Rare Plant and Vegetation Surveys of The Green River Gorge State Park Complex and Nolte State Park

Pacific Biodiversity Institute

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Hans M. Smith IV
hans@pacificbio.org

Peter H. Morrison
peter@pacificbio.org

Dana Visalli
dana@methow.com

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Pacific Biodiversity Institute
P.O. Box 298
Winthrop, Washington 98862
509-996-2490

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Introduction

Under contract with the Washington State Parks and Recreation Commission the Green River Gorge State Park Complex and Nolte State Park (Figure 1), located in King County, were 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 the contracted work.

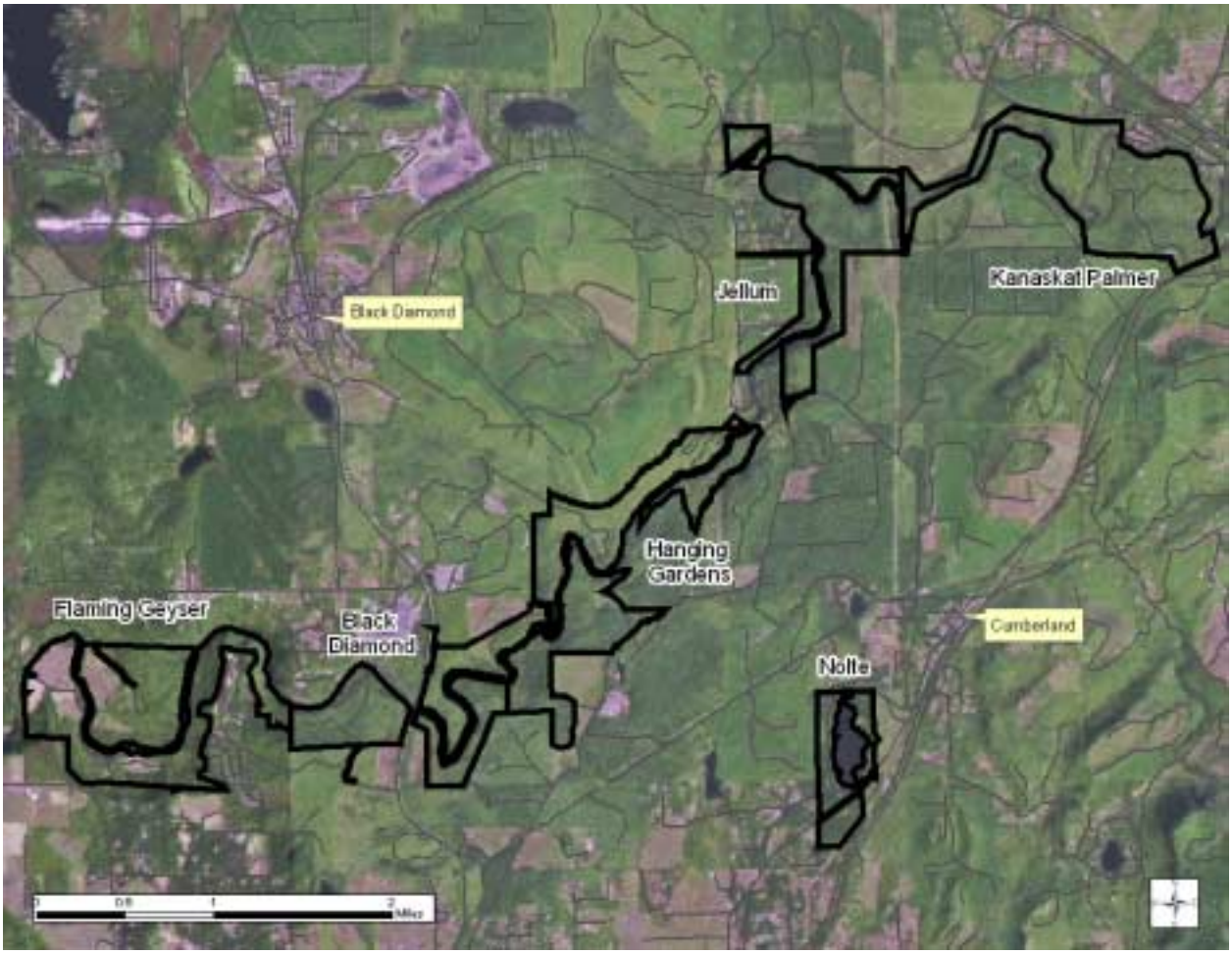

Figure 1. Overview map of the Green River Gorge State Park complex and Nolte State Park.

Survey Conditions and Survey Routes

Survey conditions in the Green River Gorge State Park complex proved to be less than ideal for this type of project. Although we attempted to walk through as much of the Green River Gorge State Park complex as we could, steep terrain and limited access points prohibited safe and efficient travel to many parts of the gorge. Due to access difficulties, a few areas of the park were not surveyed via a walk through method and were either surveyed from adjacent accessible areas or through remote sensing using high-resolution color aerial photography and knowledge of the adjacent landscape. Figures 2 – 7 illustrate our survey routes within each park management area for the Green River Gorge State Park complex and for Nolte State Park.

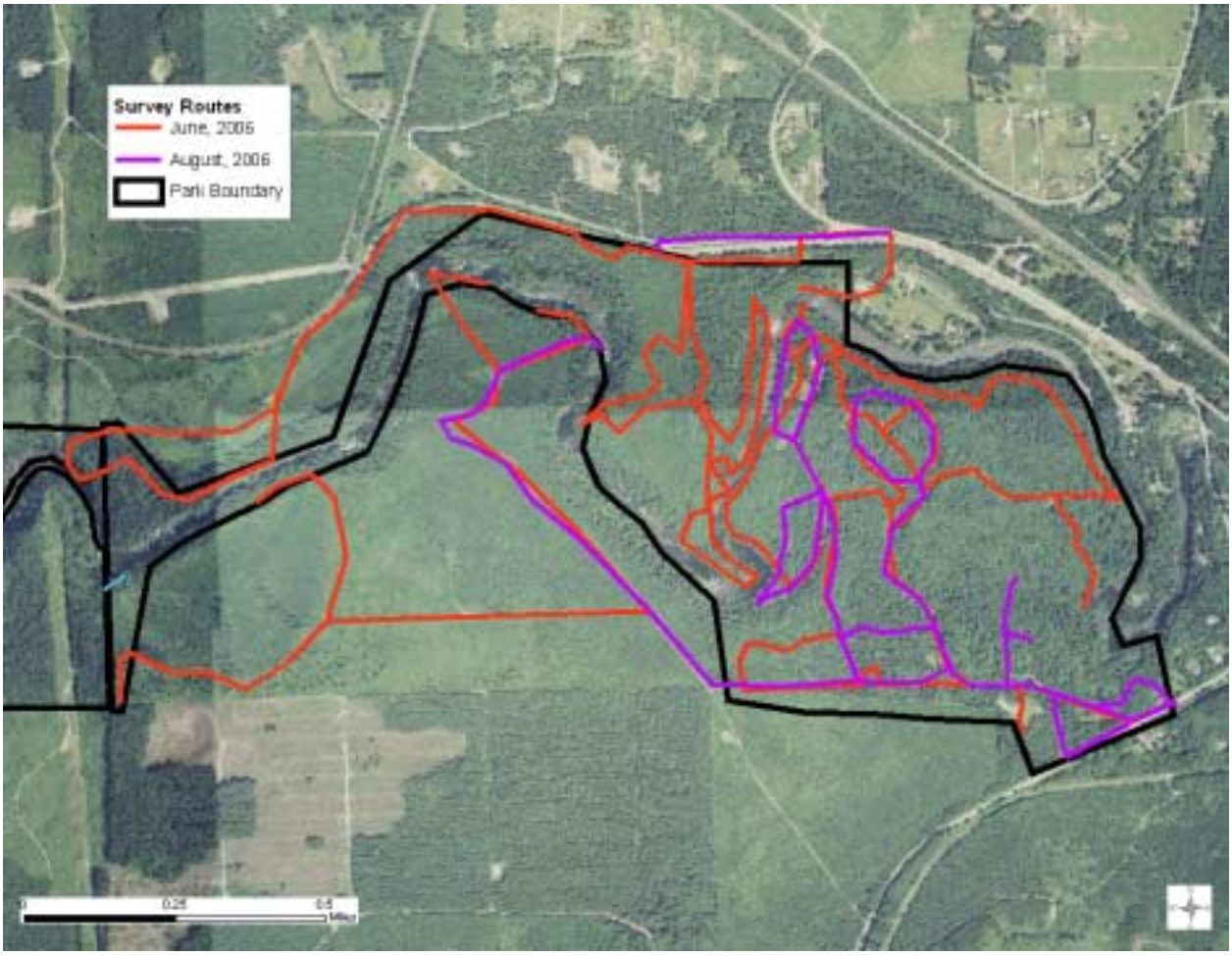

Figure 2. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2006 for Kanaskat Palmer State Park in the Green River Gorge State Park complex.

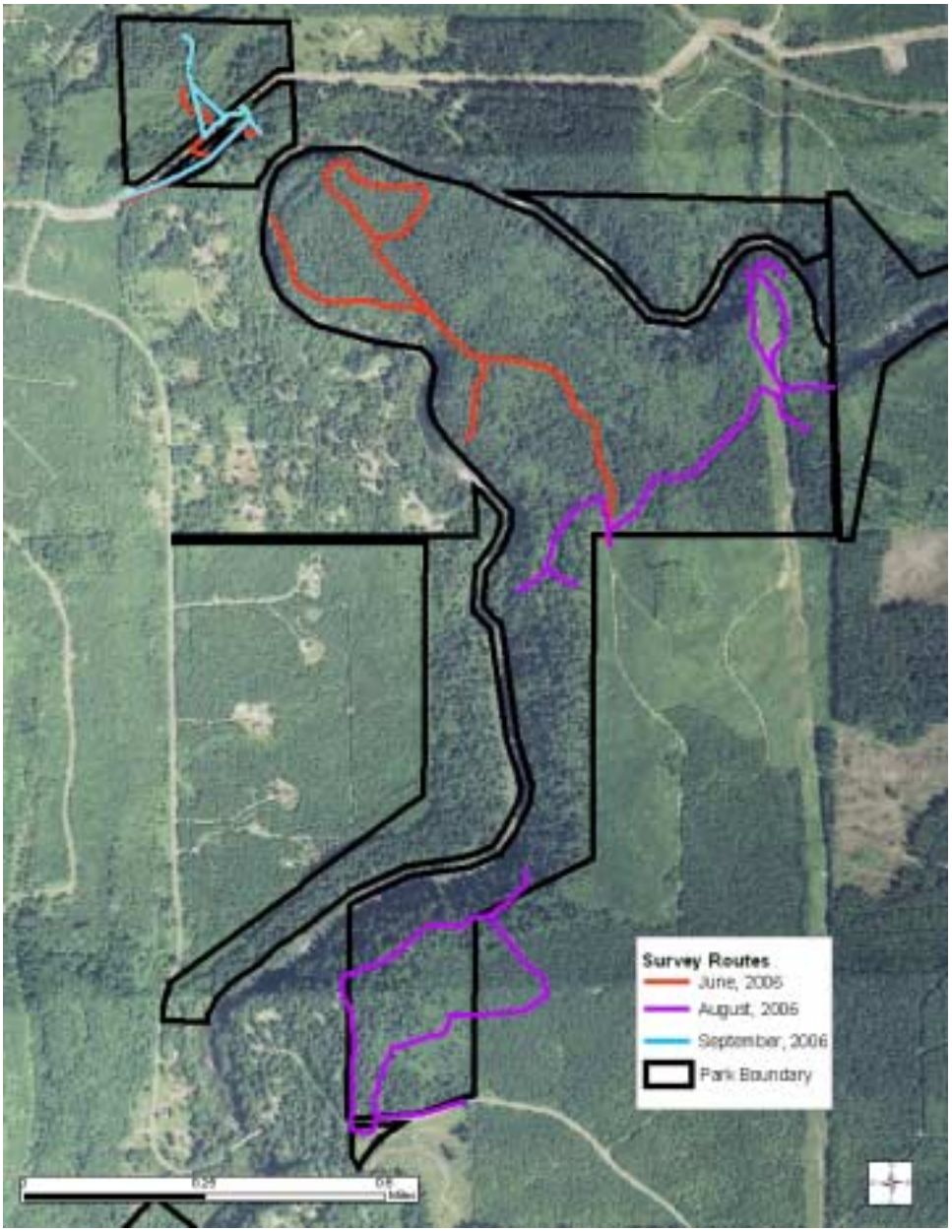

Figure 3. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2006 for the Jellum area of the Green River Gorge State Park complex.

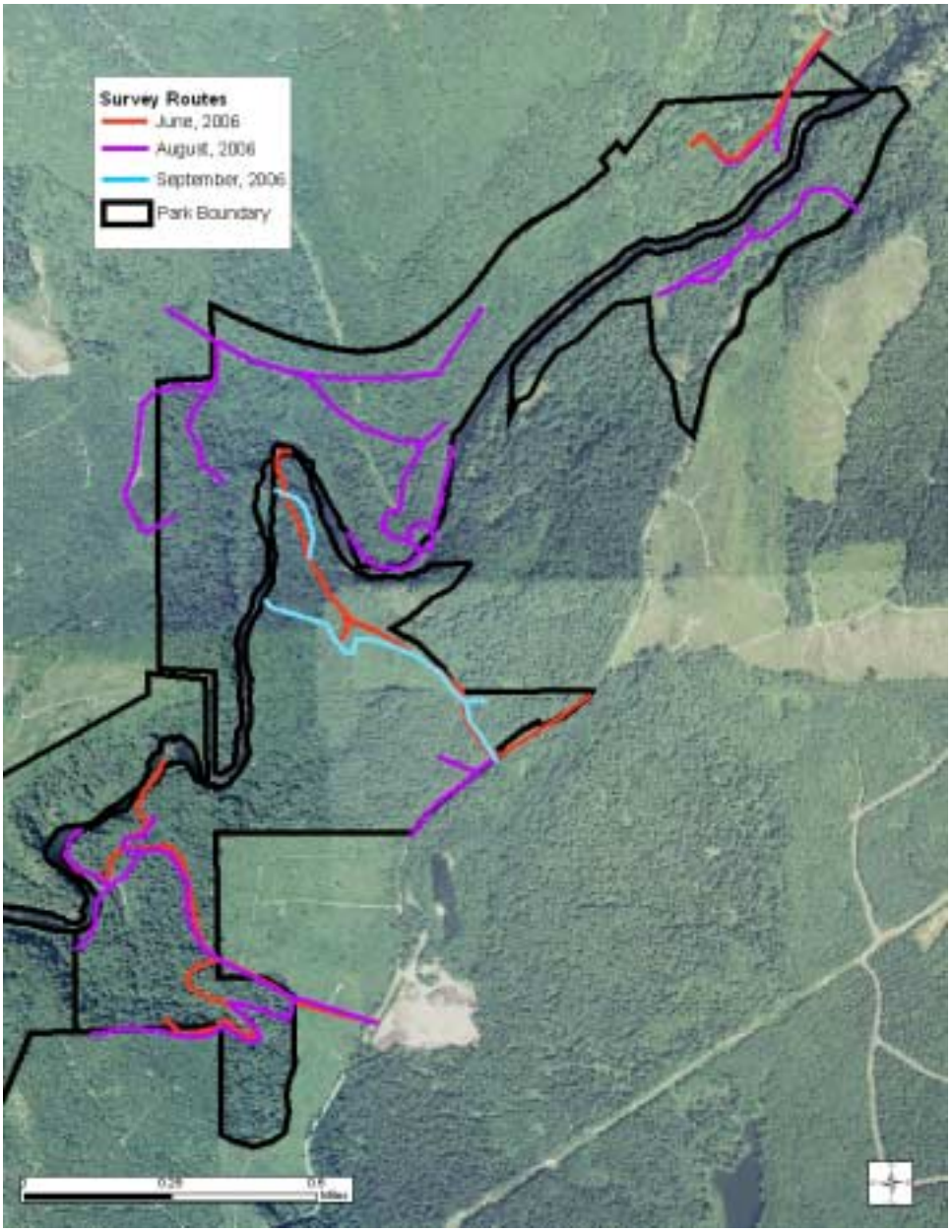

Figure 4. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2006 for the Hanging Gardens area of the Green River Gorge State Park complex.

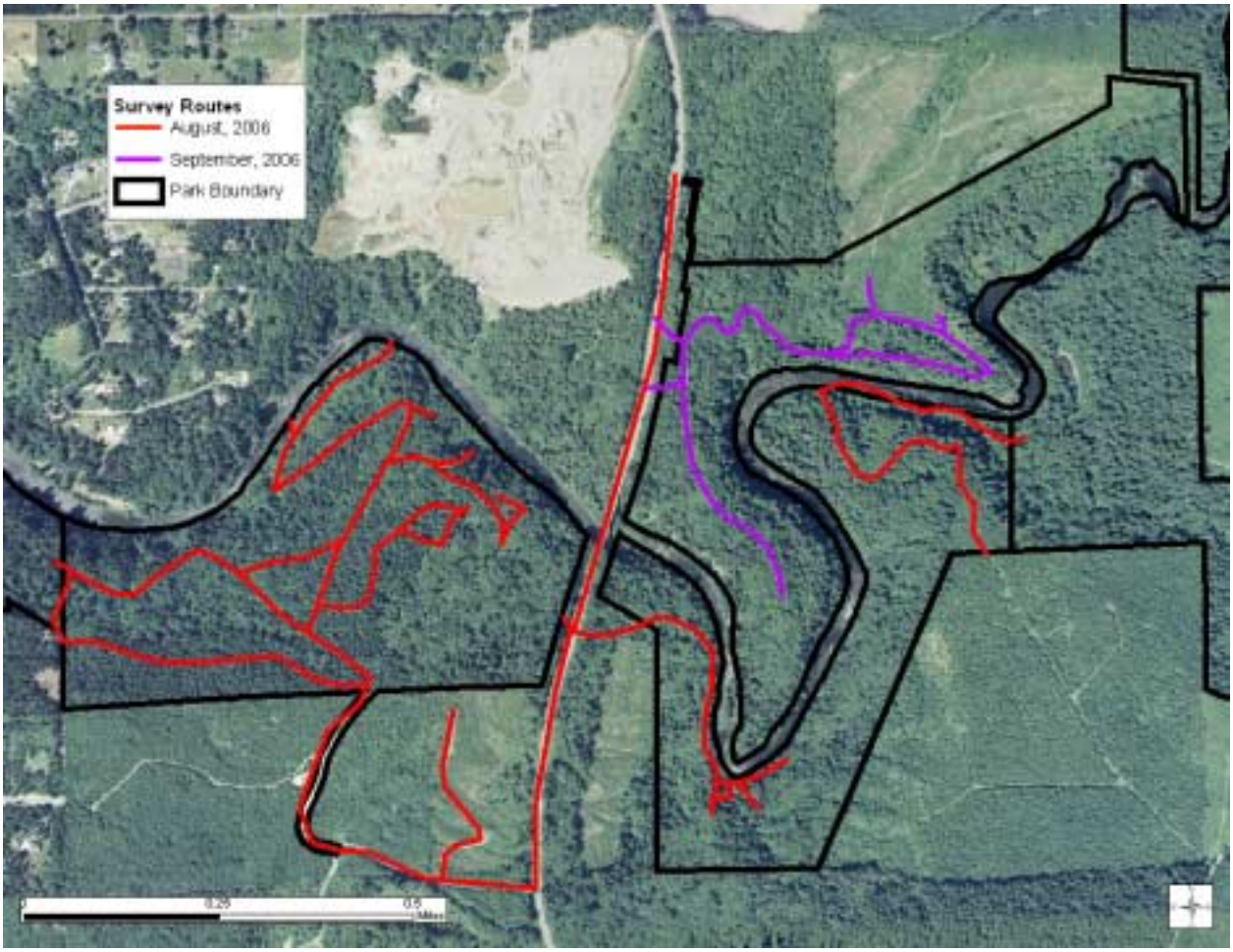

Figure 5. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2006 for the Black Diamond area of the Green River Gorge State Park complex.

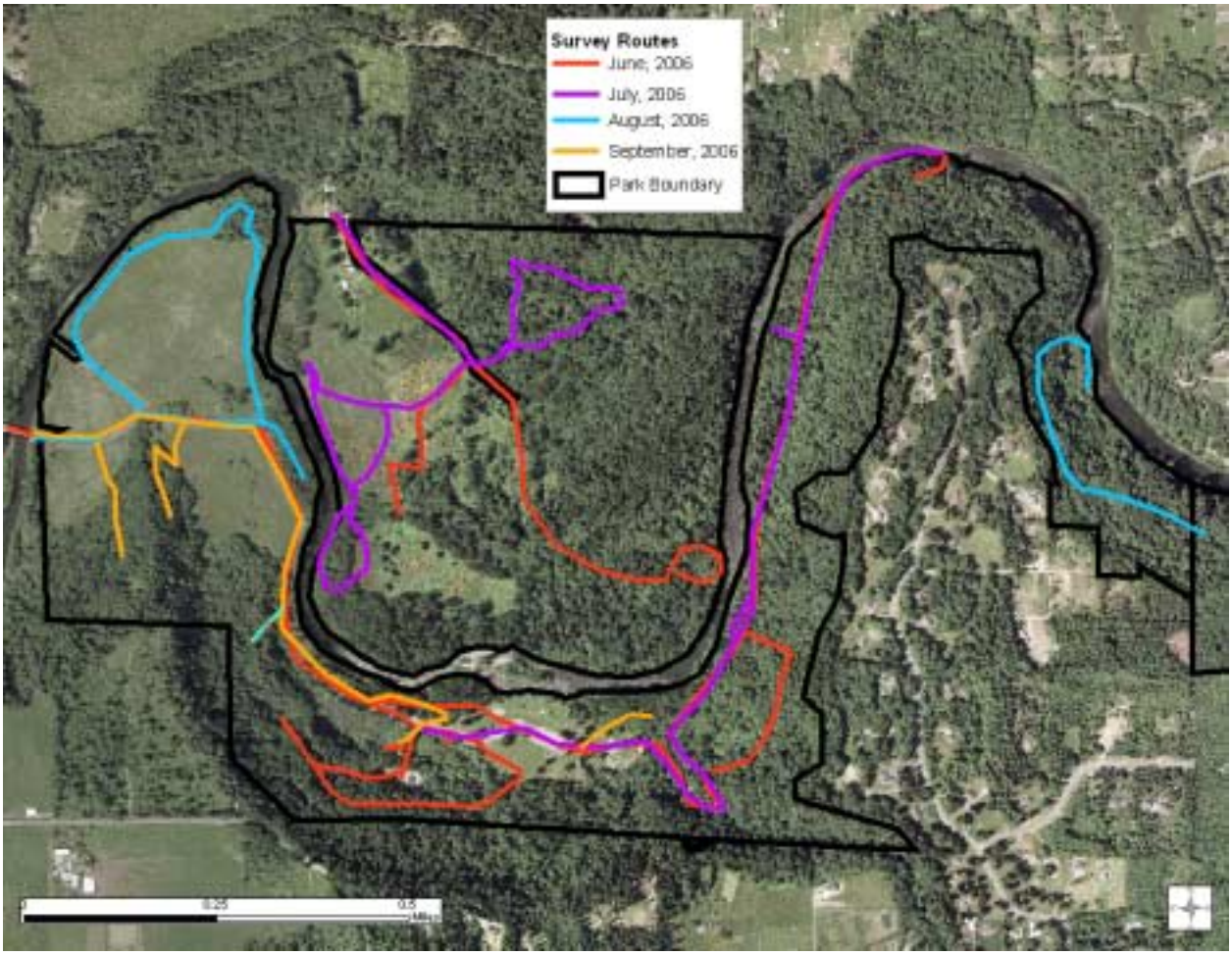

Figure 6. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2006 for the Flaming Geyser State Park in the Green River Gorge State Park complex.

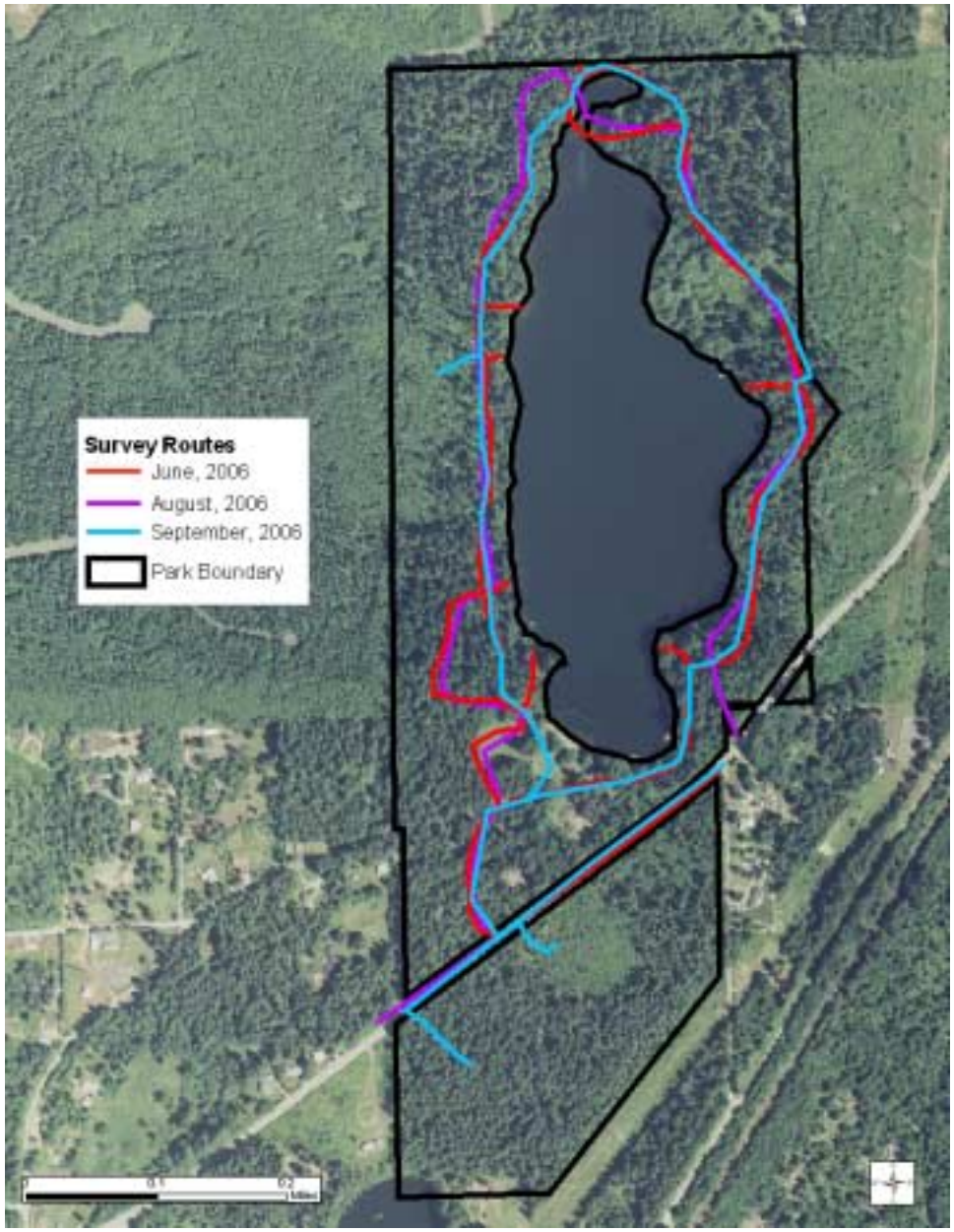

Figure 7. Survey routes for the vegetation community mapping and rare and endangered plant surveys conducted by PBI in 2006 for Nolte State Park.

Vegetation Communities

Methods

Vegetation communities within the Green River Gorge State Park Complex and Nolte 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 or found in alternative reference material.

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 ASTER and LANDSAT Thematic Mapper satellite images for discernable vegetation or landform patterns. We also used high resolution true color ortho-rectified aerial photography obtained from Washington Department of Natural Resources through Washington Department of Fish and Wildlife. 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.

Results

We mapped and surveyed 161 vegetation community polygons, comprised of 18 vegetation community types within the Green River Gorge State Park complex. We mapped and surveyed 12 vegetation community polygons, comprised of 6 vegetation community types within Nolte State Park. Vegetation community polygons are either stand-alone plant associations or mosaics of multiple plant associations. Table 1 lists the plant associations and/or cover types found in the Green River Gorge State Park Complex and Nolte State Park. See Appendix B for interpretation of "Status" codes. Figures 8 through 20 illustrate the location of the vegetation community polygons. Note that Figures 8, 10, 12, 14, 16, 18 and 20 only show the primary plant associations in each polygon (PA1 in the database). A printout of the complete set of data we collected for each polygon is attached in Appendix D. The ecological condition of each polygon was evaluated according to a simple ranking system described in Appendix C.

Table 1. Vegetation Community Types Encountered in the Green River Gorge State Park Complex and Nolte State Park

Abbreviation	Association Name	English Name	Reference	Status
ACMA3-ALRU2/POMU-TEGR2	*Acer macrophyllum – Alnus rubra / Polystichum munitum - Tellima grandiflora*	Bigleaf maple – red alder / sword fern – fringecup	Chappell 2004	G2G3
ALRU2/LYAM3 c.t.	*Alnus rubra / Lysichitum americanum* community type	red alder / skunk cabbage community type	Kunze 1994	G3G4
ALRU2/POMU	*Alnus rubra / Polystichum munitum*	red alder / sword fern	Chappell 2004	G4S4
ALRU2/RUSP c.t.	*Alnus rubra / Rubus spectabilis* community type	red alder / salmonberry community type	Kunze 1994	G4G5
CALE8	*Carex lenticularis*	Lakeshore sedge	PBI	
COST4-*Salix sp*. Shrubland	*Cornus stolonifera - Salix spp.* shrubland	red-oiser dogwood - willow shrubland	Kagan et al. 2000	G3S3
POTR15-ALRU2/SYAL	*Populus trichocarpa - Alnus rubra / Symphoricarpos albus*	black cottonwood - red alder / common snowberry	Kagan et al. 2000	G3S3
PSME-TSHE/GASH/POMU	*Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon / Polystichum munitum*	Douglas-fir - western hemlock / salal / sword fern	Chappell 2004	G4G5S4
PSME-TSHE/GASH-MANE2	*Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon - Mahonia nervosa*	Douglas-fir - western hemlock / salal / dwarf Oregongrape	Chappell 2004	G4S4
PSME-TSHE/MANE2/POMU	*Pseudotsuga menziesii - Tsuga heterophylla / Mahonia nervosa / Polystichum munitum*	Douglas-fir - western hemlock / dwarf Oregongrape / sword fern	Chappell 2004	G4S3
SPDO c.t.	*Spiraea douglasii* community type	rose spirea community type	Kunze 1994	G5
THPL-TSHE/LYAM3 c.t.	*Thuja plicata – Tsuga heterophylla / Lysichitum americanum* community type	Western red-cedar – western hemlock / skunk cabbage community type	Kunze 1994	G3
THPL-TSHE/OPHO/POMU	*Thuja plicata – Tsuga heterophylla / Ophloplanax horridus / Polystichum munitum*	Western red-cedar – western hemlock / devil's club / sword fern	Chappell 2004	G4
TSHE-PSME/POMU-DREX2	*Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa*	western hemlock - Douglas-fir / sword fern - spreading woodfern	Chappell 2004	G3S3
TYLA c.t.	*Typha latifolia* community type	broadleaf cattail community type	Kunze 1994	G5
disturbed				
developed				
water				

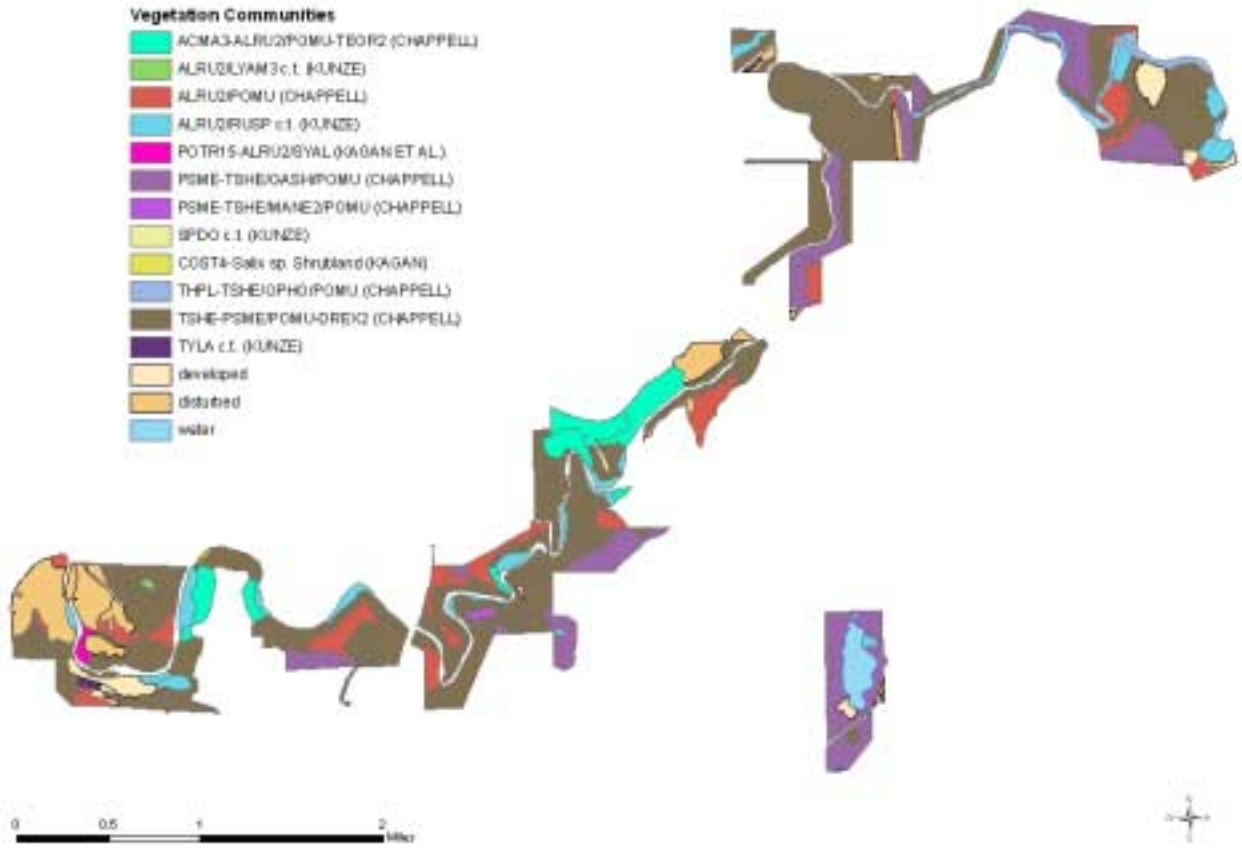

Figure 8. The primary vegetation community types within the Green River Gorge State Park complex and Nolte State Park.

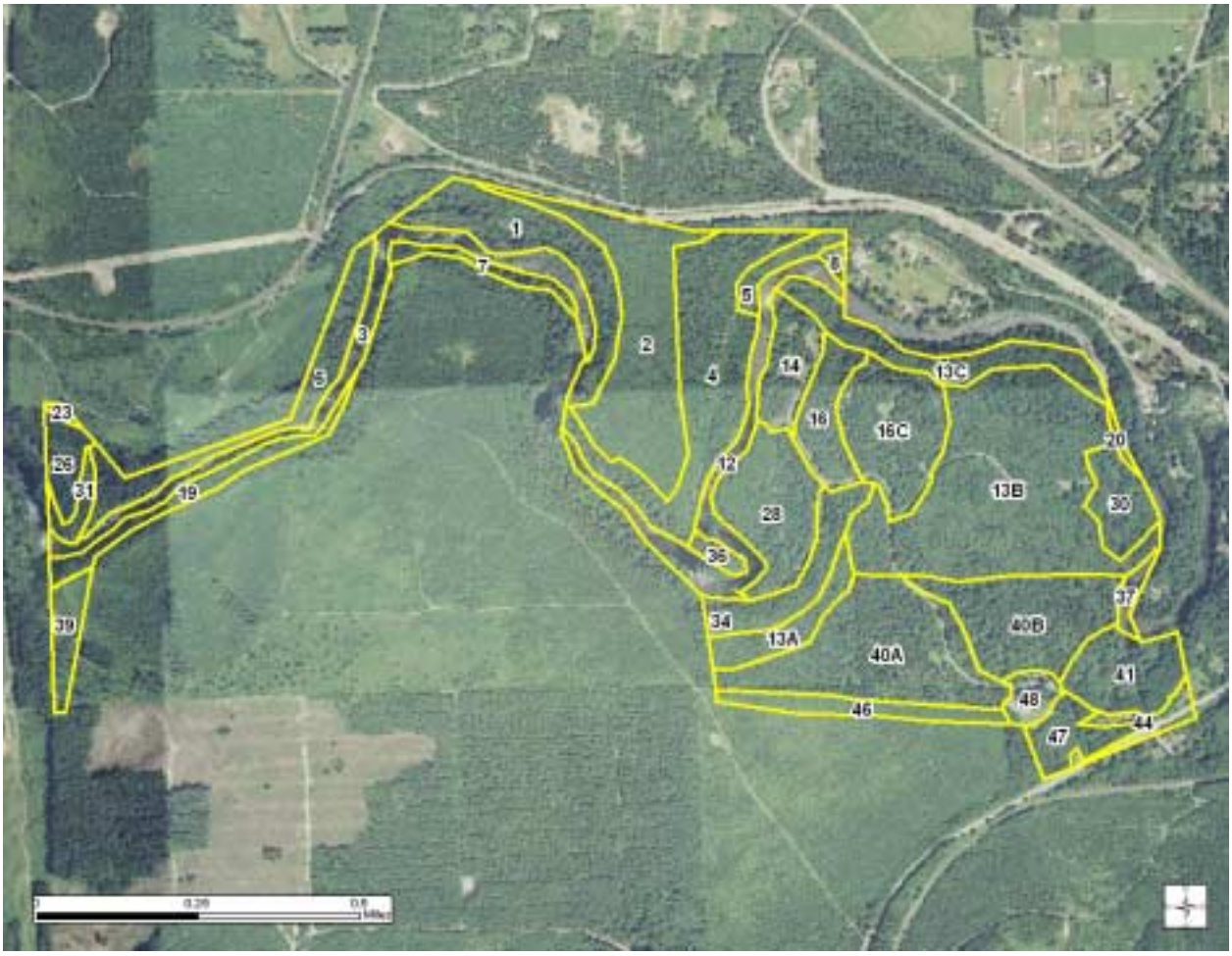

Figure 9. Layout of the vegetation community polygons in Kanaskat Palmer State Park, overlaying a high-resolution color aerial photograph.

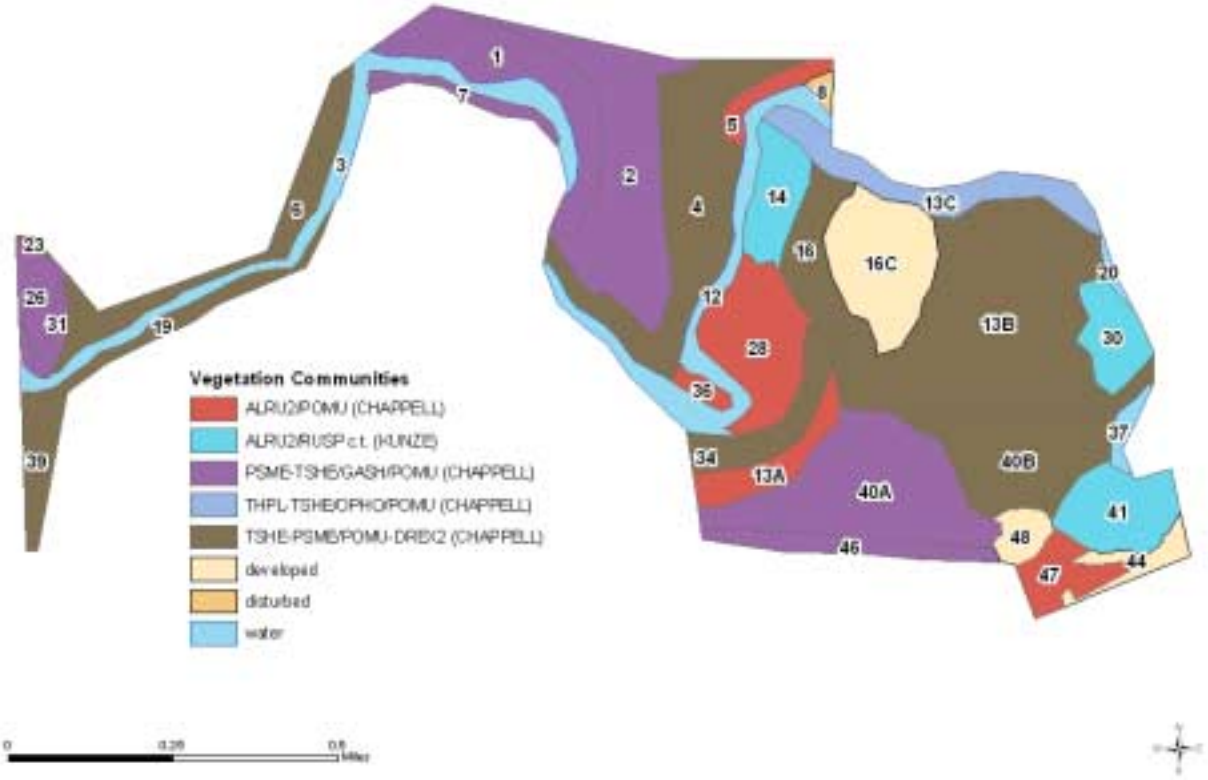

Figure 10. The primary vegetation community types within Kanaskat Palmer State Park.

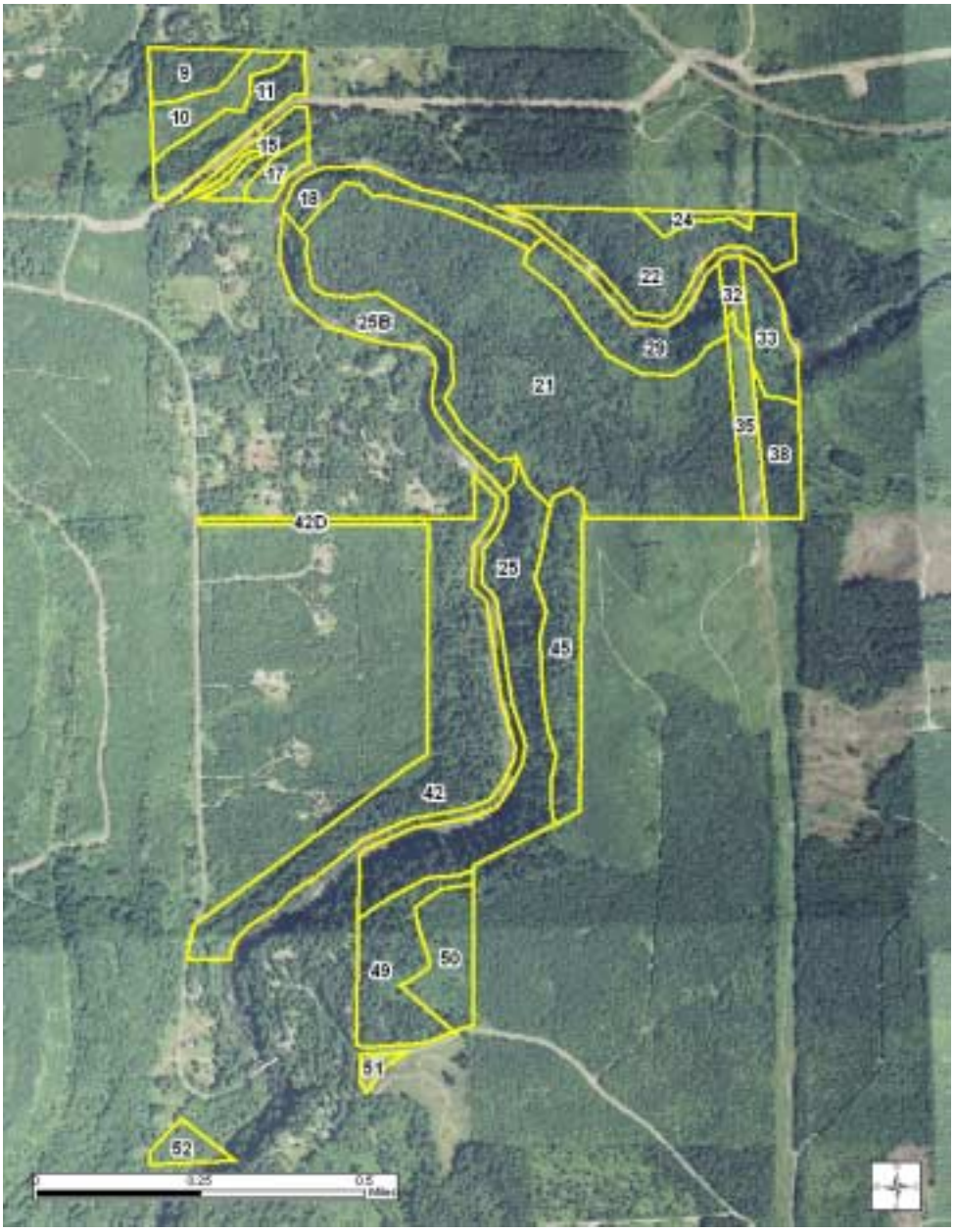

Figure 11. Layout of the vegetation community polygons in the Jellum area of the Green River Gorge State Park complex, overlaying a high-resolution color aerial photograph.

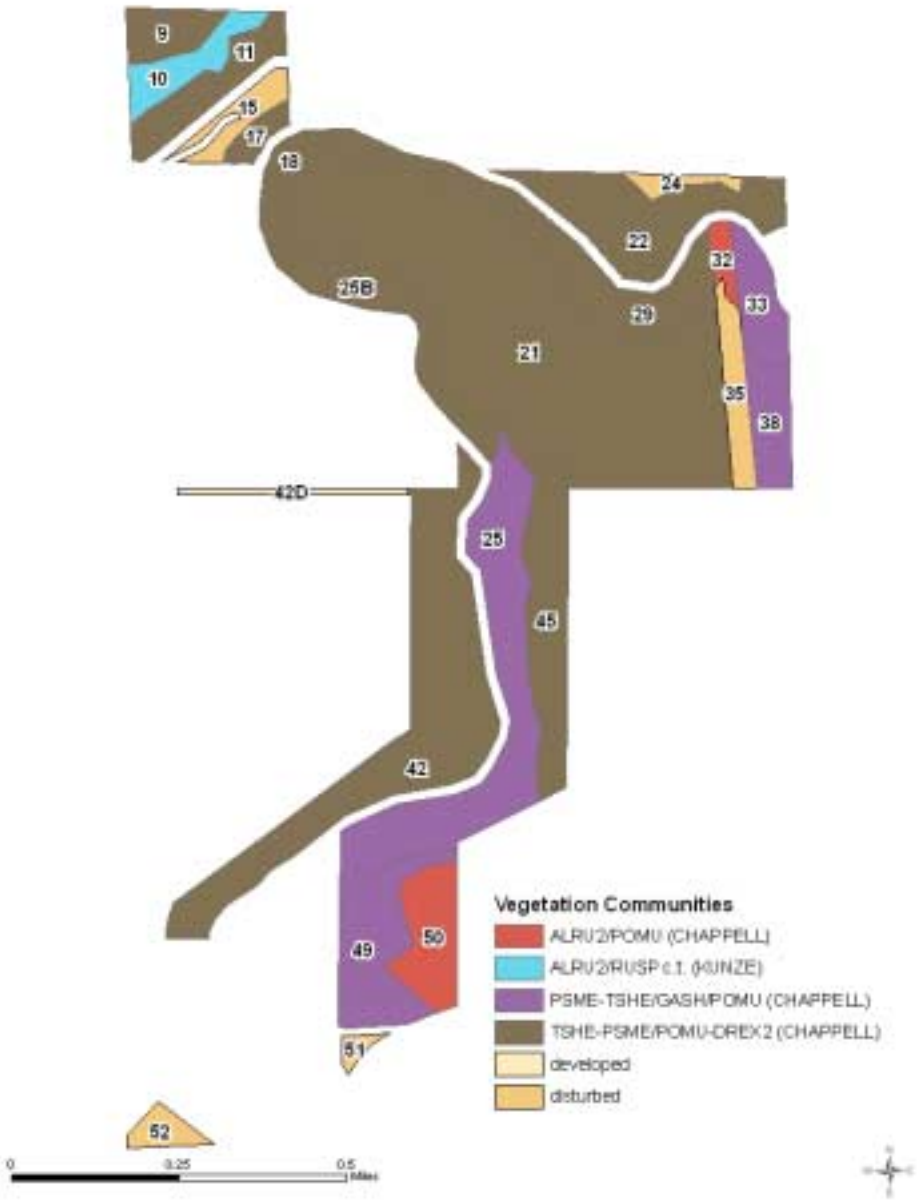

Figure 12. The primary vegetation community types within the Jellum area of the Green River Gorge State Park complex.

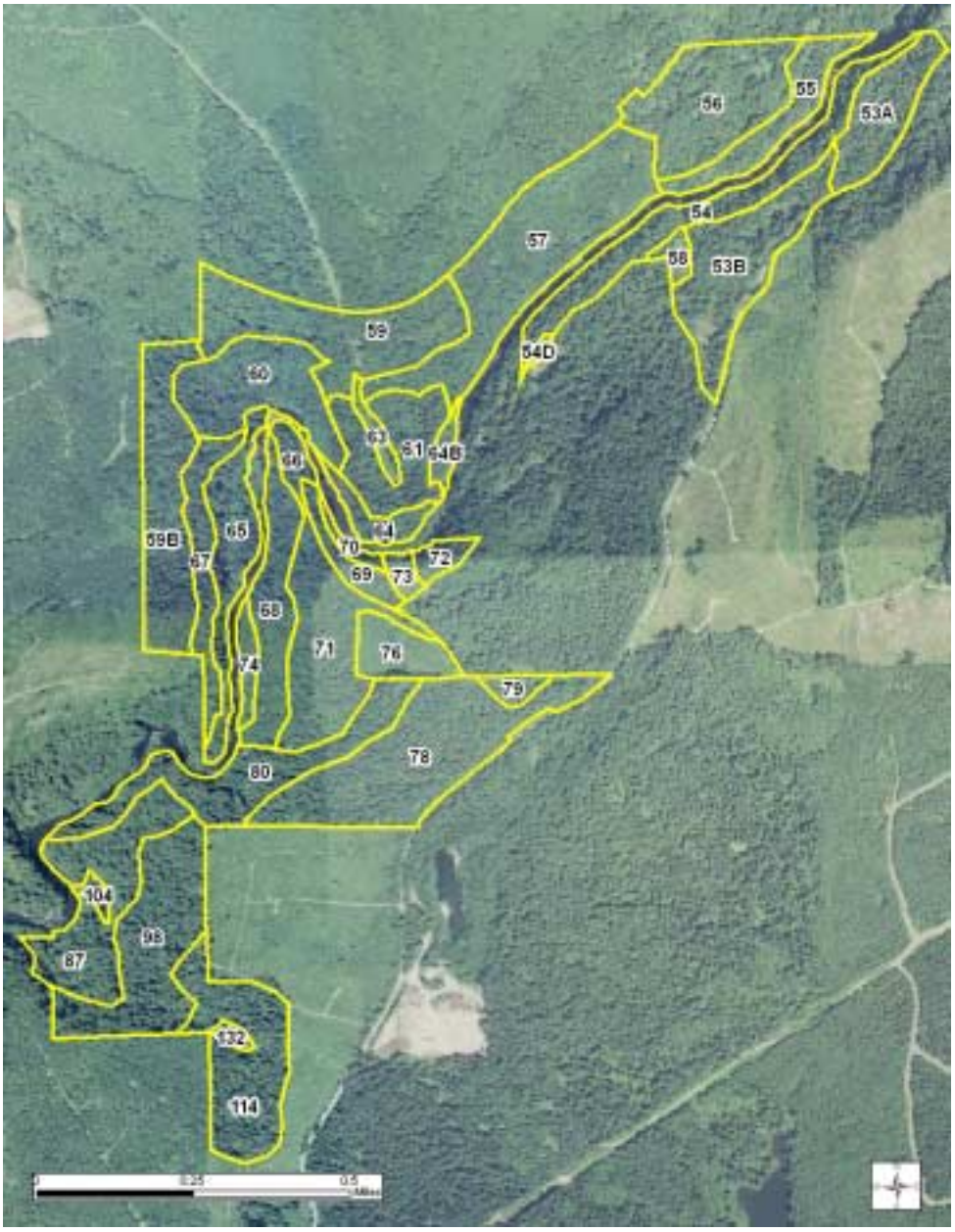

Figure 13. Layout of the vegetation community polygons in the Hanging Gardens area of the Green River Gorge State Park complex, overlaying a high-resolution color aerial photograph.

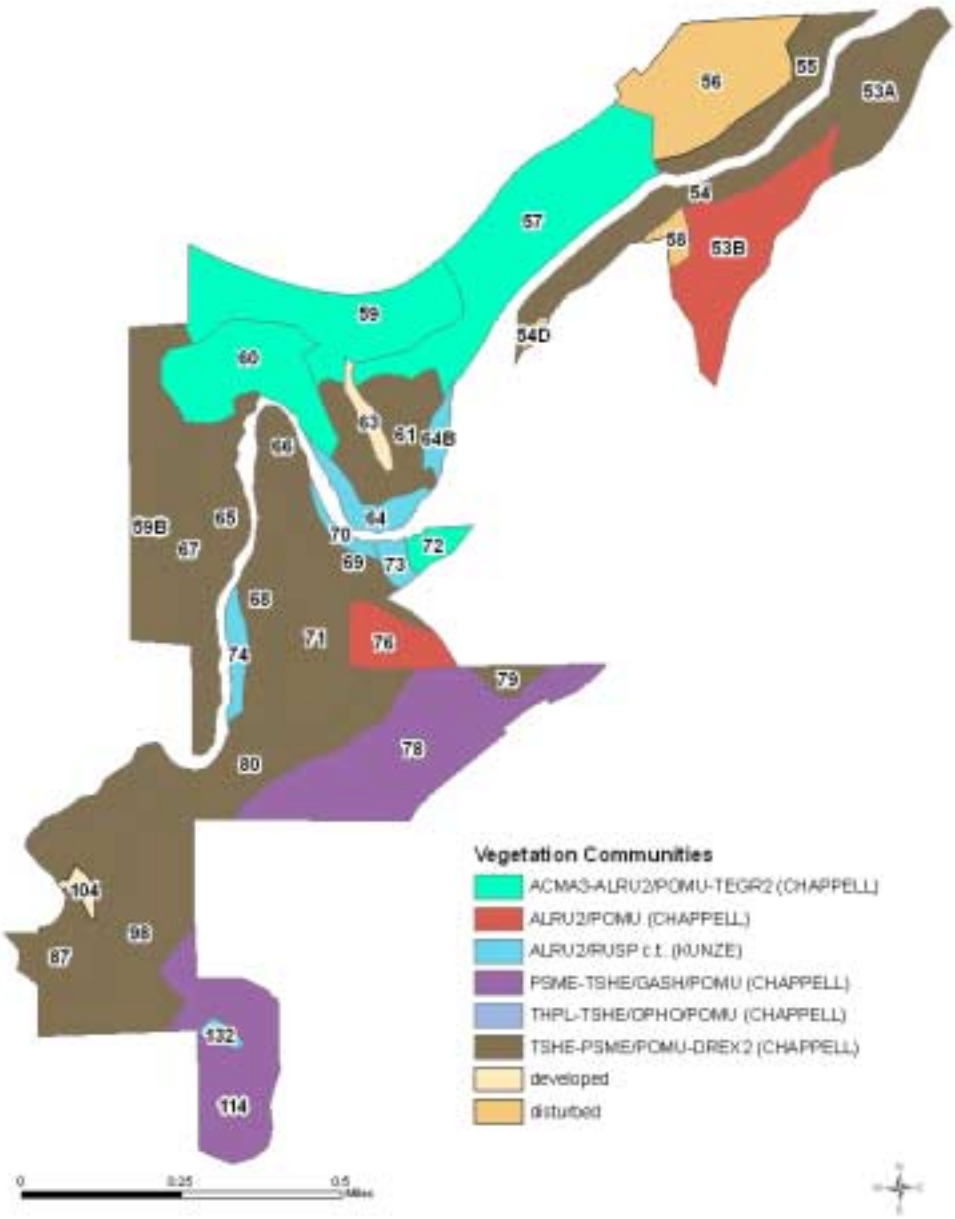

Figure 14. The primary vegetation community types within the Hanging Gardens area of the Green River Gorge State Park complex.

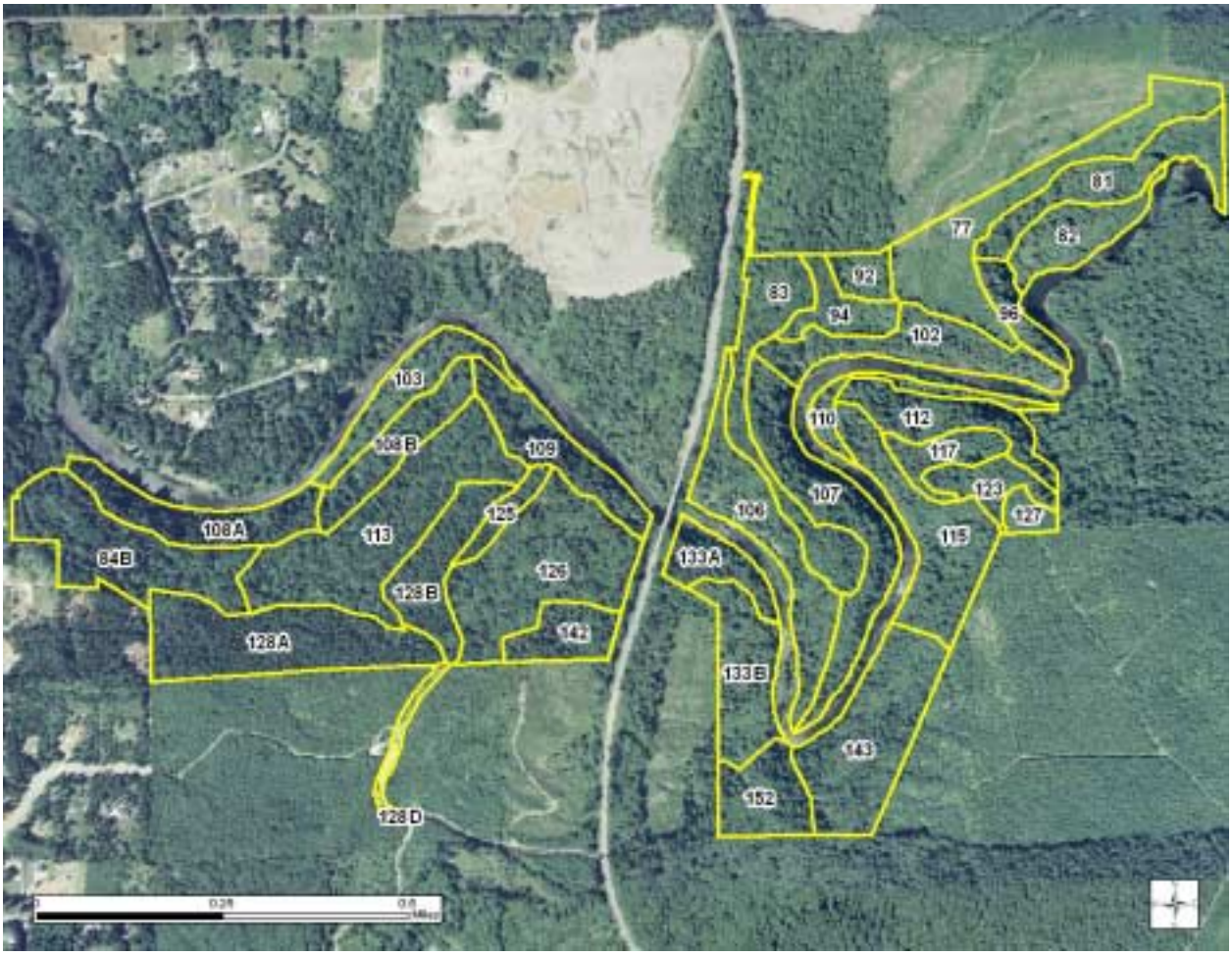

Figure 15. Layout of the vegetation community polygons in the Black Diamond area of the Green River Gorge State Park complex, overlaying a high-resolution color aerial photograph.

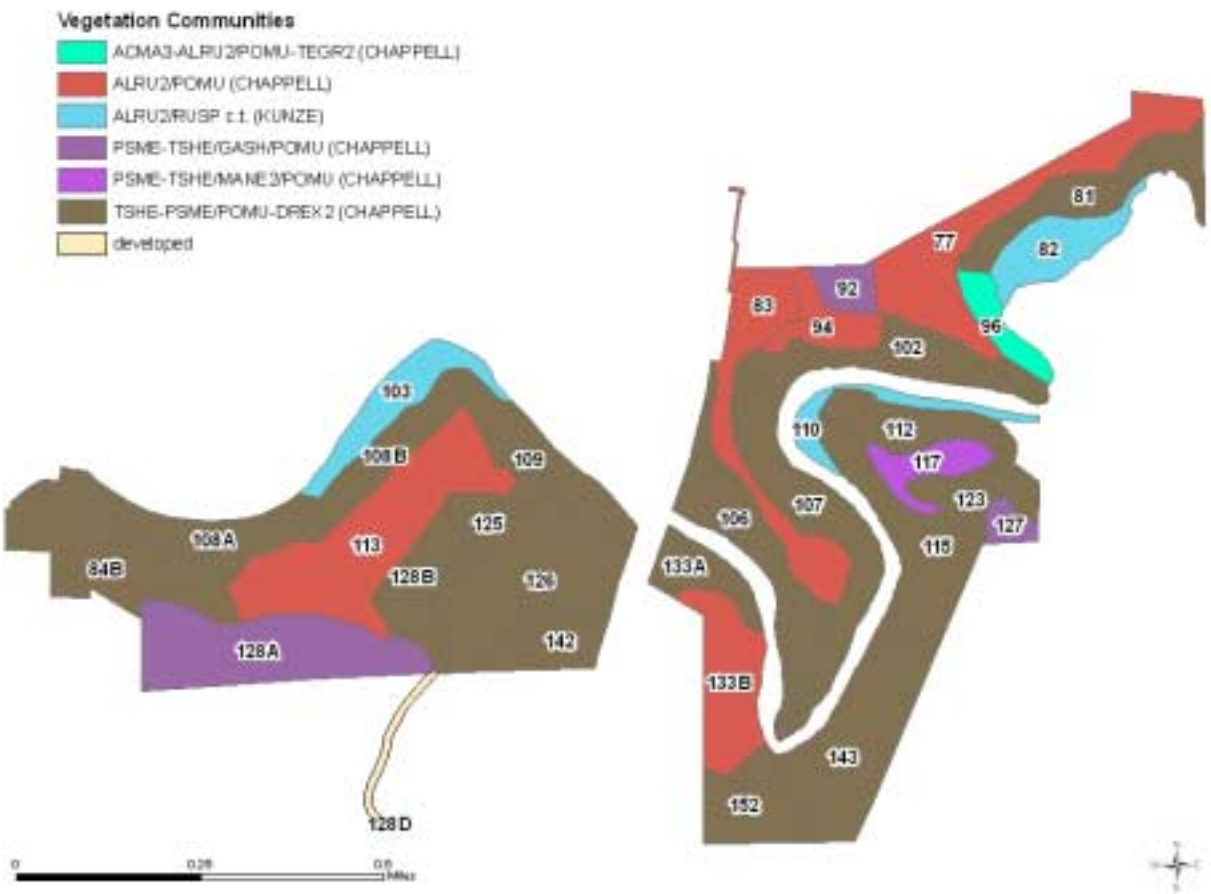

Figure 16. The primary vegetation community types within the Black Diamond area of the Green River Gorge State Park complex.

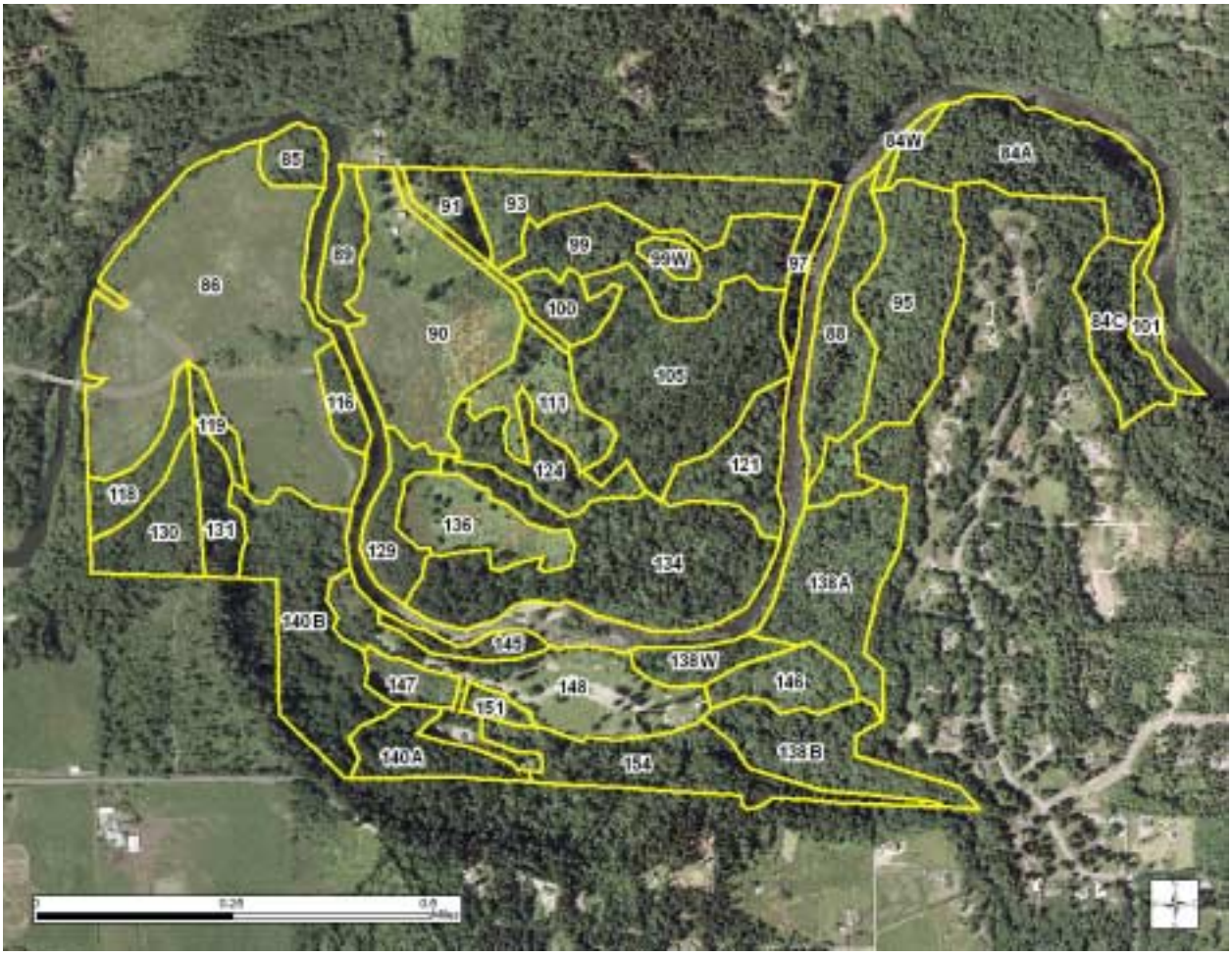

Figure 17. Layout of the vegetation community polygons in Flaming Geyser State Park, overlaying a high-resolution color aerial photograph.

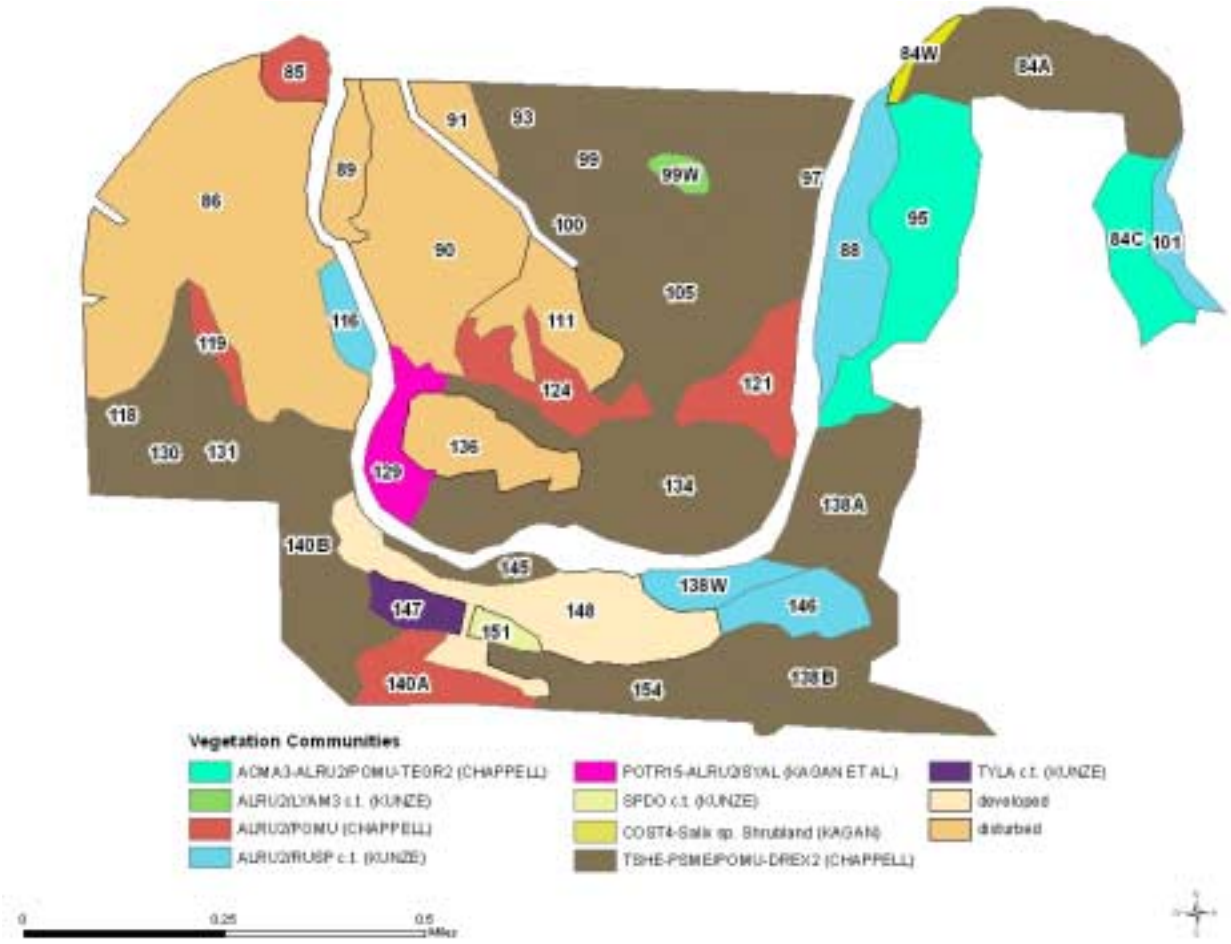

Figure 18. The primary vegetation community types within Flaming Geyser State Park.

Figure 19. Layout of the vegetation community polygons in Nolte State Park, overlaying a high-resolution color aerial photograph.

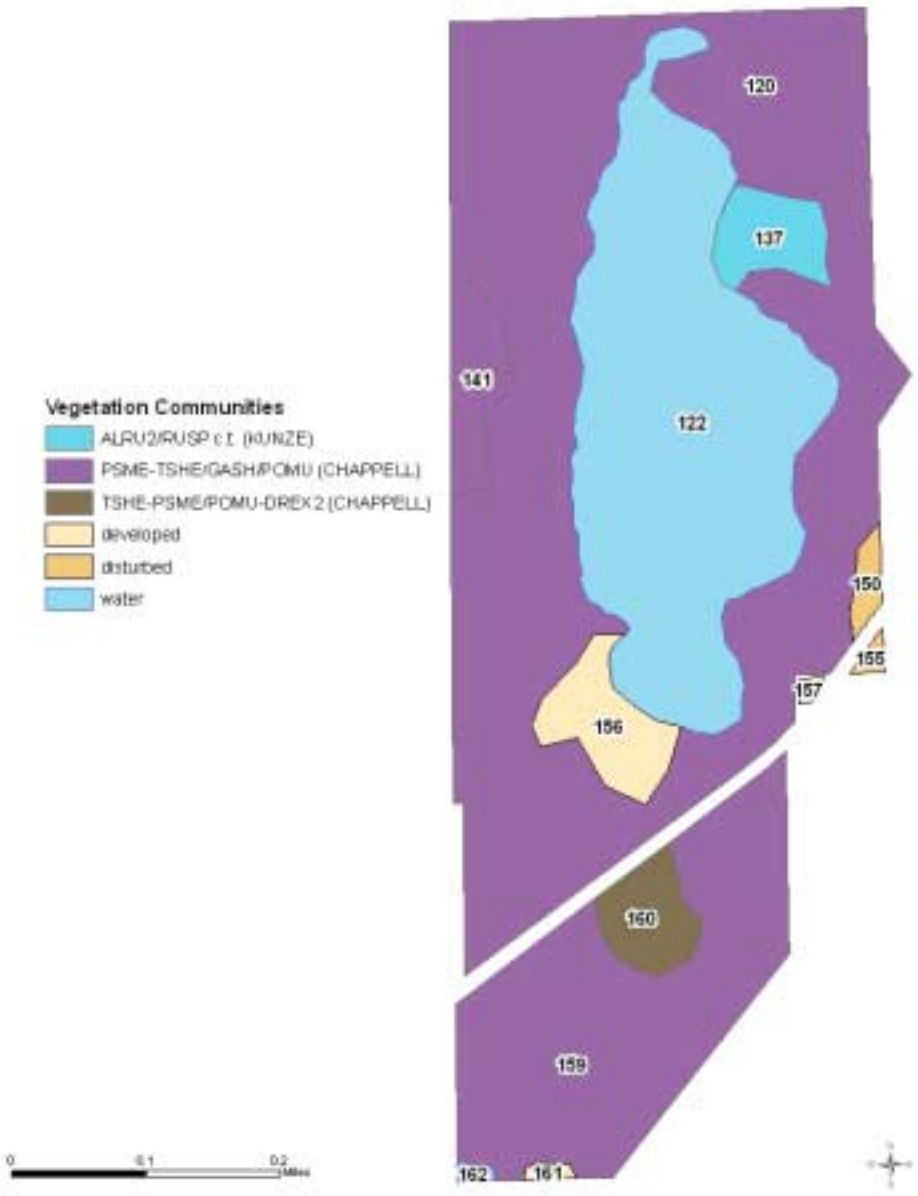

Figure 20. The primary vegetation community types within Nolte State Park.

Examples of Vegetation Community Types

Acer macrophyllum - Alnus rubra / Polystichum munitum - Tellima grandiflora forest (ACMA3-ALRU2/POMU-TEGR2)

This association occurs throughout the Green River Gorge State Park complex. It is a common plant association along the steep slopes of the gorge where there are loose unconsolidated substrates that are subject to moderate frequency slides and slope movement. Previous logging may have helped to establish some patches of this association, but continuous slope instability seems to be contributing to a maintained canopy dominance of big-leaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*).

Alnus rubra / Lysichitum americanum community type (ALRU2/LYAM3 c.t.)

This wetland community occurs in a few of the non-riverine wetlands that exist within the Green River Gorge State Park complex. Most of the occurrences of the *Alnus rubra / Lysichitum americanum* community type are in Flaming Geyser State Park. The plant association mosaics with the *Alnus rubra / Rubus spectabilis* community type.

Alnus rubra / Polystichum munitum forest (ALRU2/POMU)

The *Alnus rubra / Polystichum munitum* plant association is very common on old clearcut sites in the Puget Trough. Its occurrence illustrates the historical logging practices that took place on the land. Throughout the Green River Gorge State Park complex, areas that were accessible were logged prior to establishment of the park complex. Many of these areas are now *Alnus rubra / Polystichum munitum* forest. In some patches of this community, conifer regeneration appears to be slowly taking place, while in other areas, no conifer regeneration is apparent. Some of the worst infestations of exotic plants take place within patches of this plant association, especially in Flaming Geyser and Kanaskat Palmer State Parks.

Alnus rubra / Rubus spectabilis community type (ALRU2/RUSP c.t.)

This plant association occurs in all of the management areas of the Green River Gorge State Park complex and in Nolte State Park as well. The Alnus rubra / Rubus spectabilis *community type* is a wetland community typically associated with seasonally flooded or saturated soils. Like the *Alnus rubra / Polystichum munitum* plant association, it is common in previously logged areas, and is quite common in the Puget Trough where there is a long and expansive history of logging. In patches directly along the Green River, some patches of this community are maintained by periodic flooding by the river and may not be related to any previous logging activities.

Carex lenticularis community (CALE8)

The *Carex lenticularis* community designation was created by PBI for this project. Along various reaches of the Green River large monotypic patches of lakeshore sedge (*Carex lenticularis*) occur just below the high water line. At times of high water, these patches are flooded by the river, which maintains the homogenous cover of lakeshore sedge.

Cornus stolonifera - Salix spp. shrubland (COST4-Salix sp. shrubland)

This association occurs infrequently along the Green River within the flood zone at the bottom of the narrow gorge. It occurs with the *Alnus rubra / Rubus spectabilis* community type where that community is maintained by flood events from the Green River. Large infestations of reed canarygrass (*Phalaris arundinacea*) and Himalayan blackberry (*Rubus discolor*) are typically found within this community.

Populus trichocarpa - Alnus rubra / Symphoricarpos albus forest (POTR15-ALRU2/SYAL)

This plant association occurs in Flaming Geyser State Park along the upland banks directly adjacent to the Green River. Patches of this community probably still experience temporary flooding during high water events. Himalayan blackberry (*Rubus discolor*) has infested large areas within this plant association.

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

This is the dominant forested plant association within Nolte State Park. It is also very common along the ridgelines and steep forested slopes of the Green River Gorge where it mosaics with the *Acer macrophyllum - Alnus rubra / Polystichum munitum - Tellima grandiflora* and *Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa* plant associations. Some old-growth patches of this association exist within the Green River Gorge State Park complex, where historic logging was probably inhibited by slope steepness and difficult access.

Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon - Mahonia nervosa forest (PSME-TSHE/GASH-MANE2)

This plant association occurs within Nolte State Park. It is a less dominant plant association occurring in patches within the *Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon / Polystichum munitum* matrix. This association differs from *Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon / Polystichum munitum* association in that the understory is dominated by salal (*Gaultheria shallon*) and Oregongrape (*Mahonia nervosa*) with very little sword fern (*Polystichum munitum*) present.

Pseudotsuga menziesii - Tsuga heterophylla / Mahonia nervosa / Polystichum munitum forest (PSME-TSHE/MANE2/POMU)

This plant association occurs periodically throughout the Green River Gorge State Park complex. It typically occurs as smaller patches of forest within a matrix of the *Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa* association. Forests of this plant association typically have denser overstory canopies creating darker interior conditions on the forest floor.

Spiraea douglasii community type (SPDO c.t.)

This is a wetland plant association that occurs in the two large non-riverine wetlands below the ranger station in Flaming Geyser State Park. This plant association is associated with the occurrence of stagnant or near stagnant shallow water. In areas of this plant association rose spirea (*Spireae douglasii*) is the dominant vegetation cover, though many other wetland plants occur as well, including willows (*Salix spp.*), common cattail (*Typha latifolia*), and slough sedge (*Carex obnupta*). This plant association shares the wetland complex near the ranger station with the *Typha latifolia* community type.

Thuja plicata - Tsuga heterophylla / Lysichitum americanum community type (THPL-TSHE/LYAM3 c.t.)

This plant association occurs in a limited location in Flaming Geyser State Park, within the large patch of coniferous forest on the north side of the park (north of the Green River) to the east of the abandoned pastoral lands. A flat plateau with highly saturated soils creates a mosaic of wetland conditions underneath a conifer forest canopy in this area, with western red cedar (*Thuja plicata*) dominating the tree composition and American skunk cabbage (*Lysichitum americanum*) taking up large patches of the forest understory. This plant association mosaics with the *Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa* and *Alnus rubra / Lysichitum americanum* community types in this area.

Thuja plicata - Tsuga heterophylla / Ophloplanax horridus / Polystichum munitum forest (THPL-TSHE/OPHO/POMU)

THPL-TSHE/OPHO/POMU occurs periodically throughout the Green River Gorge State Park complex. It typically occurs as a smaller forest patch within a matrix of the *Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa* association. It is commonly associated with wetter areas of the forest near wetland margins or in topographic depressions. It is the wettest coniferous forest association in the Green River Gorge area and should be considered a wetland type.

Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa forest (TSHE-PSME/POMU-DREX2)

This is the dominant plant association throughout the Green River Gorge State Park complex and it occurs in Nolte State Park as well. Although a large diversity of shrubs may occur within this plant association, *Tsuga heterophylla - Pseudotsuga menziesii / Polystichum munitum - Dryopteris expansa* forests usually have very high amounts of understory cover by sword fern (*Polystichum munitum*). Spreading wood fern (*Dryopteris expansa*) often occurs in low abundance or is absent in the forests of this association in the Green River Gorge Area. Some old-growth patches of this forest association exist with the Green River Gorge State Park complex, where historic logging was probably inhibited by slope steepness and difficult access.

Typha latifolia community type (TYLA c.t.)

Wetland areas dominated by cover of common cattail (*Typha latifolia*) fall into the TYLA c.t. classification. The same stagnant water wetlands near the ranger station of Flaming Geyser State Park, where the *Spiraea douglasii* community type occurs, supports this plant association as well. It is within this plant association that the state sensitive plant floating marshpennywort (*Hydrocotyle ranunculoides*) can be found. Many exotic plants, including climbing knightshade (*Solanum dulcamara*) and creeping buttercup (*Ranunculus repens*) are well established within the patches of this plant association.

Rare Plant Surveys

Methods

We visited the Green River Gorge State Park Complex and Nolte State Park multiple times during the 2006 field season to conduct rare plant surveys. We used the Washington Department of Natural Resources Natural Heritage Program's (DNR NHP) rare plant list to determine the conservation status of vascular plants encountered in the field. When a plant from the DNR NHP list was located, we used the standard DNR NHP rare plant sighting form to complete field descriptions for the observation. These forms are attached as Appendix E.

Specific dates of field surveys for each park can be found in Appendix A of this report. During the field surveys, 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 for each park (Figures 2 - 7).

Results

Rare Plants

According to historical records kept by the WA DNR Natural Heritage Program (NHP), tall bugbane (*Cimicifuga elata*) may have existed with the Green River Gorge State Park complex at one time. This state sensitive plant was not seen during out 2006 surveys.

We located one vascular plant currently listed in the WA DNR NHP rare plant list within Flaming Geyser State Park. The locations of this rare plant and photos of the specimens are illustrated in Figures 21 and 22. See Appendix E for a full printout of the DNR NHP field sighting forms. See Appendix B for definitions of Status codes.

Species	**Common Name**	**Status**
Hydrocotyle ranunculoides L. f.	floating marsh pennywort	G5 S2 S

We should note that we have recommended to WADNR NHP that *Hydrocotyle ranunculoides* be delisted. It is actually quite common in western Washington and often occurs in disturbed areas. WADNR NHP has accepted our recommendation and will be delisting this plant in the near future.

Figure 21. Photos of floating marsh pennywort (*Hydrocotyle ranunculoides*) in Flaming Geyser State Park.

Figure 22. Location of loating marsh pennywort (*Hydrocotyle ranunculoides*) within Flaming Geyser State Park.

Vascular Plant List for the Green River Gorge State Park Complex

A total of 229 vascular plant species were identified during the 2006 surveys at the Green River Gorge State Park Complex (excluding Nolte State Park). Of these, 81 of the plant species are non-native, accounting for 35% of the total.

Key to Vascular Plant Species List

"Code": Four-letter plant code as shown on the USDA PLANTS database.

"Alien?": species that are not native to the park are indicated with an "a"

"Common Name / Accepted Synonym": The species list uses Hitchcock and Cronquist, *Flora of the Pacific Northwest* as the taxonomic authority, as this is still the standard reference for our area. Updated nomenclature or general common names are shown in this column when they exist.

#	Code	Scientific Name	Common Name/Accepted Synonym	Family	Alien
1	ACCI	Acer circinatum Pursh	vine maple	Aceraceae	
2	ACMA3	Acer macrophyllum Pursh	bigleaf maple	Aceraceae	
3	ACTR	Achlys triphylla (Sm.) DC.	sweet after death	Berberidaceae	
4	ACRU2	Actaea rubra (Ait.) Willd.	red baneberry	Ranunculaceae	
5	ADPE	Adiantum pedatum L.	maidenhair fern	Pteridaceae	
6	AEHI	Aesculus hippocastanum L.	horse chestnut	Hippocastanaceae	a
7	AGRE2	Agropyron repens (L.) Beauv.	>>Elymus repens	Poaceae	a
8	AGOR	Agrostis oregonensis Vasey	Oregon bentgrass	Poaceae	
9	AGSE2	Agrostis semiverticillata (Forssk.) C. Christens.	>>Polypogon viridis	Poaceae	a
10	AGTE	Agrostis tenuis Sibthorp	>>Agrostis capillaris	Poaceae	a
11	AICA	Aira caryophyllea L.	silver hairgrass	Poaceae	a
12	ALPL	Alisma plantago-aquatica L.	European water plantain	Alismataceae	a
13	ALCE2	Allium cernuum Roth	nodding onion	Liliaceae	
14	ALRU2	Alnus rubra Bong.	red alder	Betulaceae	
15	AMAL2	Amelanchier alnifolia (Nutt.) Nutt. ex M. Roemer	Saskatoon serviceberry	Rosaceae	
16	ANMA	Anaphalis margaritacea (L.) Benth.	western pearly everlasting	Asteraceae	
17	ANAR3	Angelica arguta Nutt.	Lyall's angelica	Apiaceae	
18	ANOD	Anthoxanthum odoratum L.	sweet vernalgrass	Poaceae	a
19	AQFO	Aquilegia formosa Fisch. ex DC.	western columbine	Ranunculaceae	
20	ARLA3	Arctium lappa L.	greater burdock	Asteraceae	a
21	ARMA18	Arenaria macrophylla Hook.	>>Moehringia macrophylla	Caryophyllaceae	
22	AREL3	Arrhenatherum elatius (L.) Beauv. ex J.& K. Presl	tall oatgrass	Poaceae	a
23	ARLU	Artemisia ludoviciana Nutt.	white sagebrush	Asteraceae	
24	ARSYA	Aruncus sylvester Kostel. ex Maxim. ssp. acuminatus (Rydb.) Jepson	>>Aruncus dioicus var. acuminatus	Rosaceae	
25	ASCH2	Aster chilensis Nees	>>Symphyotrichum chilense var. chilense	Asteraceae	
26	ASMO3	Aster modestus Lindl.	>>Canadanthus modestus	Asteraceae	
27	ATFI	Athyrium filix-femina (L.) Roth	common ladyfern	Dryopteridaceae	
28	BEPE2	Bellis perennis L.	lawn daisy	Asteraceae	a
29	BLSP	Blechnum spicant (L.) Sm.	deer fern	Blechnaceae	
30	BRSY	Brachypodium sylvaticum (Huds.) Beauv.	false brome	Poaceae	A

31	BRJU	Brassica juncea (L.) Czern.	India mustard	Brassicaceae	a
32	BRMO2	Bromus mollis auct. non L. [misapplied]	>>Bromus hordeaceus ssp. hordeaceus	Poaceae	a
33	BRVU	Bromus vulgaris (Hook.) Shear	Columbia brome	Poaceae	
34	CASC7	Campanula scouleri Hook. ex A. DC.	pale bellflower	Campanulaceae	
35	CAOL	Cardamine oligosperma Nutt.	little western bittercress	Brassicaceae	
36	CAPE3	Cardamine pensylvanica Muhl. ex Willd.	Pennsylvania bittercress	Brassicaceae	
37	CADE9	Carex deweyana Schwein.	Dewey sedge	Cyperaceae	
38	CAHE7	Carex hendersonii Bailey	Henderson's sedge	Cyperaceae	
39	CALE8	Carex lenticularis Michx.	lakeshore sedge	Cyperaceae	
40	CAST5	Carex stipata Muhl. ex Willd.	owlfruit sedge	Cyperaceae	
41	CEVI3	Cerastium viscosum auct. non L. [misapplied]	>>Cerastium glomeratum	Caryophyllaceae	a
42	CHLE80	Chrysanthemum leucanthemum L.	>>Leucanthemum vulgare	Asteraceae	a
43	CIAL	Circaea alpina L.	small enchanter's nightshade	Onagraceae	
44	CIAR4	Cirsium arvense (L.) Scop.	Canada thistle	Asteraceae	a
45	CIVU	Cirsium vulgare (Savi) Ten.	bull thistle	Asteraceae	a
46	COAR4	Convolvulus arvensis L.	field bindweed	Convolvulaceae	a
47	CONU4	Cornus nuttallii Audubon ex Torr. & Gray	Pacific dogwood	Cornaceae	
48	COST4	Cornus stolonifera Michx.	>>Cornus sericea ssp. sericea	Cornaceae	
49	COSC4	Corydalis scouleri Hook.	Scouler's fumewort	Fumariaceae	
50	COCO6	Corylus cornuta Marsh.	California hazelnut	Betulaceae	
51	CRMO3	Crataegus monogyna Jacq.	oneseed hawthorn	Rosaceae	a
52	CRCA3	Crepis capillaris (L.) Wallr.	smooth hawksbeard	Asteraceae	a
53	CYNOG	Cynoglossum L.	hound's tongue	Boraginaceae	a
54	CYSC4	Cytisus scoparius (L.) Link	scotchbroom	Fabaceae	a
55	DAGL	Dactylis glomerata L.	orchardgrass	Poaceae	a
56	DAIN	Danthonia intermedia Vasey	timber oatgrass	Poaceae	
57	DACA6	Daucus carota L.	Queen Anne's lace	Apiaceae	a
58	DAPU3	Daucus pusillus Michx.	American wild carrot	Apiaceae	
59	DECA18	Deschampsia caespitosa (L.) Beauv.	tufted hairgrass	Poaceae	
60	DIAR	Dianthus armeria L.	Deptford pink	Caryophyllaceae	a
61	DIFO	Dicentra formosa (Haw.) Walp.	Pacific bleeding heart	Fumariaceae	
62	DIPU	Digitalis purpurea L.	purple foxglove	Scrophulariaceae	a
63	DISY	Dipsacus sylvestris Huds.	>>Dipsacus fullonum	Dipsacaceae	a
64	DIHOO	Disporum hookeri (Torr.) Nichols. var. oreganum (S. Wats.) Q. Jones	>>Prosartes hookeri var. oregana	Liliaceae	
65	DREX2	Dryopteris expansa (K. Presl) Fraser-Jenkins & Jermy	spreading woodfern	Dryopteridaceae	
66	ELGL	Elymus glaucus Buckl.	blue wildrye	Poaceae	
67	EPAN2	Epilobium angustifolium L.	>>Chamerion angustifolium ssp. angustifolium	Onagraceae	
68	EPWA3	Epilobium watsonii Barbey	>>Epilobium ciliatum ssp. watsonii	Onagraceae	
69	EQAR	Equisetum arvense L.	field horsetail	Equisetaceae	
70	EQHY	Equisetum hyemale L.	scouringrush horsetail	Equisetaceae	
71	EQSC	Equisetum scirpoides Michx.	dwarf scouringrush	Equisetaceae	
72	EQTE	Equisetum telmateia Ehrh.	giant horsetail	Equisetaceae	
73	ERAN	Erigeron annuus (L.) Pers.	eastern daisy fleabane	Asteraceae	
74	ERPH	Erigeron philadelphicus L.	Philadelphia fleabane	Asteraceae	
75	EUNE3	Euphrasia nemorosa (Pers.) Wallr.	common eyebright	Scrophulariaceae	
76	FEAR3	Festuca arundinacea Schreb.	>>Schedonorus phoenix	Poaceae	a
77	FEBR*	Festuca bromoides L.	>>Vulpia bromoides	Poaceae	a
78	FERU2	Festuca rubra L.	red fescue	Poaceae	

79	FRVE	Fragaria vesca L.	woodland strawberry	Rosaceae	
80	FRVI	Fragaria virginiana Duchesne	Virginia strawberry	Rosaceae	
81	GATE2	Galeopsis tetrahit L.	brittlestem hempnettle	Lamiaceae	a
82	GAAP2	Galium aparine L.	stickywilly	Rubiaceae	
83	GATR2	Galium trifidum L.	threepetal bedstraw	Rubiaceae	
84	GASH	Gaultheria shallon Pursh	salal	Ericaceae	
85	GERO	Geranium robertianum L.	Robert geranium	Geraniaceae	a
86	GEMA4	Geum macrophyllum Willd.	largeleaf avens	Rosaceae	
87	GLHE2	Glechoma hederacea L.	ground ivy	Lamiaceae	a
88	GLEL	Glyceria elata (Nash ex Rydb.) M.E. Jones	>>Glyceria striata	Poaceae	
89	GOOB2	Goodyera oblongifolia Raf.	western rattlesnake plantain	Orchidaceae	
90	GYDR	Gymnocarpium dryopteris (L.) Newman	western oakfern	Dryopteridaceae	
91	HEHE	Hedera helix L.	English ivy	Araliaceae	a
92	HELA4	Heracleum lanatum Michx.	>>Heracleum maximum	Apiaceae	
93	HEMI7	Heuchera micrantha Dougl. ex Lindl.	crevice alumroot	Saxifragaceae	
94	HIERA	Hieracium L.	hawkweed	Asteraceae	
95	HOLA	Holcus lanatus L.	common velvetgrass	Poaceae	a
96	HODI	Holodiscus discolor (Pursh) Maxim.	Oceanspray	Rosaceae	
97	HYRA	Hydrocotyle ranunculoides L. f.	floating marshpennywort	Apiaceae	
98	HYTE	Hydrophyllum tenuipes Heller	Pacific waterleaf	Hydrophyllaceae	
99	HYPE	Hypericum perforatum L.	common St. Johnswort	Clusiaceae	a
100	HYRA3	Hypochaeris radicata L.	hairy cat's ear	Asteraceae	a
101	ILAQ80	Ilex aquifolium L.	English holly	Aquifoliaceae	a
102	IRPS	Iris pseudacorus L.	paleyellow iris	Iridaceae	a
103	JUAC	Juncus acuminatus Michx.	tapertip rush	Juncaceae	
104	JUBU	Juncus bufonius L.	toad rush	Juncaceae	a
105	JUEF	Juncus effusus L.	common rush	Juncaceae	
106	JUTE	Juncus tenuis Willd.	poverty rush	Juncaceae	
107	LAMU	Lactuca muralis (L.) Fresen.	>>Mycelis muralis	Asteraceae	a
108	LACO3	Lapsana communis L.	common nipplewort	Asteraceae	a
109	LATHY	Lathyrus L.	pea	Fabaceae	
110	LEMI3	Lemna minor L.	common duckweed	Lemnaceae	
111	LICO	Lilium columbianum Leichtl. in Duchartre	Columbia lily	Liliaceae	
112	LIBO3	Linnaea borealis L.	twinflower	Ericaceae	
113	LOPE	Lolium perenne L.	perennial ryegrass	Poaceae	a
114	LOCI3	Lonicera ciliosa (Pursh) Poir. ex DC.	orange honeysuckle	Caprifoliaceae	
115	LUCA*	Luzula campestris (L.) DC.	field woodrush	Juncaceae	
116	LUPA4	Luzula parviflora (Ehrh.) Desv.	smallflowered woodrush	Juncaceae	
117	LYAM3	Lysichiton americanus Hultén & St. John	American skunkcabbage	Araceae	
118	MANE2	Mahonia nervosa (Pursh) Nutt.	Cascade barberry	Berberidaceae	
119	MADI	Maianthemum dilatatum (Wood) A. Nels. & J.F. Macbr.	false lily of the valley	Liliaceae	
120	MAOR3	Marah oreganus (Torr. ex S. Wats.) T.J. Howell	coastal manroot	Cucurbitaceae	
121	MAMA11	Matricaria matricarioides auct. non (Less.) Porter [misapplied]	>>Matricaria discoidea	Asteraceae	a
122	MELU	Medicago lupulina L.	black medick	Fabaceae	a
123	MESM	Melica smithii (Porter ex Gray) Vasey	Smith's melicgrass	Poaceae	
124	MESU	Melica subulata (Griseb.) Scribn.	Alaska oniongrass	Poaceae	
125	MEAL2	Melilotus albus Medik.	>>Melilotus officinalis	Fabaceae	a
126	MEFE	Menziesia ferruginea Sm.	rusty menziesia	Ericaceae	

127	MOUN3	Monotropa uniflora L.	Indianpipe	Monotropaceae	
128	MOPA5	Montia parviflora (Dougl. ex Hook.) T.J. Howell	>>Claytonia parviflora ssp. parviflora	Portulacaceae	
129	MOSI2	Montia sibirica (L.) T.J. Howell	>>Claytonia sibirica var. sibirica	Portulacaceae	
130	MYSY	Myosotis sylvatica Ehrh. ex Hoffmann	woodland forget-me-not	Boraginaceae	a
131	NEPA	Nemophila parviflora Dougl. ex Benth.	smallflower nemophila	Hydrophyllaceae	
132	NONE3	Nothochelone nemorosa (Dougl. ex Lindl.) Straw	woodland beardtongue	Scrophulariaceae	
133	OECE	Oemleria cerasiformis (Torr. & Gray ex Hook. & Arn.) Landon	Indian plum	Rosaceae	
134	OESA	Oenanthe sarmentosa K. Presl ex DC.	water parsely	Apiaceae	
135	OPHO	Oplopanax horridus Miq.	devilsclub	Araliaceae	
136	OSCH	Osmorhiza chilensis Hook. & Arn.	>>Osmorhiza berteroi	Apiaceae	
137	OXTR	Oxalis trilliifolia Hook.	threeleaf woodsorrel	Oxalidaceae	
138	PEPA31	Petasites palmatus (Ait.) Gray	>>Petasites frigidus var. palmatus	Asteraceae	
139	PHHA	Phacelia hastata Dougl. ex Lehm.	silverleaf phacelia	Hydrophyllaceae	
140	PHAR3	Phalaris arundinacea L.	reed canarygrass	Poaceae	a
141	PHPR3	Phleum pratense L.	timothy	Poaceae	a
142	PHCA11	Physocarpus capitatus (Pursh) Kuntze	Pacific ninebark	Rosaceae	
143	PISI	Picea sitchensis (Bong.) Carr.	Sitka spruce	Pinaceae	
144	PLLA	Plantago lanceolata L.	narrowleaf plantain	Plantaginaceae	a
145	PLMA2	Plantago major L.	common plantain	Plantaginaceae	a
146	POAN	Poa annua L.	annual bluegrass	Poaceae	a
147	POPR	Poa pratensis L.	Kentucky bluegrass	Poaceae	a
148	POTR2	Poa trivialis L.	rough bluegrass	Poaceae	a
149	POAV	Polygonum aviculare L.	prostrate knotweed	Polygonaceae	a
150	POCU6	Polygonum cuspidatum Sieb. & Zucc.	Japanese knotweed	Polygonaceae	a
151	PODO4	Polygonum douglasii Greene	Douglas' knotweed	Polygonaceae	
152	POHY	Polygonum hydropiper L.	marshpepper knotweed	Polygonaceae	
153	POPE3	Polygonum persicaria L.	spotted ladysthumb	Polygonaceae	a
154	POSA4	Polygonum sachalinense F. Schmidt ex Maxim.	giant knotweed	Polygonaceae	a
155	POGL8	Polypodium glycyrrhiza D.C. Eat.	licorice fern	Polypodiaceae	
156	POMU	Polystichum munitum (Kaulfuss) K. Presl	swordfern	Polypodiaceae	
157	POTR15	Populus trichocarpa Torr. & Gray ex Hook.	>>Populus balsamifera ssp. trichocarpa	Salicaceae	
158	POPA14	Potentilla palustris (L.) Scop.	>>Comarum palustre	Rosaceae	
159	PRVU	Prunella vulgaris L.	common selfheal	Lamiaceae	
160	PRAV	Prunus avium (L.) L.	sweet cherry	Rosaceae	a
161	PSME	Pseudotsuga menziesii (Mirbel) Franco	Douglas-fir	Pinaceae	
162	PTAQ	Pteridium aquilinum (L.) Kuhn	bracken fern	Dennstaedtiaceae	
163	PYRUS	Pyrus L.	pear	Rosaceae	a
164	RARE3	Ranunculus repens L.	creeping buttercup	Ranunculaceae	a
165	RAUN	Ranunculus uncinatus D. Don ex G. Don	woodland buttercup	Ranunculaceae	
166	RHPU	Rhamnus purshiana DC.	>>Frangula purshiana	Rhamnaceae	
167	RIBR	Ribes bracteosum Dougl. ex Hook.	stink currant	Grossulariaceae	
168	RISA	Ribes sanguineum Pursh	redflower currant	Grossulariaceae	
169	ROPS	Robinia pseudoacacia L.	black locust	Fabaceae	a
170	ROGY	Rosa gymnocarpa Nutt.	dwarf rose	Rosaceae	
171	RONU	Rosa nutkana K. Presl	Nootka rose	Asteraceae	
172	RUDI2	Rubus discolor Weihe & Nees	>>Rubus armeniacus	Rosaceae	a
173	RULA	Rubus laciniatus Willd.	cutleaf blackberry	Rosaceae	a
174	RULE	Rubus leucodermis Dougl. ex Torr. & Gray	whitebark raspberry	Rosaceae	

175	RUPA	Rubus parviflorus Nutt.	thimbleberry	Rosaceae	
176	RUSP	Rubus spectabilis Pursh	salmonberry	Rosaceae	
177	RUUR	Rubus ursinus Cham. & Schlecht.	California blackberry	Rosaceae	
178	RUAC3	Rumex acetosella L.	common sheep sorrel	Polygonaceae	a
179	RUCR	Rumex crispus L.	curly dock	Polygonaceae	a
180	RUOB	Rumex obtusifolius L.	bitter dock	Polygonaceae	a
181	RUOC3	Rumex occidentalis S. Wats.	>>Rumex aquaticus var. fenestratus	Polygonaceae	
182	SASC	Salix scouleriana Barratt ex Hook.	Scouler's willow	Salicaceae	
183	SASI2	Salix sitchensis Sanson ex Bong.	Sitka willow	Salicaceae	
184	SARA2	Sambucus racemosa L.	red elderberry	Caprifoliaceae	
185	SCMI2	Scirpus microcarpus J.& K. Presl	panicled bulrush	Cyperaceae	
186	SCFE	Scolochloa festucacea (Willd.) Link	common rivergrass	Poaceae	
187	SEJA	Senecio jacobaea L.	stinking willie	Asteraceae	a
188	SEVU	Senecio vulgaris L.	old-man-in-the-Spring	Asteraceae	a
189	SMRA*	Smilacina racemosa (L) Desf.	>>Maianthemum racemosum ssp. amplexicaule	Liliaceae	
190	SMST	Smilacina stellata (L.) Desf.	>>Maianthemum stellatum	Liliaceae	
191	SODU	Solanum dulcamara L.	climbing nightshade	Solanaceae	a
192	SOCA6	Solidago canadensis L.	Canada goldenrod	Asteraceae	
193	SOAS	Sonchus asper (L.) Hill	spiny sowthistle	Asteraceae	a
194	SOAU	Sorbus aucuparia L.	European mountain ash	Rosaceae	a
195	SPBE2	Spiraea betulifolia Pallas	white spirea	Rosaceae	
196	SPDO	Spiraea douglasii Hook.	rose spirea	Rosaceae	
197	STCO14	Stachys cooleyae Heller	>>Stachys chamissonis var. cooleyae	Lamiaceae	
198	STCR2	Stellaria crispa Cham. & Schlecht.	curled starwort	Caryophyllaceae	
199	STME2	Stellaria media (L.) Vill.	common chickweed	Caryophyllaceae	a
200	STAM2	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	Liliaceae	
201	SYAL	Symphoricarpos albus (L.) Blake	common snowberry	Caprifoliaceae	
202	TAVU	Tanacetum vulgare L.	common tansy	Asteraceae	a
203	TAOF	Taraxacum officinale G.H. Weber ex Wiggers	dandelion	Asteraceae	a
204	TABR2	Taxus brevifolia Nutt.	Pacific yew	Taxaceae	
205	TEGR2	Tellima grandiflora (Pursh) Dougl. ex Lindl.	bigflower tellima	Saxifragaceae	
206	THPL	Thuja plicata Donn ex D. Don	western red cedar	Cupressaceae	
207	TITR	Tiarella trifoliata L.	threeleaf foamflower	Saxifragaceae	
208	TOME	Tolmiea menziesii (Pursh) Torr. & Gray	youth on age	Saxifragaceae	
209	TRDU	Tragopogon dubius Scop.	yellow salsify	Asteraceae	a
210	TRCA	Trautvetteria caroliniensis (Walt.) Vail	Carolina bugbane	Ranunculaceae	
211	TRLA6	Trientalis latifolia Hook.	>>Trientalis borealis ssp. latifolia	Primulaceae	
212	TRDU2	Trifolium dubium Sibthorp	suckling clover	Fabaceae	a
213	TRPR2	Trifolium pratense L.	red clover	Fabaceae	a
214	TRRE3	Trifolium repens L.	white clover	Fabaceae	a
215	TROV2	Trillium ovatum Pursh	Pacific trillium	Liliaceae	
216	TRCE2	Trisetum cernuum Trin.	>>Trisetum canescens	Poaceae	
217	TSHE	Tsuga heterophylla (Raf.) Sarg.	western hemlock	Pinaceae	
218	TYLA	Typha latifolia L.	broadleaf cattail	Typhaceae	
219	URDI	Urtica dioica L.	nettle	Urticaceae	
220	VAPA	Vaccinium parvifolium Sm.	red huckleberry	Ericaceae	
221	VASI	Valeriana sitchensis Bong.	Sitka valerian	Valerianaceae	
222	VAHE	Vancouveria hexandra (Hook.) Morr. & Dcne.	white insideout flower	Berberidaceae	
223	VETH	Verbascum thapsus L.	common mullein	Scrophulariaceae	a

224	VEAM2	Veronica americana Schwein. ex Benth.	American speedwell	Scrophulariaceae	
225	VESE	Veronica serpyllifolia L.	thymeleaf speedwell	Scrophulariaceae	
226	VISA	Vicia sativa L.	garden vetch	Fabaceae	a
227	VIMA	Vinca major L.	bigleaf periwinkle	Apocynaceae	a
228	VIGL	Viola glabella Nutt.	pioneer violet	Violaceae	
229	VISE3	Viola sempervirens Greene	evergreen violet	Violaceae	

Vascular Plant List for Nolte State Park

A total of 116 vascular plant species were identified during the 2006 surveys at Nolte State Park. Of these, 38 of the plant species are non-native, accounting for 33% of the total.

#	Code	Scientific Name	Common Name/Accepted Synonym	Family	Alien
1	ACCI	Acer circinatum Pursh	vine maple	Aceraceae	
2	ACMA3	Acer macrophyllum Pursh	bigleaf maple	Aceraceae	
3	ACTR	Achlys triphylla (Sm.) DC.	sweet after death	Berberidaceae	
4	ADBI	Adenocaulon bicolor Hook.	pathfinder	Asteraceae	
5	ALRU2	Alnus rubra Bong.	red alder	Betulaceae	
6	AMAL2	Amelanchier alnifolia (Nutt.) Nutt. ex M. Roemer	Saskatoon serviceberry	Rosaceae	
7	ANMA	Anaphalis margaritacea (L.) Benth.	western pearly everlasting	Asteraceae	
8	ANOD	Anthoxanthum odoratum L.	sweet vernalgrass	Poaceae	a
9	ARLU	Artemisia ludoviciana Nutt.	white sagebrush	Asteraceae	
10	ARSYA	Aruncus sylvester Kostel. ex Maxim. ssp. acuminatus (Rydb.) Jepson	>>Aruncus dioicus var. acuminatus	Rosaceae	
11	ATFI	Athyrium filix-femina (L.) Roth	common ladyfern	Dryopteridaceae	
12	BEPE2	Bellis perennis L.	lawn daisy	Asteraceae	a
13	BEPA	Betula papyrifera Marsh.	paper birch	Betulaceae	
14	CADE9	Carex deweyana Schwein.	Dewey sedge	Cyperaceae	
15	CAHE7	Carex hendersonii Bailey	Henderson's sedge	Cyperaceae	
16	CEVI3	Cerastium viscosum auct. non L. [misapplied]	>>Cerastium glomeratum	Caryophyllaceae	a
17	CHLE80	Chrysanthemum leucanthemum L.	>>Leucanthemum vulgare	Asteraceae	a
18	CIAL	Circaea alpina L.	small enchanter's nightshade	Onagraceae	
19	CIAR4	Cirsium arvense (L.) Scop.	Canada thistle	Asteraceae	a
20	COCO6	Corylus cornuta Marsh.	California hazelnut	Betulaceae	
21	CRMO3	Crataegus monogyna Jacq.	oneseed hawthorn	Rosaceae	a
22	CYSC4	Cytisus scoparius (L.) Link	scotchbroom	Fabaceae	a
23	DAGL	Dactylis glomerata L.	orchardgrass	Poaceae	a
24	DIFO	Dicentra formosa (Haw.) Walp.	Pacific bleeding heart	Fumariaceae	
25	DIPU	Digitalis purpurea L.	purple foxglove	Scrophulariaceae	a
26	DREX2	Dryopteris expansa (K. Presl) Fraser-Jenkins & Jermy	spreading woodfern	Dryopteridaceae	
27	ELGL	Elymus glaucus Buckl.	blue wildrye	Poaceae	
28	EPWA3	Epilobium watsonii Barbey	>>Epilobium ciliatum ssp. watsonii	Onagraceae	
29	EQAR	Equisetum arvense L.	field horsetail	Equisetaceae	
30	EUNE3	Euphrasia nemorosa (Pers.) Wallr.	common eyebright	Scrophulariaceae	
31	FEOC	Festuca occidentalis Hook.	western fescue	Poaceae	
32	FRVE	Fragaria vesca L.	woodland strawberry	Rosaceae	

33	GAAP2	Galium aparine L.	stickywilly	Rubiaceae	
34	GASH	Gaultheria shallon Pursh	salal	Ericaceae	
35	GERO	Geranium robertianum L.	Robert geranium	Geraniaceae	a
36	GEMA4	Geum macrophyllum Willd.	largeleaf avens	Rosaceae	
37	GOOB2	Goodyera oblongifolia Raf.	western rattlesnake plantain	Orchidaceae	
38	HEHE	Hedera helix L.	English ivy	Araliaceae	a
39	HELA4	Heracleum lanatum Michx.	>>Heracleum maximum	Apiaceae	
40	HODI	Holodiscus discolor (Pursh) Maxim.	Oceanspray	Rosaceae	
41	HYPE	Hypericum perforatum L.	common St. Johnswort	Clusiaceae	a
42	HYRA3	Hypochaeris radicata L.	hairy cat's ear	Asteraceae	a
43	ILAQ80	Ilex aquifolium L.	English holly	Aquifoliaceae	a
44	IRPS	Iris pseudacorus L.	paleyellow iris	Iridaceae	a
45	JUTE	Juncus tenuis Willd.	poverty rush	Juncaceae	
46	LAMU	Lactuca muralis (L.) Fresen.	>>Mycelis muralis	Asteraceae	a
47	LACO3	Lapsana communis L.	common nipplewort	Asteraceae	a
48	LICO	Lilium columbianum Leichtl. in Duchartre	Columbia lily	Liliaceae	
49	LIBO3	Linnaea borealis L.	twinflower	Ericaceae	
50	LOCI3	Lonicera ciliosa (Pursh) Poir. ex DC.	orange honeysuckle	Caprifoliaceae	
51	LOIN5	Lonicera involucrata (Richards.) Banks ex Spreng.	twinberry honeysuckle	Caprifoliaceae	
52	LUPA4	Luzula parviflora (Ehrh.) Desv.	smallflowered woodrush	Juncaceae	
53	LYCO	Lychnis coronaria (L.) Desr.	rose campion	Caryophyllaceae	a
54	MANE2	Mahonia nervosa (Pursh) Nutt.	Cascade barberry	Berberidaceae	
55	MADI	Maianthemum dilatatum (Wood) A. Nels. & J.F. Macbr.	false lily of the valley	Liliaceae	
56	MAFU	Malus fusca (Raf.) Schneid.	Oregon crabapple	Rosaceae	
57	MELU	Medicago lupulina L.	black medick	Fabaceae	a
58	MESU	Melica subulata (Griseb.) Scribn.	Alaska oniongrass	Poaceae	
59	MEFE	Menziesia ferruginea Sm.	rusty menziesia	Ericaceae	
60	MOSI2	Montia sibirica (L.) T.J. Howell	>>Claytonia sibirica var. sibirica	Portulacaceae	
61	OECE	Oemleria cerasiformis (Torr. & Gray ex Hook. & Arn.) Landon	Indian plum	Rosaceae	
62	OESA	Oenanthe sarmentosa K. Presl ex DC.	water parsely	Apiaceae	
63	OPHO	Oplopanax horridus Miq.	devilsclub	Araliaceae	
64	OSCH	Osmorhiza chilensis Hook. & Arn.	>>Osmorhiza berteroi	Apiaceae	
65	PHAR3	Phalaris arundinacea L.	reed canarygrass	Poaceae	a
66	PHCA11	Physocarpus capitatus (Pursh) Kuntze	Pacific ninebark	Rosaceae	
67	PLLA	Plantago lanceolata L.	narrowleaf plantain	Plantaginaceae	a
68	PLMA2	Plantago major L.	common plantain	Plantaginaceae	a
69	POAN	Poa annua L.	annual bluegrass	Poaceae	a
70	POPR	Poa pratensis L.	Kentucky bluegrass	Poaceae	a
71	POGL8	Polypodium glycyrrhiza D.C. Eat.	licorice fern	Polypodiaceae	
72	POTR15	Populus trichocarpa Torr. & Gray ex Hook.	>>Populus balsamifera ssp. trichocarpa	Salicaceae	
73	PRVU	Prunella vulgaris L.	common selfheal	Lamiaceae	
74	PRAV	Prunus avium (L.) L.	sweet cherry	Rosaceae	a
75	PRLA5	Prunus laurocerasus L.	cherry laurel	Rosaceae	a
76	PSME	Pseudotsuga menziesii (Mirbel) Franco	Douglas-fir	Pinaceae	
77	PTAQ	Pteridium aquilinum (L.) Kuhn	bracken fern	Dennstaedtiaceae	
78	RARE3	Ranunculus repens L.	creeping buttercup	Ranunculaceae	a
79	RHPU	Rhamnus purshiana DC.	>>Frangula purshiana	Rhamnaceae	
80	RISA	Ribes sanguineum Pursh	redflower currant	Grossulariaceae	

81	ROPS	Robinia pseudoacacia L.	black locust	Fabaceae	a
82	ROGY	Rosa gymnocarpa Nutt.	dwarf rose	Rosaceae	
83	RUDI2	Rubus discolor Weihe & Nees	>>Rubus armeniacus	Rosaceae	a
84	RULA	Rubus laciniatus Willd.	cutleaf blackberry	Rosaceae	a
85	RUPA	Rubus parviflorus Nutt.	thimbleberry	Rosaceae	
86	RUSP	Rubus spectabilis Pursh	salmonberry	Rosaceae	
87	RUUR	Rubus ursinus Cham. & Schlecht.	California blackberry	Rosaceae	
88	RUCR	Rumex crispus L.	curly dock	Polygonaceae	a
89	RUOB	Rumex obtusifolius L.	bitter dock	Polygonaceae	a
90	RUOC3	Rumex occidentalis S. Wats.	>>Rumex aquaticus var. fenestratus	Polygonaceae	
91	SALA*	Salix lasiandra Benth.	whiplash willow	Salicaceae	
92	SASC	Salix scouleriana Barratt ex Hook.	Scouler's willow	Salicaceae	
93	SARA2	Sambucus racemosa L.	red elderberry	Caprifoliaceae	
94	SEJA	Senecio jacobaea L.	stinking willie	Asteraceae	a
95	SMRA*	Smilacina racemosa (L) Desf.	>>Maianthemum racemosum ssp. amplexicaule	Liliaceae	
96	SMST	Smilacina stellata (L.) Desf.	>>Maianthemum stellatum	Liliaceae	
97	SOAU	Sorbus aucuparia L.	European mountain ash	Rosaceae	a
98	SPDO	Spiraea douglasii Hook.	rose spirea	Rosaceae	
99	STCO14	Stachys cooleyae Heller	>>Stachys chamissonis var. cooleyae	Lamiaceae	
100	STME2	Stellaria media (L.) Vill.	common chickweed	Caryophyllaceae	a
101	SYAL	Symphoricarpos albus (L.) Blake	common snowberry	Caprifoliaceae	
102	TAOF	Taraxacum officinale G.H. Weber ex Wiggers	dandelion	Asteraceae	a
103	TABR2	Taxus brevifolia Nutt.	Pacific yew	Taxaceae	
104	TEGR2	Tellima grandiflora (Pursh) Dougl. ex Lindl.	bigflower tellima	Saxifragaceae	
105	THPL	Thuja plicata Donn ex D. Don	western red cedar	Cupressaceae	
106	TITR	Tiarella trifoliata L.	threeleaf foamflower	Saxifragaceae	
107	TOME	Tolmiea menziesii (Pursh) Torr. & Gray	youth on age	Saxifragaceae	
108	TRLA6	Trientalis latifolia Hook.	>>Trientalis borealis ssp. latifolia	Primulaceae	
109	TRPR2	Trifolium pratense L.	red clover	Fabaceae	a
110	TRRE3	Trifolium repens L.	white clover	Fabaceae	a
111	TROV2	Trillium ovatum Pursh	Pacific trillium	Liliaceae	
112	TSHE	Tsuga heterophylla (Raf.) Sarg.	western hemlock	Pinaceae	
113	URDI	Urtica dioica L.	nettle	Urticaceae	
114	VAPA	Vaccinium parvifolium Sm.	red huckleberry	Ericaceae	
115	VESE	Veronica serpyllifolia L.	thymeleaf speedwell	Scrophulariaceae	
116	VISE3	Viola sempervirens Greene	evergreen violet	Violaceae	

Ecological Condition of the Green River Gorge State Park Complex and Nolte State Park

The ecological condition of the Green River Gorge State Park complex and Nolte State Park varies widely from area to area. Historic land use and development, including logging, mining, road construction, housing development, grazing, and recreational facilities development have heavily impacted sites throughout the State Park's properties in this region. Infestations of exotic and noxious plants, including Himalayan blackberry (*Rubus discolor*), creeping buttercup (*Ranunculus repens*), and reed canarygrass (*Phalaris arundinacea*) as the worst offenders, dominate some patches of the parks' landscapes (Figure 22). Along the shorelines of the Green River and Deep Lake reed canarygrass is taking over the wetland habitats and displacing the native vegetation. Areas where native vegetation has been removed due to natural process such as flooding and scouring or landslides, or due to human caused disturbances are often subject to immediate and long-term infestations of exotic plants. As these infestations spread throughout the park properties, the potential for future infestations in weed free areas becomes greater. In order to protect non-infested areas of the park properties, large-scale infestations of exotic plants should be mapped and monitored within the Green River Gorge State Park complex and Nolte State Park, and a diversity of control mechanisms should be put in place in selective strategic areas to diminish the spread of seeds and other forms of propagation. Such mechanisms could include cutting back the above-ground stems and runners of exotic plants in large infestation patches before pollination and fruiting of the plants begins, digging up infested areas and removing all exotic plant parts including rhizomes and roots, and planting native vegetation to shade out exotic plant patches. Unfortunately there is no silver bullet in defeating exotic plant spread, but maintaining existing native plant communities intact, especially coniferous forests, without creating new disturbances such as road/trail building, off-road hiking and vehicle use, and logging will help preserve some of the park property regions where the ecological condition is still good.

Figure 22. Some of the dominating exotic species within the study areas – Himalayan blackberry (*Rubus discolor*) and creeping buttercup (*Ranunculus repens*) infestation in the photo on the left, and reed canarygrass (*Phalaris arundinacea*) infestation on the right.

Figure 23. Off-trail hiking caused erosion and vegetation mortality in Flaming Geyser State Park.

One serious problem occurring throughout the park properties in this region is the uncontrolled proliferation of non-designated trails. Because of the highly prized and sought after fishing holes and natural areas of the Green River Gorge, and also because of a general lack of awareness of park users to the impacts of off-trail hiking and motorized vehicle use, renegade trails and ATV routes can be found throughout the park properties. Vegetation mortality, exotic plant spread, and severe erosion are some of the more harmful effects non-designated trails are having on the ecosystems within the park properties. More interpretive signage encouraging designated trail use and the creation of penalties for using undesignated trails and off-trail hiking and motoring should be established. Designated trails should be clearly marked as open to public use, and undesignated trails and ATV routes should be marked as closed with barriers to easy entry. A complete inventory of all trails and ATV routes throughout the park properties may be necessary to help park managers know where off-trail use is occurring and to know where to focus enforcement efforts to curb abuses.

Beyond the problems discussed above, the Green River Gorge State Park complex and Nolte State Park do contain some remarkable late-successional coniferous forest conditions and exotic species free wetlands that make the park properties high in value for providing quality habitat to future generations of plants and wildlife in the area. Figure 24 provides a generalized look at the amount of mature forest occurring within the State Park's properties. Areas shown as mature forests on the map may contain significant areas of disturbed or less than mature forest, or non-forested areas, but mature forests should be the dominant successional type located within these regions. Owls, bears, deer, trout and possibly cougar utilize the habitats provided by the Green River Gorge State Park complex and Nolte State Park. Park stewardship should look to protect these regions from future development and minimize disturbances in adjacent areas, including on neighboring properties that may be privately owned and used for resource extraction.

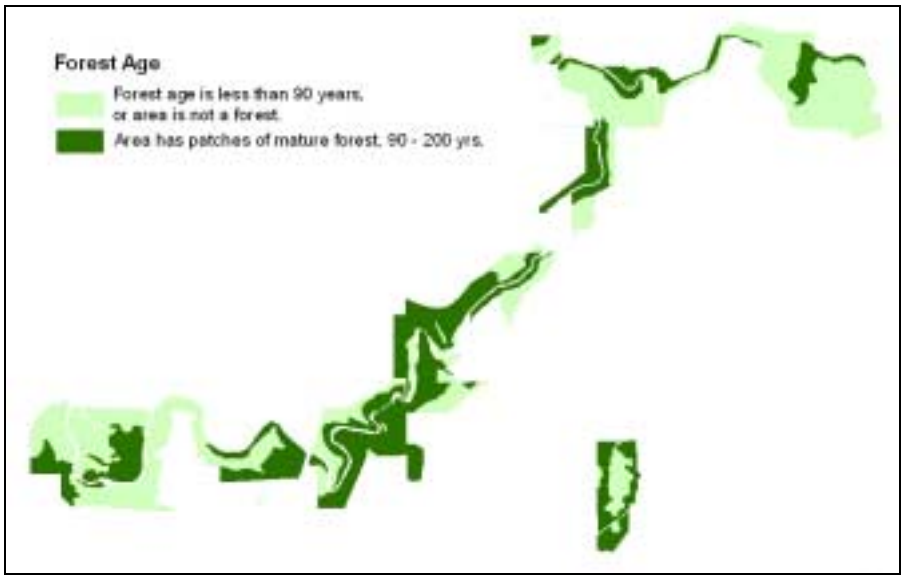

Figure 23. Map depicting areas containing older forests within the study area.

GIS Products Produced

Associated with this report are polygon layers created by PBI depicting the vegetation community types mapped in the Green River Gorge State Park Complex and Nolte State Park. The datasets have been converted into ESRI shapefile format and provided to the Washington State Parks and Recreation Commission. Shapefiles depicting rare plant locations have been provided as well. The spatial datasets are complete with metadata meeting FGDC standards. Refer to the associated metadata for descriptions and attribute definitions for each spatial dataset.

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Appendix A – Field Survey Schedule

April 30 and May 1, 2006

Field Staff: Peter Morrison

June 1, 2, 12, 29, and 30, 2006

Field Staff: Hans Smith, Peter Morrison, Dana Visalli, Scott Heller

July 27, 2006

Field Staff: Hans Smith

August 3, 4, 22, 23, 24, and 25, 2006

Field Staff: Hans Smith, Peter Morrison, Scott Heller

September 21, 22, 23, and 28, 2006

Field Staff: Hans Smith, Peter Morrison

Appendix B – Description of Rare Element Status Codes

Global Rank (GRank)

Global Rank characterizes the relative rarity or endangerment of the element world-wide. Two codes (e.g. G1G2) represent an intermediate rank.

G1 = Critically imperiled globally (5 or fewer occurrences).
G2 = Imperiled globally (6 to 20 occurrences).
G3 = Either very rare and local throughout its range or found locally in a restricted range (21 to 100 occurrences).
G4 = Apparently secure globally.
G5 = Demonstrably secure globally.
GH = Of historical occurrence throughout its range.
GU = Possibly in peril range-wide but status uncertain.
GX = Believed to be extinct throughout former range.
GNR = Not yet ranked.
Tn = Rarity of an infraspecific taxon. Numbers and codes similar to those for Gn ranks above.
Q = Questionable.

State Rank (SRank)

State Rank characterizes the relative rarity or endangerment within the state of Washington. Two codes (e.g. S1S2) represents an intermediate rank.

S1 = Critically imperiled (5 or fewer occurrences).
S2 = Imperiled (6 to 20 occurrences), very vulnerable to extirpation.
S3 = Rare or uncommon (21 to 100 occurrences).
S4 = Apparently secure, with many occurrences.
S5 = Demonstrably secure in state.
SA = Accidental in state.
SE = An exotic established in state.
SH = Historical occurrences only but still expected to occur.
SN = Regularly occurring, usually migratory, nonbreeding animals.
SU = Unrankable; need more information.
SX = Apparently extirpated from the state.
SP = Likely to occur or to have occurred but without documentation.
SZ = Not of conservation concern (not SE or SA).
SNR = Not yet ranked.
"B" and "N" qualifiers are used to indicate breeding and nonbreeding status, respectively, of migrant species whose nonbreeding status (rank) may be quite different from their breeding status in the state (e.g. S1B, S4N for a very rare breeder that is a common winter resident).

State Status (StStat)

State Status of plant species is determined by the Washington Natural Heritage Program. Factors considered include abundance, occurrence patterns, vulnerability, threats, existing protection, and taxonomic distinctness. Values include:

E = Endangered. In danger of becoming extinct or extirpated from Washington.
T = Threatened. Likely to become Endangered in Washington.
S = Sensitive. Vulnerable or declining and could become Endangered or Threatened in the state.
X = Possibly extinct or Extirpated from Washington.
P1 = Priority 1. Rare nonvascular plant but with insufficient information to assign another rank.
P2 = Priority 2. Nonvascular plant of concern but with insufficient information to assign another rank.
R1 = Review group 1. Of potential concern but needs more field work to assign another rank.
R2 = Review group 2. Of potential concern but with unresolved taxonomic questions.
W = Watch. More abundant and/or less threatened than previously thought.

Federal Status

Federal Status under the U.S. Endangered Species Act (USESA) as published in the Federal Register:

LE = Listed Endangered. In danger of extinction.
LT = Listed Threatened. Likely to become endangered.
PE = Proposed Endangered.
PT = Proposed Threatened.
C = Candidate species. Sufficient information exists to support listing as Endangered or Threatened.
SC = Species of Concern. An unofficial status, the species appears to be in jeopardy, but insufficient information to support listing.
NL = Not Listed. Used when two portions of a taxon have different federal status.

Appendix C – Ecological Condition Ranking System

Ecological Condition Ranks

When assessing conservation priorities and management decisions, it can be useful to rank natural communities into levels of ecological condition. For example, an unfragmented area with high native species diversity, absence of non-native species and little soil erosion often has greater conservation value than another area in the same habitat type that is fragmented, infested with weeds or has erosion problems. Likewise, areas with a lower ecological condition rank may be targets for restoration activities.

The following ecological condition ranks were applied to vegetation polygons that were surveyed in this project:

Condition Rank 1. This condition class represents areas that have been altered to the point where the ecological condition often deviates dramatically from baseline conditions found in areas where stressors are much less prevalent. Areas characterized by Condition Class 1 often have high amounts of bare ground and/or non-native plant cover. The structure is often significantly altered from baseline conditions. Often one or more of the structural layers (trees, shrubs, herbs, grasses, mosses & lichens, biotic crust) may be significantly altered or even missing from the community. The composition of native vegetation is skewed toward species that can survive despite regular disturbance. Species diversity of native plants is usually low and native grass species are usually absent or in very low abundance (for a given community type). Evidence of accelerated erosion and soil compaction may be present. Hydrologic alteration may also be present. Significant direct evidence of various stress factors is usually abundant. Rare plant and animal species generally do not occur in this condition class.

Condition Rank 2. This condition class represents areas that show a fairly broad range of stress ranging from high to moderately low impact from a variety of stressors. Areas characterized by Condition Class 2 usually have moderate levels of non-native plant cover. The structure of the natural community present in Condition Class 2 areas is often relatively intact when compared to baseline conditions. Usually all structural layers are present, but form and stature may be altered from baseline conditions. Soil surface conditions are often intermediate between those in Condition Class 1 and Condition Class 3. Species diversity of native plants is often moderate for that community. Non-native species are usually present, but not as common or abundant as in Condition Class 1. Native grass species are often present, but usually in low abundance for that community type. Diversity of native grass species is relatively low when compared to baseline conditions. Evidence of accelerated erosion and soil compaction may be present in isolated areas, but is not dramatic or widespread. Hydrologic alteration is absent. Direct signs of stressors may be present, but not widespread or abundant. Rare plant and animal species may be found in this condition class, but are not common. Rare species that are found in this condition class are relatively tolerant of the stressors that are present.

Condition Rank 3. This condition class represents areas that show the least stress in the project area and are the closest to representing baseline conditions. Areas characterized by Condition Class 3 have little evidence of non-native plant invasion. The composition and

structure of native vegetation in this condition class correspond to the natural ranges of variation characteristic to this habitat type. Old-growth conditions may exist. Species diversity of native plants is often high relative to the community under consideration. Native grass species are usually present and often fairly abundant for the community type. Species diversity of native grass species is also often high. Soil compaction, accelerated erosion and hydrologic alteration are absent. Direct signs of stressors are usually absent. Certain rare species may only exist within this condition class and rare species are generally more common than in the lower condition classes.

Appendix D – 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.

Vegetation Polygon Data - Green River Gorge State Park Complex and Nolte State Park

Polygon Number	**1**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, ACMA3, ALRU2, TSHE
emergent	2
maincanopy	4
subcanopy	3
Shrubs Total	4
Dominant Shrubs	GASH, SYAL, MANE2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	Melica sp.
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	MIDI4, POMU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**10**
Survey Intensity	1
Observer	HS
Date	6/30/2006
Specific Location	Far N section of park.
Total Vegetation	6
Trees Total	3
Dominant Trees	ALRU2
emergent	0
maincanopy	3
subcanopy	1
Shrubs Total	5
Dominant Shrubs	Salix sp., RUSP
> 1.5' tall	5
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	1
Forbs Total	3
Dominant Forbs	MADI, LYAM3, ATFI
Forbs Perennial	3
Forbs Annual	2
Ferns Total	3
Ferns Evergreen	1
Ferns Deciduous	3
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	30
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	70
Logging	0
Stand Age	0
Agriculture	0
Livestock	0
Development	0
Wildlife	7
Recreation Severity	0
Recreation Type	0
Hydrology	3

Exotic Species

Primary Exotic
RARE3
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	70	Matrix	2
2. ALRU2/LYAM3 c.t. (KUNZE)	30	Large	2
3.	0		0

Notes: Wildlife is birds

Polygon Number	**100**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	N side of river, N boundary
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, TSHE, PSME, ACMA3
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	4
Dominant Shrubs	MANE2, COCO6
> 1.5' tall	3
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	0
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	1
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	80	Matrix	2
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	20	Small	2
3.	0		0

Notes: Ferns: POMU

Polygon Number	**101**
Survey Intensity	1
Observer	HS
Date	8/4/2006
Specific Location	S of river, far E side of park
Total Vegetation	5
Trees Total	5
Dominant Trees	ALRU2, TSHE, ACMA3
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	COST4, RUSP, RUDI2, HODI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	5
Dominant Graminoids	PHAR3
Graminoids Perennial	5
Graminoids Annual	1
Forbs Total	4
Dominant Forbs	RARE3
Forbs Perennial	4
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	1
Ferns Deciduous	2
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	5
Bare Ground	5
Moss Lichen	2
Litter	88
Logging	2
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR3
Secondary Exotic
RUDI2
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	45	Large	1
2. COST4-Salix Sp. Shrubland (KAGAN)	40	Large	1
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	15	Small	2

Notes:

Polygon Number	**102**
Survey Intensity	2
Observer	HS
Date	8/23/2006
Specific Location	N side of river - central part
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, TSHE, PSME, ACMA3, ALRU2
emergent	3
maincanopy	6
subcanopy	2
Shrubs Total	5
Dominant Shrubs	HODI, COCO6, ACCI, GASH
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	1
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	1
Water	0
Rock Outcrop	5
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	90
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
PHAR3	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	80	Matrix	3
2. PSME-TSHE/GASH/POMU (CHAPPELL)	20	Small	3
3.	0		0

Notes: Weeds along river bank.

Polygon Number	**103**
Survey Intensity	1
Observer	SH
Date	8/4/2006
Specific Location	along river
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, TSHE, THPL, PSME, ACMA3
emergent	2
maincanopy	5
subcanopy	1
Shrubs Total	6
Dominant Shrubs	RUSP, SARA2, ACCI
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TOME
Forbs Perennial	3
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	0
Rock Outcrop	2
Gravel	10
Bare Ground	5
Moss Lichen	10
Litter	73
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	2
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RARE3
Noxious Exotic
GERO

Plant Associations

		Percent	Pattern	Rank
1.	ALRU2/RUSP c.t. (KUNZE)	70	Matrix	2
2.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	20	Small	2
3.	ALRU2/POMU (CHAPPELL)	10	Small	2

Notes: Ferns: POMU, ATFI. Some OG in polygon. 4-wheeler trails make polygon accessible, but has created deep trenches in spots. Off road vehicle use and renegade trails

Polygon Number	**104**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**105**
Survey Intensity	2
Observer	PM
Date	6/30/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, THPL, PSME
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	3
Dominant Shrubs	ACCI, RUSP, OECE, SARA2
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	CIAL, HYFE, POMU, DREX2, ATFI
Forbs Perennial	3
Forbs Annual	2
Ferns Total	4
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	1
Exotics Perennial	0
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	0

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**106**
Survey Intensity	2
Observer	HS
Date	8/25/2006
Specific Location	CENTER OF PARK, N OF RIVER
Total Vegetation	5
Trees Total	5
Dominant Trees	PSME, ACMA3, THPL, TSHE, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	COCO6, HODI, ACCI, SARA2, GASH
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	15
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	80
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	80	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	10	Small	2
3. PSME-TSHE/GASH/POMU (CHAPPELL)	10	Small	2

Notes:

Polygon Number	**107**
Survey Intensity	2
Observer	HS
Date	8/24/2006
Specific Location	MIDDLE OF PARK, N OF RIVER
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, TSHE, PSME, ACMA3, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	COCO6, HODI, ACCI, GASH
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	GERO
Forbs Perennial	2
Forbs Annual	3
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	1
Exotics Annual	3
Water	0
Rock Outcrop	15
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	82
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	70	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	15	Small	2
3. PSME-TSHE/GASH/POMU (CHAPPELL)	15	Small	2

Notes:

Polygon Number	**108A**
Survey Intensity	1
Observer	HS
Date	8/4/2006
Specific Location	S of river, W side of park
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, TSHE, ACMA3, ALRU2, PSME
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	10
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	85
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	65	Matrix	3
2. ACMA3-ALRU2/POMU-TEGR2	30	Large	3
3. PSME-TSHE/GASH/POMU (CHAPPELL)	5	Small	3

Notes:

Polygon Number	**108B**
Survey Intensity	1
Observer	HS
Date	8/4/2006
Specific Location	S side of river, W of bridge
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ACMA3, ALRU2, POTR15
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, SARA2
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TOME
Forbs Perennial	3
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	10
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	85
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
RARE3
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	60	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	40	Large	2
3.	0		0

Notes:

Polygon Number	**109**
Survey Intensity	2
Observer	HS
Date	8/4/2006
Specific Location	S SIDE OF RIVER, JUST W OF BRIDGE
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, PSME
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, RUSP, RUUR
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	5
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	92
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**11**
Survey Intensity	1
Observer	HS
Date	6/30/2006
Specific Location	Far N side of park.
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, ALRU2, THPL
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, SARA2, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	MADI, DIFO, POMU, DREX2, ATFI
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	3
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.		0		0
3.		0		0

Notes:

Polygon Number	**110**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	S OF RIVER, MIDDLE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, THPL, TSHE
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	RUSP, COST4, ACCI, PHCA11
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	PHAR3, CALE8
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	TOME, HYTE
Forbs Perennial	4
Forbs Annual	2
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	0
Rock Outcrop	4
Gravel	8
Bare Ground	0
Moss Lichen	3
Litter	85
Logging	1
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR3
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	87	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	2
3. CALE8 (PBI)	3	Small	2

Notes: FERNS: POMU, DREX2, ATFI

Polygon Number	**111**
Survey Intensity	2
Observer	PM
Date	6/30/2006
Specific Location	Polygon between forks of north road into park on north side.
Total Vegetation	6
Trees Total	3
Dominant Trees	ACMA3, THPL, ALRU2, PSME
emergent	2
maincanopy	3
subcanopy	1
Shrubs Total	5
Dominant Shrubs	RUDI2, CYSC4
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	PTAQ, POMU
Forbs Perennial	2
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	100
Logging	0
Stand Age	1
Agriculture	0
Livestock	0
Development	2
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	0

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
CYSC4
Noxious Exotic
CIVU

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes: OLD FARM FIELD, NOW COVERED WITH BLACKBERRY, AND SCOTS BROOM.

Polygon Number	**112**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	S part of park, mid-section
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ACMA3, ARLU2, TSHE
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, AMAL2, SARA2, COCO6, OPHO, RUPA
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	5
Gravel	0
Bare Ground	3
Moss Lichen	4
Litter	88
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	55	Matrix	3
2. ACMA3-ALRU2/POMU-TEGR2	45	Large	3
3.	0		0

Notes: Ferns: POMU, ADPE

Polygon Number	**113**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	W SECTION OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	POTR15, THPL, ALRU2, TSHE, PSME
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUUR, RUSP, COCO6
> 1.5' tall	4
< 1.5' tall	4
Graminoids Total	3
Dominant Graminoids	ANOD, DAGL
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	GERO, GAAP
Forbs Perennial	2
Forbs Annual	3
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	4
Exotics Perennial	3
Exotics Annual	3
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	3
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
ILAQ80	
Noxious Exotic	

Plant Associations

		Percent	Pattern	Rank
1.	ALRU2/POMU (CHAPPELL)	70	Matrix	1
2.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	30	Large	2
3.		0		0

Notes: VERY WEEDY, BUT SOME INTACT CONIFER FOREST.

Polygon Number	**114**
Survey Intensity	1
Observer	PM
Date	8/23/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, TSHE, ALRU2, THPL, ACMA3
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	5
Dominant Shrubs	GASH, RUUR, SARA2, MANE2, VAPA, HODI, LIBO3
> 1.5' tall	4
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	RARE3, PRVU, GERO, GATR?, URDI
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	10
Litter	88
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	3
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic
PRVU
Secondary Exotic
RARE3
Noxious Exotic
HEHE

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	50	Matrix	2
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	30	Small	2
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	20	Large	2

Notes: Ferns: POMU, POGL8, PTAQ. Lots of roads

Polygon Number	**115**
Survey Intensity	2
Observer	HS
Date	8/3/2006
Specific Location	S side, middle of Black Diamond
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, TSHE, ACMA3, ALRU2
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, COCO6
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TITR, HYTE
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	8
Litter	92
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
PHAR3	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	85	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	15	Small	2
3.	0		0

Notes:

Polygon Number	**116**
Survey Intensity	1
Observer	SH
Date	8/4/2006
Specific Location	near entrance of park, along river
Total Vegetation	6
Trees Total	5
Dominant Trees	POTR15, ALRU2, ACMA3, THPL
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	6
Dominant Shrubs	COST4, PREM, ACCI, RUPA, RUSP, OECE, SYAL
> 1.5' tall	6
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	CAOB3
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TOME
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	3
Bare Ground	2
Moss Lichen	2
Litter	93
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic
RARE3

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	50	Small	1
2. ALRU2/POMU (CHAPPELL)	50	Small	1
3.	0		0

Notes: RUDI2 presence significant. Renegade trails

Polygon Number	**117**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	S side of park, mid-section
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, ALRU2, ACMA3
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, COCO6, SARA2, MANE2, GASH
> 1.5' tall	4
< 1.5' tall	4
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	0
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	1
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/MANE2/POMU (CHAPPELL)	50	Matrix	3
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	30	Large	30
3. PSME-TSHE/GASH/POMU (CHAPPELL)	20	Large	3

Notes:

Polygon Number	**118**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, ALRU2, TSHE, PSME, THPL
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	4
Dominant Shrubs	COCO6, RUDI2, RUSP, VAPA, SYAL, RULA, SARA2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	CAHE7, CAOB3
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	CIAL, URDI, GERO, RARE3, TEGR2, HYFE
Forbs Perennial	2
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	10
Litter	90
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RULA
Noxious Exotic
GERO

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	98	Matrix	2
2.	ALRU2/RUSP c.t. (KUNZE)	2	linear	1
3.		0		0

Notes: Ferns: POMU, ATFI, ADPE

Polygon Number	**119**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	ALRU2, ACMA3, PSME, TSHE, THPL, walnut, POTR15
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, COCO6, RUUR, RUDI2, SYAL
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TEGR2, URDI, HYFE, GERO
Forbs Perennial	3
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	90	Matrix	1
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	1
3.	0		0

Notes: Ferns: POMU, POGL8, ATFI, PTAQ

Polygon Number	**12**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. water	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**120**
Survey Intensity	1
Observer	SH
Date	6/12/2006
Specific Location	Around the lake.
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, TSHE, ACMA3, THPL
emergent	1
maincanopy	6
subcanopy	2
Shrubs Total	6
Dominant Shrubs	GASH, MANE2, ACCI
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	POMU, PTAQ, ATFI
Forbs Perennial	3
Forbs Annual	0
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	4
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	6
Moss Lichen	10
Litter	84
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
HEHE
Secondary Exotic
GERO
Noxious Exotic
RARE3

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	60	Matrix	2
2. PSME-TSHE/GASH-MANE2 (CHAPPELL)	30	Large	2
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	2

Notes: Taxus brevifola PRESENT. HEHE NEAR SOUTHERN HALF; MORE DEVELOPED AREA.

Polygon Number	**121**
Survey Intensity	2
Observer	PM
Date	6/30/2006
Specific Location	5
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, ALRU2, TSHE, THPL
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	ACCI, RUSP, RUPA
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	CIAL, GERO, POMU, ADPE, ATFI
Forbs Perennial	2
Forbs Annual	2
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	0
Moss Lichen	5
Litter	94
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	0

Exotic Species

Primary Exotic
GERO

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	80	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	20	Large	2
3.	0		0

Notes:

Polygon Number	**122**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	Lake
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. water	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**123**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	S side of park, mid-section
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ACMA3, ALRU2
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	SARA2, ACCI, COCO6, OPHO
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	
Forbs Perennial	1
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	0
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.		0		0
3.		0		0

Notes:

Polygon Number	**124**
Survey Intensity	2
Observer	PM
Date	6/30/2006
Specific Location	Deciduous forest south of old fields in north parcel.
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	SYAL, MANE2, COCO6, COST4
> 1.5' tall	3
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	CAHE7
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	HYFE, TEGR2, GERO, POMU
Forbs Perennial	3
Forbs Annual	2
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	1
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	0
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	0

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
CYSC4
Noxious Exotic
GERO

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes: NO RECENT LOGGING, ONCE FARMED, NOW REGROWN.

Polygon Number	**125**
Survey Intensity	2
Observer	PM
Date	8/23/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, THPL, PSME, ACMA3, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	2
Dominant Shrubs	GASH, VAPA, ACCI
> 1.5' tall	2
< 1.5' tall	1
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	TITR
Forbs Perennial	1
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	0
Moss Lichen	10
Litter	89
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.	0		0
3.	0		0

Notes: Ferns: POMU, DREX2. ATV use

Polygon Number	**126**
Survey Intensity	1
Observer	HS
Date	8/4/2006
Specific Location	S OF RIVER, W OF BRIDGE
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, ALRU2, THPL, PSME, TSHE
emergent	4
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, OECE
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TITR, MADI
Forbs Perennial	3
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	8
Litter	92
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	60	Matrix	2
2. ALRU2/POMU (CHAPPELL)	40	Large	2
3.	0		0

Notes:

Polygon Number	**127**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	S side, mid-section of park
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, ACMA3, ALRU2, THPL, POTR15
emergent	0
maincanopy	6
subcanopy	0
Shrubs Total	5
Dominant Shrubs	MANE2, GASH, HODI, RUSP, ACCI, RUUR
> 1.5' tall	4
< 1.5' tall	4
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	2
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	1
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	20
Litter	80
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	60	Matrix	1
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	25	Large	1
3. ALRU2/POMU (CHAPPELL)	15	Small	1

Notes:

Polygon Number	**128A**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	W SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, PSME, TSHE, ACMA3, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, SARA2, RUSP, GASH, MANE2
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	8
Litter	92
Logging	5
Stand Age	6
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	2
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
ILAQ80
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	75	Matrix	2
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	15	Small	2
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	2

Notes: GIANT HOLES IN GROUND.

Polygon Number	**128B**
Survey Intensity	1
Observer	PM
Date	8/23/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, THPL, ALRU2, PSME, ACMA3
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	3
Dominant Shrubs	SARA2, ACCI, MANE2, GASH
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	CAHE7
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	GATR?, TITR
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	12
Litter	86
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	2
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
RARE3
Noxious Exotic
ILAQ80

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.		0		0
3.		0		0

Notes: Ferns: POMU, ATFI, DREX2, PTAQ. Lots of ATV activity here.

Polygon Number	**128D**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**129**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	Along N side of river in middle of park
Total Vegetation	6
Trees Total	5
Dominant Trees	POTR15, ALRU2, PSME
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUDI2, SYAL, RUUR, RUSP, CYSC4, COCO6
> 1.5' tall	5
< 1.5' tall	4
Graminoids Total	3
Dominant Graminoids	DAGL, POPR, PHAR3
Graminoids Perennial	3
Graminoids Annual	1
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	2
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	1
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. POTR15-ALRU2/SYAL (KAGAN ET AL.).	100	Matrix	1
2.	0		0
3.	0		0

Notes: Very weedy.

Polygon Number	**130**
Survey Intensity	3
Observer	PM
Date	9/21/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	ALRU2, POTR15, PSME, TSHE
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	3
Dominant Shrubs	ACCI, COCO6, SARA2, OPHO
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	CAHE7
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2, URDI, HYFE
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	1
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	1
Moss Lichen	10
Litter	89
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	95	Matrix	2
2.	ACMA3-ALRU2/POMU-TEGR2	5	Small	3
3.		0		0

Notes: Ferns: POMU, POGL8, ATFI

Polygon Number	**131**
Survey Intensity	3
Observer	PM
Date	9/21/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, ACMA3, TSHE
emergent	1
maincanopy	6
subcanopy	2
Shrubs Total	3
Dominant Shrubs	SARA2, ACCI, OECE, RUSP, RUPA
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	DIHO, TEGR2, ACTR
Forbs Perennial	1
Forbs Annual	0
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	1
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	1
Moss Lichen	3
Litter	96
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes: Ferns: POMU, ATFI

Polygon Number	**132**
Survey Intensity	1
Observer	PM
Date	8/23/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, TSHE, ACMA3
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, RIBR, OPHO, OECE, SARA2, MEFE, VAPA, RUPA
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	CAHE7
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	URDI, GERO, HELA4
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	2
Bare Ground	3
Moss Lichen	10
Litter	85
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	3
Recreation Type	4
Hydrology	2

Exotic Species

Primary Exotic
PRVU
Secondary Exotic
RARE3
Noxious Exotic
GERO

Plant Associations

		Percent	Pattern	Rank
1.	ALRU2/RUSP c.t. (KUNZE)	70	Matrix	1
2.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	30	Small	1
3.		0		0

Notes: Ferns: POMU, POEL, ATFI. Dam-weir structure, sometimes small pond here.

Polygon Number	**133A**
Survey Intensity	1
Observer	SH, HS
Date	8/3/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, ALRU2, ACMA3, THPL
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, SARA2, COCO6, ACCI
> 1.5' tall	5
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	MADI
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	5
Bare Ground	2
Moss Lichen	6
Litter	87
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	85	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	15	Small	2
3.	0		0

Notes: renegade trails

Polygon Number	**133B**
Survey Intensity	1
Observer	SH, HS
Date	8/3/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	6
Dominant Shrubs	RUSP, ACCI, SARA2
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	URDI, GEMA4
Forbs Perennial	4
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	5
Bare Ground	1
Moss Lichen	6
Litter	88
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	88	Matrix	1
2. ALRU2/RUSP c.t. (KUNZE)	10	Small	1
3. THPL-TSHE/OPHO/POMU (CHAPPELL)	2	Small	1

Notes:

Polygon Number	**134**
Survey Intensity	2
Observer	PM
Date	6/30/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, TSHE, THPL, ACMA3, ALRU2
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	ACCI, OECE, SYAL
> 1.5' tall	3
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	CIAL, GERO, SMST, HYFE, SMST, POMU, PTAQ
Forbs Perennial	3
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	1
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	0
Moss Lichen	1
Litter	98
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	0

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
RARE3	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**136**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**137**
Survey Intensity	1
Observer	SH
Date	6/12/2006
Specific Location	NE
Total Vegetation	6
Trees Total	2
Dominant Trees	ALRU2
emergent	0
maincanopy	2
subcanopy	0
Shrubs Total	6
Dominant Shrubs	RUDI2, ACCI, SARA2, RUSP
> 1.5' tall	6
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	RARE3, PTAQ
Forbs Perennial	1
Forbs Annual	0
Ferns Total	1
Ferns Evergreen	0
Ferns Deciduous	1
ExoticsTotal	6
Exotics Perennial	6
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	5
Bare Ground	2
Moss Lichen	1
Litter	92
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	2

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RARE3
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**138A**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	E side of park
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, ACMA3, PSME, TSHE
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	COCO6, RUSP
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	4
Litter	96
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	2

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
HEHE	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	85	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	15	Small	2
3.	0		0

Notes: Ferns: POMU

Polygon Number	**138B**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	S boundary of park
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, ACMA3, TSHE
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	4
Dominant Shrubs	COCO6, RUSP
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	DIFO, TOME
Forbs Perennial	4
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	4
Litter	96
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
HEHE	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes: Ferns: POMU. Ivy infestation.

Polygon Number	**138W**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	WESTERN PORTION OF POLYGON 138, JUST EAST & NORTH OF PICNIC AREA AT EAST END OF PARK ROAD.
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, POTR15, THPL
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, RUPA, SALIX SP, SARA2, RUDI2
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	CAOB3, CAHE7
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	RARE3, GERO, TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	2
Rock Outcrop	0
Gravel	2
Bare Ground	2
Moss Lichen	4
Litter	90
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RARE3
Noxious Exotic
GERO

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	100	Matrix	2
2.	0		0
3.	0		0

Notes: Ferns: POMU, ATFI. River overflow channels & small stream go through polygon. All polygon is in river floodplain.

Polygon Number	**13A**
Survey Intensity	1
Observer	SH
Date	6/2/2006
Specific Location	SW portion of 13
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, PSME, TSHE, THPL
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	ACCI, RUSP, VAPA
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	DIFO, POMU, PTAQ
Forbs Perennial	3
Forbs Annual	0
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	8
Litter	90
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes: EVEN-AGED PSME STAND PRESENT, EARLY SERAL. RANDOM THPL, TSHE UNDERSTORY.

Polygon Number	**13B**
Survey Intensity	1
Observer	PM
Date	9/23/2006
Specific Location	EAST OF CAMPGROUND
Total Vegetation	6
Trees Total	6
Dominant Trees	ALRU2, PSME, TSHE, ACMA3, THPL
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, SARA2, OPHO, SYAL, RHPU, ACCI, ARSY
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	CAOB3
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TEGR2, HELA4, DIFO, MADI, HYFE
Forbs Perennial	3
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	10
Litter	88
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
RUDI2
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	69	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	29	Large	2
3. THPL-TSHE/OPHO/POMU (CHAPPELL)	2	Small	2

Notes: Ferns: POMU, POGL8, ATFI, DREX2. PA3: Variation on ALRU/RUSP, but a bit drier. This is a transition between TSHE-PSME/POMU-DREX2. camping area and roads

Polygon Number	**13C**
Survey Intensity	1
Observer	PM
Date	6/2/2006
Specific Location	Western portion of poly 13, along river-wetter.
Total Vegetation	6
Trees Total	5
Dominant Trees	POTR15, ACMA3, TSHE, THPL, PSME
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, OPHO, SARA2, ACCI, COCO6, MANE2
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TOME, TEGR2, DIFO, CIAL, HYTE, MADI, POMU, ATFI
Forbs Perennial	2
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	1
Moss Lichen	4
Litter	95
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	2
Recreation Type	3
Hydrology	0

Exotic Species

Primary Exotic
GERO
Secondary Exotic
RARE3
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. THPL-TSHE/OPHO/POMU (CHAPPELL)	35	Large	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	35	Large	2
3. ACMA3-ALRU2/POMU-TEGR2	30	Large	2

Notes:

Polygon Number	**14**
Survey Intensity	1
Observer	PM
Date	6/2/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, POTR15, THPL, TSHE, PSME
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	4
Dominant Shrubs	RUSP, OECE, SARA2, OPHO, RUPA, GASH, MANE2,
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	4
Dominant Graminoids	POPR
Graminoids Perennial	4
Graminoids Annual	2
Forbs Total	3
Dominant Forbs	MADI, HYTE, DIFO, TEGR2, TOME, CIAL, BEPE2, POMU
Forbs Perennial	2
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	2
Water	
Rock Outcrop	1
Gravel	1
Bare Ground	3
Moss Lichen	4
Litter	91
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	0
Recreation Severity	1
Recreation Type	4
Hydrology	0

Exotic Species

Primary Exotic
POPR
Secondary Exotic
GERO
Noxious Exotic
RARE3

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	40	Large	2
2. developed	35	Large	1
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	25	Small	2

Notes: RIVER BOTTOM FORESTS AND DEVELOPED PICNIC AREAS, TRAILHEADS, ROADS, AND TRAILS. ALSO SMALL PATCHES OF PSME-TSHE/GASH/POMU AND PSME-

Polygon Number	**140A**
Survey Intensity	1
Observer	HS
Date	6/29/2006
Specific Location	S of ranger's office.
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, THPL, TSHE
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, SYAL, SARA2
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	HYTE, URDI, TOME, POMU
Forbs Perennial	3
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RARE3
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	80	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	20	Small	2
3.	0		0

Notes:

Polygon Number	**140B**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	ALRU2, PSME, TSHE, ACMA3
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	4
Dominant Shrubs	RUSP, ACCI, SARA2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	CAHE7
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	0
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	5
Litter	93
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes: Ferns: POMU, ATFI.

Polygon Number	**141**
Survey Intensity	1
Observer	SH
Date	6/12/2006
Specific Location	NW
Total Vegetation	6
Trees Total	4
Dominant Trees	ALRU2, PSME
emergent	0
maincanopy	4
subcanopy	0
Shrubs Total	6
Dominant Shrubs	RUDI2, RUSP, ACCI
> 1.5' tall	6
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	DIPU, PTAQ, POMU
Forbs Perennial	1
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	3
ExoticsTotal	6
Exotics Perennial	6
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes: THICK SPIKEY PLACE.

Polygon Number	**142**
Survey Intensity	2
Observer	HS
Date	8/23/2006
Specific Location	W SIDE OF PARK, NEAR BRIDGE
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, PSME, ACMA3, ALRU2, THPL
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, RUSP, SARA2
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	5
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
ILAQ80
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**143**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	S side of river at big S bend
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, TSHE, ACMA3, ALRU2
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, COCO6
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TITR, HYTE
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	8
Litter	92
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR3
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	85	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	15	Small	2
3.	0		0

Notes:

Polygon Number	**145**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	Partially developed forest park patch north of park road.
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ALRU2, ACMA3, POTR15, PSME
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, RUPA, RUSP, OECE
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	POPR, CAHE7
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	GERO, RARE3, TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	2
Bare Ground	3
Moss Lichen	4
Litter	91
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	1
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
POPR
Noxious Exotic
RUDI2

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	60	Matrix	1
2. ALRU2/RUSP c.t. (KUNZE)	40	Large	2
3.	0		0

Notes: Ferns: POMU, ATFI, PTAQ. Part of polygon is in river floodplain.

Polygon Number	**146**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	Wetland near Flaming Gorge River
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, THPL, POTR15, ACMA3
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	LYAM3, TOME, EQAR
Forbs Perennial	4
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	3
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
HEHE	
Secondary Exotic	
RARE3	
Noxious Exotic	
RUDI2	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	90	Matrix	2
2. ALRU2/LYAM3 c.t. (KUNZE)	10	Small	2
3.	0		0

Notes: Ferns: POMU, ATFI. Ivy and blackberry infestation.

Polygon Number	**147**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	WETLAND TO WEST OF SIDE ROAD TO RANGER STATION.
Total Vegetation	5
Trees Total	2
Dominant Trees	ALRU2
emergent	0
maincanopy	2
subcanopy	0
Shrubs Total	3
Dominant Shrubs	RUSP, SALIX SP, SPDO
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	4
Dominant Graminoids	TYLA, CAOB3
Graminoids Perennial	4
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	HYRA, LYAM3, POPA14, EQTE, SODU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	0
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	20
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	80
Logging	0
Stand Age	0
Agriculture	0
Livestock	0
Development	2
Wildlife	7
Recreation Severity	3
Recreation Type	3
Hydrology	2

Exotic Species

Primary Exotic
SODU
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TYLA c.t. (KUNZE)	60	Matrix	1
2. SPDO c.t. (KUNZE)	40	Large	1
3.	0		0

Notes: Ferns: ATFI. Wetland may have been created by dredging. Amount of vegetation & water varies with season. In spring, water= 70%, veg=30%. In fall, water=20%, veg=80%. Wildlife

Polygon Number	**148**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**15**
Survey Intensity	4
Observer	HS
Date	12/12/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**150**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	E side of park
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**151**
Survey Intensity	2
Observer	PM
Date	9/21/2006
Specific Location	Wetland to east of side road to ranger station.
Total Vegetation	5
Trees Total	3
Dominant Trees	ALRU2
emergent	0
maincanopy	3
subcanopy	0
Shrubs Total	4
Dominant Shrubs	RUSP, SALIX SP, SPDO
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	TYLA, CAOB3
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	HYRA, LYAM3, POPA14, EQTE, SODU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	0
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	20
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	80
Logging	0
Stand Age	0
Agriculture	0
Livestock	0
Development	2
Wildlife	7
Recreation Severity	3
Recreation Type	3
Hydrology	2

Exotic Species

Primary Exotic
SODU
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. SPDO c.t. (KUNZE)	50	Large	1
2. TYLA c.t. (KUNZE)	50	Large	1
3.	0		0

Notes: Ferns: ATFI. Wetland may have been created by dredging. Amount of vegetation & water varies with season. In spring, water= 60%, veg=40%. In fall, water=20%, veg=80%. Wildlife

Polygon Number	**152**
Survey Intensity	2
Observer	SH
Date	8/3/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ACMA3, TSHE, ALRU2
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	ACCI, RUSP, MANE2
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	PHAR3
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	TOME, MADI
Forbs Perennial	4
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	4
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	4
Bare Ground	0
Moss Lichen	12
Litter	84
Logging	1
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR3
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	75	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	15	linear	2
3. THPL-TSHE/OPHO/POMU (CHAPPELL)	10	Small	2

Notes: FERNS: POMU, ADPE, ATFI. LOTS OF POMU 7 ADPE. THPL OVER, ACCI UNDER.

Polygon Number	**154**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	Along S boundary of park.
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, THPL, ALRU2, TSHE
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	5
Dominant Shrubs	COCO6, RUSP, HODI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	GAAP, TOME, POMU
Forbs Perennial	4
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	3
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
DAGL	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	65	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	35	Large	2
3.	0		0

Notes: Ferns: POMU

Polygon Number	**155**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	E side of park

Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**156**
Survey Intensity	1
Observer	SH
Date	6/12/2006
Specific Location	SW Parking lot, picnic area, main day-use area.
Total Vegetation	0
Trees Total	0
Dominant Trees	PSME, TSHE
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	Exotic grass
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes: DEVELOPED AREA WITH BATHROOMS, PICNIC TABLES, AND SWIMMING.

Polygon Number	**157**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	E side of park
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**159**
Survey Intensity	1
Observer	SH
Date	6/12/2006
Specific Location	South section, large polygon
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, PSME, THPL
emergent	1
maincanopy	6
subcanopy	2
Shrubs Total	5
Dominant Shrubs	GASH, LIBO3, ACCI, VAPA
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	DIPU, LICO (ONLY 1 LICO), PTAQ, POMU
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	8
Litter	90
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
DIPU

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**16**
Survey Intensity	1
Observer	SH
Date	6/1/2006
Specific Location	NE (campground)
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, TSHE, ACMA3, ALRU2
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	4
Dominant Shrubs	RUSP, SARA2, RUPA, ACCI, OPHO, RHPU, SYAL
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	LUPA4
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	MOSI2, HYTE, MIDI, DIFO, POMU, PTAQ, ATFI
Forbs Perennial	4
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	3
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	10
Moss Lichen	7
Litter	83
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	0
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RARE3	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	99	Matrix	2
2. THPL-TSHE/OPHO/POMU (CHAPPELL)	1	Small	2
3.	0		0

Notes: Renegade trails

Polygon Number	**160**
Survey Intensity	1
Observer	SH
Date	6/12/2006
Specific Location	Across the road, south section. Near road.
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, THPL, ALRU2, PSME
emergent	2
maincanopy	6
subcanopy	0
Shrubs Total	3
Dominant Shrubs	GASH
> 1.5' tall	2
< 1.5' tall	2
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	DIPU, PTAQ, POMU
Forbs Perennial	1
Forbs Annual	3
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	3
Exotics Perennial	2
Exotics Annual	3
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	12
Litter	88
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
DIPU	
Secondary Exotic	
ILAQ80	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes: EARLY SUCCESSIONAL. SOME DOGHAIR TSHE (VERY YOUNG) THAT ARE BECOMING CHOKED OUT

Polygon Number	**161**
Survey Intensity	3
Observer	HS
Date	8/22/2006
Specific Location	S side of park
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**162**
Survey Intensity	3
Observer	HS
Date	8/22/2006
Specific Location	S side of park
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. water	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**16C**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**17**
Survey Intensity	2
Observer	PM
Date	9/22/2006
Specific Location	Steep slope dropping into river SE of SE 312th Way. Waypoint taken at edge of polygon.
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, ALRU2, ACMA3, TSHE
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, COCO6, MANE2, SARA2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	SMRA, DIHO
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	1
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	1
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	97
Logging	5
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.		0		0
3.		0		0

Notes: Ferns: POMU. Some nice big trees in this area.

Polygon Number	**18**
Survey Intensity	2
Observer	HS
Date	6/30/2006
Specific Location	N side of park. S of river
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, THPL, ACMA3
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	3
Dominant Shrubs	ACCI, RUSP
> 1.5' tall	3
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	1
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.		0		0
3.		0		0

Notes:

Polygon Number	**19**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	W SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ALRU2, TSHE
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	ACCI, SARA2, RUSP
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	5
Gravel	0
Bare Ground	0
Moss Lichen	4
Litter	91
Logging	2
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
ILAQ80
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**2**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	5
Trees Total	5
Dominant Trees	PSME, ALRU2, TSHE
emergent	1
maincanopy	4
subcanopy	2
Shrubs Total	4
Dominant Shrubs	GASH, MANE2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	Melica sp.
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	5
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**20**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. water	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**21**
Survey Intensity	1
Observer	HS
Date	6/30/2006
Specific Location	NE corner of park. S side of river.
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, TSHE, ALRU2, ACMA3
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, RUSP, MANE2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	15
Litter	85
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	2
Wildlife	3
Recreation Severity	3
Recreation Type	5
Hydrology	1

Exotic Species

Primary Exotic
RULA
Secondary Exotic
GERO
Noxious Exotic
HEHE

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	65	Matrix	2
2. PSME-TSHE/GASH/POMU (CHAPPELL)	25	Large	2
3. PSME-TSHE/MANE2/POMU (CHAPPELL)	10	Small	2

Notes:

Polygon Number	**22**
Survey Intensity	4
Observer	HS
Date	12/12/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, THPL, ACMA3, TSHE, ALRU2
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	4
Dominant Shrubs	VAPA, HODI, GASH, ACCI
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	8
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	87
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
ILAQ80	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	75	Matrix	3
2. PSME-TSHE/GASH/POMU (CHAPPELL)	15	Small	3
3. ACMA3-ALRU2/POMU-TEGR2	10	Small	2

Notes:

Polygon Number	**23**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	3
Dominant Trees	PSME, ALRU2
emergent	0
maincanopy	2
subcanopy	3
Shrubs Total	5
Dominant Shrubs	SASC, CYSC4
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	3
Dominant Graminoids	
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	POMU, PTAQ
Forbs Perennial	3
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	5
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	0

Exotic Species

Primary Exotic
CYSC4 (5%)
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**24**
Survey Intensity	4
Observer	HS
Date	12/12/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**25**
Survey Intensity	2
Observer	HS
Date	6/30/2006
Specific Location	E boundary of park.
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, TSHE, THPL, ACMA3
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	GASH, MANE2, HODI, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	POMU
Forbs Perennial	1
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	65	Matrix	3
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	20	Large	3
3. PSME-TSHE/MANE2/POMU (CHAPPELL)	15	Small	3

Notes:

Polygon Number	**25B**
Survey Intensity	1
Observer	HS
Date	6/30/2006
Specific Location	Along river, S bank-> N side of park.
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, THPL, PSME, ACMA3, ALRU2
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	MANE2, ACCI, RUSP
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	POMU
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	1
Gravel	1
Bare Ground	2
Moss Lichen	3
Litter	93
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
HEHE
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	80	Matrix	2
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	20	Small	2
3.	0		0

Notes:

Polygon Number	**26**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, PSME, ACMA3
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	RUSP, GASH
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	MESM
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	0
ExoticsTotal	2
Exotics Perennial	0
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	1
Hydrology	1

Exotic Species

Primary Exotic
GERO (1%)
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**28**
Survey Intensity	1
Observer	PM
Date	6/2/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, POTR15, ACMA3, TSHE, THPL, PSME
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	RUSP, PHCA11, RUPA, SARA2, OECE, MANE2
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	MADI, HYTE, DIFO, TEGR2, POMU, POGL8, ATFI, PTAQ
Forbs Perennial	3
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	4
Litter	94
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	0
Recreation Severity	2
Recreation Type	4
Hydrology	0

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RARE3
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	50	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	40	Large	2
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	2

Notes:

Polygon Number	**29**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	E SIDE OF PARK
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, THPL, ACMA3, TSHE, ALRU2
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	4
Dominant Shrubs	VAPA, HODI, GASH, ACCI
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	8
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	87
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
ILAQ80	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	75	Matrix	3
2. PSME-TSHE/GASH/POMU (CHAPPELL)	15	Small	3
3. ACMA3-ALRU2/POMU-TEGR2	10	Small	2

Notes:

Polygon Number	**3**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. water	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**30**
Survey Intensity	1
Observer	SH
Date	6/1/2006
Specific Location	E just beyond group camp. Poly has river access.
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, ALRU2, THPL, TSHE
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	6
Dominant Shrubs	RUSP, ACCI, RUDI2, OPHO
> 1.5' tall	6
< 1.5' tall	1
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	5
Dominant Forbs	DIFO, URDI, GERO, MADI, HYTE, MOSI2, POMU, PTAQ
Forbs Perennial	5
Forbs Annual	2
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	8
Litter	90
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	99	Matrix	2
2. THPL-TSHE/OPHO/POMU (CHAPPELL)	1	Small	2
3.	0		0

Notes:

Polygon Number	**31**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE
emergent	1
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	RUSP, GASH
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**32**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	E SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, THPL, TSHE, POTR15
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, SARA2, RUUR
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	1
Water	0
Rock Outcrop	2
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	4
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RARE3
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	55	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	25	Large	2
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	20	Large	2

Notes:

Polygon Number	**33**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	E SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ALRU2, ACMA3, TSHE
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	HODI, RUSP, GASH, MANE2, VAPA
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	3
Gravel	0
Bare Ground	0
Moss Lichen	15
Litter	82
Logging	2
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
SOAU
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	65	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	35	Large	2
3.	0		0

Notes:

Polygon Number	**34**
Survey Intensity	1
Observer	SH
Date	6/1/2006
Specific Location	SW
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, ALRU2, TSHE
emergent	2
maincanopy	6
subcanopy	1
Shrubs Total	4
Dominant Shrubs	RUPA, RUSP, ACCI
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	URDI, HYTE, TEGR2, TOME, DIFO, POMU, ADPE, PTAQ
Forbs Perennial	4
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	10
Litter	90
Logging	2
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
MYSY
Noxious Exotic
RARE3

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	70	Matrix	2
2. ALRU2/POMU (CHAPPELL)	30	Large	2
3.	0		0

Notes: TRAIL INTERSECTS PART OF POLYGON.

Polygon Number	**35**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**36**
Survey Intensity	1
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	4
Dominant Trees	PSME, ALRU2
emergent	1
maincanopy	4
subcanopy	4
Shrubs Total	5
Dominant Shrubs	GASH, ACCI
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	Melica sp.
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	MIDI4, POMU, PTAQ
Forbs Perennial	3
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	1
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	3
Gravel	3
Bare Ground	4
Moss Lichen	5
Litter	85
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	2
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**37**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. water	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**38**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	E SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ALRU2
emergent	1
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	GASH, RUUR, HODI, ACCI
> 1.5' tall	3
< 1.5' tall	4
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
ILAQ80
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**39**
Survey Intensity	2
Observer	HS
Date	8/22/2006
Specific Location	W SIDE OF KP
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, ALRU2, THPL
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	RUUR, GASH, ACCI
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
RULA	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**4**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	4
Dominant Trees	PSME, TSHE, ACMA3, ALRU2
emergent	1
maincanopy	4
subcanopy	4
Shrubs Total	4
Dominant Shrubs	RUDI2, COCO6, RUUR
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU, ATFI
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	2
Recreation Severity	3
Recreation Type	1
Hydrology	1

Exotic Species

Primary Exotic
RUDI2 (3%)
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**40A**
Survey Intensity	1
Observer	SH
Date	6/2/2006
Specific Location	S Central
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, TSHE
emergent	1
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	GASH, RUSP, RHPU
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU, PTAQ
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	90	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	2
3.			

Notes:

Polygon Number	**40B**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	SE SECTION OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, PSME, PISI, ALRU2, ACMA3
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, RUSP, SARA2, RUUR
> 1.5' tall	5
< 1.5' tall	4
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	70	Matrix	2
2. ALRU2/POMU (CHAPPELL)	30	Large	2
3.	0		0

Notes:

Polygon Number	**41**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	E SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, PSME, PISI, TSHE, THPL
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, OPHO, SARA2
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	HYTE, COSC4, GERO
Forbs Perennial	3
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
HEHE	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	55	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	35	Large	2
3. ALRU2/POMU (CHAPPELL)	10	Small	2

Notes:

Polygon Number	**42**
Survey Intensity	2
Observer	PM
Date	9/22/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, THPL, ALRU2, ACMA3, PSME
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	RUPA, ACCI, COCO6, chestnut, RHPU, HODI, VAPA,
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	CAHE7, LUPA4
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	MADI, TEGR2, GERO, DIFO
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	3
Gravel	3
Bare Ground	2
Moss Lichen	8
Litter	84
Logging	0
Stand Age	5
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic
GERO

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.		0		0
3.		0		0

Notes: Ferns: POMU, POGL8, PTAQ, ADPE, ATFI, DREX2. Small trail down from cemetary to river.

Polygon Number	**42D**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**44**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**45**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	N SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, TSHE, THPL, PSME, ACMA3
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUUR, RUSP, SARA2, ACCI
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	4
Litter	96
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RARE3
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	80	Matrix	2
2. ALRU2/POMU (CHAPPELL)	20	Large	2
3.	0		0

Notes:

Polygon Number	**46**
Survey Intensity	2
Observer	SH
Date	6/2/2006
Specific Location	S
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, ALRU2
emergent	0
maincanopy	6
subcanopy	0
Shrubs Total	5
Dominant Shrubs	GASH, ACCI, HODI
> 1.5' tall	5
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	POMU, PTAQ
Forbs Perennial	1
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	1
Litter	99
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes: CLEARCUT. PSME OVERSTORY, GASH UNDERSTORY.

Polygon Number	**47**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	SE CORNER OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, PSME, ACMA3
emergent	1
maincanopy	5
subcanopy	2
Shrubs Total	6
Dominant Shrubs	RUSP, RUUR, RUDI2, ACCI
> 1.5' tall	6
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	
Forbs Perennial	1
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
ILAQ80	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	65	Matrix	1
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	35	Large	2
3.	0		0

Notes:

Polygon Number	**48**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**49**
Survey Intensity	1
Observer	SH, HS
Date	8/3/2006
Specific Location	5
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, TSHE, THPL, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	SARA2, RUSP, ACCI, MANE2, RUUR
> 1.5' tall	6
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	MADI, DIFO
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	6
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 Exotic	
RUDI2	
Secondary Exotic	
HEHE	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	40	Matrix	2
2. ALRU2/POMU (CHAPPELL)	35	Small	2
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	25	Small	2

Notes: FERNS: POMU, PTAQ

Polygon Number	**5**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	5
Trees Total	5
Dominant Trees	ACMA3, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	RUSP, RUPA
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	3
Dominant Graminoids	
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	GERO, LAMU, POMU
Forbs Perennial	3
Forbs Annual	3
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	0
ExoticsTotal	3
Exotics Perennial	0
Exotics Annual	3
Water	0
Rock Outcrop	5
Gravel	15
Bare Ground	10
Moss Lichen	30
Litter	40
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO (1%)
Secondary Exotic
LAMU (1%)
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**50**
Survey Intensity	1
Observer	SH, HS
Date	8/3/2006
Specific Location	S PORTION OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, PSME, THPL, TSHE
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	RUSP, SARA2, HODI, PRVI
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	GEMA4
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	0
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	0
Recreation Severity	3
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
DIPU	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	70	Matrix	1
2. PSME-TSHE/GASH/POMU (CHAPPELL)	30	Small	1
3.	0		0

Notes: ATV use

Polygon Number	**51**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**52**
Survey Intensity	1
Observer	HS
Date	8/22/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**53A**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	S side of river, S of bridge
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, ACMA3, TSHE, POTR15, ALRU2
emergent	2
maincanopy	6
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	MADI, DIFO
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	12
Litter	88
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	75	Matrix	2
2. ALRU2/POMU (CHAPPELL)	15	Small	2
3. ALRU2/RUSP c.t. (KUNZE)	10	Small	2

Notes:

Polygon Number	**53B**
Survey Intensity	1
Observer	SH
Date	8/3/2006
Specific Location	N PORTION OF PARK, RIVER BELOW
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, THPL, ALRU2, TSHE
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, SARA2, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	URDI, MADI, MOSI2
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	1
Moss Lichen	10
Litter	89
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	85	Matrix	1
2. ALRU2/RUSP c.t. (KUNZE)	10	linear	1
3. TSHE-PSME/POMU-DREX2 (CHAPPELL)	5	Small	1

Notes: FERNS: POMU, PTAQ, ATFI

Polygon Number	**54**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	ALONG S SIDE OF RIVER, S OF BRIDGE
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, PSME, ACMA3, ALRU2
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	ACCI, GASH, RUUR
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	0
Rock Outcrop	12
Gravel	0
Bare Ground	0
Moss Lichen	7
Litter	81
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	40	Large	2
2. ACMA3-ALRU2/POMU-TEGR2	35	Large	2
3. PSME-TSHE/GASH/POMU (CHAPPELL)	25	Small	2

Notes: FERNS: POMU, ATFI

Polygon Number	**54D**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**55**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	N SIDE OF RIVER, S OF BRIDGE
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, ACMA3
emergent	2
maincanopy	6
subcanopy	2
Shrubs Total	5
Dominant Shrubs	MANE2, GASH, ACCI, COCO6
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	3
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	92
Logging	2
Stand Age	6
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	62	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	30	Small	2
3. THPL-TSHE/OPHO/POMU (CHAPPELL)	8	Small	2

Notes:

Polygon Number	**56**
Survey Intensity	1
Observer	HS
Date	8/3/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**57**
Survey Intensity	2
Observer	PM, HS
Date	8/24/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, ALRU2, TSHE, PSME
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	RUDI2, RUPA, COCO6, HODI, OECE, SARA2, RUSP,
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	Calamagrostis sp, Bromus sp (collected)
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	HEHE, TEGR2, LACO3, ARMI2
Forbs Perennial	3
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	1
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	0
Water	0
Rock Outcrop	2
Gravel	1
Bare Ground	1
Moss Lichen	3
Litter	93
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	2

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic
HEHE

Plant Associations

		Percent	Pattern	Rank
1.	ACMA3-ALRU2/POMU-TEGR2	70	Matrix	1
2.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	30	Large	2
3.		0		0

Notes: Ferns: POMU, PTAQ, ADPE. Steep, heavily infested with RUDI2 & HEHE.

Polygon Number	**58**
Survey Intensity	1
Observer	HS
Date	8/24/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**59**
Survey Intensity	1
Observer	PM
Date	8/24/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, ALRU2, PSME
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	RUSP, RUDI2, RUPA, OECE, COCO6, SYAL, SARA2, VAPA
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	LUPA4, Calamagrostis sp, Bromus sp.
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	HEHE, TEGR2, RARE3, LACO3, PLMA2
Forbs Perennial	4
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	2
Bare Ground	1
Moss Lichen	5
Litter	92
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	2
Wildlife	3
Recreation Severity	3
Recreation Type	4
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RARE3
Noxious Exotic
HEHE

Plant Associations

	Percent	Pattern	Rank
1. ACMA3-ALRU2/POMU-TEGR2	80	Matrix	1
2. ALRU2/RUSP c.t. (KUNZE)	20	Small	2
3.	0		0

Notes: Ferns: POMU, PTAQ, ATFI. Very heavy infestation of HEHE, and also RUDI2.

Polygon Number	**59B**
Survey Intensity	1
Observer	PM
Date	8/24/2006
Specific Location	Southern extension of polygon 59, south of road.
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, THPL, TSHME, ALRU2, ACMA3
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	ACCI, MANE2, VAPA, RUSP
> 1.5' tall	4
< 1.5' tall	4
Graminoids Total	1
Dominant Graminoids	LUPA4
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	5
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
ILAQ80
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	80	Matrix	3
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	20	Small	3
3.	0		0

Notes: Ferns: POMU, ATFI, DREX2

Polygon Number	**6**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, TSHE, THPL
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	3
Dominant Shrubs	VAPA
> 1.5' tall	3
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	MIDI4, POMU
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.	0		0
3.	0		0

Notes:

Polygon Number	**60**
Survey Intensity	3
Observer	PM
Date	8/24/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, ALRU2, POTR15, PSME
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	SARA2, ACCI, RUDI2, RUPA
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2, HEHE
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	2
Gravel	1
Bare Ground	1
Moss Lichen	8
Litter	88
Logging	5
Stand Age	5
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic
HEHE

Plant Associations

		Percent	Pattern	Rank
1.	ACMA3-ALRU2/POMU-TEGR2	50	Matrix	2
2.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	50	Small	3
3.		0		0

Notes: Ferns: POMU, ATFI, ADPE. Very steep, only was able to look into it from the top at several places.

Polygon Number	**61**
Survey Intensity	1
Observer	HS
Date	8/24/2006
Specific Location	CENTER OF PARK, N OF RIVER
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ALRU2, TSHE, PSME, POTR15, ACMA3, PISI
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, SARA2
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	85	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	10	Small	2
3. PSME-TSHE/GASH/POMU (CHAPPELL)	5	Small	2

Notes:

Polygon Number	**63**
Survey Intensity	1
Observer	HS
Date	8/24/2006
Specific Location	CENTER OF PARK, N OF RIVER
Total Vegetation	6
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	3
Stand Age	0
Agriculture	0
Livestock	0
Development	2
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. developed	100	Matrix	1
2.	0		0
3.	0		0

Notes: PUD STATION

Polygon Number	**64**
Survey Intensity	1
Observer	HS
Date	8/24/2006
Specific Location	CENTER OF PARK, N OF RIVER
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, THPL
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	RUSP, COST4, SARA2, RUUR, SYAL
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	HYTE, TOME, URDI, HELA4
Forbs Perennial	3
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	1
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RULA
Secondary Exotic
RARE3
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	90	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	10	Small	2
3.	0		0

Notes: FERNS: POMU, ATFI

Polygon Number	**64B**
Survey Intensity	2
Observer	HS
Date	8/24/2006
Specific Location	MIDDLE OF PARK, N OF RIVER
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3
emergent	0
maincanopy	5
subcanopy	1
Shrubs Total	5
Dominant Shrubs	RUSP, COST4
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	4
Dominant Graminoids	PHAR3
Graminoids Perennial	4
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TOME, RARE3
Forbs Perennial	3
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	1
Ferns Deciduous	3
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	5
Bare Ground	2
Moss Lichen	2
Litter	91
Logging	0
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	0
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
PHAR3	
Secondary Exotic	
RARE3	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	90	Matrix	2
2. CALE8 (PBI)	10	Small	2
3.	0		0

Notes: FERNS: ATFI

Polygon Number	**65**
Survey Intensity	3
Observer	PM
Date	9/22/2006
Specific Location	Flooplain area across river from polygon 68, viewed from bluff (with binocs) across river.
Total Vegetation	5
Trees Total	5
Dominant Trees	ALRU2, ACMA3, PSME, POTR15, THPL, TSHE
emergent	2
maincanopy	4
subcanopy	3
Shrubs Total	0
Dominant Shrubs	RUSP, RUPA, VAPA, ACCI, RUDI2, COST4, SYAL
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	2
Dominant Graminoids	PHAR3, Carex sp.
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	1
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	15
Bare Ground	2
Moss Lichen	3
Litter	80
Logging	0
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	50	Matrix	3
2. ALRU2/RUSP c.t. (KUNZE)	30	Large	3
3. ALRU2/POMU (CHAPPELL)	20	Large	3

Notes: Ferns: POMU, ATFI. Floodplain forest with gravel bars between cliffs & river.

Polygon Number	**66**
Survey Intensity	1
Observer	HS
Date	6/30/2006
Specific Location	Middle section, spur in river.
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, TSHE, PSME, ACMA3
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, SARA2, RUSP
> 1.5' tall	4
< 1.5' tall	1
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	1
Forbs Total	3
Dominant Forbs	MADI, CIAL, POMU
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	1
Moss Lichen	2
Litter	97
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
PHAR3	
Secondary Exotic	
HEHE	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes: CAMPSITE IN POLYGON.

Polygon Number	**67**
Survey Intensity	3
Observer	PM
Date	8/24/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, THPL, PSME, TSHE
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, VAPA, MANE2, OECE, RUUR, COCO6
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	Calamagrostis sp.
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	GATR?, TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	2
Gravel	1
Bare Ground	1
Moss Lichen	8
Litter	88
Logging	5
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	40	Matrix	3
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	30	Large	3
3. ACMA3-ALRU2/POMU-TEGR2	30	Large	3

Notes: Ferns: POMU, DREX2, ADPE.

Polygon Number	**68**
Survey Intensity	2
Observer	PM
Date	9/22/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, THPL, PSME, TSHE, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	3
Dominant Shrubs	SARA2, RUUR, SYAL, OPHO, COCO6, ACCI
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	LUPA4
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2, NONE3, LAMU, SMRA, GERO
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	15
Litter	85
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	3
2.	0		0
3.	0		0

Notes: Ferns: POMU, POGL8, ATFI, DREX2

Polygon Number	**69**
Survey Intensity	2
Observer	HS
Date	8/24/2006
Specific Location	MIDDLE OF PARK, S SIDE OF RIVER
Total Vegetation	5
Trees Total	5
Dominant Trees	PSME, THPL, ACMA3, TSHE, ALRU2
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	HODI, ACCI, GASH, MANE2, RUPA
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	12
Gravel	0
Bare Ground	0
Moss Lichen	8
Litter	80
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	0
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	65	Matrix	3
2. PSME-TSHE/GASH/POMU (CHAPPELL)	25	Large	3
3. ACMA3-ALRU2/POMU-TEGR2	10	Small	3

Notes:

Polygon Number	**7**
Survey Intensity	2
Observer	DV
Date	6/2/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ACMA3
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	GASH
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU, PTAQ
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	1
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	5
Gravel	0
Bare Ground	2
Moss Lichen	3
Litter	90
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**70**
Survey Intensity	3
Observer	PM
Date	9/22/2006
Specific Location	Small floodplain area, now part river.
Total Vegetation	4
Trees Total	3
Dominant Trees	ALRU2, THPL
emergent	0
maincanopy	3
subcanopy	0
Shrubs Total	3
Dominant Shrubs	RUSP, COST4
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	Carex sp., PHAR3
Graminoids Perennial	2
Graminoids Annual	2
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	1
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	20
Rock Outcrop	0
Gravel	10
Bare Ground	2
Moss Lichen	3
Litter	65
Logging	0
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	40	Matrix	3
2. water	40	Large	3
3. water	20	linear	3

Notes: Ferns: POMU, ATFI. Floodplain area next to river, river channels now occupy some of this polygon.

Polygon Number	**71**
Survey Intensity	1
Observer	HS
Date	6/30/2006
Specific Location	Middle section of park.
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, TSHE, ACMA3, ALRU2
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	POMU
Forbs Perennial	2
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	3
ExoticsTotal	1
Exotics Perennial	0
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	4
Litter	96
Logging	3
Stand Age	3
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	87	Small	2
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	10	Small	2
3. ALRU2/RUSP c.t. (KUNZE)	3	Small	2

Notes:

Polygon Number	**72**
Survey Intensity	2
Observer	HS
Date	8/24/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, ALRU2, THPL, PSME, POTR15
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	SARA2, RUPA, COCO6, HODI, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	3
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	3
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	94
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
PHAR3	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ACMA3-ALRU2/POMU-TEGR2	65	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	35	Large	2
3.	0		0

Notes:

Polygon Number	**73**
Survey Intensity	2
Observer	HS
Date	8/24/2006
Specific Location	
Total Vegetation	5
Trees Total	5
Dominant Trees	ALRU2, ACMA3
emergent	0
maincanopy	5
subcanopy	3
Shrubs Total	3
Dominant Shrubs	RUSP, RUPA, SALIX SP.
> 1.5' tall	3
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	1
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	8
Bare Ground	2
Moss Lichen	2
Litter	88
Logging	1
Stand Age	1
Agriculture	0
Livestock	0
Development	0
Wildlife	0
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
PHAR3	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	85	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	15	Small	3
3.	0		0

Notes:

Polygon Number	**74**
Survey Intensity	3
Observer	PM
Date	9/22/2006
Specific Location	Viewed from bluff above (polygon 68) & inside polygon.
Total Vegetation	5
Trees Total	4
Dominant Trees	ALRU2, POTR15, THPL
emergent	2
maincanopy	4
subcanopy	2
Shrubs Total	4
Dominant Shrubs	RUSP, SARA2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	Carex sp., PHAR3
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	1
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	10
Rock Outcrop	0
Gravel	10
Bare Ground	2
Moss Lichen	3
Litter	75
Logging	0
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	50	Large	3
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	50	Large	3
3.	0		0

Notes: Ferns: POMU, ATFI, DREX2

Polygon Number	**76**
Survey Intensity	2
Observer	PM
Date	9/22/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, POTR15
emergent	0
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUDI2, RULA, RUUR, SARA2, RUPA
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	AICA
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	PLLA, GERO, RARE3, EPAN2, TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	5
Litter	93
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	2
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
RULA
Noxious Exotic
RARE3

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes: Ferns: POMU, PTAQ. Clearcut

Polygon Number	**77**
Survey Intensity	1
Observer	HS
Date	9/28/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, PSME, TSHE, POTR15
emergent	0
maincanopy	5
subcanopy	0
Shrubs Total	6
Dominant Shrubs	RUDI2, RUSP, SARA2, GASH
> 1.5' tall	6
< 1.5' tall	4
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
RARE3	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	55	Matrix	1
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	45	Large	1
3.	0		0

Notes: Ferns: POMU

Polygon Number	**78**
Survey Intensity	1
Observer	HS
Date	8/23/2006
Specific Location	SW SIDE OF PARK
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ALRU2, TSHE
emergent	1
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, RUUR, GASH, VAPA
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**79**
Survey Intensity	2
Observer	PM
Date	9/22/2006
Specific Location	Low area.
Total Vegetation	6
Trees Total	6
Dominant Trees	TSHE, PSME, THPL, ALRU2, ACMA3
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	4
Dominant Shrubs	ACCI, SARA2, RUSP, RUDI2
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	AICA?
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	PLLA, GERO, TEGR2
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	5
Litter	93
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	6
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PLLA
Secondary Exotic
GERO
Noxious Exotic
RUDI2

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.		0		0
3.		0		0

Notes: Ferns: POMU, DREX2. Security fence runs through polygon, preventing entry to most of polygon.

Polygon Number	**8**
Survey Intensity	2
Observer	DV
Date	6/1/2006
Specific Location	
Total Vegetation	6
Trees Total	3
Dominant Trees	ACMA3, ALRU2
emergent	0
maincanopy	3
subcanopy	0
Shrubs Total	5
Dominant Shrubs	RUDI2, RUSP
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	
Graminoids Perennial	3
Graminoids Annual	2
Forbs Total	2
Dominant Forbs	GEMA4
Forbs Perennial	2
Forbs Annual	2
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	5
Bare Ground	0
Moss Lichen	0
Litter	95
Logging	3
Stand Age	1
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2 (15%)
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes: THIS IS A PUBLIC FISHING SITE WITH ROAD ACCESS.

Polygon Number	**80**
Survey Intensity	1
Observer	PM
Date	8/23/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, ALRU2, TSHE, THPL
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	3
Dominant Shrubs	RUSP, RUPA, HODI, SYAL, PHCA11, MANE2
> 1.5' tall	2
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	PHAR3
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2, MADI
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	4
Gravel	2
Bare Ground	1
Moss Lichen	4
Litter	89
Logging	5
Stand Age	6
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	60	Matrix	3
2. ACMA3-ALRU2/POMU-TEGR2	40	linear	3
3.	0		0

Notes: Ferns: ATFI, POMU, ADPE

Polygon Number	**81**
Survey Intensity	2
Observer	HS
Date	9/28/2006
Specific Location	
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, TSHE, ALRU2, ACMA3
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, COCO6, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	85	Matrix	3
2. ALRU2/POMU (CHAPPELL)	15	Small	2
3.	0		0

Notes: Ferns: POMU.

Polygon Number	**82**
Survey Intensity	3
Observer	PM
Date	8/23/2006
Specific Location	Across & up river from Icy Creek.
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, PISI
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	4
Dominant Shrubs	RUSP, PHCA11, COST4, RUPA
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	3
Dominant Graminoids	PHAR3, Carex, CAOB3
Graminoids Perennial	3
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	EQHY, Aster
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	2
Bare Ground	0
Moss Lichen	2
Litter	96
Logging	5
Stand Age	5
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR3
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	100	Matrix	3
2.	0		0
3.	0		0

Notes: Ferns: ATFI, POMU. Viewed polygon across river with binocs.

Polygon Number	**83**
Survey Intensity	1
Observer	HS
Date	8/24/2006
Specific Location	CENTER OF PARK, N OF RIVER
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, THPL, PSME, TSHE
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, RUDI2, HODI, GASH
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TOME
Forbs Perennial	3
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	98
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
RUDI2	
Secondary Exotic	
GERO	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	90	Matrix	1
2. PSME-TSHE/GASH/POMU (CHAPPELL)	10	Small	2
3.	0		0

Notes:

Polygon Number	**84A**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	S of river, far E side of park
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ACMA3, PSME, ALRU2, TSHE
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, SARA2
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	1
Forbs Total	4
Dominant Forbs	TOME, HYTE
Forbs Perennial	4
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	2
Exotics Annual	3
Water	0
Rock Outcrop	3
Gravel	0
Bare Ground	0
Moss Lichen	4
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 Exotic	
GERO	
Secondary Exotic	
RARE3	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	50	Large	2
2. ACMA3-ALRU2/POMU-TEGR2	50	Large	2
3.	0		0

Notes: Ferns: POMU

Polygon Number	**84B**
Survey Intensity	1
Observer	SH
Date	8/4/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	TSHE, THPL, ACMA3, ALRU2
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	6
Dominant Shrubs	ACCI, RUSP, SARA2
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	MADI, GAAP2
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	3
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	15
Litter	83
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	70	Matrix	2
2. ALRU2/POMU (CHAPPELL)	20	Small	1
3. ALRU2/RUSP c.t. (KUNZE)	10	Small	1

Notes: Ferns: POMU, ATFI, BLSP

Polygon Number	**84C**
Survey Intensity	2
Observer	HS
Date	8/4/2006
Specific Location	N boundary of park, S or river (U Turn)
Total Vegetation	6
Trees Total	5
Dominant Trees	ACMA3, THPL, TSHE, PSME, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, COCO6
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	TEGR2
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	2
Gravel	0
Bare Ground	2
Moss Lichen	3
Litter	93
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
GERO	
Secondary Exotic	
RUDI2	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ACMA3-ALRU2/POMU-TEGR2	60	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	40	Large	2
3.	0		0

Notes:

Polygon Number	**84W**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	Big U-Turn, N side of park, S of river
Total Vegetation	5
Trees Total	4
Dominant Trees	ALRU2, ACMA3
emergent	1
maincanopy	4
subcanopy	2
Shrubs Total	5
Dominant Shrubs	Salix sp., COST4, RUSP
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	4
Dominant Graminoids	PHAR3
Graminoids Perennial	4
Graminoids Annual	1
Forbs Total	3
Dominant Forbs	TOME, GERO
Forbs Perennial	3
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	1
Water	
Rock Outcrop	0
Gravel	15
Bare Ground	2
Moss Lichen	3
Litter	80
Logging	0
Stand Age	0
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
PHAR3
Secondary Exotic
RUDI2
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. COST4-Salix Sp. Shrubland (KAGAN)	60	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	40	Large	2
3.	0		0

Notes:

Polygon Number	**85**
Survey Intensity	1
Observer	SH
Date	8/4/2006
Specific Location	small peninsula near entrance of park
Total Vegetation	6
Trees Total	4
Dominant Trees	THPL, ACMA3, ALRU2
emergent	2
maincanopy	4
subcanopy	0
Shrubs Total	6
Dominant Shrubs	RUDI2, PREM, ACCI, COCO6, OECE
> 1.5' tall	6
< 1.5' tall	1
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	4
Bare Ground	3
Moss Lichen	2
Litter	91
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	0
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
GERO
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	100	Matrix	1
2.	0		0
3.	0		0

Notes: Major RUDI2 patch - disturbed. Polygon is near a mowed field that has remote controlled airplane flying. Portions are ALRU2/POMU, others are RUDI2 thicket with mixed shrub.

Polygon Number	**86**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**87**
Survey Intensity	2
Observer	PM
Date	8/23/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, TSHE, THPL
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, SARA2, RIBR, OPHO, RULA, ACCI
> 1.5' tall	4
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	PHAR3, Carex
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	TEGR2, PEFR5, RARE3, EQHY, MADI
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	8
Litter	90
Logging	5
Stand Age	3
Agriculture	0
Livestock	0
Development	4
Wildlife	3
Recreation Severity	2
Recreation Type	4
Hydrology	2

Exotic Species

Primary Exotic
RARE3
Secondary Exotic
PRVU
Noxious Exotic
GERO

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	50	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	35	Large	3
3. ALRU2/RUSP c.t. (KUNZE)	15	Small	2

Notes: Ferns: POMU, ADPE, ATFI, PTAQ

Polygon Number	**88**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	Along E (S) side of river, E side of park
Total Vegetation	6
Trees Total	6
Dominant Trees	ACMA3, ALRU2, POTR15, THPL
emergent	3
maincanopy	5
subcanopy	2
Shrubs Total	6
Dominant Shrubs	RUSP, ACCI
> 1.5' tall	6
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	TOME, URDI, HYTE
Forbs Perennial	4
Forbs Annual	2
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	2
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic	
HEHE	
Secondary Exotic	
RARE3	
Noxious Exotic	

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/RUSP c.t. (KUNZE)	60	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	40	Large	2
3.	0		0

Notes:

Polygon Number	**89**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	NW side of Park, N of River
Total Vegetation	6
Trees Total	5
Dominant Trees	POTR15, ALRU2, THPL
emergent	4
maincanopy	4
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUDI2, CYSC4, SYAL, RUSP
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	3
Dominant Graminoids	PHAR3, DAGL,
Graminoids Perennial	3
Graminoids Annual	1
Forbs Total	3
Dominant Forbs	CIAR4, SEJA
Forbs Perennial	3
Forbs Annual	1
Ferns Total	2
Ferns Evergreen	1
Ferns Deciduous	2
ExoticsTotal	5
Exotics Perennial	5
Exotics Annual	1
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	100
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
CYSC4
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes: Highly disturbed non-native understory, despite native tree cover

Polygon Number	**9**
Survey Intensity	2
Observer	PM
Date	9/22/2006
Specific Location	NW from SE 312th Way across wetland.
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, PSME, TSHE
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	5
Dominant Shrubs	MANE2, ACCI, SARA2, MEFE, VAPA, RUUR, GASH
> 1.5' tall	4
< 1.5' tall	4
Graminoids Total	1
Dominant Graminoids	LUPA4, CAOB3
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	1
Dominant Forbs	SMST, GATR3, MADI
Forbs Perennial	1
Forbs Annual	0
Ferns Total	4
Ferns Evergreen	3
Ferns Deciduous	3
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	2
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
ILAQ80
Secondary Exotic
DIPU
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	70	Matrix	3
2. PSME-TSHE/MANE2/POMU (CHAPPELL)	20	Small	3
3. PSME-TSHE/GASH/POMU (CHAPPELL)	10	Small	3

Notes: Ferns: POMU, PTAQ, DREX2, ATFI. Nice large mature cedars in this stand, about 1m DBH.

Polygon Number	**90**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**91**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	
Total Vegetation	0
Trees Total	0
Dominant Trees	
emergent	0
maincanopy	0
subcanopy	0
Shrubs Total	0
Dominant Shrubs	
> 1.5' tall	0
< 1.5' tall	0
Graminoids Total	0
Dominant Graminoids	
Graminoids Perennial	0
Graminoids Annual	0
Forbs Total	0
Dominant Forbs	
Forbs Perennial	0
Forbs Annual	0
Ferns Total	0
Ferns Evergreen	0
Ferns Deciduous	0
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	0
Litter	0
Logging	
Stand Age	
Agriculture	
Livestock	
Development	
Wildlife	
Recreation Severity	
Recreation Type	
Hydrology	

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. disturbed	100	Matrix	1
2.	0		0
3.	0		0

Notes:

Polygon Number	**92**
Survey Intensity	4
Observer	HS
Date	12/12/2006
Specific Location	
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, ALRU2, TSHE
emergent	1
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	ACCI, RUUR, GASH, VAPA
> 1.5' tall	5
< 1.5' tall	3
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	5
Stand Age	2
Agriculture	0
Livestock	0
Development	1
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. PSME-TSHE/GASH/POMU (CHAPPELL)	100	Matrix	2
2.	0		0
3.	0		0

Notes:

Polygon Number	**93**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	N boundary of park
Total Vegetation	6
Trees Total	6
Dominant Trees	THPL, PSME, TSHE, ACMA3, ALRU2
emergent	2
maincanopy	6
subcanopy	4
Shrubs Total	4
Dominant Shrubs	ACCI, MANE2, RUSP
> 1.5' tall	4
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	GERO, DIFO, HYTE
Forbs Perennial	3
Forbs Annual	1
Ferns Total	5
Ferns Evergreen	5
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	1
Exotics Annual	2
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic
GERO
Secondary Exotic
LACO3
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	70	Matrix	2
2. ALRU2/POMU (CHAPPELL)	30	Large	2
3.	0		0

Notes:

Polygon Number	**94**
Survey Intensity	2
Observer	HS
Date	9/28/2006
Specific Location	Middle of park, N side of river.
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ALRU2, ACMA3, PSME, TSHE
emergent	3
maincanopy	5
subcanopy	3
Shrubs Total	6
Dominant Shrubs	RUDI2, SARA2, RUUR, RUSP
> 1.5' tall	5
< 1.5' tall	4
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	3
Ferns Evergreen	3
Ferns Deciduous	2
ExoticsTotal	4
Exotics Perennial	4
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	2
Moss Lichen	2
Litter	96
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/POMU (CHAPPELL)	60	Matrix	2
2. ACMA3-ALRU2/POMU-TEGR2	25	Large	2
3. ALRU2/RUSP c.t. (KUNZE)	15	Small	2

Notes:

Polygon Number	**95**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	E side of park
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, ACMA3, TSHE, PSME, ALRU2
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, COCO6, HODI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	3
Dominant Forbs	
Forbs Perennial	3
Forbs Annual	2
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	3
Exotics Perennial	3
Exotics Annual	1
Water	0
Rock Outcrop	2
Gravel	0
Bare Ground	1
Moss Lichen	3
Litter	94
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	3
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	2

Exotic Species

Primary Exotic
RUDI2
Secondary Exotic
HEHE
Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ACMA3-ALRU2/POMU-TEGR2	60	Matrix	2
2. TSHE-PSME/POMU-DREX2 (CHAPPELL)	30	Large	2
3. ALRU2/POMU (CHAPPELL)	10	Small	2

Notes:

Polygon Number	**96**
Survey Intensity	3
Observer	PM
Date	8/23/2006
Specific Location	Across river from Icy Creek
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, ACMA3, TSHE, THPL, PSME
emergent	1
maincanopy	5
subcanopy	3
Shrubs Total	4
Dominant Shrubs	RUPA, SARA2, VAPA, GASH, MANE2, SYAL
> 1.5' tall	3
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	Carex sp., PHAR3
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	ANMA, EPAN2, Equisetum (collected)
Forbs Perennial	2
Forbs Annual	0
Ferns Total	3
Ferns Evergreen	2
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	4
Gravel	1
Bare Ground	2
Moss Lichen	4
Litter	89
Logging	0
Stand Age	3
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	3
Recreation Type	3
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	ACMA3-ALRU2/POMU-TEGR2	50	Matrix	3
2.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	50	Large	3
3.		0		0

Notes: Ferns: POMU, ADPE, ATFI, BLSP. Viewed from across the rvier.

Polygon Number	**97**
Survey Intensity	2
Observer	HS
Date	7/27/2006
Specific Location	N side of river, N section of park
Total Vegetation	6
Trees Total	5
Dominant Trees	PSME, THPL, TSHE, ACMA3
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, HODI, COCO6
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	1
Dominant Graminoids	
Graminoids Perennial	1
Graminoids Annual	0
Forbs Total	2
Dominant Forbs	
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	8
Gravel	0
Bare Ground	0
Moss Lichen	2
Litter	90
Logging	1
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

		Percent	Pattern	Rank
1.	TSHE-PSME/POMU-DREX2 (CHAPPELL)	100	Matrix	2
2.		0		0
3.		0		0

Notes:

Polygon Number	**98**
Survey Intensity	2
Observer	PM
Date	6/30/2006
Specific Location	West of upper icy creek. Also east of icy creek and contains icy creek.
Total Vegetation	6
Trees Total	6
Dominant Trees	PSME, TSHE, THPL
emergent	3
maincanopy	4
subcanopy	3
Shrubs Total	3
Dominant Shrubs	MANE2, OECE, RUSP, OPHO, RUPA, LIBO3
> 1.5' tall	3
< 1.5' tall	3
Graminoids Total	2
Dominant Graminoids	LUPA4
Graminoids Perennial	2
Graminoids Annual	1
Forbs Total	2
Dominant Forbs	CIAL, HYTE, POMU, ATFI
Forbs Perennial	2
Forbs Annual	1
Ferns Total	4
Ferns Evergreen	4
Ferns Deciduous	2
ExoticsTotal	2
Exotics Perennial	2
Exotics Annual	1
Water	0
Rock Outcrop	0
Gravel	1
Bare Ground	1
Moss Lichen	6
Litter	92
Logging	1
Stand Age	5
Agriculture	0
Livestock	0
Development	2
Wildlife	0
Recreation Severity	3
Recreation Type	4
Hydrology	2

Exotic Species

Primary Exotic
GERO
Secondary Exotic
ILAQ80
Noxious Exotic
HEHE

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	90	Matrix	2
2. THPL-TSHE/OPHO/POMU (CHAPPELL)	10	Small	1
3.	0		0

Notes:

Polygon Number	**99**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	N of river, N boundary of park
Total Vegetation	6
Trees Total	5
Dominant Trees	THPL, TSHE, PSME, ACMA3, ALRU2, PISI
emergent	2
maincanopy	5
subcanopy	3
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	4
Dominant Forbs	MADI, LYAM3
Forbs Perennial	4
Forbs Annual	2
Ferns Total	5
Ferns Evergreen	4
Ferns Deciduous	4
ExoticsTotal	0
Exotics Perennial	0
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	5
Litter	95
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic

Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. TSHE-PSME/POMU-DREX2 (CHAPPELL)	60	Matrix	2
2. THPL-TSHE/LYAM3 c.t. (KUNZE)	30	Large	2
3. ALRU2/RUSP c.t. (KUNZE)	10	Small	2

Notes: Ferns: POMU, DREX2, ATFI

Polygon Number	**99W**
Survey Intensity	1
Observer	HS
Date	7/27/2006
Specific Location	N side of river, N boundary of park
Total Vegetation	6
Trees Total	5
Dominant Trees	ALRU2, THPL
emergent	2
maincanopy	5
subcanopy	2
Shrubs Total	5
Dominant Shrubs	RUSP, ACCI, COST4
> 1.5' tall	5
< 1.5' tall	2
Graminoids Total	2
Dominant Graminoids	
Graminoids Perennial	2
Graminoids Annual	0
Forbs Total	5
Dominant Forbs	LYAM3, VEAM2
Forbs Perennial	5
Forbs Annual	2
Ferns Total	4
Ferns Evergreen	2
Ferns Deciduous	4
ExoticsTotal	1
Exotics Perennial	1
Exotics Annual	0
Water	0
Rock Outcrop	0
Gravel	0
Bare Ground	0
Moss Lichen	3
Litter	97
Logging	3
Stand Age	2
Agriculture	0
Livestock	0
Development	0
Wildlife	3
Recreation Severity	0
Recreation Type	0
Hydrology	1

Exotic Species

Primary Exotic
RARE3
Secondary Exotic

Noxious Exotic

Plant Associations

	Percent	Pattern	Rank
1. ALRU2/LYAM3 c.t. (KUNZE)	60	Matrix	2
2. ALRU2/RUSP c.t. (KUNZE)	25	Large	2
3. THPL-TSHE/LYAM3 c.t. (KUNZE)	15	Large	2

Notes: Ferns: ATFI

Appendix E – Washington Natural Heritage Program Rare Plant Sighting Forms

Taxon Name: *Hydrocotyle ranunculoides*
EO #:
Are you confident of the identification? Yes No Explain:

Survey Site Name: Flaming Geyser State Park
Surveyor's Name/Phone/Email: Hans Smith, 509-996-2490, hans@pacificbio.org
Survey Date: 2006-06/29 (yr-mo-day)
County: King
Quad Name:
Township: 21N Range: 6E Section(s): 27

Directions to site: Wetlands just N of ranger's office and housing in Flaming Geyser State Park. The office's access road bisects the wetlands, and *Hydrocotyle ranunculoides* occurs can be found in the wetlands on either side of the road berm.

Mapping (see instructions): Attach a copy of the USGS 7.5 minute quad with the location and extent of the rare plant population clearly drawn. Do not reduce or enlarge the photocopy or printout of the map. If your map is a different scale (not recommen-ded) please write the scale on the map.

Please answer the following:
1. I used GPS to map the population: No (skip to #2) Yes (complete #1 & #3)
Coordinates are in electronic file on diskette (preferred), or Coordinates written below or attached. Description of what coordinates represent:

GPS accuracy: Uncorrected Corrected to <5m
GPS datum: NAD 83 Zone 10
GPS coordinates: 573474E 5235930N
2. I used a topographic map to map the population:
Yes (complete #2) No (provide detailed directions & description above, and skip to #3)
I am confident I have accurately located and mapped the population at map scale:
Yes (skip to #3) No, but I am confident the population is within the general area indicated on the map as follows:
On the same map, use a highlighter to identify the outer boundary of the area where the population could be, given the uncertainties about your exact location.
3. I used the following features on the map to identify my location (stream, shoreline, bridge, road, cliff, etc.
To the best of my knowledge, I mapped the entire extent of this population
Yes No Unknown If no or unknown, explain: Difficult access – could be more in other hard to reach areas of wetlands.
Is a revisit needed? No Yes - if yes, why?:
Ownership (if known): Washington State Parks

Population Size (# of individuals or ramets) or estimate: Approximately 35 individuals

Population (EO) Data (include population vigor, microhabitat, phenology, etc.): Small patchy populations occurring in clumps. Fruiting individuals present, so possible successful reproduction occurring. Occurs in shallow stagnant water.

Plant Association: *Typha latifolia* wetland community type (Kunze, 1994)

Associated Species (include % cover by layer and by individual species for dominants in each layer):
Lichen/moss layer:

Herb layer: 60% RARE3, SODU, TYLA, PHAR

Shrub layer(s): 15% SPDO, Salix spp., LOIN

Tree layer: 15% ALRU2

General Description (include description of landscape, surrounding plant communities, land forms, land use, etc.): Stagnant shallow wetland – possibly manmade via dredging. Wetland is fed by high water-table from river floodplain. Heavy development around wetlands – roads, parking, picnic areas, buildings.

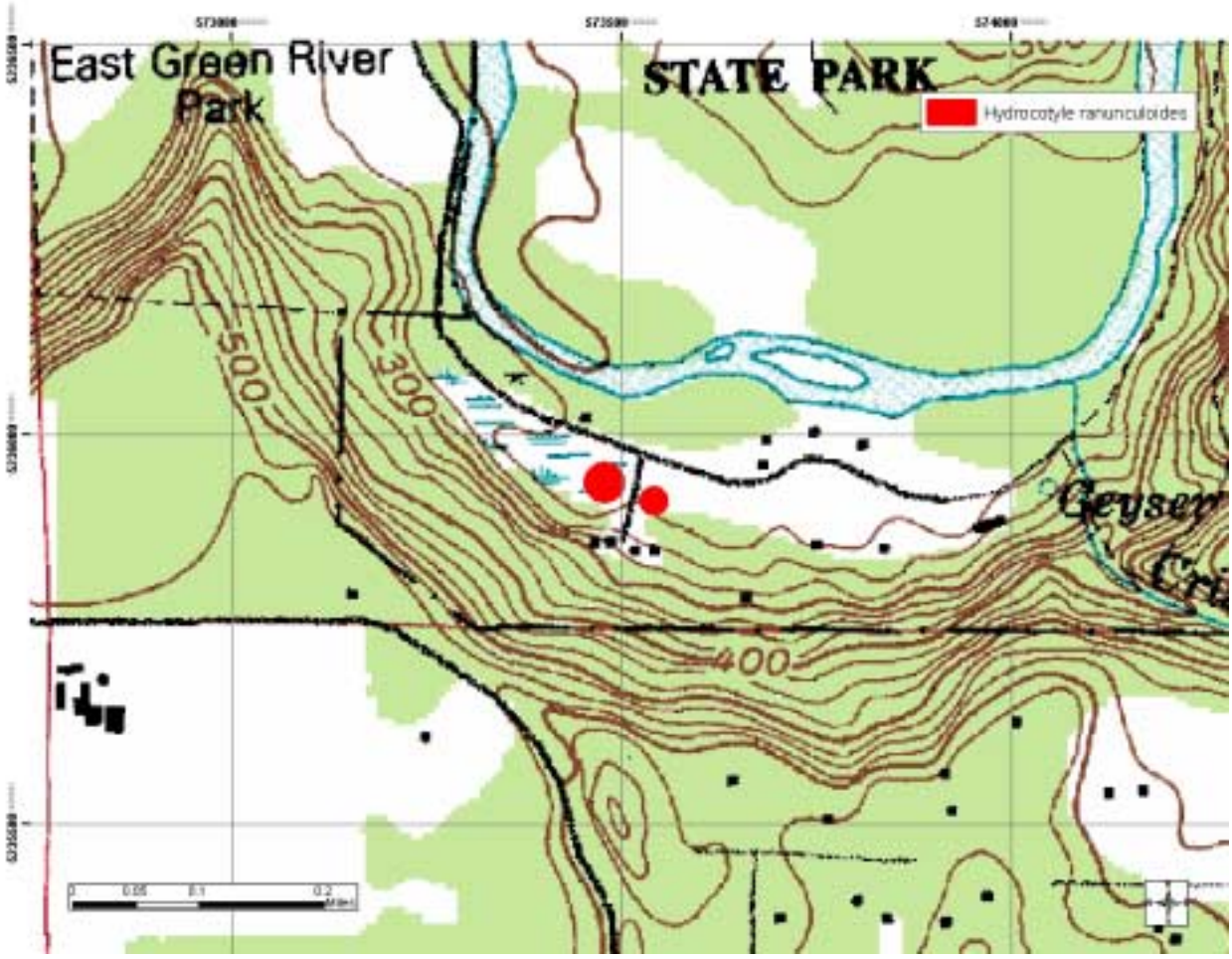
Elevation (ft.):482
Size (acres): 2 Aspect: 0 degrees Slope 0
Photo taken? Yes No

Management Comments (exotics, roads, shape/size, position in landscape, hydrology, adjacent land use, cumulative effects, etc.): Culvert effects water drainage from wetland, thus effecting wetland water levels. Road work or culvert development could dramatically alter wetland conditions if increased outflows occur. Heavy exotic cover occurring in wetland – PHAR, SODU, POSA4

Protection Comments (legal actions/steps/strategies needed to secure protection for the site): Site is already owned by WA State Parks. Prohibit herbicide spraying around wetlands. Monitor exotic species encroachment on HYRA populations. Cutting back of surrounding exotic species infestations may be necessary.

Additional Comments (discrepancies, general observations, etc.):

Please mail completed form with map:
WASHINGTON NATURAL HERITAGE PROGRAM
DEPARTMENT OF NATURAL RESOURCES
PO BOX 47014, OLYMPIA WA 98504-7014



Location of *Hydrocotyle ranunculoides*.