU-DREX	<i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Polystichum munitum</i> - <i>Dryopteris expansa</i>	western hemlock - Douglas-fir / sword fern - spreading woodfern	Chappell 2004	G3S3
ALRU/RUSP wetland	<i>Alnus rubra</i> / <i>Rubus spectabilis</i> wetland	red alder / salmonberry	Kunze 1994	G4G5
CAOB wetland	<i>Carex obnuta</i> - saturated soils	slough sedge - saturated soils wetland	Kunze 1994	G4
lake margin wetland - mosaic	minerotrophic wetland - lake margin mosaic		Kunze 1994	???
minerotrophic wetland - mosaic	minerotrophic wetland - mosaic		Kunze 1994	???
<i>Salix</i> wetland	<i>Salix spp.</i> community type	willow species wetland community type	Kunze 1994	???
Developed area	Developed area		PBI	???
LEMO Beach	<i>Leymus mollis</i> - sandy beach	American dunegrass - sandy beach	PBI	???



**Map 2. Layout of the vegetation community polygons overlaying a 1998 digital ortho-photo combined with TM7 spectral imagery.**





**Map 3. The primary vegetation community types represented by each polygon.**

## Examples of Vegetation Community Types

### *Alnus rubra* / *Polystichum munitum* forests (ALRU/POMU)



This plant association occurs frequently throughout Larrabee State Park. A history of intensive logging and burning practices around Chuckanut Mountain has promoted replacement of the natural conifer forests with large patches of younger forest dominated by red alder (*Alnus rubra*) and big leaf maple (*Acer macrophyllum*). In some areas, limited conifer regeneration is taking place in the understory. However, in many areas no significant conifer regeneration is apparent.



***Alnus rubra* / *Rubus spectabilis* minerotrophic wetland (ALRU / RUSP wetland)**



The ALRU / RUSP minerotrophic wetland occurs on the eastern perimeter of Fragrance Lake. This is a closed canopy deciduous forest with a thick shrubby undergrowth and wetland understory plants. Small patch inclusions of the *Salix* minerotrophic wetland type also occur in this area. This community is considered natural and not the result of past logging.





## Minerotrophic wetland – lake margin mosaic



This vegetation group occurs on the margins of Fragrance Lake and Lost Lake. It is characterized as having a landward progression of dominant plant species cover from open water to upland vegetation. The dominant plant cover mosaic typically ranges from *Nuphar polysepalum*, to *Spiraea douglasii*, to *Alnus Rubra* / *Rubus spectabilis*, and *Alnus Rubra* / *Lysichitum americanum* and *Thuja plicata* forests. The lake margin of Lost Lake is in good ecological condition, with minimal exotic plant influence and minimal recent human impact apparent. The lake margin of Fragrance Lake has significant signs of recreational impact apparent and is not in pristine condition.





*Danthonia californica* – *Eriophyllum lanatum* var *lanatum* bald (DACA-ERLA)



This plant association is very limited in spatial extent within the park. All patches of the DACA-ERLA association occur on rocky balds along the north-south ridgeline of Chuckanut Mountain, well to the north of the summit. Many species of herbs and grasses found in this plant association occur nowhere else within the park boundary. The historical distribution of the DACA-ERLA association may have been greater in the area, when natural wildfires occurred more frequently. Restoration fire may be necessary for the long-term survival of this community.





*Carex obnuta* - saturated soil wetland (CAOB wetland)



This plant association is primarily found in an area east to southeast of the water treatment plant in the western portion of Larrabee State Park. There are very limited patches in other parts of the park. Historical logging and land use seems to have affected the area, though the presence of the *Carex obnuta* wetland might be more of an effect of the areas soil and substrate characteristics. Consistent incursions of the TSHE-PSME/POMU-DREX throughout the wetland area may mean that this plant association will be eventually shaded out of existence.



***Leymus mollis* - sandy beach (LEMO Beach)**



The *Leymus mollis* – sandy beach vegetation community is very limited in spatial extent within Larrabee State Park. The largest patch (nearly one acre in size) is heavily used as a recreational area by beachcombers and sunbathers. It is not known whether or how historical land use activities influenced the creation and maintenance of this community, though drastic human-induced disturbances such as railroad and logging road construction have definitely affected the area where this community is located. Currently, human-induced erosion by park visitors as well as the direct and indirect influences by the Puget Sound tides continually disturbs the vegetation within this community.





*Pseudotsuga menziesii* var *menziesii* / *Arbutus menziesii* - *Gaultheria shallon* forests  
(PSME/ARME-GASH)



This plant association commonly occurs along or very near the Puget Sound shoreline within Larrabee State Park, but is not found elsewhere within the park. Large rock-outcrops and headlands constantly intermingle with the vegetation cover, and human disturbance is common due to its high recreational value of being close to the shore. Pedestrians ritualistically travel through the PSME/ARME-GASH plant association on a network of trails that is maintained by the park staff/volunteers and renegade trails created by consistent off-trail hikers. Some areas that are distant from trailheads are still pristine.





*Pseudotsuga menziesii* / *Rosa gymnocarpa* - *Holodiscus discolor* forests (PSME/ROGY-HODI)



PSME/ROGY-HODI occurs directly adjacent to the rocky balds on which the DACA-ERLA plant association occurs. Probably influenced by the same historical wildfire disturbances that maintained the DACA-ERLA areas, this plant association is limited to western aspect steep slopes with poor shallow soils and heavy sun exposure. The condition of this community in the park is marginal, due to the fact that it is very limited in distribution and the particular polygon we mapped has a large road and road cut dissecting it. Exotic herbs and grasses that dominate the roadsides do not significantly infest the interior portions of this plant association.

***Pseudotsuga menziesii* var *menziesii* / *Gaultheria shallon* - *Holodiscus discolor* forests  
(PSME/GASH-HODI)**

This plant association is found throughout the western flanks of Chuckanut Mountain, on steeper slopes with a southern to western aspect. The interior forest microclimate in this plant association is noticeably drier than in the matrix TSHE-PSME/POMU-DREX plant association. These hotter and drier sites give *Pseudotsuga menziesii* and *Gaultheria shallon* an advantage over the more moisture loving *Tsuga heterophylla*, *Thuja plicata*, and *Polystichum munitum*. Occasionally, park roads and trails dissect otherwise contiguous polygons of this plant association, but otherwise human disturbance and exotic species presence are minimal.





*Pseudotsuga menziesii* var *menziesii* - *Tsuga heterophylla* / *Gaultheria shallon* – *Mahonia nervosa* forests (PSME-TSHE/GASH-MANE)



This plant association sporadically occurs on the southwest facing slopes of Chuckanut Mountain, mixed in with the PSME/GASH-HODI, PSME-TSHE/GASH/POMU, and PSME-TSHE/GASH-HODI plant associations that dominate that area. This association is similar to the PSME/GASH-HODI association except for the presence of *Tsuga heterophylla* and *Holodiscus discolor*. Typically it is not a dominant plant association in any of our mapped polygons, but it does exist as a small patch type in many of the areas dominated by other *Gaultheria shallon* plant associations. The polygon where this plant association is dominant was logged relatively recently.





***Pseudotsuga menziesii* var *menziesii* - *Tsuga heterophylla* / *Gaultheria shallon* - *Holodiscus discolor* forests (PSME-TSHE/GASH-HODI)**



This plant association is the dominant type found at the summit of Chuckanut Mountain and the south facing steep slopes directly below the summit. It is very similar to the PSME/GASH-HODI association, except for the presence of *Tsuga heterophylla*. Human impact in the summit area has caused some vegetation mortality and soil erosion but in general the ecological condition is good. Some old-growth trees occur within this plant association near the summit. This plant association occurs sporadically in other south to west facing slopes on the west side of Chuckanut Mountain, mixed in with the PSME/GASH-HODI, PSME-TSHE/GASH/POMU, PSME-TSHE/GASH-MANE plant associations.





*Pseudotsuga menziesii* var *menziesii* - *Tsuga heterophylla* / *Gaultheria shallon* / *Polystichum munitum* forests (PSME-TSHE/GASH/POMU)



This plant association occurs commonly on the west side of Chuckanut Mountain and on the west side of the long north-south running ridgeline between Chuckanut Village and the Chuckanut Mountain summit. PSME-TSHE/GASH/POMU favors moderate slopes that have a good soil base. It is usually a dominant plant association with inclusions of PSME-TSHE/GASH-HODI and PSME-TSHE/GASH-MANE sporadically distributed throughout its area. Roads and trails dissect some of the patches of PSME-TSHE/GASH/POMU, but the heavy *Gaultheria shallon* cover in the understory prohibits the rampant establishment of exotic plants off the trail or along road margins.



*Pseudotsuga menziesii* var *menziesii* - *Tsuga heterophylla* / *Holodiscus discolor* / *Polystichum munitum* forests (PSME-TSHE/HODI/POMU)



PSME-TSHE/HODI/POMU occurs infrequently on the west side of Larrabee State Park in areas that might be TSHE-PSME/POMU-DREX if it were not for a slightly drier interior microclimate caused by either southwesterly aspects, steep gradients, or a mix of both. This plant association is in good condition in the park, with minimal human disturbance or exotic species presences apparent.





***Pseudotsuga menziesii* var *menziesii* - *Tsuga heterophylla* / *Mahonia nervosa* forests (PSME-TSHE/MANE)**



The PSME-TSHE/MANE plant association occurs sporadically within Larrabee State Park. It is common on the upper western facing apices of some of the rocky knolls on the Westside of Chuckanut Mountain. Shallow rocky soils are prevalent within this plant association, a condition that possibly favors the dominant cover of *Mahonia nervosa* versus typical shrub layer competitors like *Gaultheria shallon* and *Polystichum munitum*. Because few trails or roads access the PSME-TSHE/MANE polygons, current recreational use is very limited and little to no exotic plant presence exists.





***Pseudotsuga menziesii* var *menziesii* - *Tsuga heterophylla* / *Mahonia nervosa* / *Polystichum munitum* forests (PSME-TSHE/MANE/POMU)**



This is a relatively common plant association in the park that is typically found on well-drained hillsides or gentle slope benches. It is commonly found bordering the PSME-TSHE/MANE and the TSHE-PSME/POMU-DREX plant associations and is considered intermediate between the two associations. It typically occurs above the TSHE-PSME/POMU-DREX regions and below the PSME-TSHE/MANE hill tops. Hiking trails pass through many of this plant association's polygons throughout the park, allowing for a limited amount of human disturbance, which is mostly concentrated along the established paths. The PSME-TSHE/GASH/POMU plant association is also commonly found near to areas where the PSME-TSHE/MANE/POMU plant association occurs.





***Thuja plicata* - *Tsuga heterophylla* / *Oplopanax horridus* / *Polystichum munitum* forests (THPL-TSHE/OPHO/POMU)**



This plant association is common within riparian areas and seeps of the interior forests of Larrabee State Park, especially within the TSHE-PSME/POMU-DREX and ALRU-POMU forest patches. The patch shape of this plant association is normally limited in width, giving it a more linear polygon form (except in seep areas), due to its presence in narrow riparian zones. In some regions of the park, however, the patch shape can be wider if the topography in the valley bottoms is gentle and the riparian areas are correspondingly wider. *Oplopanax horridus* is a good deterrent to off-trail hikers, and subsequently human impact and exotic plants presence seems minimal within the THPL-TSHE/OPHO/POMU plant association.



*Tsuga heterophylla* - *Pseudotsuga menziesii* var *menziesii* / *Polystichum munitum* - *Dryopteris expansa* forests (TSHE-PSME/POMU-DREX)



The TSHE-PSME/POMU-DREX plant association is by far the most dominant plant association within Larrabee State Park. If not for the intensive logging history of the Chuckanut Mountain area, which pushed a good portion of the natural forest cover toward the ALRU-POMU plant association, this plant association would take up nearly three quarters of the land area inside the park. Most of the TSHE-PSME/POMU-DREX polygons are in relatively good condition, with little understory vegetation disturbance and minimal exotic plants presence. Though most of the polygons contain younger forests that regenerated after logging in the last 100 – 150 years, a few stands of old-growth TSHE-PSME/POMU-DREX, typically dominated by *Pseudotsuga*

*menziesii* in the upper canopy, exist within the park. If left unlogged and undisturbed by development over the next century, much of TSHE-PSME/POMU-DREX forests should mature into visually representative and ecologically functional old-growth stands.





**Minerotrophic Wetland - Mosaics**







The minerotrophic wetland mosaics occur in the interior portion of Larrabee State Park, in the bottom of the large drainage valley running north to south along the east side of Chuckanut Mountain. They are associated with the same drainage system and substrate that forms Lost Lake. A complex history of logging, beaver activity, and road development has influenced the creation and nature of each of Larrabee's minerotrophic wetlands. Most of the individual wetlands exhibit a skeletal display of old coniferous forests that previously occurred on the now permanently flooded or seasonally flooded wetland sites. Some of the forest remnants show signs of historical logging. The plant communities within each wetland polygon are a complex mosaic of wetland types usually including: *Juncus baslticus* c.t., *Typha latifolia* c.t., *Nuphar polysepalum* c.t., *Carex obnuta* c.t., *Carex cusickii* c.t., *Carex vesicaria* c.t., *Spiraea douglasii* c.t., *Salix* spp. c.t., *Alnus rubra* / *Lyichitum americanum* c.t., *Alnus rubra* / *Rubus spectabilis* c.t., and *Thuja plicata* – *Tusga heterophylla* / *Lyichitum americanum* c.t (Kunze 1994). Plant species diversity within these wetlands is quite high, and though some of the wetlands may have been artificially created and influenced by previous human activities, their current conditions are excellent and warrant protection. Park roads and trails do not currently access the wetlands directly which has kept recreational impacts at a minimum.

# Rare Plant Surveys

## Methods

We visited Larrabee State Park multiple times during the 2004 field season to conduct a rare plant survey. Field surveys were conducted on May 18-19, July 12-14, August 17-20 and October 13 and 14. We were equipped with reference literature, rare plant lists for the area, maps showing rare plant locations from previous surveys, and a portable plant identification lab. We looked for rare plants in habitats previously identified as being likely occurrence sites. So as not to miss a rare plant, all vascular plant species encountered during the inventory were identified on site, at base camp in the portable laboratory, or back at our office.

Survey routes were determined based on the desire to efficiently cover a large proportion of the park's area throughout the field season. We surveyed habitats of the park where we felt rare plants were more likely to occur more intensively. Survey routes for the rare plant inventory and rare plant locations were recorded either by hand, on a hardcopy topographic map, or as GPS waypoints and trackpoints, all of which were later compiled into a single GIS data layer (Map 1).

## Results

Although 278 species of plants were observed and identified by PBI staff during the 2004 site visits, no state or federally listed species were found within Larrabee State Park. We identified 62 plant species that are considered alien plants for this region. This represents 22% of the vascular flora of the park. The list of species identified during this project is below. Note: An asterisk (\*) in the species code indicates that the species was not identified to variety and no official USDA 4-letter code exists for the species.

### Vascular Plant List for Larrabee State Park

#	Scientific Name	Common Name	Code	Family	Type	Alien?	Listed
1	<i>Abies grandis</i>	grand fir	ABGR	Pinaceae	t		
2	<i>Acer circinatum</i>	vine maple	ACCI	Aceraceae	s		
3	<i>Acer glabrum</i> var. <i>douglasii</i>	Douglas maple	ACGLD4	Aceraceae	s		
4	<i>Acer macrophyllum</i>	bigleaf maple	ACMA3	Aceraceae	t		
5	<i>Acer saccharinum</i>	silver maple	ACSA*	Aceraceae	t	a	
6	<i>Achillea millefolium</i>	common yarrow	ACMI2	Compositae	p		
7	<i>Achlys triphylla</i>	vanillaleaf	ACTR	Ranunculaceae	p		
8	<i>Actaea rubra</i>	baneberry	ACRU2	Ranunculaceae	p		
9	<i>Adenocaulon bicolor</i>	pathfinder	ADBI	Compositae	p		
10	<i>Adiantum pedatum</i>	northern maidenhair fern	ADPE	Polypodiaceae	f		
11	<i>Aira caryophylla</i>	silver hairgrass	AICA	Gramineae	g	a	
12	<i>Aira praecox</i>	little hairgrass	AIPR	Gramineae	g	a	
13	<i>Alisma plantago-aquatica</i> var. <i>americanum</i>	American water-plantain	ALPLA	Alismataceae	p		
14	<i>Allium cernuum</i>	nodding onion	ALCE2	Liliaceae	p		
15	<i>Alnus rubra</i>	red alder	ALRU2	Betulaceae	t		
16	<i>Alnus sinuata</i>	Sitka alder	ALSI	Betulaceae	s		
17	<i>Ambrosia chamissonis</i>	silver burweed	AMCH4	Compositae	p		



18	<i>Amelanchier alnifolia</i>	serviceberry	AMAL2	Rosaceae	s		
19	<i>Anaphalis margaritacea</i>	pearly everlasting	ANMA	Compositae	p		
20	<i>Antennaria anaphaloides</i>	tall pussytoes	ANAN2	Compositae	p		
21	<i>Antennaria lanata</i>	woolly pussytoes	ANLA	Compositae	p		
22	<i>Antennaria neglecta</i>	field pussytoes	ANNE	Compositae	p		
23	<i>Anthoxanthum odoratum</i>	sweet vernalgrass	ANOD5	Gramineae	g	a	
24	<i>Aquilegia formosa</i>	red columbine	AQFO	Ranunculaceae	p		
25	<i>Arabidopsis thaliana</i>	mouseear cress	ARTH	Cruciferae	a		
26	<i>Arabis hirsuta</i> var. <i>glabrata</i>	hairy rockcress	ARHIG	Cruciferae	p		
27	<i>Arbutus menziesii</i>	Pacific madrone	ARME	Ericaceae	t		
28	<i>Arctium minus</i>	common burdock	ARM12	Compositae	p	a	
29	<i>Arctostaphylos columbiana</i>	hairy manzanita	ARCO3	Ericaceae	s		
30	<i>Arenaria lateriflora</i>	bluntleaf sandwort	ARLA15	Caryophyllaceae	p		
31	<i>Arenaria macrophylla</i>	big-leaved sandwort	ARMA18	Caryophyllaceae	p		
32	<i>Armoracia rusticana</i>	horseradish	ARRU4	Brassicaceae	b	a	
33	<i>Artemisia suksdorfii</i>	coast mugwort	ARSU	Compositae	p		
34	<i>Aruncus sylvester</i>	goatsbeard	ARSY	Rosaceae	s		
35	<i>Asarum caudatum</i>	wild ginger	ASCA	Aristolochiaceae	p		
36	<i>Aspidotis densa</i>	podfern	ASDE6	Polypodiaceae	f		
37	<i>Athyrium filix-femina</i>	lady-fern	ATFI	Polypodiaceae	f		
38	<i>Bellis perennis</i>	english daisy	BEPE2	Compositae	p	a	
39	<i>Berberis aquifolium</i>	Tall Oregongrape	BEAQ	Berberidaceae	s		
40	<i>Berberis nervosa</i>	Cascade Oregongrape	BENE	Berberidaceae	s		
41	<i>Betula papyrifera</i> var. <i>commutata</i>	western paper birch	BEPAC	Betulaceae	t		
42	<i>Blechnum spicant</i>	deer-fern	BLSP	Polypodiaceae	f		
43	<i>Brodiaea hyacinthina</i>	hyacinth brodiaea, fool's onion	BRH12	Liliaceae	p		
44	<i>Bromus hordeaceus</i>	soft brome	BRHO2	Gramineae	g	a	
45	<i>Bromus mollis</i>	soft brome	BRMO2	Gramineae	g	a	
46	<i>Bromus pacificus</i>	Pacific brome	BRPA3	Gramineae	g		
47	<i>Bromus rigidus</i>	ripgut brome	BRR1*	Gramineae	g	a	
48	<i>Bromus sitchensis</i>	Alaska brome	BRSI	Gramineae	g		
49	<i>Bromus vulgaris</i>	common brome	BRVU	Gramineae	g		
50	<i>Calypso bulbosa</i>	fairyslipper	CABU	Orchidaceae	p		
51	<i>Campanula scouleri</i>	pale bellflower	CASC7	Campanulaceae	p		
52	<i>Cardamine pensylvanica</i>	Pennsylvania bittercress	CAPE	Cruciferae	a		
53	<i>Carex aquatilis</i>	water sedge	CAAQ	Cyperaceae	g		
54	<i>Carex canescens</i>	silvery sedge	CACA	Cyperaceae	g		
55	<i>Carex concinoides</i>	northwest sedge	CACO11	Cyperaceae	g		
56	<i>Carex cusickii</i>	Cusick's sedge	CACU5	Cyperaceae	g		
57	<i>Carex deweyana</i>	Dewey's sedge	CADE9	Cyperaceae	g		
58	<i>Carex geyeri</i>	elk sedge	CAGE2	Cyperaceae	g		
59	<i>Carex laeviculmis</i>	smoothstem sedge	CALA13	Cyperaceae	g		
60	<i>Carex lenticularis</i>	lakeshore sedge	CALE	Cyperaceae	g		
61	<i>Carex obnupta</i>	slough sedge	CAOB3	Cyperaceae	g		

62	<i>Carex pensylvanica</i> var. <i>vespertina</i>	long-stolon sedge	CAPEV	Cyperaceae	g		
63	<i>Carex vesicaria</i>	bladdersedge	CAVE6	Cyperaceae	g		
64	<i>Castilleja hispida</i>	harsh paintbrush	CAHI9	Scrophulariaceae	p		
65	<i>Ceanothus sanguineus</i>	redstem ceanothus	CESA	Rhamnaceae	s		
66	<i>Cerastium arvense</i>	field chickweed	CEAR4	Caryophyllaceae	p		
67	<i>Cerastium viscosum</i>	sticky chickweed	CEVI3	Caryophyllaceae	a	a	
68	<i>Chenopodium album</i>	lambsquarters	CHAL7	Chenopodiaceae	a	a	
69	<i>Chimaphila menziesii</i>	little pipsissiwa	CHME	Ericaceae	p		
70	<i>Chimaphila umbellata</i>	pipsissewa	CHUM	Ericaceae	p		
71	<i>Cicuta douglasii</i>	western water-hemlock	CIDO	Umbelliferaceae	p		
72	<i>Circaea alpina</i>	enchanter's nightshade	CIAL	Onagraceae	p		
73	<i>Cirsium arvense</i>	Canada thistle	CIAR4	Compositae	p	a	
74	<i>Cirsium edule</i>	indian thistle	CIED	Compositae	p		
75	<i>Cirsium vulgare</i>	bull thistle	CIVU	Compositae	b	a	
76	<i>Collinsia grandiflora</i>	big-eyed Mary	COGR	Scrophulariaceae	a		
77	<i>Collomia heterophylla</i>	varied-leaved collomia	COHE2	Polemoniaceae	a		
78	<i>Corallorhiza maculata</i>	spotted coralroot	COMA4	Orchidaceae	p		
79	<i>Corallorhiza striata</i>	striped coralroot	COST	Orchidaceae	p		
80	<i>Corylus cornuta</i>	western hazel	COCO6	Betulaceae	s		
81	<i>Cryptogramma crispa</i> ssp. <i>acrostichoides</i>	parlsey fern	CRCRA	Polypodiaceae	p		
82	<i>Cytisus scoparius</i>	Scot's broom	CYSC4	Leguminosae	s	a	
83	<i>Dactylis glomerata</i>	orchardgrass	DAGL	Gramineae	g	a	
84	<i>Danthonia californica</i>	California oatgrass	DACA3	Gramineae	g		
85	<i>Daucus pusillus</i>	American wild carrot	DAPU3	Umbelliferaceae	a		
86	<i>Delphinium menziesii</i> var. <i>menziesii</i>	Menzie's larkspur	DEMEM	Ranunculaceae	p		
87	<i>Dicentra formosa</i>	Pacific bleedingheart	DIFO	Fumariaceae	p		
88	<i>Digitalis purpurea</i>	foxglove	DIPU	Scrophulariaceae	a	a	
89	<i>Dipsacus sylvestris</i>	teasel	DISY	Dipsacaceae	p	a	
90	<i>Disporum hookeri</i>	Hooker's fairybells	DIHO3	Liliaceae	p		
91	<i>Drosera rotundifolia</i>	sundew	DRRO	Droseraceae	p		
92	<i>Dryopteris expansa</i>	spreading wood-fern	DREX2	Polypodiaceae	p		
93	<i>Elymus glaucus</i>	blue wild rye	ELGL	Gramineae	g		
94	<i>Elymus mollis</i>	American dunegrass	ELMO9	Gramineae	g		
95	<i>Epilobium</i> <i>angustifolium</i>	fireweed	EPAN2	Onagraceae	p		
96	<i>Epilobium minutum</i>	small-flowered willow-herb	EPMI	Onagraceae	a		
97	<i>Epipactis helleborine</i>	garden helleborine	EPHE	Orchidaceae	p	a	
98	<i>Equisetum arvense</i>	field horsetail	EQAR	Equisetaceae	p		
99	<i>Equisetum hyemale</i>	common scouring-rush	EQHY	Equisetaceae	p		
100	<i>Equisetum telmateia</i>	giant horsetail	EQTE	Equisetaceae	p		
101	<i>Eriophyllum lanatum</i>	Oregon sunshine, woolly sunflower	ERLA6	Compositae	p		
102	<i>Erythronium</i> <i>oreganum</i>	white fawn-lily	EROR4	Liliaceae	p		
103	<i>Euphrasia disjuncta</i>	northern eyebright	EUDI*	Scrophulariaceae	a		
104	<i>Festuca arundinacea</i>	tall fescue	FEAR3	Gramineae	p	a	
105	<i>Festuca bromoides</i>	six-weeks fescue	FEBR.	Gramineae	a	a	
106	<i>Festuca megalura</i>	foxtail fescue	FEMA	Gramineae	a	a	
107	<i>Festuca myuros</i>	rat-tail fescue	FEMY2	Gramineae	g	a	



108	<i>Festuca occidentalis</i>	western fescue	FEOC	Gramineae	g		
109	<i>Festuca rubra</i> var. <i>rubra</i>	red red fescue	FERUR	Gramineae	g		
110	<i>Festuca subulata</i>	bearded festucE	FESU	Gramineae	g		
111	<i>Festuca subuliflora</i>	Coast Range fescue	FESU	Gramineae	g		
112	<i>Fragaria vesca</i> var. <i>bracteata</i>	woods strawberry	FRVEB	Rosaceae	p		
113	<i>Fritillaria lanceolata</i>	checker lily	FRLA2	Liliaceae	p		
114	<i>Galium aparine</i>	cleavers	GAAP2	Rubiaceae	a	a	
115	<i>Galium trifidum</i> var. <i>pacificum</i>	small bedstraw	GATRP	Rubiaceae	p		
116	<i>Galium triflorum</i>	fragrant bedstraw	GATR3	Rubiaceae	p		
117	<i>Gaultheria shallon</i>	salal	GASH	Ericaceae	s		
118	<i>Geranium dissectum</i>	cutleaf geranium	GEDI	Geraniaceae	a	a	
119	<i>Geranium molle</i>	dovefoot geranium	GEMO	Geraniaceae	a	a	
120	<i>Geranium robertianum</i>	Robert geranium	GERO	Geraniaceae	a	a	
121	<i>Geum macrophyllum</i>	large-leaved avens	GEMA4	Rosaceae	p		
122	<i>Glecoma hederacea</i>	ground ivy	GLHE2	Labiatae	p	a	
123	<i>Glyceria elata</i>	tall mannagrass	GLEL	Gramineae	g		
124	<i>Glyceria striata</i>	fowl mannagrass	GLST	Gramineae	g		
125	<i>Goodyera oblongifolia</i>	rattlesnake plantain	GOOB2	Orchidaceae	p		
126	<i>Grindelia squarrosa</i>	curly-cup gumweed	GRSQ	Compositae	p		
127	<i>Hedera helix</i>	English ivy	HEHE	Araliaceae	s	a	
128	<i>Heracleum lanatum</i>	cow parsnip	HELA4	Umbelliferaceae	p		
129	<i>Hesperis matronalis</i>	dames rocket	HEMA3	Brassicaceae	p	a	
130	<i>Heuchera micrantha</i>	smallflowered alumroot	HEMI	Saxifragaceae	p		
131	<i>Hieracium albiflorum</i>	white-flowered hawkweed	HIAL2	Compositae	p		
132	<i>Holcus lanatus</i>	common velvetgrass	HOLA	Gramineae	g	a	
133	<i>Holodiscus discolor</i>	oceanspray	HODI	Rosaceae	s		
134	<i>Hydrophyllum tenuipes</i>	slender-stem waterleaf	HYTE	Hydrophyllaceae	p		
135	<i>Hypericum perforatum</i>	St. Johnswort	HYPE	Hypericaceae	p	a	
136	<i>Hypochaeris radicata</i>	hairy cat's-ear	HYRA3	Compositae	a	a	
137	<i>Ilex aquifolium</i>	English holly	ILAQ80	Aquifoliaceae	s	a	
138	<i>Juncus effusus</i>	common rush	JUEF	Juncaceae	g		
139	<i>Koeleria cristata</i>	Junegrass	KOCR	Gramineae	g		
140	<i>Lactuca biennis</i>	tall blue lettuce	LABI	Compositae	a	a	
141	<i>Lactuca muralis</i>	wall lettuce	LAMU	Compositae	a	a	
142	<i>Lappula echinata</i>	bristly stickseed	LAEC	Boraginaceae	a	a	
143	<i>Lapsana communis</i>	common nipplewort	LACO3	Compositae	a	a	
144	<i>Lathyrus japonicus</i>	beach pea	LAJA	Leguminosae	p		
145	<i>Lathyrus nevadensis</i>	Nuttall's peavine	LANE3	Leguminosae	p		
146	<i>Ledum groenlandicum</i>	bog labrador-tea	LEGR	Ericaceae	s		
147	<i>Lepidium campestre</i>	field pepperwort	LECA5	Cruciferae	a	a	
148	<i>Lilium columbianum</i>	tiger lily	LICO	Liliaceae	p		
149	<i>Linnaea borealis</i>	twinline	LIBO3	Scrophulariaceae	p		
150	<i>Lonicera ciliosa</i>	orange honeysuckle	LOCI3	Caprifoliaceae	s		
151	<i>Lonicera hispidula</i>	hairy honeysuckle	LOHI2	Caprifoliaceae	s		
152	<i>Lonicera involucrata</i>	black twinberry	LOIN5	Caprifoliaceae	p		
153	<i>Lotus corniculatus</i>	birdsfoot trefoil	LOCO6	Leguminosae	p	a	
154	<i>Luzula campestris</i>	field woodrush	LUCA*	Juncaceae	g		

155	<i>Luzula multiflora</i>	common woodrush	LUMU2	Juncaceae	g		
156	<i>Luzula parviflora</i>	small-flowered woodrush	LUPA	Juncaceae	g		
157	<i>Lysichitum americanum</i>	skunk cabbage	LYAM3	Araceae	p		
158	<i>Lysimachia thyrisiflora</i>	tufted loosestrife	LYTH2	Primulaceae	p		
159	<i>Maianthemum dilatatum</i>	may-lily	MADI	Liliaceae	p		
160	<i>Medicago arabica</i>	spotted medic	MEAR	Leguminosae	p	a	
161	<i>Medicago lupulina</i>	black medic	MELU	Leguminosae	p	a	
162	<i>Melica subulata</i>	Alaska oniongrass	MESU	Gramineae	g		
163	<i>Menziesia ferruginea</i>	fool's huckleberry	MEFE	Ericaceae	s		
165	<i>Mimulus alsinoides</i>	chickweed monkeyflower	MIAL3	Scrophulariaceae	p		
166	<i>Mimulus guttatus</i>	yellow monkeyflower	MIGU	Scrophulariaceae	p		
167	<i>Mimulus moschatus</i>	musk monkeyflower	MIMO3	Scrophulariaceae	p		
168	<i>Monotropa uniflora</i>	indian pipe	MOUN3	Ericaceae	p		
169	<i>Montia parvifolia</i>	littleleaf montia	MOPA5	Caryophyllaceae	p		
170	<i>Montia perfoliata</i>	miner's lettuce	MOPE	Caryophyllaceae	a		
171	<i>Montia sibirica</i>	Siberian miner's lettuce	MOSI2	Caryophyllaceae	a		
172	<i>Myosotis discolor</i>	yellow and blue forgetmenot	MYDI	Boraginaceae	a		
173	<i>Myosotis laxa</i>	small-flowered forgetmenot	MYLA	Boraginaceae	p		
174	<i>Nemophila breviflora</i>	Great Basin nemophila	NEBR	Hydrophyllaceae	a		
175	<i>Nuphar polysepalum</i>	yellow water-lily	NUPO	Nymphaeaceae	p		
176	<i>Oemleria cerasiformis</i>	Indian plum	OECE	Rosaceae	s		
177	<i>Oenanthe sarmentosa</i>	water-parsley	OESA	Umbelliferaceae	p		
178	<i>Oplopanax horridum</i>	devil's club	OPHO	Araliaceae	s		
179	<i>Osmorhiza chilensis</i> var. <i>purpurea</i>	purple sweet-cicely	OSCHP	Umbelliferaceae	p		
180	<i>Pachistima myrsinites</i>	pachistima	PAMY	Celastraceae	s		
181	<i>Pentagramma triangularis</i> ssp. <i>triangularis</i>	gold-back fern	PETRT	Polypodiaceae	f		
182	<i>Petasites frigidus</i> var. <i>palmatius</i>	coltsfoot	PEFRP	Compositae	p		
183	<i>Phalaris arundinacea</i>	reed canarygrass	PHAR3	Gramineae	p	a	
184	<i>Philadelphus lewisii</i>	Lewis' mockorange	PHLE4	Hydraneaceae	s		
185	<i>Physocarpus capitatus</i>	Pacific ninebark	PACH11	Rosaceae	s		
186	<i>Picea sitchensis</i>	Sitka spruce	PISI	Pinaceae	t		
187	<i>Pinus contorta</i>	lodgepole pine	PICO	Pinaceae	t		
188	<i>Plantago lanceolata</i>	narrowleaf plantain	PLLA	Plantaginaceae	p	a	
189	<i>Plantago major</i>	common plantain	PLMA2	Plantaginaceae	p	a	
190	<i>Plantago patagonica</i>	Indian wheat	PLPA2	Plantaginaceae	a		
191	<i>Plectritis congesta</i>	rosy plectritis	PLCO4	Valerianiaceae	a		
192	<i>Poa annua</i>	annual bluegrass	POAN	Gramineae	ag	a	
193	<i>Poa canbyi</i>	canby bluegrass	POCA	Gramineae	g		
194	<i>Poa compressa</i>	Canada bluegrass	POCO	Gramineae	g		
195	<i>Poa confinis</i>	coastline bluegrass	POCO2	Gramineae	g		
196	<i>Polygonum hydropiperoides</i>	waterpepper	POHY2	Polygonaceae	p		
197	<i>Polygonum lapathifolium</i>	curlytop knotweed	POLA4	Polygonaceae	a		
198	<i>Polygonum</i>	Himalayan knotweed	POPO	Polygonaceae	p	a	



	<i>polystachyum</i>						
199	<i>Polypodium glycyrrhiza</i>	licorice fern	POGL8	Polypodiaceae	f		
200	<i>Polystichum munitum</i>	sword-fern	POMU	Polypodiaceae	f		
201	<i>Populus trichocarpa</i>	black cottonwood	POTR15	Salicaceae	t		
202	<i>Potentilla pacifica</i>	Pacific silverweed	POPA23	Rosaceae	p		
203	<i>Prunella vulgaris</i>	self-heal	PRVU	Labiatae	p		
204	<i>Prunus emarginata</i>	bittercherry	PREM	Rosaceae	s		
205	<i>Pseudotsuga menziesii</i>	Douglas fir	PSME	Pinaceae	t		
206	<i>Pteridium aquilinum</i>	bracken fern	PTAQ	Polypodiaceae	f		
207	<i>Pyrola asarifolia</i>	pink wintergreen	PYAS	Ericaceae	p		
208	<i>Pyrola picta</i>	whitevein pyrola	PYPI2	Ericaceae	p		
209	<i>Pyrola uniflora</i>	woodnymph	PYUN	Ericaceae	p		
210	<i>Ranunculus aquatilis</i>	white water-buttercup	RAAQ	Ranunculaceae	p		
211	<i>Ranunculus acris</i>	meadow buttercup	RAAC3	Ranunculaceae	p	a	
212	<i>Ranunculus repens</i> var. <i>repens</i>	creeping buttercup	RARER	Ranunculaceae	p	a	
213	<i>Ranunculus uncinatus</i>	woodland buttercup	RAUN	Ranunculaceae	p		
214	<i>Rhamnus purshiana</i>	casacara	RHPU	Rhamnaceae	s		
215	<i>Ribes bracteosum</i>	stink currant	RIBR	Grossulariaceae	s		
216	<i>Ribes lacustre</i>	swamp current	RILA	Grossulariaceae	s		
217	<i>Ribes sanguineum</i>	red-flowered current	RISA2	Grossulariaceae	s		
218	<i>Rosa gymnocarpa</i>	baldhip rose	ROGY	Rosaceae	s		
219	<i>Rubus discolor</i>	Himalayan blackberry	RUDI2	Rosaceae	s	a	
220	<i>Rubus laciniatus</i>	evergreen blackberry	RULA	Rosaceae	s	a	
221	<i>Rubus leucodermis</i>	black raspberry	RULE	Rosaceae	s		
222	<i>Rubus parviflorus</i>	thimbleberry	RUPA	Rosaceae	s		
223	<i>Rubus spectabilis</i>	salmonberry	RUSP	Rosaceae	s		
224	<i>Rubus ursinus</i>	trailing blackberry	RUUR	Rosaceae	s		
225	<i>Rumex acetosella</i>	sheep sorrel	RUAC3	Polygonaceae	a	a	
226	<i>Salix hookeriana</i>	coast willow	SAHO	Salicaceae	s		
227	<i>Salix lasiandra</i>	pacific willow	SALA5	Salicaceae	s		
228	<i>Salix rigida</i> var. <i>mackenzieana</i>	Mackenzie willow	SARIM4	Salicaceae	s		
229	<i>Salix scouleriana</i>	Scouler's willow	SASC	Salicaceae	t		
230	<i>Sambucus racemosa</i>	red elderberry	SARA2	Caprifoliaceae	s		
231	<i>Sanicula crassicaulis</i>	Pacific sanicle	SACR2	Umbelliferaceae	p		
232	<i>Saxifraga integrifolia</i> var. <i>integrifolia</i>	swamp saxifrage	SAINI	Saxifragaceae	p		
233	<i>Scirpus microcarpus</i>	panicked bulrush	SCMI2	Cyperaceae	p		
234	<i>Sedum oreganum</i>	Oregon stonecrop	SEOR	Crassulaceae	p		
235	<i>Sedum spathulifolium</i>	broadleaf stonecrop	SESP	Crassulaceae	p		
236	<i>Selaginella wallacei</i>	Wallace'sselaginella	SEWA	Selaginellaceae	cm		
237	<i>Senecio vulgaris</i>	common groundsel	SEVU	Compositae	p	a	
238	<i>Shepherdia canadensis</i>	buffaloberry, soopolallie	SHCA	Elaeagnaceae	s		
239	<i>Smilacina racemosa</i>	western solomon's seal	SMRA	Liliaceae	p		
240	<i>Smilacina stellata</i>	star-flowered solomon's seal	SMST	Liliaceae	p		
241	<i>Solanum dulcamara</i>	bittersweet nightshade	SODU	Solanaceae	p	a	
242	<i>Solidago canadensis</i>	goldenrod	SOCA6	Compositae	p		
243	<i>Sonchus oleraceus</i>	common sowthistle	SOOL	Compositae	a	a	

244	<i>Sorbus aucuparia</i>	european mountain-ash	SOAU	Rosaceae	s	a	
245	<i>Stachys cooleyae</i>	cooley's hedge-nettle	STCO14	Labiatae	p		
246	<i>Stachys mexicana</i>	great betony	STME	Labiatae	p		
247	<i>Stellaria calycantha</i>	northern starwort	STCA	Caryophyllaceae	a		
248	<i>Stellaria crispa</i>	crisped starwort	STCR2	Caryophyllaceae	p		
249	<i>Stellaria media</i>	chickweed	STME2	Caryophyllaceae	a	a	
250	<i>Streptopus amplexifolius</i>	twisted-stalk	STAM2	Liliaceae	p		
251	<i>Symphoricarpos albus</i>	common snowberry	SYAL	Caprifoliaceae	s		
252	<i>Tanacetum vulgare</i>	common tansy	TAVU	Compositae	p	a	
253	<i>Taraxacum officinale</i>	common dandelion	TAOF	Compositae	p		
254	<i>Taxus brevifolia</i>	Pacific yew	TABR2	Taxaceae	s		
255	<i>Tellima grandiflora</i>	fringecup	TEGR2	Saxifragaceae	p		
256	<i>Thuja plicata</i>	western redcedar	THPL	Cupressaceae	t		
257	<i>Tiarella trifoliata</i>	foamflower	TITR	Saxifragaceae	p		
258	<i>Tolmiea menziesii</i>	youth-on-age	TOME	Saxifragaceae	p		
259	<i>Trientalis latifolia</i>	western starflower	TRLA6	Primulaceae	p		
260	<i>Trifolium microcephalum</i>	woolly clover	TRMI4	Leguminosae	a		
261	<i>Trifolium pratense</i>	red clover	TRPR2	Leguminosae	p	a	
262	<i>Trifolium repens</i>	white clover	TRRE3	Leguminosae	p	a	
263	<i>Trifolium willdenovii</i>	tomcat clover	TRWI	Leguminosae	p		
264	<i>Trillium ovatum</i>	white trillium	TROV	Liliaceae	p		
265	<i>Trisetum cernuum</i>	nodding trisetum	TRCE2	Gramineae	g		
266	<i>Tsuga heterophylla</i>	Pacific hemlock	TSHE	Pinaceae	t		
267	<i>Typha latifolia</i>	common cattail	TYLA	Typhaceae	p		
268	<i>Urtica dioica</i>	stinging nettle	URDI	Urticaceae	p		
269	<i>Vaccinium parvifolium</i>	red huckleberry	VAPA	Ericaceae	s		
270	<i>Veronica americana</i>	American brooklime	VEAM2	Scrophulariaceae	p		
271	<i>Veronica officinalis</i>	common speedwell	VEOF2	Scrophulariaceae	p	a	
272	<i>Veronica serpyllifolia</i>	thyme-leaf speedwell	VESE	Scrophulariaceae	p		
273	<i>Vicia americana</i>	American vetch	VIAM	Leguminosae	p		
274	<i>Vicia gigantea</i>	Giant Vetch	VIGI	Leguminosae	p		
275	<i>Vicia sativa</i>	common vetch	VISA	Leguminosae	p	a	
276	<i>Viola sempervirens</i>	evergreen violet	WISE3	Violaceae	p		
277	<i>Zigadenus venenosus</i>	meadow death-camas	ZIVE	Liliaceae	p		
278	<i>Zostera marina</i>	big eelgrass	ZOMA	Zosteraceae	p		



## ***Discussion***

Previous to PBI's 2004 survey, no state or federally listed vascular plants had been documented within Larrabee State Park. Our 2004 project did not locate any new populations of rare plants. The plant associations found within the park are quite common in the Puget Sound region and it is likely that no rare plants exist in the park.

Nearly all of Larrabee's forests have been logged at least once in the last century, and extensive road/trail construction has impacted much of Larrabee's vegetation communities, especially in areas along or near the coast where there is greater human use of the park. The young to early mature secondary forest conditions that make up a large proportion of Larrabee's forests are known to have the least amount of vegetative diversity in relation to other successional stages.

Forests within Larrabee that are in later successional stages tend to be located on very steep hillsides where forest productivity is marginal. Graminoid and herbaceous species presence and diversity can be high in these areas, but only relatively common plants were found in these areas. Some of the steepest regions of Larrabee are only safely accessible using ropes and climbing gear, which PBI did not have or use in the 2004 surveys. The steepest hillsides and cliffs are regions that should be focused on in future botanical surveys.

The wetlands on the east side of Chuckanut Mountain have a high plant diversity. The extensive large woody debris cover that persists in many of these wetlands allows for diverse herbaceous and shrub species establishment above the wetland high water line – conditions that are unique within Larrabee State Park. Many species crowd together along each log and stump. Even though rare plants do not appear to exist in these wetlands, they are fascinating places for botanical exploration. It is possible that a rare plant species might some day be found in these wetlands with their constantly fluctuating water levels. Efficient surveying of the wetland communities can be quite difficult due to the combination of extensive woody debris cover and the soft mud and deep water prohibiting easy access on foot.

We extensively surveyed for rare plants on and near the rocky balds where the DACA-ERLA plant association is found. Though the plant association itself is listed as state ranked S1, no listed plants were found within these areas.

## **Ecological Condition of Larrabee State Park**

Overall, the ecological condition of Larrabee State Park is good, especially when compared to the surrounding developed and more recently logged landscape in the rest of the Chuckanut area. Though activities of historical logging and development have made some drastic alterations to forest structure and composition throughout the park, many of Larrabee's forests are naturally regenerating in desirable successional patterns with native plants. Exotic plant infestations are limited to a few areas where disturbance is most frequent, such as campgrounds, parking lots, and roadsides.

Though the ecological quality of most of Larrabee's forested plant associations have been devalued due to logging, much of the park's areas could recover into higher quality conditions given time and proper management. Minimizing intentional human caused canopy and substrate disturbances such

as logging, bulldozing, and road/trail creation should help to reduce new exotic plant infestations in areas that currently possess mostly native species composition. Minimizing perpetual off-trail hiking would be helpful in allowing natural understory regeneration to occur, especially in areas with a steeper grade where pedestrian caused erosion is widespread and apparent.

The suppression of natural wildfire cycles on Chuckanut Mountain is possibly adversely affecting the DACA-ERLA and PSME/ROGY-HODI plant associations. As mentioned earlier, DACA-ERLA is listed as state ranked S1, and PSME/ROGY-HODI is listed as global status G2 and G3, and state ranked S2. Fire suppression promotes forest and shrub encroachment within these communities, replacing them over time with more common and less fire adapted plant association types. Consistent monitoring and removal of Douglas-fir seedlings/saplings is one suggestion popularly made for conserving the open grassland character of DACA-ERLA areas.

Wildlife does and will continue to use Larrabee State Park for permanent and migratory habitat. An assortment of shore and song birds, as well as raptors, owls, amphibians, and mammals were encountered all over the park by the PBI field crew during this project. As surrounding private lands are logged and developed, and as the ecological condition of Larrabee State Park continues to improve over time, the park's role as an important provider of increasingly marginalized habitat types will amplify. Managing the park's landscape to provide minimally disturbed natural habitat conditions for the areas wildlife will increase the properties ecological value over time.

#### **Wildlife encountered in Larrabee State Park.**





## GIS Products Produced

Associated with this report is a polygon layer created by PBI depicting the vegetation community types mapped in Larrabee State Park. The dataset has been converted into ESRI shapefile format and provided to the Washington State Parks and Recreation Commission. The spatial datasets are complete with metadata meeting FGDC standards. Refer to the associated metadata for descriptions and attribute definitions for each spatial dataset.

## References

Chappell C.B. 2004. Terrestrial plant associations of the Puget trough ecoregion, Washington. Washington Natural Heritage Program. Washington Department of Natural Resources. Olympia WA.

Chappell C.B. 1993. Washington State Parks Natural Forest Inventory: Larrabee. Washington Department of Natural Resources. Olympia WA.

Kunze. L.M. 1994. Preliminary classification of native, low elevation, freshwater wetland vegetation in western Washington. Washington Natural Heritage Program. Washington Department of Natural Resources. Olympia WA.

## **Appendix A - Field Survey Schedule**

Field Session 1: May 18 - 19, 2004

Field Staff: Hans Smith, Dana Visalli, Dane Springmeyer

Field Session 2: July 12 - 14, 2004

Field Staff: Hans Smith, Peter Morrison, Dane Springmeyer

Field Session3: August 17 – 20, 2004

Field Staff: Dane Springmeyer

Field Session4: October 13 – 14, 2004

Field Staff: Peter Morrison



## Appendix B – Vegetation Survey Data

### Legend:

**Site** = name of locality of map project

**Polygon** = number you put on map

**Name/Date** = your name / day-month-year completed polygon survey

**Photo roll/number** = number of roll (on canister) and number of shot

### Survey intensity

1 = walked or could see most of polygon (high confidence in survey data)

2 = walked or could see part of polygon interior (moderate confidence)

3 = walked perimeter or could see part of polygon interior (low confidence)

4 = photo interpretation or other remote survey

### VEGETATION COVER

This is canopy cover, i.e. the space between leaves/branches is included in “cover”. Each Life form category canopy cover must be 0-100%. Therefore, the sum of all life forms (layers) can exceed 100%. List most abundant species in each life form category; when trees are cored, note DBH, species, length of core, number of rings counted.

**TOTAL VEGETATION COVER** includes all vascular plants, mosses, lichens and foliose lichens (crustose lichens excluded they are considered rock); this never exceeds 100%.

**SOIL SURFACE** estimate to nearest % the following, the sum of the categories adds to 100%

Rock outcrop = exposed bedrock including detached boulders over 1m across

Gravel/cobble = large fragments between sand and boulder

Bareground = exposed mineral soil

Mosses/lichens = nonvascular plant cover on soil

Litter = includes logs, branches, and basal area of plants

Describe in comments if there is wide variation in any category; note % standing water if it is persistent or characteristic of site.

**LAND USE** - put 0 (zero) if not applicable to site.

### Logging

1 = unlogged, no evidence of past logging or occasional cut stumps not part of systematic harvest of trees, no or very little impact on stand composition

2 = selectively logged: frequent cut stumps but origin of dominant or co-dominant cohort appears to be natural disturbance

3 = heavy logging disturbance with natural regeneration: many cut stumps that predate the dominant or co-dominant cohort with no tree planting

4 = tree plantation: dominant cohort appears to be planted after clearcutting

**Stand Age**

- 1 = very young 0-40 yr
- 2 = young 40-90 yr
- 3 = mature 90-200 yr
- 4 = old-growth 200+ yr
- 5 = young with scattered old trees (2-10 old trees per acre)
- 6 = mature with scattered old trees

**Agriculture**

- 1 = active annual cropping
- 2 = active perennial herbaceous cropping
- 3 = active woody plant cultivation
- 4 = fallow, plowed no crops this yr
- 5 = Federal CRP
- 6 = other

**Livestock**

- 1 = active heavy grazing (most forage used to ground soil compaction or churning)
- 2 = active moderate grazing (25-75% forage used)
- 3 = active light grazing (lots of last yr's litter left)
- 4 = no current, heavy past grazing
- 5 = no current, light past grazing
- 6 = no obvious sign of grazing

**Development**

- 1 = actively used facilities
- 2 = roads
- 3 = established trails
- 4 = abandoned facilities
- 5 = none obvious
- 6 = multiple types (detail in comments)

**Wildlife**

- 1 = heavy ungulate use
- 2 = moderate ungulate use
- 3 = light to no ungulate use
- 4 = burrowing animals
- 5 = active beaver
- 6 = active porcupine
- 7 = other, list animal

**Recreation Use Severity**

- 1 = heavy use, abundant soil and vegetation displacement off trail/road
- 2 = moderate use, frequent soil and vegetation displacement off trail/road
- 3 = light use, little sign of activity off trail/road



**Recreation Use Primary Type**

- 1 = wheeled
- 2 = hoofed
- 3 = pedestrian
- 4 = combination of above
- 5 = other

**Hydrology**

- 1 = unaltered
- 2 = altered; dams, dikes, ditches, culverts, etc
- 3 = not assessed

**Plant Association (PA)** = list all PAs encountered in polygon survey, in comments list source of name if not on provided key.

**Condition Rank** of PA in key or estimate

**% of Polygon** = your estimate

**Pattern** = how PA is distributed in polygon

- 1 = matrix (most of polygon)
- 2 = large patches
- 3 = small patches
- 4 = clumped, clustered, contiguous
- 5 = scattered, more or less evenly repeating
- 6 = linear
- 7 = other

**Exotic** = primary species observed; secondary species observed.

**Plot Number** = number of any plots established for EO (element occurrence), or other more detail sheets within polygon.

## Data:

<b>Polygon Number</b>	1
<b>Survey Intensity</b>	4
<b>Observer</b>	Hans
<b>Date</b>	2/5/2005
<b>Specific Location</b>	Very North section of the Park, along N border
<b>Total Vegetation</b>	100
<b>Trees Total</b>	99
<b>emergent</b>	10
<b>main canopy</b>	83
<b>subcanopy</b>	6
<b>Shrubs Total</b>	13
<b>&gt; 1.5' tall</b>	7
<b>&lt; 1.5' tall</b>	6
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	2
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	42
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	
<b>Exotics perennial</b>	
<b>Exotics annual</b>	
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	3
<b>Moss-Lichen</b>	4
<b>Litter</b>	92
<b>Logging</b>	2
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	0
<b>Development</b>	2
<b>Wildlife</b>	3
<b>Recreation Severity</b>	3
<b>Recreation Type</b>	4
<b>Hydrology</b>	1

## Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	85	1
2. PSME-TSHE/GASH/POMU	15	2
3		



**Polygon Number** 2  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/5/2005  
**Specific Location** Very North section of the Park, along N border

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 1  
**main canopy** 95  
**subcanopy** 1  
**Shrubs Total** 25  
**> 1.5' tall** 18  
**< 1.5' tall** 7  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 5  
**Forbs annual** 1  
**Ferns - evergreen** 20  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 87  
**Logging** 3  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 3  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	95	1
2. ALRU/POMU	5	3
3		

**Polygon Number** 4  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 1  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 5  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	65	2
2. TSHE-PSME/POMU-DREX	35	4
3		

**Polygon Number** 6  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 7  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 8  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 15  
**main canopy** 73  
**subcanopy** 9  
**Shrubs Total** 65  
**> 1.5' tall** 38  
**< 1.5' tall** 27  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 18  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 3  
**Litter** 93  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 1  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/GASH/POMU	75	1
2. TSHE-PSME/POMU-DREX	25	2
3		

**Polygon Number** 9  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North section of park along trail

**Total Vegetation** 99  
**Trees Total** 97  
**emergent** 1  
**main canopy** 90  
**subcanopy** 6  
**Shrubs Total** 13  
**> 1.5' tall** 5  
**< 1.5' tall** 8  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 3  
**Forbs perennial** 2  
**Forbs annual** 1  
**Ferns - evergreen** 40  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 1  
**Litter** 97  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	90	1
2. ALRU/POMU	10	3
3		

**Polygon Number** 10  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North Section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 15  
**main canopy** 72  
**subcanopy** 8  
**Shrubs Total** 73  
**> 1.5' tall** 45  
**< 1.5' tall** 28  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	95	1
2. PSME-TSHE/GASH-HODI	5	3
3		



**Polygon Number** 11  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** E satellite parcel

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	80	1
2. ALRU/POMU	20	3
3		

**Polygon Number** 12  
**Survey Intensity** 2

**Observer** DS  
**Date** 8/20/2004

**Specific Location** In Northeastern block - near center in mature forest with very little historic cutting and

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 25  
**main canopy** 57  
**subcanopy** 15  
**Shrubs Total** 10  
**> 1.5' tall** 7  
**< 1.5' tall** 3  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 3  
**Forbs perennial** 3  
**Forbs annual** 0  
**Ferns - evergreen** 45  
**Ferns - deciduous** 7  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 8  
**Litter** 90  
**Logging** 2  
**Stand Age** 6  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 13  
**Survey Intensity** 1  
  
**Observer** DS  
**Date** 8/20/2004  
**Specific Location** In NE block in thinner, smaller, drier forest

**Total Vegetation** 99  
**Trees Total** 99  
**emergent** 2  
**main canopy** 82  
**subcanopy** 15  
**Shrubs Total** 7  
**> 1.5' tall** 6  
**< 1.5' tall** 1  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 0  
**Litter** 98  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	80	1
2. PSME-TSHE/MANE	20	3
3		



**Polygon Number** 14  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 7/14/2004  
**Specific Location** west of trail to Cedar & Pine Lakes in first SP section

**Total Vegetation** 100  
**Trees Total** 100  
**emergent** 21  
**main canopy** 70  
**subcanopy** 9  
**Shrubs Total** 26  
**> 1.5' tall** 1  
**< 1.5' tall** 25  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 30  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 1  
**Litter** 98  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Ilex aquifolium  
**secondary spp**

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	73	1
2. PSME-TSHE/MANE/POMU	25	2
3. THPL-TSHE/OPHO/POMU	2	3

**Polygon Number** 15  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Northern section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 15  
**main canopy** 72  
**subcanopy** 8  
**Shrubs Total** 73  
**> 1.5' tall** 45  
**< 1.5' tall** 28  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	90	1
2. PSME-TSHE/GASH-HODI	6	3
3. PSME-TSHE/GASH-MANE	4	3

**Polygon Number** 16  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Northern section of Park

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 15  
**main canopy** 73  
**subcanopy** 9  
**Shrubs Total** 65  
**> 1.5' tall** 38  
**< 1.5' tall** 27  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 18  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 3  
**Litter** 93  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	70	1
2. TSHE-PSME/POMU-DREX	25	2
3. PSME-TSHE/HODI/POMU	5	3



**Polygon Number** 17  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Northern section of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 1  
**Recreation Severity** 2  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	97	1
2. ALRU/POMU	3	3
3		

**Polygon Number** 18  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Northern section of Park

**Total Vegetation** 100  
**Trees Total** 14  
**emergent** 2  
**main canopy** 10  
**subcanopy** 2  
**Shrubs Total** 17  
**> 1.5' tall** 12  
**< 1.5' tall** 5  
**Graminoids Total** 46  
**Graminoids perennial** 43  
**Graminoids annual** 3  
**Forbs Total** 18  
**Forbs perennial** 15  
**Forbs annual** 3  
**Ferns - evergreen** 3  
**Ferns - deciduous** 10  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 2  
**Bare Ground** 2  
**Moss-Lichen** 15  
**Litter** 81  
**Logging** 2  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 3

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 19  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** w satellite parcel of park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	55	2
2. TSHE-PSME/POMU-DREX	45	2
3		

**Polygon Number** 20  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** w satellite parcel of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	85	1
2. ALRU/POMU	15	2
3		



<b>Polygon Number</b>	21
<b>Survey Intensity</b>	2
<b>Observer</b>	DS
<b>Date</b>	8/20/2004
<b>Specific Location</b>	In northeastern corner block of steep mature forest - in first terrace in central - SE part
<b>Total Vegetation</b>	100
<b>Trees Total</b>	95
<b>emergent</b>	19
<b>main canopy</b>	57
<b>subcanopy</b>	19
<b>Shrubs Total</b>	7
<b>&gt; 1.5' tall</b>	5
<b>&lt; 1.5' tall</b>	2
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	3
<b>Forbs perennial</b>	3
<b>Forbs annual</b>	0
<b>Ferns - evergreen</b>	50
<b>Ferns - deciduous</b>	3
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	5
<b>Gravel</b>	0
<b>Bare Ground</b>	0
<b>Moss-Lichen</b>	10
<b>Litter</b>	85
<b>Logging</b>	3 (and/or burn)
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	5
<b>Wildlife</b>	0
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	95	1
2. THPL-TSHE/OPHO/POMU	5	6
3		

**Polygon Number** 22  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** w satellite parcel of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	70	1
2. ALRU/POMU	25	5
3. PSME-TSHE/GASH/POMU	5	3

**Polygon Number** 24  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** Cleator Road SW of 2nd switchback

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 12  
**main canopy** 67  
**subcanopy** 19  
**Shrubs Total** 65  
**> 1.5' tall** 30  
**< 1.5' tall** 35  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total** 2  
**Exotics perennial** 2  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 1  
**Stand Age** 2,4  
**Agriculture** 0  
**Livestock** 6  
**Development** 2  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Hedera helix  
**secondary spp**

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	45	1
2. TSHE-PSME/POMU-DREX	25	2
3. PSME-TSHE/MANE/POMU	30	2

**Polygon Number** 26  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** SW of 2nd swithback near cleator rd.

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 27  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** w satellite parcel of park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	75	1
2. TSHE-PSME/POMU-DREX	25	3
3		

**Polygon Number** 31  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** South & above Cleator Road above SP gate

**Total Vegetation** 95  
**Trees Total** 95  
**emergent** 1  
**main canopy** 75  
**subcanopy** 19  
**Shrubs Total** 8  
**> 1.5' tall** 5  
**< 1.5' tall** 3  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 70  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 2  
**Bare Ground** 2  
**Moss-Lichen** 5  
**Litter** 91  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 2  
**Wildlife** 0  
**Recreation Severity** 2  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Geranium robertianum  
**secondary spp** Plantago major

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 32  
**Survey Intensity** 2  
  
**Observer** DS  
**Date** 7/14/2004  
**Specific Location** In alder stand in wet depression west side of Cleator Rd

**Total Vegetation** 100  
**Trees Total** 75  
**emergent** 0  
**main canopy** 60  
**subcanopy** 15  
**Shrubs Total** 95  
**> 1.5' tall** 90  
**< 1.5' tall** 5  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 5  
**Forbs perennial** 4  
**Forbs annual** 1  
**Ferns - evergreen** 20  
**Ferns - deciduous** 2  
**Exotics Total** 1  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 25  
**Litter** 73  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 2  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

<b>Polygon Number</b>	35
<b>Survey Intensity</b>	1
<b>Observer</b>	PM
<b>Date</b>	10/14/2004
<b>Specific Location</b>	East of Cleator Road above turn off to private road, below SP gate
<b>Total Vegetation</b>	100
<b>Trees Total</b>	95
<b>emergent</b>	10
<b>main canopy</b>	75
<b>subcanopy</b>	10
<b>Shrubs Total</b>	85
<b>&gt; 1.5' tall</b>	45
<b>&lt; 1.5' tall</b>	40
<b>Graminoids Total</b>	3
<b>Graminoids perennial</b>	2
<b>Graminoids annual</b>	1
<b>Forbs Total</b>	4
<b>Forbs perennial</b>	2
<b>Forbs annual</b>	2
<b>Ferns - evergreen</b>	15
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	2
<b>Exotics perennial</b>	2
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	0
<b>Gravel</b>	3
<b>Bare Ground</b>	3
<b>Moss-Lichen</b>	15
<b>Litter</b>	79
<b>Logging</b>	1
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	5
<b>Wildlife</b>	0
<b>Recreation Severity</b>	2
<b>Recreation Type</b>	
<b>Hydrology</b>	1

### Exotic Species

<b>primary spp</b>	Geranium robertianum
<b>secondary spp</b>	Plantago major

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
<b>1.</b> PSME-TSHE/MANE/POMU	70	1
<b>2.</b> PSME-TSHE/GASH/POMU	20	3
<b>3.</b> PSME-TSHE/HODI/POMU	10	3



**Polygon Number** 36  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	65	1
2. ALRU/POMU	35	5
3		

**Polygon Number** 37  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S of big U turn in N part of Cleator Rd

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 15  
**main canopy** 72  
**subcanopy** 8  
**Shrubs Total** 73  
**> 1.5' tall** 45  
**< 1.5' tall** 28  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	90	1
2. PSME-TSHE/GASH-MANE	7	2
3. PSME-TSHE/MANE	3	3

**Polygon Number** 38  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	82	1
2. TSHE-PSME/POMU-DREX	15	3
3. THPL-TSHE/OPHO/POMU	3	6

**Polygon Number** 39  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 40  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	90	1
2. ALRU/POMU	10	3
3		

**Polygon Number** 43  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	60	2
2. ALRU/POMU	40	5
3		

**Polygon Number** 44  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 100  
**Trees Total** 60  
**emergent** 0  
**main canopy** 55  
**subcanopy** 5  
**Shrubs Total** 90  
**> 1.5' tall** 80  
**< 1.5' tall** 10  
**Graminoids Total** 30  
**Graminoids perennial** 30  
**Graminoids annual** 0  
**Forbs Total** 10  
**Forbs perennial** 10  
**Forbs annual** 0  
**Ferns - evergreen** 4  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 0  
**Litter** 100  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. ALRU/RUSP	95	1
2. Salix spp. community type	5	3
3		

**Polygon Number** 45  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	99	1
2. THPL-TSHE/OPHO/POMU	1	6
3		

**Polygon Number** 46  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 47  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 7/13/2004  
**Specific Location** Cleator Rd. - road to Fragrant Lake trail

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 5  
**main canopy** 85  
**subcanopy** 5  
**Shrubs Total** 20  
**> 1.5' tall** 5  
**< 1.5' tall** 15  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 4  
**Forbs perennial** 3  
**Forbs annual** 1  
**Ferns - evergreen** 55  
**Ferns - deciduous** 5  
**Exotics Total** 1  
**Exotics perennial** 0  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 3  
**Litter** 96  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

**primary spp** Geranium robertianum  
**secondary spp** Ilex aquifolium

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 48  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 49  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 50  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Eastern portion of Park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. ALRU/POMU	65	1
2. TSHE-PSME/POMU-DREX	30	5
3. PSME-TSHE/GASH/POMU	5	3

**Polygon Number** 52  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 53  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** East portion of Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 55  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 56  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Eastern portion of Park, N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 90  
**emergent** 8  
**main canopy** 69  
**subcanopy** 13  
**Shrubs Total** 45  
**> 1.5' tall** 38  
**< 1.5' tall** 7  
**Graminoids Total** 3  
**Graminoids perennial** 2  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 25  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 57  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 58  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** North central section of park - N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	80	1
2. ALRU/POMU	20	5
3		



**Polygon Number** 60  
**Survey Intensity** 2

**Observer** DS  
**Date** 8/17/2004

**Specific Location** Along coniferous ridge northeast of Lost Lake ? Understory, downed trees, ???

**Total Vegetation** 100  
**Trees Total** 100  
**emergent** 10  
**main canopy** 80  
**subcanopy** 10  
**Shrubs Total** 0  
**> 1.5' tall** 0  
**< 1.5' tall** 0  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 0  
**Forbs perennial** 0  
**Forbs annual** 0  
**Ferns - evergreen** 3  
**Ferns - deciduous** 2  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 3  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 0  
**Litter** 97  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 61  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Central portion of Park just E of long ridgeline

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	95	1
2. TSHE-PSME/POMU-DREX	5	3
3		

<b>Polygon Number</b>	62
<b>Survey Intensity</b>	4
<b>Observer</b>	Hans
<b>Date</b>	2/12/2005
<b>Specific Location</b>	N of Lost Lake

<b>Total Vegetation</b>	99
<b>Trees Total</b>	95
<b>emergent</b>	9
<b>main canopy</b>	75
<b>subcanopy</b>	11
<b>Shrubs Total</b>	13
<b>&gt; 1.5' tall</b>	7
<b>&lt; 1.5' tall</b>	6
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	2
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	42
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	
<b>Exotics perennial</b>	
<b>Exotics annual</b>	
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	3
<b>Moss-Lichen</b>	4
<b>Litter</b>	92
<b>Logging</b>	2
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	0
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 63  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	65	1
2. ALRU/POMU	35	5
3		

**Polygon Number** 65  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** east of private road above Cleator Road

**Total Vegetation** 90  
**Trees Total** 85  
**emergent** 1  
**main canopy** 82  
**subcanopy** 2  
**Shrubs Total** 45  
**> 1.5' tall** 30  
**< 1.5' tall** 15  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 8  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 5  
**Litter** 95  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/MANE/POMU	65	1
2. PSME-TSHE/GASH/POMU	25	2
3. TSHE-PSME/POMU-DREX	10	3



**Polygon Number** 68  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 69  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	100	1
2.		
3		

**Polygon Number** 70  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 7/13/2004  
**Specific Location** ALRU forest strip north of Fragrant Lake

**Total Vegetation** 100  
**Trees Total** 90  
**emergent** 68  
**main canopy** 20  
**subcanopy** 2  
**Shrubs Total** 85  
**> 1.5' tall** 80  
**< 1.5' tall** 5  
**Graminoids Total** 5  
**Graminoids perennial** 5  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 5  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 20  
**Moss-Lichen** 10  
**Litter** 70  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 71  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 72  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 2  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 73  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Central portion of Park just E of long ridgeline

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/GASH/POMU	100	1
2.		
3		



**Polygon Number** 74  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of Lost Lake

**Total Vegetation** 100  
**Trees Total** 14  
**emergent** 2  
**main canopy** 10  
**subcanopy** 2  
**Shrubs Total** 17  
**> 1.5' tall** 12  
**< 1.5' tall** 5  
**Graminoids Total** 46  
**Graminoids perennial** 43  
**Graminoids annual** 3  
**Forbs Total** 18  
**Forbs perennial** 15  
**Forbs annual** 3  
**Ferns - evergreen** 3  
**Ferns - deciduous** 10  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 2  
**Bare Ground** 2  
**Moss-Lichen** 15  
**Litter** 81  
**Logging** 2  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 75  
**Survey Intensity** 1  
  
**Observer** SW  
**Date** 8/19/2004  
**Specific Location** Wetland about 3/4 mile northeast of Lost Lake

**Total Vegetation** 95  
**Trees Total** 0  
**emergent** 0  
**main canopy** 0  
**subcanopy** 0  
**Shrubs Total** 35  
**> 1.5' tall** 33  
**< 1.5' tall** 2  
**Graminoids Total** 41  
**Graminoids perennial** 40  
**Graminoids annual** 1  
**Forbs Total** 20  
**Forbs perennial** 19  
**Forbs annual** 1  
**Ferns - evergreen** 1  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 5  
**Moss-Lichen** 0  
**Litter** 95  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 3, 5  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 76  
**Survey Intensity** 3  
  
**Observer** DS  
**Date** 7/14/2004  
**Specific Location** In coniferous band north of Fragrance Lake

**Total Vegetation** 97  
**Trees Total** 95  
**emergent** 25  
**main canopy** 50  
**subcanopy** 20  
**Shrubs Total** 4  
**> 1.5' tall** 2  
**< 1.5' tall** 2  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 30  
**Ferns - deciduous** 3  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 30  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 68  
**Logging**  
**Stand Age** 6  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 77  
**Survey Intensity** 1  
  
**Observer** DS  
**Date** 8/19/2004  
**Specific Location** On steep slope below and to the east of Lost Lake

**Total Vegetation** 100  
**Trees Total** 99  
**emergent** 2  
**main canopy** 87  
**subcanopy** 10  
**Shrubs Total** 2  
**> 1.5' tall** 2  
**< 1.5' tall** 0  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total**  
**Forbs perennial**  
**Forbs annual**  
**Ferns - evergreen** 35  
**Ferns - deciduous** 15  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 10  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 5  
**Litter** 85  
**Logging** 3  
**Stand Age** 5  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	96	1
2. THPL-TSHE/OPHO/POMU	4	6
3		

**Polygon Number** 78  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** E [portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	60	2
2. ALRU/POMU	40	2
3.		

**Polygon Number** 79  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		



**Polygon Number** 80  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/14/2004  
**Specific Location** E. of Ridge trail

**Total Vegetation** 99  
**Trees Total** 90  
**emergent** 5  
**main canopy** 80  
**subcanopy** 5  
**Shrubs Total** 5  
**> 1.5' tall** 4  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 0  
**Forbs annual** 2  
**Ferns - evergreen** 50  
**Ferns - deciduous** 3  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 2  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 10  
**Litter** 86  
**Logging** 1  
**Stand Age**  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	60	2
2. PSME-TSHE/GASH/POMU	40	5
3		

**Polygon Number** 81  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** NE of Fragrance Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 15  
**main canopy** 72  
**subcanopy** 8  
**Shrubs Total** 70  
**> 1.5' tall** 42  
**< 1.5' tall** 28  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 2  
**Forbs annual** 0  
**Ferns - evergreen** 13  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 4  
**Moss-Lichen** 3  
**Litter** 91  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	85	1
2. PSME-TSHE/HODI/POMU	10	3
3. PSME-TSHE/GASH-HODI	5	3

<b>Polygon Number</b>	82
<b>Survey Intensity</b>	4
<b>Observer</b>	Hans
<b>Date</b>	2/12/2005
<b>Specific Location</b>	N of fragrance lake trail (from campground)
<b>Total Vegetation</b>	99
<b>Trees Total</b>	95
<b>emergent</b>	9
<b>main canopy</b>	75
<b>subcanopy</b>	11
<b>Shrubs Total</b>	13
<b>&gt; 1.5' tall</b>	7
<b>&lt; 1.5' tall</b>	6
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	2
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	42
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	
<b>Exotics perennial</b>	
<b>Exotics annual</b>	
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	3
<b>Moss-Lichen</b>	4
<b>Litter</b>	92
<b>Logging</b>	2
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	0
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 83  
**Survey Intensity** 2  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** north of plot 7 in next valley

**Total Vegetation** 100  
**Trees Total** 90  
**emergent** 14  
**main canopy** 58  
**subcanopy** 18  
**Shrubs Total** 55  
**> 1.5' tall** 20  
**< 1.5' tall** 35  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 15  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	70	1
2. PSME-TSHE/MANE/POMU	30	3
3		

<b>Polygon Number</b>	84
<b>Survey Intensity</b>	4
<b>Observer</b>	Hans
<b>Date</b>	2/12/2005
<b>Specific Location</b>	N of fragrance lake trail (from campground)
<b>Total Vegetation</b>	99
<b>Trees Total</b>	95
<b>emergent</b>	9
<b>main canopy</b>	75
<b>subcanopy</b>	11
<b>Shrubs Total</b>	13
<b>&gt; 1.5' tall</b>	7
<b>&lt; 1.5' tall</b>	6
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	2
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	42
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	
<b>Exotics perennial</b>	
<b>Exotics annual</b>	
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	3
<b>Moss-Lichen</b>	4
<b>Litter</b>	92
<b>Logging</b>	2
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	0
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	88	1
2. PSME-TSHE/MANE/POMU	12	3
3		

**Polygon Number** 85  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** E side of Park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 2  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	60	2
2. TSHE-PSME/POMU-DREX	40	2
3		



<b>Polygon Number</b>	86
<b>Survey Intensity</b>	2
<b>Observer</b>	PM
<b>Date</b>	5/18/2004
<b>Specific Location</b>	old growth stand on cliff west of Fragrant Lake
<b>Total Vegetation</b>	90
<b>Trees Total</b>	80
<b>emergent</b>	10
<b>main canopy</b>	50
<b>subcanopy</b>	20
<b>Shrubs Total</b>	45
<b>&gt; 1.5' tall</b>	30
<b>&lt; 1.5' tall</b>	15
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	0
<b>Ferns - evergreen</b>	25
<b>Ferns - deciduous</b>	1
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	10
<b>Gravel</b>	5
<b>Bare Ground</b>	1
<b>Moss-Lichen</b>	5
<b>Litter</b>	79
<b>Logging</b>	1
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	5
<b>Wildlife</b>	0
<b>Recreation Severity</b>	2
<b>Recreation Type</b>	3
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/HODI/POMU	90	1
2. TSHE-PSME/POMU-DREX	10	3
3		

**Polygon Number** 87  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of fragrance lake trail (from campground)

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	85	1
2. PSME-TSHE/MANE/POMU	10	2
3. PSME-TSHE/GASH/POMU	5	3

**Polygon Number** 88  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 5/18/2004  
**Specific Location** Fragrant Lake margin

**Total Vegetation** 100  
**Trees Total** 60  
**emergent** 0  
**main canopy** 55  
**subcanopy** 5  
**Shrubs Total** 90  
**> 1.5' tall** 80  
**< 1.5' tall** 10  
**Graminoids Total** 30  
**Graminoids perennial** 30  
**Graminoids annual** 0  
**Forbs Total** 10  
**Forbs perennial** 10  
**Forbs annual** 0  
**Ferns - evergreen** 4  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 0  
**Litter** 100  
**Logging** 1  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 0  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. ALRU/RUSP	90	1
2. Salix spp. community type	10	6
3		

<b>Polygon Number</b>	89
<b>Survey Intensity</b>	4
<b>Observer</b>	Hans
<b>Date</b>	2/12/2005
<b>Specific Location</b>	N of fragrance lake trail (from campground)
<b>Total Vegetation</b>	98
<b>Trees Total</b>	95
<b>emergent</b>	6
<b>main canopy</b>	80
<b>subcanopy</b>	9
<b>Shrubs Total</b>	45
<b>&gt; 1.5' tall</b>	15
<b>&lt; 1.5' tall</b>	30
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	0
<b>Ferns - evergreen</b>	15
<b>Ferns - deciduous</b>	1
<b>Exotics Total</b>	
<b>Exotics perennial</b>	
<b>Exotics annual</b>	
<b>Rock Outcrop</b>	0
<b>Gravel</b>	1
<b>Bare Ground</b>	2
<b>Moss-Lichen</b>	4
<b>Litter</b>	93
<b>Logging</b>	2
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	0
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/MANE/POMU	65	1
2. TSHE-PSME/POMU-DREX	35	2
3		

**Polygon Number** 90  
**Survey Intensity** 2  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N of Chuckanut Mt summit, along road

**Total Vegetation** 99  
**Trees Total** 90  
**emergent** 7  
**main canopy** 69  
**subcanopy** 14  
**Shrubs Total** 45  
**> 1.5' tall** 38  
**< 1.5' tall** 7  
**Graminoids Total** 3  
**Graminoids perennial** 2  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 25  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

## Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. ALRU/POMU	80	1
2. PSME-TSHE/GASH/POMU	10	3
3. PSME-TSHE/MANE/POMU	10	3

**Polygon Number** 91  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** north of plot 6

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 25  
**main canopy** 60  
**subcanopy** 10  
**Shrubs Total** 5  
**> 1.5' tall** 2  
**< 1.5' tall** 3  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 3  
**Forbs perennial** 2  
**Forbs annual** 1  
**Ferns - evergreen** 25  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 19  
**Moss-Lichen** 3  
**Litter** 78  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	85	1
2. PSME-TSHE/MANE/POMU	15	3
3		

**Polygon Number** 93  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Fragrance Lake

**Total Vegetation** 99  
**Trees Total** 19  
**emergent** 3  
**main canopy** 12  
**subcanopy** 4  
**Shrubs Total** 50  
**> 1.5' tall** 45  
**< 1.5' tall** 5  
**Graminoids Total** 15  
**Graminoids perennial** 13  
**Graminoids annual** 2  
**Forbs Total** 10  
**Forbs perennial** 8  
**Forbs annual** 2  
**Ferns - evergreen** 3  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 3  
**Litter** 96  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - lake	100	1
2.		
3		



**Polygon Number** 94  
**Survey Intensity** 2

**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Lost Lake

**Total Vegetation** 99  
**Trees Total** 19  
**emergent** 3  
**main canopy** 12  
**subcanopy** 4  
**Shrubs Total** 50  
**> 1.5' tall** 45  
**< 1.5' tall** 5  
**Graminoids Total** 15  
**Graminoids perennial** 13  
**Graminoids annual** 2  
**Forbs Total** 10  
**Forbs perennial** 8  
**Forbs annual** 2  
**Ferns - evergreen** 3  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 3  
**Litter** 96  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - lake	100	1
2.		
3		

**Polygon Number** 95  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/14/2004  
**Specific Location** W. side of Lost Lake

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 8  
**main canopy** 76  
**subcanopy** 11  
**Shrubs Total** 3  
**> 1.5' tall** 2  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 35  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 2  
**Litter** 95  
**Logging** 2  
**Stand Age**  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 99  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W of Lost Lake

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 101  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/14/2004  
**Specific Location** below big turn on Chuckanut Mt

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 3  
**main canopy** 82  
**subcanopy** 13  
**Shrubs Total** 5  
**> 1.5' tall** 4  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 0  
**Forbs annual** 2  
**Ferns - evergreen** 25  
**Ferns - deciduous** 3  
**Exotics Total** 2  
**Exotics perennial** 1  
**Exotics annual** 1  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 2  
**Litter** 95  
**Logging** 2  
**Stand Age**  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	90	1
2. PSME/GASH-HODI	10	6
3		

**Polygon Number** 102  
**Survey Intensity** 2  
  
**Observer** DV  
**Date** 5/18/2004  
**Specific Location** on way to Fragrance Lake

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 3  
**main canopy** 85  
**subcanopy** 10  
**Shrubs Total** 30  
**> 1.5' tall** 0  
**< 1.5' tall** 30  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 0  
**Forbs perennial** 0  
**Forbs annual** 0  
**Ferns - evergreen** 10  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 5  
**Bare Ground** 5  
**Moss-Lichen** 2  
**Litter** 88  
**Logging** 1  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 7, birds  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/MANE/POMU	100	1
2.		
3		

**Polygon Number** 103  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** conifer stand north of 23

**Total Vegetation** 100  
**Trees Total** 100  
**emergent** 31  
**main canopy** 48  
**subcanopy** 21  
**Shrubs Total** 39  
**> 1.5' tall** 36  
**< 1.5' tall** 3  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 50  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 7  
**Litter** 93  
**Logging** 1  
**Stand Age** 2,3,4  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 104  
**Survey Intensity** 1  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Campground and parking area

**Total Vegetation**

**Trees Total**  
 emergent  
 main canopy  
 subcanopy  
**Shrubs Total**  
 > 1.5' tall  
 < 1.5' tall  
**Graminoids Total**  
 Graminoids perennial  
 Graminoids annual  
**Forbs Total**  
 Forbs perennial  
 Forbs annual  
 Ferns - evergreen  
 Ferns - deciduous  
**Exotics Total**  
 Exotics perennial  
 Exotics annual  
**Rock Outcrop**  
 Gravel  
**Bare Ground**  
 Moss-Lichen  
 Litter  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - campground and parking/recreational area  
**Wildlife** 3  
**Recreation Severity** 1  
**Recreation Type** 4  
**Hydrology** 2

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. developed area	100	1
2.		
3		



**Polygon Number** 106  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W of Chuckanut Mt summit

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 15  
**main canopy** 72  
**subcanopy** 8  
**Shrubs Total** 67  
**> 1.5' tall** 38  
**< 1.5' tall** 29  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 15  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 3  
**Litter** 92  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/GASH/POMU	90	1
2. PSME-TSHE/MANE/POMU	10	3
3		

**Polygon Number** 107  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Central portion of park, S - SW of Chuckanut Mt summit

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	80	1
2. TSHE-PSME/POMU-DREX	20	3
3		

**Polygon Number** 108  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** alder forest between parking lot & hairpin turn

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 0  
**main canopy** 92  
**subcanopy** 6  
**Shrubs Total** 50  
**> 1.5' tall** 45  
**< 1.5' tall** 5  
**Graminoids Total** 2  
**Graminoids perennial** 2  
**Graminoids annual** 0  
**Forbs Total** 3  
**Forbs perennial** 2  
**Forbs annual** 1  
**Ferns - evergreen** 15  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 5  
**Litter** 95  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Ranunculus repens v. repens  
**secondary spp**

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 109  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W of Chuckanut Mt summit

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 18  
**main canopy** 61  
**subcanopy** 16  
**Shrubs Total** 72  
**> 1.5' tall** 40  
**< 1.5' tall** 32  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 8  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 5  
**Litter** 93  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/GASH/POMU	100	1
2.		
3		

**Polygon Number** 112  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** up trail to Fragrance Lake off trail

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 14  
**main canopy** 63  
**subcanopy** 18  
**Shrubs Total** 35  
**> 1.5' tall** 10  
**< 1.5' tall** 25  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 35  
**Ferns - deciduous** 5  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 10  
**Litter** 89  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Hedera helix  
**secondary spp**

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	80	1
2. PSME-TSHE/GASH/POMU	10	3
3. PSME-TSHE/MANE/POMU	10	2

**Polygon Number** 113  
**Survey Intensity** 2  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S of Lost Lake

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	75	1
2. TSHE-PSME/POMU-DREX	25	5
3		

**Polygon Number** 114  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W of Chuckanut Mt summit

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 15  
**main canopy** 72  
**subcanopy** 8  
**Shrubs Total** 73  
**> 1.5' tall** 45  
**< 1.5' tall** 28  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 2  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	90	1
2. PSME-TSHE/GASH-HODI	10	3
3		



**Polygon Number** 115  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** forest on summit ridge and S slopes

**Total Vegetation** 98  
**Trees Total** 95  
**emergent** 27  
**main canopy** 51  
**subcanopy** 17  
**Shrubs Total** 70  
**> 1.5' tall** 25  
**< 1.5' tall** 45  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 2  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 1  
**Litter** 97  
**Logging** 1  
**Stand Age** 3,4  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH-HODI	100	1
2.		
3		

**Polygon Number** 116  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/13/2004  
**Specific Location** small valley bottom due west of Chuckanut Mt Summit

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 3  
**main canopy** 70  
**subcanopy** 25  
**Shrubs Total** 2  
**> 1.5' tall** 1  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 1  
**Litter** 98  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

**primary spp** Ilex aquifolium  
**secondary spp**

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 118  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S of Lost Lake

**Total Vegetation** 100  
**Trees Total** 14  
**emergent** 2  
**main canopy** 10  
**subcanopy** 2  
**Shrubs Total** 17  
**> 1.5' tall** 12  
**< 1.5' tall** 5  
**Graminoids Total** 46  
**Graminoids perennial** 43  
**Graminoids annual** 3  
**Forbs Total** 18  
**Forbs perennial** 15  
**Forbs annual** 3  
**Ferns - evergreen** 3  
**Ferns - deciduous** 10  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 2  
**Bare Ground** 2  
**Moss-Lichen** 15  
**Litter** 81  
**Logging** 2  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 2

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 119  
**Survey Intensity** 1

**Observer** HS  
**Date** 7/13/2004  
**Specific Location** deciduous forest south of small valley bottom, directly south west of Chuckanut Mt Summit

**Total Vegetation** 100  
**Trees Total** 100  
  **emergent** 0  
  **main canopy** 90  
  **subcanopy** 10  
**Shrubs Total** 1  
  **> 1.5' tall** 0  
  **< 1.5' tall** 1  
**Graminoids Total** 0  
  **Graminoids perennial** 0  
  **Graminoids annual** 0  
**Forbs Total** 1  
  **Forbs perennial** 0  
  **Forbs annual** 1  
**Ferns - evergreen** 40  
**Ferns - deciduous** 1  
**Exotics Total** 0  
  **Exotics perennial** 0  
  **Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 121  
**Survey Intensity** 1  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Water treatment plant

**Total Vegetation**

**Trees Total**  
 emergent  
 main canopy  
 subcanopy  
**Shrubs Total**  
 > 1.5' tall  
 < 1.5' tall  
**Graminoids Total**  
 Graminoids perennial  
 Graminoids annual  
**Forbs Total**  
 Forbs perennial  
 Forbs annual  
 Ferns - evergreen  
 Ferns - deciduous  
**Exotics Total**  
 Exotics perennial  
 Exotics annual  
**Rock Outcrop**  
 Gravel  
**Bare Ground**  
 Moss-Lichen  
 Litter  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - water treatment plant and parking lot  
**Wildlife** 0  
**Recreation Severity** 1  
**Recreation Type** 4  
**Hydrology** 2

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. developed area	100	1
2.		
3		

**Polygon Number** 126  
**Survey Intensity** 2  
  
**Observer** HS  
**Date** 7/13/2004  
**Specific Location** Steep hillside in south side of park just east of railroad track

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 1  
**main canopy** 90  
**subcanopy** 4  
**Shrubs Total** 2  
**> 1.5' tall** 1  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 5  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial**  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 1  
**Litter** 97  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 1  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

**primary spp** Geranium robertianum  
**secondary spp**

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/HODI/POMU	60	2
2. PSME-THSE/GASH/POMU	30	5
3. TSHE-PSME/POMU-DREX	10	2

**Polygon Number** 127  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 128  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S portion of park near coast

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 2

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	75	1
2. PSME-TSHE/GASH/POMU	25	2
3		



<b>Polygon Number</b>	129
<b>Survey Intensity</b>	2
<b>Observer</b>	DS
<b>Date</b>	7/13/2004
<b>Specific Location</b>	Polygon in SW corner of Park on crest of steep slope of dry Doug fir and bigleaf maple
<b>Total Vegetation</b>	100
<b>Trees Total</b>	97
<b>emergent</b>	30
<b>main canopy</b>	60
<b>subcanopy</b>	7
<b>Shrubs Total</b>	85
<b>&gt; 1.5' tall</b>	35
<b>&lt; 1.5' tall</b>	50
<b>Graminoids Total</b>	2
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	2
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	0
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	2
<b>Ferns - deciduous</b>	0
<b>Exotics Total</b>	1
<b>Exotics perennial</b>	
<b>Exotics annual</b>	
<b>Rock Outcrop</b>	0
<b>Gravel</b>	0
<b>Bare Ground</b>	5
<b>Moss-Lichen</b>	20
<b>Litter</b>	75
<b>Logging</b>	
<b>Stand Age</b>	
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	5
<b>Wildlife</b>	2, deer trails; 7, pileated woodpecker
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	Percent	Pattern
1. PSME-TSHE/GASH/POMU	95	1
2. TSHE-PSME/POMU-DREX	5	4
3		

**Polygon Number** 131  
**Survey Intensity** 2  
  
**Observer** DS  
**Date** 7/13/2004  
**Specific Location** Polygon just north of intersection of old logging roads in southern reach of park

**Total Vegetation** 100  
**Trees Total** 100  
**emergent** 15  
**main canopy** 65  
**subcanopy** 20  
**Shrubs Total** 2  
**> 1.5' tall** 2  
**< 1.5' tall** 0  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total**  
**Forbs perennial**  
**Forbs annual**  
**Ferns - evergreen** 90  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 3  
**Litter** 97  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife**  
**Recreation Severity**  
**Recreation Type**  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 132  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S section of park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. ALRU/POMU	85	1
2. TSHE-PSME/POMU-DREX	15	3
3		

**Polygon Number** 133  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** S section of park

**Total Vegetation** 99  
**Trees Total** 90  
**emergent** 7  
**main canopy** 69  
**subcanopy** 14  
**Shrubs Total** 45  
**> 1.5' tall** 38  
**< 1.5' tall** 7  
**Graminoids Total** 3  
**Graminoids perennial** 2  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 25  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 135  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/12/2004  
**Specific Location** Along coast line - rocky banks

**Total Vegetation** 95  
**Trees Total** 75  
**emergent** 25  
**main canopy** 48  
**subcanopy** 2  
**Shrubs Total** 85  
**> 1.5' tall** 84  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 0  
**Forbs perennial** 0  
**Forbs annual** 0  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 2  
**Exotics perennial** 1  
**Exotics annual** 1  
**Rock Outcrop** 35  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 58  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Rubus discolor  
**secondary spp** Dactylis glomerata

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME-ARME/GASH	90	1
2. PSME-TSHE/HODI/POMU	10	6
3		

**Polygon Number** 136  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/12/2004  
**Specific Location** Along coast line - rocky banks

**Total Vegetation** 95  
**Trees Total** 75  
**emergent** 25  
**main canopy** 48  
**subcanopy** 2  
**Shrubs Total** 85  
**> 1.5' tall** 84  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 0  
**Forbs perennial** 0  
**Forbs annual** 0  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 2  
**Exotics perennial** 1  
**Exotics annual** 1  
**Rock Outcrop** 35  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 58  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Rubus discolor  
**secondary spp** Dactylis glomerata

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME-ARME/GASH	90	1
2. PSME-TSHE/HODI/POMU	10	6
3		

**Polygon Number** 137  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/12/2004  
**Specific Location** along coastline, near campground, recreational beach

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 2  
**main canopy** 92  
**subcanopy** 1  
**Shrubs Total** 40  
**> 1.5' tall** 40  
**< 1.5' tall** 0  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 10  
**Ferns - deciduous** 5  
**Exotics Total** 1  
**Exotics perennial** 0  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 2  
**Litter** 95  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 6  
**Development** 6, railroad, footpaths, picnic spots  
**Wildlife** 3  
**Recreation Severity** 1  
**Recreation Type** 3  
**Hydrology** 2

### Exotic Species

**primary spp** Rubus discolor  
**secondary spp** Lactuca muralis

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 138  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/12/2004  
**Specific Location** Along beach access trail south of parkinglot near water treatment plant

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 2  
**main canopy** 89  
**subcanopy** 4  
**Shrubs Total** 60  
**> 1.5' tall** 55  
**< 1.5' tall** 5  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 1  
**Forbs annual** 5  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 2  
**Exotics perennial** 1  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 20  
**Moss-Lichen** 20  
**Litter** 60  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 1

**Exotic Species**

**primary spp** *Dactylis glomerata*  
**secondary spp** *Rubus discolor*

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		



**Polygon Number** 142  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/12/2004  
**Specific Location** Recreational beach near south border of park

**Total Vegetation** 9  
**Trees Total** 0  
**emergent** 0  
**main canopy** 0  
**subcanopy** 0  
**Shrubs Total** 2  
**> 1.5' tall** 2  
**< 1.5' tall** 0  
**Graminoids Total** 6  
**Graminoids perennial** 5  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 3  
**Exotics perennial** 2  
**Exotics annual** 1  
**Rock Outcrop** 2  
**Gravel** 1  
**Bare Ground** 50  
**Moss-Lichen** 0  
**Litter** 47  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 6, beach duelling, trail  
**Wildlife** 0  
**Recreation Severity** 1  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

**primary spp** Cytisus scoparius  
**secondary spp**

### Plant Associations

	Percent	Pattern
1. Leymus mollis - sandy beach	100	1
2.		
3		

<b>Polygon Number</b>	144
<b>Survey Intensity</b>	1
<b>Observer</b>	HS
<b>Date</b>	7/13/2004
<b>Specific Location</b>	steep ravine near waterfall along road from water treatment plant to Fragrant Lake
<b>Total Vegetation</b>	100
<b>Trees Total</b>	98
<b>emergent</b>	5
<b>main canopy</b>	83
<b>subcanopy</b>	10
<b>Shrubs Total</b>	2
<b>&gt; 1.5' tall</b>	1
<b>&lt; 1.5' tall</b>	1
<b>Graminoids Total</b>	0
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	0
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	80
<b>Ferns - deciduous</b>	1
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	1
<b>Moss-Lichen</b>	1
<b>Litter</b>	97
<b>Logging</b>	0
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

<b>Polygon Number</b>	145
<b>Survey Intensity</b>	1
<b>Observer</b>	HS
<b>Date</b>	7/13/2004
<b>Specific Location</b>	Large polygon in southern area of park along along road from water treatment plant to Fragrant
<b>Total Vegetation</b>	100
<b>Trees Total</b>	85
<b>emergent</b>	1
<b>main canopy</b>	82
<b>subcanopy</b>	2
<b>Shrubs Total</b>	4
<b>&gt; 1.5' tall</b>	1
<b>&lt; 1.5' tall</b>	3
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	1
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	0
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	65
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	1
<b>Exotics perennial</b>	
<b>Exotics annual</b>	1
<b>Rock Outcrop</b>	0
<b>Gravel</b>	0
<b>Bare Ground</b>	1
<b>Moss-Lichen</b>	1
<b>Litter</b>	98
<b>Logging</b>	1
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	3
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

<b>primary spp</b>	Geranium robertianum
<b>secondary spp</b>	

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	65	1
2. TSHE-PSME/POMU-DREX	25	2
3. PSME-TSHE/GASH/MANE	10	3

**Polygon Number** 148  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** short distance up trail to Fragrance Lake below trail

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 10  
**main canopy** 78  
**subcanopy** 10  
**Shrubs Total** 8  
**> 1.5' tall** 1  
**< 1.5' tall** 7  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 70  
**Ferns - deciduous** 2  
**Exotics Total** 2  
**Exotics perennial** 2  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 20  
**Litter** 79  
**Logging** 1  
**Stand Age** 5  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Hedera helix  
**secondary spp**

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 149  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/13/2004  
**Specific Location** Poorly drained area directly east of parkinglot near water treatment plant

**Total Vegetation** 100  
**Trees Total** 40  
**emergent** 10  
**main canopy** 28  
**subcanopy** 2  
**Shrubs Total** 30  
**> 1.5' tall** 28  
**< 1.5' tall** 2  
**Graminoids Total** 60  
**Graminoids perennial** 58  
**Graminoids annual** 2  
**Forbs Total** 7  
**Forbs perennial** 1  
**Forbs annual** 6  
**Ferns - evergreen** 1  
**Ferns - deciduous** 0  
**Exotics Total** 4  
**Exotics perennial** 3  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 0  
**Litter** 97  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

**primary spp** Rubus discolor  
**secondary spp** Ranunculus repens v. repens

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. Carex obnuta - saturated soils	80	1
2. TSHE-PSME/POMU-DREX	20	3
3		

**Polygon Number** 150  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W of Fragrance Lake

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 15  
**main canopy** 73  
**subcanopy** 9  
**Shrubs Total** 65  
**> 1.5' tall** 38  
**< 1.5' tall** 27  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 18  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 3  
**Litter** 93  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 6 - roads/trails  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	80	1
2. TSHE-PSME/POMU-DREX	10	3
3. PSME-TSHE/GASH-HODI	10	3

<b>Polygon Number</b>	151
<b>Survey Intensity</b>	1
<b>Observer</b>	HS
<b>Date</b>	7/13/2004
<b>Specific Location</b>	summit of large hill directly NE of parkinglot near water treatment plant
<b>Total Vegetation</b>	100
<b>Trees Total</b>	96
<b>emergent</b>	0
<b>main canopy</b>	95
<b>subcanopy</b>	1
<b>Shrubs Total</b>	90
<b>&gt; 1.5' tall</b>	45
<b>&lt; 1.5' tall</b>	45
<b>Graminoids Total</b>	2
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	2
<b>Forbs Total</b>	2
<b>Forbs perennial</b>	0
<b>Forbs annual</b>	2
<b>Ferns - evergreen</b>	12
<b>Ferns - deciduous</b>	1
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	0
<b>Moss-Lichen</b>	0
<b>Litter</b>	99
<b>Logging</b>	1
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/MANE	60	1
2. PSME/GASH-HODI	40	2
3		

<b>Polygon Number</b>	152
<b>Survey Intensity</b>	1
<b>Observer</b>	HS
<b>Date</b>	7/13/2004
<b>Specific Location</b>	southwest facing upper steep portion of large hill directly NE of parkinglot near water treatment
<b>Total Vegetation</b>	100
<b>Trees Total</b>	99
<b>emergent</b>	2
<b>main canopy</b>	95
<b>subcanopy</b>	2
<b>Shrubs Total</b>	2
<b>&gt; 1.5' tall</b>	0
<b>&lt; 1.5' tall</b>	2
<b>Graminoids Total</b>	0
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	0
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	40
<b>Ferns - deciduous</b>	1
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	1
<b>Gravel</b>	0
<b>Bare Ground</b>	0
<b>Moss-Lichen</b>	0
<b>Litter</b>	99
<b>Logging</b>	3
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	70	1
2. PSME-TSHE/GASH/POMU	25	5
3. PSME/GASH-HODI	5	3



<b>Polygon Number</b>	153
<b>Survey Intensity</b>	1
<b>Observer</b>	HS
<b>Date</b>	7/13/2004
<b>Specific Location</b>	west facing slope in middle of hill located E of parkinglot near water treatment plant
<b>Total Vegetation</b>	100
<b>Trees Total</b>	70
<b>emergent</b>	2
<b>main canopy</b>	64
<b>subcanopy</b>	4
<b>Shrubs Total</b>	95
<b>&gt; 1.5' tall</b>	94
<b>&lt; 1.5' tall</b>	1
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	1
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	0
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	0
<b>Ferns - deciduous</b>	0
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	0
<b>Gravel</b>	0
<b>Bare Ground</b>	1
<b>Moss-Lichen</b>	0
<b>Litter</b>	99
<b>Logging</b>	1
<b>Stand Age</b>	3
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME/GASH-HODI	100	1
2.		
3		

**Polygon Number** 159  
**Survey Intensity** 2  
  
**Observer** DV  
**Date** 5/19/2004  
**Specific Location** near Lost Lake

**Total Vegetation** 95  
**Trees Total** 90  
**emergent** 0  
**main canopy** 85  
**subcanopy** 5  
**Shrubs Total** 5  
**> 1.5' tall** 5  
**< 1.5' tall** 0  
**Graminoids Total** 5  
**Graminoids perennial** 5  
**Graminoids annual** 0  
**Forbs Total** 15  
**Forbs perennial** 15  
**Forbs annual** 0  
**Ferns - evergreen** 80  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 5  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 5  
**Litter** 90  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 161  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** N Central part of Park, N of Lost Lake

**Total Vegetation** 99  
**Trees Total** 90  
**emergent** 7  
**main canopy** 69  
**subcanopy** 14  
**Shrubs Total** 45  
**> 1.5' tall** 38  
**< 1.5' tall** 7  
**Graminoids Total** 3  
**Graminoids perennial** 2  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 25  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 162  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/14/2004  
**Specific Location** E. of Lost Lake trail

**Total Vegetation** 100  
**Trees Total** 100  
**emergent** 2  
**main canopy** 84  
**subcanopy** 14  
**Shrubs Total** 4  
**> 1.5' tall** 3  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 40  
**Ferns - deciduous** 15  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 10  
**Litter** 90  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 163  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/14/2004  
**Specific Location** trail intersection - Lost Lake trail

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 0  
**main canopy** 89  
**subcanopy** 8  
**Shrubs Total** 50  
**> 1.5' tall** 40  
**< 1.5' tall** 10  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 3  
**Forbs perennial** 0  
**Forbs annual** 3  
**Ferns - evergreen** 10  
**Ferns - deciduous** 2  
**Exotics Total** 2  
**Exotics perennial** 1  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 98  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 2

### Exotic Species

**primary spp** Ranunculus repens v. repens  
**secondary spp** Geranium robertianum

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	98	1
2. TSHE-PSME/POMU-DREX	2	3
3		

<b>Polygon Number</b>	164
<b>Survey Intensity</b>	1
<b>Observer</b>	DS
<b>Date</b>	8/17/2004
<b>Specific Location</b>	C. Obnucta drainage wetland (northern portion of L3) w/ Bracken fern dominant
<b>Total Vegetation</b>	100
<b>Trees Total</b>	70
<b>emergent</b>	5
<b>main canopy</b>	55
<b>subcanopy</b>	10
<b>Shrubs Total</b>	20
<b>&gt; 1.5' tall</b>	15
<b>&lt; 1.5' tall</b>	5
<b>Graminoids Total</b>	25
<b>Graminoids perennial</b>	25
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	4
<b>Forbs perennial</b>	3
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	10
<b>Ferns - deciduous</b>	50
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	0
<b>Gravel</b>	0
<b>Bare Ground</b>	0
<b>Moss-Lichen</b>	15
<b>Litter</b>	85
<b>Logging</b>	3
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	3
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 165  
**Survey Intensity** 1  
  
**Observer** SW  
**Date** 8/19/2004  
**Specific Location** Southern half of wetland - east of Lost Lake

**Total Vegetation** 95  
**Trees Total** 5  
**emergent** 0  
**main canopy** 0  
**subcanopy** 5  
**Shrubs Total** 0  
**> 1.5' tall** 0  
**< 1.5' tall** 0  
**Graminoids Total** 60  
**Graminoids perennial** 59  
**Graminoids annual** 1  
**Forbs Total** 40  
**Forbs perennial** 38  
**Forbs annual** 2  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 5  
**Moss-Lichen** 2  
**Litter** 93  
**Logging** 0  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 5  
**Recreation Severity** 2  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 166  
**Survey Intensity** 1

**Observer** HS  
**Date** 7/14/2004  
**Specific Location** wetland

**Total Vegetation** 85  
**Trees Total** 3  
**emergent** 0  
**main canopy** 3  
**subcanopy** 0  
**Shrubs Total** 10  
**> 1.5' tall** 8  
**< 1.5' tall** 2  
**Graminoids Total** 61  
**Graminoids perennial** 60  
**Graminoids annual** 1  
**Forbs Total** 8  
**Forbs perennial** 3  
**Forbs annual** 5  
**Ferns - evergreen** 2  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 39  
**Bare Ground** 0  
**Moss-Lichen** 59  
**Litter** 2  
**Logging** 3  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - mosaic	100	1
2.		
3		



**Polygon Number** 167  
**Survey Intensity** 2

**Observer** DS  
**Date** 8/17/2004

**Specific Location** In stump-filled former wetland that now draws off to east to gorge, wetland still to south and

**Total Vegetation** 100  
**Trees Total** 10  
**emergent** 0  
**main canopy** 10  
**subcanopy** 0  
**Shrubs Total** 5  
**> 1.5' tall** 3  
**< 1.5' tall** 2  
**Graminoids Total** 90  
**Graminoids perennial** 90  
**Graminoids annual** 0  
**Forbs Total** 15  
**Forbs perennial** 15  
**Forbs annual** 0  
**Ferns - evergreen** 0  
**Ferns - deciduous** 2  
**Exotics Total** 5  
**Exotics perennial** 5  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 98  
**Logging** 3  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. minerotrophic wetland - mosaic	100	1
2.		
3		

**Polygon Number** 168  
**Survey Intensity** 3  
  
**Observer** DS  
**Date** 7/14/2004  
**Specific Location** Along ridge trail

**Total Vegetation** 95  
**Trees Total** 90  
**emergent** 0  
**main canopy** 75  
**subcanopy** 15  
**Shrubs Total** 25  
**> 1.5' tall** 10  
**< 1.5' tall** 15  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 40  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 97  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	80	1
2. PSME-TSHE/GASH/POMU	20	3
3		

<b>Polygon Number</b>	169
<b>Survey Intensity</b>	3
<b>Observer</b>	DS
<b>Date</b>	7/14/2004
<b>Specific Location</b>	East side of Cleator Rd. in mixed coniferous forest midway up slope to ridge
<b>Total Vegetation</b>	85
<b>Trees Total</b>	85
<b>emergent</b>	0
<b>main canopy</b>	75
<b>subcanopy</b>	10
<b>Shrubs Total</b>	27
<b>&gt; 1.5' tall</b>	2
<b>&lt; 1.5' tall</b>	25
<b>Graminoids Total</b>	2
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	1
<b>Forbs Total</b>	2
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	50
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	1
<b>Exotics perennial</b>	1
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	0
<b>Gravel</b>	0
<b>Bare Ground</b>	2
<b>Moss-Lichen</b>	3
<b>Litter</b>	95
<b>Logging</b>	3
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	5
<b>Wildlife</b>	2
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/MANE/POMU	40	2
2. PSME-TSHE/GASH/POMU	40	2
3. TSHE-PSME/POMU-DREX	20	5

**Polygon Number** 171  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 7/13/2004  
**Specific Location** down trail from Fragrant Lake about 1/4 mile toward Cleator Rd.

**Total Vegetation** 100  
**Trees Total** 100  
**emergent** 10  
**main canopy** 85  
**subcanopy** 5  
**Shrubs Total** 8  
**> 1.5' tall** 1  
**< 1.5' tall** 7  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 35  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 2  
**Litter** 97  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/MANE/POMU	100	1
2.		
3		

**Polygon Number** 176  
**Survey Intensity** 2  
  
**Observer** HS  
**Date** 5/19/2004  
**Specific Location** roadside bald

**Total Vegetation** 61  
**Trees Total** 2  
**emergent** 2  
**main canopy** 0  
**subcanopy** 0  
**Shrubs Total** 8  
**> 1.5' tall** 4  
**< 1.5' tall** 4  
**Graminoids Total** 50  
**Graminoids perennial** 40  
**Graminoids annual** 10  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 0  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 24  
**Gravel** 0  
**Bare Ground** 5  
**Moss-Lichen** 1  
**Litter** 70  
**Logging** 1  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. DACA-ERLA	100	1
2.		
3		

**Polygon Number** 177  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** strip of forest above & below Cleator road near roadside bald

**Total Vegetation** 98  
**Trees Total** 97  
**emergent** 5  
**main canopy** 82  
**subcanopy** 10  
**Shrubs Total** 43  
**> 1.5' tall** 35  
**< 1.5' tall** 8  
**Graminoids Total** 3  
**Graminoids perennial** 2  
**Graminoids annual** 1  
**Forbs Total** 5  
**Forbs perennial** 3  
**Forbs annual** 2  
**Ferns - evergreen** 8  
**Ferns - deciduous** 1  
**Exotics Total** 3  
**Exotics perennial** 2  
**Exotics annual** 1  
**Rock Outcrop** 1  
**Gravel** 2  
**Bare Ground** 2  
**Moss-Lichen** 10  
**Litter** 85  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 2  
**Wildlife** 0  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

**primary spp** *Leucanthemum vulgare*  
**secondary spp** *Ranunculus repens v. repens*

### Plant Associations

	Percent	Pattern
1. PSME/ROGY-HODI	50	2
2. PSME-TSHE/GASH-HODI	40	2
3. TSHE-PSME/POMU-DREX	10	3

**Polygon Number** 178  
**Survey Intensity** 2  
  
**Observer** PM  
**Date** 5/19/2004  
**Specific Location** forest - ridge bald area

**Total Vegetation** 98  
**Trees Total** 65  
**emergent** 12  
**main canopy** 35  
**subcanopy** 18  
**Shrubs Total** 25  
**> 1.5' tall** 17  
**< 1.5' tall** 8  
**Graminoids Total** 6  
**Graminoids perennial** 5  
**Graminoids annual** 1  
**Forbs Total** 5  
**Forbs perennial** 4  
**Forbs annual** 1  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 1  
**Exotics perennial** 0  
**Exotics annual** 1  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 20  
**Litter** 77  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** *Vulpia bromoides*  
**secondary spp** *Hypochaeris radicata*

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME/GASH-HODI	95	1
2. DACA-ERLA	5	3
3		

**Polygon Number** 179  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** broad band of forest above roadside bald and Cleator road

**Total Vegetation** 98  
**Trees Total** 95  
**emergent** 10  
**main canopy** 82  
**subcanopy** 3  
**Shrubs Total** 4  
**> 1.5' tall** 1  
**< 1.5' tall** 3  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 5  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 65  
**Litter** 35  
**Logging** 1  
**Stand Age** 2,3,4  
**Agriculture** 0  
**Livestock** 6  
**Development** 2  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/MANE	90	1
2. PSME-TSHE/MANE/POMU	10	2
3		



**Polygon Number** 183  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 5/19/2004  
**Specific Location** 2nd ridge bald.

**Total Vegetation** 67  
**Trees Total** 5  
**emergent** 0  
**main canopy** 5  
**subcanopy** 0  
**Shrubs Total** 25  
**> 1.5' tall** 22  
**< 1.5' tall** 3  
**Graminoids Total** 10  
**Graminoids perennial** 10  
**Graminoids annual** 0  
**Forbs Total** 25  
**Forbs perennial** 20  
**Forbs annual** 5  
**Ferns - evergreen** 0  
**Ferns - deciduous** 2  
**Exotics Total** 2  
**Exotics perennial** 0  
**Exotics annual** 2  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 82  
**Litter** 15  
**Logging** 1  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** *Vulpia bromoides*  
**secondary spp** *Hypochaeris radicata*

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. DACA-ERLA	100	1
2.		
3		

**Polygon Number** 185  
**Survey Intensity** 2  
  
**Observer** PM  
**Date** 5/19/2004  
**Specific Location** forest south of ridge balds

**Total Vegetation** 95  
**Trees Total** 90  
**emergent** 5  
**main canopy** 80  
**subcanopy** 5  
**Shrubs Total** 35  
**> 1.5' tall** 25  
**< 1.5' tall** 10  
**Graminoids Total** 3  
**Graminoids perennial** 3  
**Graminoids annual** 0  
**Forbs Total** 5  
**Forbs perennial** 5  
**Forbs annual** 0  
**Ferns - evergreen** 0  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial** 0  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 5  
**Litter** 94  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/MANE	100	1
2.		
3		

**Polygon Number** 187  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 5/19/2004  
**Specific Location** 2nd ridge bald.

**Total Vegetation** 67  
**Trees Total** 5  
**emergent** 0  
**main canopy** 5  
**subcanopy** 0  
**Shrubs Total** 25  
**> 1.5' tall** 22  
**< 1.5' tall** 3  
**Graminoids Total** 10  
**Graminoids perennial** 10  
**Graminoids annual** 0  
**Forbs Total** 25  
**Forbs perennial** 20  
**Forbs annual** 5  
**Ferns - evergreen** 0  
**Ferns - deciduous** 2  
**Exotics Total** 2  
**Exotics perennial** 0  
**Exotics annual** 2  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 82  
**Litter** 15  
**Logging** 1  
**Stand Age** 0  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** *Vulpia bromoides*  
**secondary spp** *Hypochaeris radicata*

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. DACA-ERLA	100	1
2.		
3		

**Polygon Number** 190  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/13/2004  
**Specific Location** steep ne facing slope directly under the summit of the hill that is SW of Chuckanut Mt summit

**Total Vegetation** 100  
**Trees Total** 80  
**emergent** 1  
**main canopy** 76  
**subcanopy** 3  
**Shrubs Total** 1  
**> 1.5' tall** 1  
**< 1.5' tall** 0  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 65  
**Ferns - deciduous** 0  
**Exotics Total** 1  
**Exotics perennial** 0  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development**  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

**primary spp** Geranium robertianum  
**secondary spp**

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	95	1
2. TSHE-PSME/POMU-DREX	5	4
3		

**Polygon Number** 191  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** horseshoe shaped polygon in south part of Larrabee, used to be OID 122

**Total Vegetation** 99  
**Trees Total** 90  
**emergent** 7  
**main canopy** 69  
**subcanopy** 14  
**Shrubs Total** 45  
**> 1.5' tall** 38  
**< 1.5' tall** 7  
**Graminoids Total** 3  
**Graminoids perennial** 2  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 25  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging**  
**Stand Age**  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	100	1
2.		
3		

**Polygon Number** 196  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** on south west steep slopes below overlook

**Total Vegetation** 97  
**Trees Total** 95  
**emergent** 16  
**main canopy** 60  
**subcanopy** 19  
**Shrubs Total** 85  
**> 1.5' tall** 75  
**< 1.5' tall** 10  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 2  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 1  
**Litter** 96  
**Logging** 1  
**Stand Age** 3,4  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	95	1
2. PSME-ARME/GASH	5	3
3		

**Polygon Number** 198  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** north of cliff/overlook

**Total Vegetation** 100  
**Trees Total** 85  
**emergent** 18  
**main canopy** 53  
**subcanopy** 14  
**Shrubs Total** 65  
**> 1.5' tall** 35  
**< 1.5' tall** 30  
**Graminoids Total** 5  
**Graminoids perennial** 5  
**Graminoids annual** 0  
**Forbs Total** 3  
**Forbs perennial** 2  
**Forbs annual** 1  
**Ferns - evergreen** 25  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 20  
**Moss-Lichen** 3  
**Litter** 77  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	90	1
2. PSME-TSHE/MANE/POMU	10	3
3		

**Polygon Number** 200  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** overlook trail off Fragrance Lake trail

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 8  
**main canopy** 70  
**subcanopy** 17  
**Shrubs Total** 65  
**> 1.5' tall** 10  
**< 1.5' tall** 55  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 10  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 1  
**Stand Age** 3,4  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Helix hedera  
**secondary spp**

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/MANE/POMU	70	1
2. PSME-TSHE/GASH/POMU	25	2
3. TSHE-PSME/POMU-DREX	5	3



**Polygon Number** 201  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** a little below junction of Fragrance Lake trail and overlook trail

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 4  
**main canopy** 82  
**subcanopy** 9  
**Shrubs Total** 61  
**> 1.5' tall** 1  
**< 1.5' tall** 60  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 15  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/MANE/POMU	65	1
2. PSME-TSHE/GASH/POMU	35	2
3		

<b>Polygon Number</b>	202
<b>Survey Intensity</b>	1
<b>Observer</b>	PM
<b>Date</b>	5/18/2004
<b>Specific Location</b>	Near beginning of trail to Fragrance Lake from main road near campground
<b>Total Vegetation</b>	100
<b>Trees Total</b>	90
<b>emergent</b>	0
<b>main canopy</b>	80
<b>subcanopy</b>	10
<b>Shrubs Total</b>	2
<b>&gt; 1.5' tall</b>	1
<b>&lt; 1.5' tall</b>	1
<b>Graminoids Total</b>	0
<b>Graminoids perennial</b>	0
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	1
<b>Forbs perennial</b>	1
<b>Forbs annual</b>	0
<b>Ferns - evergreen</b>	69
<b>Ferns - deciduous</b>	1
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	0
<b>Gravel</b>	1
<b>Bare Ground</b>	1
<b>Moss-Lichen</b>	2
<b>Litter</b>	96
<b>Logging</b>	3
<b>Stand Age</b>	2
<b>Agriculture</b>	0
<b>Livestock</b>	0
<b>Development</b>	3
<b>Wildlife</b>	7, pileated woodpecker
<b>Recreation Severity</b>	3
<b>Recreation Type</b>	3
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 203  
**Survey Intensity** 2  
  
**Observer** PM  
**Date** 10/13/2004  
**Specific Location** above interurban trail steep slope

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 25  
**main canopy** 60  
**subcanopy** 10  
**Shrubs Total** 5  
**> 1.5' tall** 2  
**< 1.5' tall** 3  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 3  
**Forbs perennial** 2  
**Forbs annual** 1  
**Ferns - evergreen** 25  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 20  
**Moss-Lichen** 2  
**Litter** 78  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 204  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/12/2004  
**Specific Location** Along W side of park from campground down to south border

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 5  
**main canopy** 90  
**subcanopy** 2  
**Shrubs Total** 2  
**> 1.5' tall** 1  
**< 1.5' tall** 1  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 0  
**Ferns - deciduous** 0  
**Exotics Total** 0  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 5  
**Litter** 93  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 3  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 205  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** Cleator Road NW of 2nd switchback

**Total Vegetation** 100  
**Trees Total** 90  
**emergent** 1  
**main canopy** 81  
**subcanopy** 8  
**Shrubs Total** 70  
**> 1.5' tall** 65  
**< 1.5' tall** 5  
**Graminoids Total** 7  
**Graminoids perennial** 7  
**Graminoids annual** 0  
**Forbs Total** 20  
**Forbs perennial** 20  
**Forbs annual** 0  
**Ferns - evergreen** 20  
**Ferns - deciduous** 1  
**Exotics Total** 3  
**Exotics perennial** 3  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 98  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 6  
**Wildlife** 0  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

**primary spp** Ranunculus repens v. repens  
**secondary spp**

### Plant Associations

	Percent	Pattern
1. ALRU/POMU	80	1
2. TSHE-PSME/POMU-DREX	20	2
3		

**Polygon Number** 206  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** below Cleator Road above switchback

**Total Vegetation** 98  
**Trees Total** 95  
**emergent** 4  
**main canopy** 66  
**subcanopy** 25  
**Shrubs Total** 25  
**> 1.5' tall** 20  
**< 1.5' tall** 5  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 4  
**Forbs perennial** 3  
**Forbs annual** 1  
**Ferns - evergreen** 50  
**Ferns - deciduous** 2  
**Exotics Total** 2  
**Exotics perennial** 1  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 1  
**Bare Ground** 1  
**Moss-Lichen** 5  
**Litter** 93  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 2  
**Wildlife** 0  
**Recreation Severity** 2  
**Recreation Type** 4  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 207  
**Survey Intensity** 1  
  
**Observer** HS  
**Date** 7/14/2004  
**Specific Location** W. of top Chuckanut - S-curve

**Total Vegetation** 100  
**Trees Total** 99  
**emergent** 1  
**main canopy** 96  
**subcanopy** 2  
**Shrubs Total** 0  
**> 1.5' tall** 0  
**< 1.5' tall** 0  
**Graminoids Total** 1  
**Graminoids perennial** 0  
**Graminoids annual** 1  
**Forbs Total** 1  
**Forbs perennial** 0  
**Forbs annual** 1  
**Ferns - evergreen** 40  
**Ferns - deciduous** 1  
**Exotics Total** 0  
**Exotics perennial** 0  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 98  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 2  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 208  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** shrubs & parking lot

**Total Vegetation** 100  
**Trees Total** 0  
**emergent** 0  
**main canopy** 0  
**subcanopy** 0  
**Shrubs Total** 90  
**> 1.5' tall** 80  
**< 1.5' tall** 10  
**Graminoids Total** 4  
**Graminoids perennial** 3  
**Graminoids annual** 1  
**Forbs Total** 7  
**Forbs perennial** 5  
**Forbs annual** 2  
**Ferns - evergreen** 5  
**Ferns - deciduous** 2  
**Exotics Total** 3  
**Exotics perennial** 2  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 1  
**Moss-Lichen** 2  
**Litter** 97  
**Logging** 3  
**Stand Age** 1  
**Agriculture** 0  
**Livestock** 6  
**Development** 6  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. developed area	100	1
2.		
3		



<b>Polygon Number</b>	209
<b>Survey Intensity</b>	1
<b>Observer</b>	PM
<b>Date</b>	7/14/2004
<b>Specific Location</b>	South-facing slopes along Cleator Rd - Fragrant Lake trail, westside of park
<b>Total Vegetation</b>	100
<b>Trees Total</b>	70
<b>emergent</b>	15
<b>main canopy</b>	45
<b>subcanopy</b>	10
<b>Shrubs Total</b>	75
<b>&gt; 1.5' tall</b>	20
<b>&lt; 1.5' tall</b>	55
<b>Graminoids Total</b>	1
<b>Graminoids perennial</b>	1
<b>Graminoids annual</b>	0
<b>Forbs Total</b>	4
<b>Forbs perennial</b>	3
<b>Forbs annual</b>	1
<b>Ferns - evergreen</b>	3
<b>Ferns - deciduous</b>	2
<b>Exotics Total</b>	0
<b>Exotics perennial</b>	0
<b>Exotics annual</b>	0
<b>Rock Outcrop</b>	1
<b>Gravel</b>	1
<b>Bare Ground</b>	2
<b>Moss-Lichen</b>	1
<b>Litter</b>	95
<b>Logging</b>	3
<b>Stand Age</b>	1
<b>Agriculture</b>	0
<b>Livestock</b>	6
<b>Development</b>	0
<b>Wildlife</b>	0
<b>Recreation Severity</b>	0
<b>Recreation Type</b>	0
<b>Hydrology</b>	1

### Exotic Species

primary spp  
secondary spp

### Plant Associations

	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH-MANE	100	1
2.		
3		

**Polygon Number** 210  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** north of private road switchback

**Total Vegetation** 100  
**Trees Total** 95  
**emergent** 12  
**main canopy** 63  
**subcanopy** 20  
**Shrubs Total** 11  
**> 1.5' tall** 10  
**< 1.5' tall** 1  
**Graminoids Total** 0  
**Graminoids perennial** 0  
**Graminoids annual** 0  
**Forbs Total** 0  
**Forbs perennial** 0  
**Forbs annual** 0  
**Ferns - evergreen** 85  
**Ferns - deciduous** 1  
**Exotics Total** 1  
**Exotics perennial** 1  
**Exotics annual** 0  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 2  
**Litter** 98  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 5  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

**primary spp** Hedera helix  
**secondary spp**

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 214  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 7/13/2004  
**Specific Location** Cleator Rd - Fragrant Lake trail

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 3  
**main canopy** 90  
**subcanopy** 5  
**Shrubs Total** 80  
**> 1.5' tall** 10  
**< 1.5' tall** 70  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 6  
**Forbs perennial** 5  
**Forbs annual** 1  
**Ferns - evergreen** 10  
**Ferns - deciduous** 3  
**Exotics Total** 1  
**Exotics perennial** 0  
**Exotics annual** 1  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 0  
**Moss-Lichen** 1  
**Litter** 99  
**Logging** 1  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 6  
**Development** 0  
**Wildlife** 0  
**Recreation Severity** 3  
**Recreation Type** 3  
**Hydrology** 1

**Exotic Species**

**primary spp** Ranunculus repens  
**secondary spp** Geranium robertianum

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME/GASH-HODI	100	1
2.		
3		

**Polygon Number** 215  
**Survey Intensity** 1  
  
**Observer** PM  
**Date** 10/14/2004  
**Specific Location** East of Cleator Road above SP gate

**Total Vegetation** 100  
**Trees Total** 85  
**emergent** 3  
**main canopy** 67  
**subcanopy** 15  
**Shrubs Total** 70  
**> 1.5' tall** 40  
**< 1.5' tall** 30  
**Graminoids Total** 4  
**Graminoids perennial** 3  
**Graminoids annual** 1  
**Forbs Total** 4  
**Forbs perennial** 3  
**Forbs annual** 1  
**Ferns - evergreen** 35  
**Ferns - deciduous** 2  
**Exotics Total** 2  
**Exotics perennial** 2  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 2  
**Bare Ground** 2  
**Moss-Lichen** 5  
**Litter** 91  
**Logging** 1  
**Stand Age** 2,3  
**Agriculture** 0  
**Livestock** 6  
**Development** 3  
**Wildlife** 0  
**Recreation Severity** 1  
**Recreation Type**  
**Hydrology** 1

### Exotic Species

**primary spp** Geranium robertianum  
**secondary spp** Plantago major

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 216  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W side of Cleator Rd in Park

**Total Vegetation** 100  
**Trees Total** 97  
**emergent** 15  
**main canopy** 73  
**subcanopy** 9  
**Shrubs Total** 65  
**> 1.5' tall** 38  
**< 1.5' tall** 27  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 1  
**Forbs perennial** 1  
**Forbs annual** 0  
**Ferns - evergreen** 18  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 3  
**Litter** 93  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

<b>Plant Associations</b>	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	80	1
2. TSHE-PSME/POMU-DREX	17	2
3. PSME-TSHE/MANE	3	3

**Polygon Number** 218  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W side of Cleator Rd in Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 18  
**main canopy** 61  
**subcanopy** 16  
**Shrubs Total** 72  
**> 1.5' tall** 40  
**< 1.5' tall** 32  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 8  
**Ferns - deciduous** 1  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 0  
**Gravel** 0  
**Bare Ground** 2  
**Moss-Lichen** 5  
**Litter** 93  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. PSME-TSHE/GASH/POMU	100	1
2.		
3		

**Polygon Number** 219  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** W side of Cleator Rd in Park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

**Exotic Species**

primary spp  
 secondary spp

**Plant Associations**

	<b>Percent</b>	<b>Pattern</b>
1. TSHE-PSME/POMU-DREX	100	1
2.		
3		

**Polygon Number** 220  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

### Plant Associations

	Percent	Pattern
1. TSHE-PSME/POMU-DREX	90	1
2. PSME-TSHE/GASH/POMU	10	3
3		



**Polygon Number** 221  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** very eastern portion of park

**Total Vegetation** 99  
**Trees Total** 95  
**emergent** 9  
**main canopy** 75  
**subcanopy** 11  
**Shrubs Total** 13  
**> 1.5' tall** 7  
**< 1.5' tall** 6  
**Graminoids Total** 1  
**Graminoids perennial** 1  
**Graminoids annual** 0  
**Forbs Total** 2  
**Forbs perennial** 1  
**Forbs annual** 1  
**Ferns - evergreen** 42  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 0  
**Bare Ground** 3  
**Moss-Lichen** 4  
**Litter** 92  
**Logging** 2  
**Stand Age** 3  
**Agriculture** 0  
**Livestock** 0  
**Development** 0  
**Wildlife** 3  
**Recreation Severity** 0  
**Recreation Type** 0  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. PSME-TSHE/GASH/POMU	65	1
2. TSHE-PSME/POMU/DREX	25	2
3. PSME-TSHE/MANE/POMU	10	3

**Polygon Number** 222  
**Survey Intensity** 4  
  
**Observer** Hans  
**Date** 2/12/2005  
**Specific Location** Eastern portion of park

**Total Vegetation** 100  
**Trees Total** 98  
**emergent** 13  
**main canopy** 71  
**subcanopy** 14  
**Shrubs Total** 42  
**> 1.5' tall** 30  
**< 1.5' tall** 12  
**Graminoids Total** 2  
**Graminoids perennial** 1  
**Graminoids annual** 1  
**Forbs Total** 6  
**Forbs perennial** 4  
**Forbs annual** 2  
**Ferns - evergreen** 28  
**Ferns - deciduous** 2  
**Exotics Total**  
**Exotics perennial**  
**Exotics annual**  
**Rock Outcrop** 1  
**Gravel** 1  
**Bare Ground** 5  
**Moss-Lichen** 8  
**Litter** 85  
**Logging** 3  
**Stand Age** 2  
**Agriculture** 0  
**Livestock** 0  
**Development** 2  
**Wildlife** 3  
**Recreation Severity** 3  
**Recreation Type** 4  
**Hydrology** 1

### Exotic Species

primary spp  
 secondary spp

Plant Associations	Percent	Pattern
1. ALRU/POMU	65	1
2. TSHE-PSME/POMU-DREX	33	5
3. PSME-TSHE/GASH/POMU	2	3