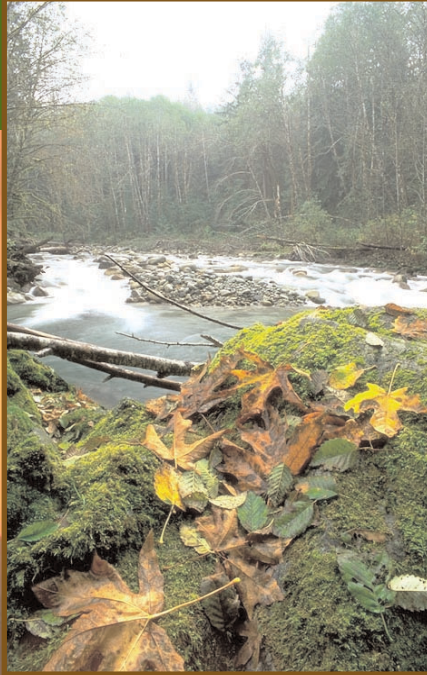


Willamette Valley–Puget Trough–Georgia Basin

ECOREGIONAL ASSESSMENT APPENDICES



MARCH 2004



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Appendix 1. Glossary

Aquaculture: the cultivation or farming of aquatic organisms such as fish and shellfish under captive conditions for purposes of human consumption.

Aquatic ecological systems: dynamic spatial assemblages of ecological communities that occur together in an aquatic landscape with similar geomorphological patterns, are tied together by similar ecological processes (e.g., hydrologic and nutrient regimes, access to floodplains and other lateral environments) or environmental gradients (e.g., temperature, chemical and habitat volume), and form a robust, cohesive and distinguishable unit on a hydrography map.

Assessment unit: the area-based polygon units used in the optimal site selection algorithm and attributed with the amount and quality of all targets located within them. These units are non-overlapping and cover the entire ecoregion. The assessment unit chosen for the WPG was a 750-hectare hexagon.

Automated portfolio: in the WPG, a data-driven portfolio created by the SITES algorithm operating on hexagonal assessment units (terrestrial and marine) or linear assessment units (marine only).

Base layer: a data layer in a GIS that all other layers are referenced to geometrically.

Biodiversity: the full range of natural variety and variability within and among organisms, and the ecological complexes in which they occur. This term encompasses multiple levels of organization, including genes, subspecies, species, communities, and ecological systems or ecosystems.

Cadastral: relating to landed property, usually including the dimensions and value of land parcels, used to record ownership.

Candidate species: plants and animals that the U.S. Fish and Wildlife Service believe should be considered for status review. A status review may conclude that the species should be added to the federal list of threatened and endangered species.

Coarse filter: refers to the communities or ecological systems, which if protected in sufficient quantity should conserve the vast majority of species in the ecoregion.

Conservation target: (see target)

Core team: the interdisciplinary group that is accountable for the completion of the ecoregional assessment project.

Cost: a component of the SITES algorithm that encourages SITES to minimize the area of the portfolio by assigning a penalty to factors that negatively affect biodiversity, such as proximity to roads and development. In the WPG assessment, a cost was assigned to each assessment unit in the ecoregion.

Crosswalk: a comparison of two different vegetation classification systems and resolving the differences between them to form a common standard.

Declining: species that have exhibited significant, long-term reduction in habitat/and or numbers, and are subject to continuing threats in the ecoregion.

Disjunct: disjunct species have populations that are geographically isolated from each other.

Ecological drainage unit (EDU): aggregates of watersheds that share ecological characteristics. These watersheds have similar climate, hydrologic regime, physiography, and zoogeographic history.

Ecological integrity: the probability of an ecological community or ecological system to persist at a given site is

partially a function of its integrity. The ecological integrity or viability of a community is governed primarily by three factors: demography of component species populations; internal processes and structures among these components; and intactness of landscape-level processes which sustain the community or system.

Ecological land unit (ELU): mapping units used in large-scale conservation assessment projects that are typically defined by two or more environmental variables such as elevation, geological type, and landform (e.g., cliff, valley bottom, summit). Biophysical or environmental analyses based on ELUs combined with land cover types and satellite imagery can be useful tools for predicting locations of communities or systems when field surveys are lacking.

Ecological system (see terrestrial ecological systems or aquatic ecological system)

Ecoregion: a relatively large area of land and water that contains geographically distinct assemblages of natural communities, with boundaries that are approximate. These communities share a large majority of their species, dynamics, and environmental conditions, and function together effectively as a conservation unit at global and continental scales.

Element occurrence (EO): a term originating from the methodology of the Natural Heritage Network that refers to a unit of land or water on which a population of a species or example of an ecological community occurs. For communities, these EOs represent a defined area that contains a characteristic species composition and structure.

Endangered species: any species which is in danger of extinction throughout all of its range; a species that is federally listed as Endangered by the U.S. Fish and Wildlife Service under the Endangered Species Act.

Endemic: species or communities that are largely restricted to an ecoregion (or small geographic area within an ecoregion), and depend entirely on this area for survival.

Extirpation: the extinction of a species or a group of organisms in a particular local area.

Fine filter: species of concern or rare communities that complement the coarse filter, helping to ensure that the coarse filter strategy adequately captures the range of viable, native species and ecological communities. Endangered or threatened, declining, vulnerable, wide-ranging, very rare, endemic, and keystone species are some potential fine filter targets.

Focal group: a collection of organisms related by taxonomic or functional similarities.

Fragmentation: the process by which habitats are increasingly subdivided into smaller units, resulting in increased insularity as well as losses of total habitat area.

Functional landscapes: large areas (usually greater than 1,000 acres [405 hectares]) where the natural ecological processes needed to conserve biodiversity can be maintained or potentially restored.

Functional network: a well-connected set of functional landscapes within an ecoregion or across multiple ecoregions.

GAP (National Gap Analysis Program): Gap analysis is a scientific method for identifying the degree to which native animal species and natural communities are represented in our present-day mix of conservation lands. Those species and communities not adequately represented in the existing network of conservation lands constitute conservation “gaps.” The purpose of the Gap Analysis Program (GAP) is to provide broad geographic information on the status of ordinary species (those not threatened with extinction or naturally rare) and their habitats in order to provide land managers, planners, scientists, and policy makers with the information they need to make better-informed decisions.

GAP status: the classification scheme or category that describes the relative degree of management or protection of specific geographic areas for the purpose of maintaining biodiversity. The goal is to assign each mapped land unit with categories of management or protection status, ranging from 1 (highest protection for maintenance of

biodiversity) to 4 (no or unknown amount of protection).

GIS (Geographic Information System): a computerized system of organizing and analyzing spatially-explicit data and information.

Global rank: an assessment of a biological element's relative imperilment and conservation status across its geographic distribution, ranging from G1 (critically imperiled) to G5 (secure). Assigned by the Natural Heritage Network, global ranks for species and communities are determined by the number of occurrences or total area of coverage (communities only), modified by other factors such as condition, historic trend in distribution or condition, vulnerability, and impacts (see Appendix 6 for more information).

Goal: in ecoregional assessments, a numerical value associated with a species or system that describes how many populations (for species targets) or how much area (for systems targets) the portfolio should include to represent each target, and how those target occurrences should be distributed across the ecoregion to better represent genetic diversity and hedge against local extirpations.

Ground truthing: assessing the accuracy of GIS data through field verification.

Historic species: species that were known to occupy an area, but most likely no longer exist in that area.

Impact: the combined concept of ecological stresses to a target and the sources of that stress to the target. Impacts are described in terms of severity and urgency.

Impacts assessment: for each conservation area in the portfolio, the overall impact to the area is ranked as High, Medium, or Low. The overall impact ranking is a gestalt ranking by the project team, taking into account the conservation targets in the area and the varied impacts to the targets.

Imperiled species: species that have a global rank of G1-G2 by Natural Heritage Programs/Conservation Data Centers. Regularly reviewed and updated by experts, these ranks take into account number of occurrences, quality and condition of occurrences, population size, range of distribution, impacts and protection status.

Integration: a portfolio assembly step whereby adjacent sites that contain high-quality occurrences of both nearshore marine and terrestrial targets are combined.

Limited target: a geographically restricted species or community that occurs in the ecoregion and within a few other adjacent ecoregions.

Linear communities or systems: occur as linear strips and are often ecotonal between terrestrial and aquatic systems. Similar to small patch communities, linear communities occur in specific conditions, and the aggregate of all linear communities comprises only a small percentage of the natural vegetation of the ecoregion.

Littoral cell: a geographic region of the coast, such as between two headlands, that is self-contained with respect to all sources and losses of beach sand.

Macrohabitats: units of streams and lakes that are similar with respect to their size, thermal, chemical, and hydrological regimes. Each macrohabitat type represents a different physical setting that correlates with patterns in freshwater biodiversity.

Matrix-forming systems or matrix communities: communities that form extensive and contiguous cover, occur on the most extensive landforms, and typically have wide ecological tolerances.

Minimum dynamic area: the smallest area necessary for a reserve or managed area to have a complete, natural disturbance regime in which discrete habitat patches may be colonized from other patches within the reserve.

Nearshore marine zone: the area of the marine environment extending from the supratidal area above the ordinary or mean high water line to the subtidal area. In the Willamette Valley-Puget Trough-Georgia Basin ecoregional

assessment, the nearshore marine area extends below to -40 meters, because beyond that depth data were less available. This also approximates the photic zone, or depth of macrophytes. The WPG consists of 1,509,733 ha of nearshore marine zone.

Non-vascular plant: in the WPG assessment, this term refers to lichens, moss and fungi.

Occurrence: spatially referenced locations of species, communities, or ecological systems. May be equivalent to Natural Heritage Program element occurrences, or may be more loosely defined locations delineated through the identification of areas by experts.

Partners in Flight: a cooperative program among U.S. federal, state, and local governments, philanthropic foundations, professional organizations, conservation groups, industry, the academic community, and private individuals, to foster conservation of migratory bird populations and their habitats in the Western hemisphere.

Peripheral: a species or community that only occurs near the edges of an ecoregion and is primarily located in other ecoregions.

Population: a group of individuals of a species living in a certain area that maintain some degree of reproductive isolation.

Portfolio: (see portfolio of sites)

Portfolio of sites: in the WPG assessment, the identified and delineated suite of priority conservation areas that are considered the highest priorities for conservation in the ecoregion.

Priority Conservation Area: areas of biodiversity concentration that contain target species, communities and ecological systems. Boundaries need to be refined during site conservation planning for adequate protection and to ensure supporting ecological processes are maintained for the targets within.

Quartile: any one of the four equal groups into which a statistical sample can be divided.

Reach: the length of a stream channel that is uniform with respect to discharge, depth, area and slope.

Seral: of, relating to, or constituting an ecological sere (a sere is a series of ecological communities formed in ecological succession).

Shoreline segments: nearshore marine elements of the integrated portfolio that are measured as linear features representing coarse filter targets.

SITES: software consisting of computerized algorithms specifically designed for The Nature Conservancy. SITES is an optimal site selection algorithm that selects conservation sites based on their biological value and suitability for conservation.

SITES goal: the goal adjusted for input to the SITES optimal site selection algorithm. SITES goals differed from goals (see “goal” definition) where there were not enough occurrences of a target in the ecoregion to meet the goal. In this case, the SITES goal was set to take all available occurrences in the ecoregion.

Small patch systems: communities or systems that form small discrete areas of vegetation cover and that are dependent upon specific local environmental conditions, such as hydric soil.

Special occurrences: in the WPG, all occurrences that were chosen in the final integrated portfolio that were not contained within a delineated conservation area or a marine shoreline segment.

Species aggregate: where multiple species are represented by a single target, as in the case of a multi-species shorebird colony target or a single species such as the American widgeon used, for example, in representing multiple species of dabbling ducks. Species aggregates were used most extensively in the marine analysis.

Subtidal area: the subtidal begins at approximately the mean lower low water line (zero feet elevation) to the –20 meter isobath. In the Willamette Valley-Puget Trough-Georgia Basin Ecoregional Assessment, the subtidal area extends into the deeper subtidal of –40 meters.

Suitability: the likelihood of successful conservation at a particular place relative to other places in the ecoregion. For the terrestrial portion of the WPG assessment, four GIS layers were used to construct the suitability index: GAP status, urban growth areas, landcover/land use, and roads.

Supratidal area: area above the mean high water line, such as the top of a bluff or the extent of a saltmarsh in the upper intertidal; the upper limit of the nearshore marine zone.

Target: also called conservation target. An element of biodiversity selected as a focus for the conservation assessment. The three principle types of targets are species, ecological communities, and ecological systems. Also see Species Aggregate.

Terrestrial ecological systems: dynamic spatial assemblages of ecological communities that 1) occur together on the landscape; 2) are tied together by similar ecological processes (e.g. fire, hydrology), underlying environmental features (e.g., soils, geology) or environmental gradients (e.g., elevation, hydrologically-related zones); and 3) form a robust, cohesive, and distinguishable unit on the ground. Ecological systems are characterized by both biotic and abiotic (environmental) components and can be terrestrial, aquatic, marine, or a combination of these.

Threatened species: any species that is likely to become an endangered species throughout all or a significant portion of its range; a species federally listed as Threatened by the U.S. Fish and Wildlife Service under the Endangered Species Act.

Umbrella species: species that by being protected, may also protect the habitat and populations of other species.

Urban Growth Area (UGA): an area designated, within which urban growth will be encouraged and outside of which growth can only occur if it is not urban in nature. Urban growth areas around cities are designated by the county in consultation with the cities; urban growth areas not associated with cities are designated by the county.

Viability: the ability of a species to persist for many generations or an ecological community or system to persist over some time period. Primarily used to refer to species in this document.

Vulnerable: vulnerable species are usually abundant, may or may not be declining, but some aspect of their life history makes them especially vulnerable (e.g., migratory concentration or rare/endemic habitat).

Widespread: a species or community typically found in the ecoregion, but common in several other ecoregions; the bulk of its distribution is elsewhere (or, the majority of the target occurrences exist in other ecoregions).

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PC= plant communities												
PS= plant and non-vascular plant species												
A= animal species												
F= freshwater species and systems												
M= marine species and systems												
O= general or non-specific contribution												

Appendix 3. Defining the Willamette Valley–Puget Trough–Georgia Basin Ecoregion

Ecoregions define areas of general similarity in ecosystems and in the type, quantity, and quality of environmental resources (Pater et al. 1998) (see Map 1.2 “Ecoregions of Western North America”). They serve as a useful spatial framework for research, assessment, management, and monitoring of ecosystems and ecosystem components (Bryce et al. 1999). Ecoregion boundaries are established using knowledge of regional-scaled patterns in climate, physiography, and biotic communities. Given the integrative character of ecoregions, defining their boundaries is interpretive science, and several interpretations exist for North American ecoregions (Bailey 1994, Omernik 1995).

In 1996, TNC adopted the U.S. Department of Agriculture Forest Service Province scale units, derived from Bailey (1994), to define ecoregions that TNC could use to develop a series of detailed conservation assessments in the United States. The Pacific Lowland Mixed Forest Province (Unit 242) defined, generally, the U.S. portion of the ecoregion assessed in this document.

Subsequent to Bailey’s work, a joint effort of the U.S. Environmental Protection Agency, the Natural Resource Conservation Service, the U.S. Forest Service, the Washington Department of Ecology and Department of Natural Resources, and The Nature Conservancy produced *Ecoregions of Western Washington and Oregon* (Pater et al. 1998). The map has a similar conceptual basis to Bailey's, but represents a significant improvement in the level of detail for defining landscape units and was very similar to the units defined by Omernik (1987). Within the U.S. portion of the Willamette Valley-Puget Trough-Georgia Basin (WPG) ecoregion, it was decided to adopt Omernik’s boundary because it was consistent with local knowledge of the ecoregion and because the boundary also proved more consistent with ecoregional boundaries most often utilized in British Columbia.

The northern portion of the ecoregion, the Georgia Basin, was defined using slightly modified boundaries of the Georgia Depression "ecoprovince," of Demarchi (1996). These boundaries coincide with the Eastern Vancouver Island, Georgia-Puget Basin, and Lower Mainland ecoregional units that were defined as part of *A National Ecological Framework for Canada* (Ecological Stratification Working Group 1995).

The WPG ecoregion is further split up into four sections (Table 1.1, Map 1.3). A description of each of these sections and what sets each apart from the other sections in the ecoregion is discussed below.

Table 1.1. Ecoregion and Section Area Measures

Section	Hectares (Acres)	% of Ecoregion
Willamette Valley	1,047,600 (2,588,575)	19
Lower Columbia	642, 200(1,586, 927)	12
Puget Trough	1,918,700 (4,741,137)	35
Georgia Basin	1,942,100 (4,798,942)	35
TOTAL	5,550,600 (13,715,581)	100

Willamette Valley Section

The Willamette Valley Section is characterized by pre-European dominance in the landscape of prairies, oak savanna, and open woodlands. The climate is moderate in terms of precipitation and is warmer, especially in summer, than the other sections. Fluvial terrace and floodplain landforms of relatively recent origin predominate in the relatively flat valley bottom. Residual soils predominate on the foothills that surround the valley bottom. Historic vegetation was mostly a mosaic of dry and wet prairies, riparian floodplain forests, oak savannas, woodlands dominated by tall shrubs with scattered oaks and Douglas fir

(shrub barrens ecological system), and dry evergreen forest and woodland. This mosaic was controlled and maintained by indigenous burning practices, with fire frequency presumably controlling vegetation type. The Douglas-fir western hemlock-western redcedar forest system that dominates the three sections to the north is only common around the perimeter of the section where precipitation and elevation is somewhat greater. The large Willamette River flows through the valley bottom for the length of the section. The boundary between this section and the Lower Columbia section is the line at which the historic landscape pattern changed from forest-dominated to prairie/savanna/woodland-dominated.

Lower Columbia Section

The Lower Columbia Section is characterized by extensive pre-European conifer forest on old, well-weathered soils and more recent alluvial deposits associated with Pleistocene floods. This section includes ancient residual soils and ancient glacial drift in the north where landforms are flat to very hilly, and Pleistocene era fluvial deposits, the result of the Ice Age Floods, in the Portland Basin area of the south where landforms tend to be less hilly. Most of the soils are relatively fine-textured. While the historic landscape was dominated by forest, it also had significant well-distributed areas of wet and dry prairie, oak woodland, and abundant wetlands however bogs and fens become relatively rare this far south). Dry evergreen forest and woodland is rare to uncommon in the northern portion of the section and common in the Portland Basin. A short section of the massive Columbia River flows through the Portland Basin. The climate is relatively moderate by ecoregion-wide standards, except that the Portland Basin is frequently affected by hot or cold winds blowing out of the Columbia River Plateau to the east. This section was distinguished from the Puget Trough section by the southern limit of recent (Vashon stade) continental glaciation and associated outwash deposits.

Puget Trough Section

The Puget Trough Section is characterized by rolling to level plains of glacial drift deposited by recent continental glaciation. Most of the soils are relatively coarse-textured. Steep slopes (often with finer-textured soils) are found around Puget Sound marine shorelines and where streams and rivers dissect the glacial plain. This section has a moderate to relatively wet climate for this ecoregion. The vegetation is typified by the Douglas fir-western hemlock-western redcedar forest ecological system, with relatively small patches of dry evergreen forest and woodland mainly associated with localized prairie landscapes. Prairies and oak woodlands were historically common in a local areas with of coarse outwash around southern Puget Sound, and relatively rare to uncommon elsewhere. Wetlands (including bogs and fens) and lakes are very frequent because of the glacial landscape. The northeastern portion of this section has several extensive riverine bottomlands that are now prime agricultural land. Extensive marine shorelines tend to have better development of intertidal marshes and other estuarine communities than the Georgia Basin section. Annual precipitation primarily, and landforms secondarily, were used to distinguish between this section and the Georgia Basin.

Georgia Basin Section

The Georgia Basin Section is characterized by a dry, rainshadow climate and surficial geology that contains extensive areas of bedrock that was overrun by glaciers. Many of the soils are relatively shallow. This combination of climate and geology supports relatively dry-site vegetation and so there are relatively large amounts of dry evergreen forest and woodland, as well as many herbaceous balds and bluffs in this section. Oak woodlands were historically common (now less so) as small patches and prairies were once present in some areas though are now functionally extirpated. The landforms are more varied, hilly, and steep here than in the more southern sections and a few small hill tops extend up to montane elevations. Glacial drift deposits are also prominent in many some areas. Riverine floodplains tend to be relatively narrow and rivers not as large as in other sections. Extensive marine shorelines are included in this section. Intertidal marshes are relatively uncommon in this section in comparison to the Puget Trough section and rocky shorelines are more common.

Characteristics of the Ecoregion

Ecoregion boundaries are established using knowledge of regional-scaled patterns in climate, physiography (geology and soils), and biotic communities. Each of these components is described below.

Climate

The ecoregion has a Mediterranean-like warm maritime climate, with warm, dry summers followed by wet winters. Precipitation throughout the ecoregion is variably effected by the rain shadow produced by coastal mountain ranges. Overall, this is the driest ecoregion west of the Cascade Crest and north of southern Oregon, a larger region that is known for its abundant precipitation.

The mean annual temperature for this ecoregion varies between 11.8 °C in Eugene, Oregon to 9.8 °C in Vancouver, British Columbia (Table 1.2) though is undoubtedly lower at more northerly locations like Campbell River, B.C. and at higher elevations. The growing season lasts 140-240 days. Precipitation primarily occurs as rain between October and June, ranging from a low of about 50 cm annually in the extreme rainshadow of the Olympic Mountains to a high of about 230 cm in southwestern Mason County, Washington. Average annual precipitation from the major cities (91-111 cm) is fairly typical of much of the ecoregion.

Table 1.2. Climate Data Depicting Average Weather Conditions Along the North-South Axis of the Ecoregion.

City	Average Temp C (F)	Average Max Temp C (F)	Average Min Temp C (F)	Average Total Precipitation cm (in)	Average Total Snowfall cm (in)
Vancouver	9.8 (49.6)	13.6 (56.5)	6 (42.8)	110.7 (43.6)	47 (18.5)
Seattle	11.1 (52.0)	15.2 (59.3)	6.7 (44.1)	97.2 (38.27)	29.7 (11.7)
Portland	11.7 (53.1)	16.8 (62.3)	6.9 (44.5)	94.4 (37.16)	16.8 (6.6)
Eugene	11.8 (53.3)	17.7 (63.8)	5.0 (42.0)	91.3 (35.96)	14.7 (5.8)

Physiography: Geology and Soils

The northern two thirds of the ecoregion was glaciated, with rolling topography of glacial till and outwash overlying bedrock at depths up to 2,000 ft. (610 m). Sharp crests and narrow valleys are common along the margins of the ecoregion, especially on Vancouver Island. The San Juan and Gulf islands were scoured by glaciers, leaving exposed sedimentary rocks at the surface. Throughout the ecoregion, marine deposits of Tertiary age are exposed at the surface. The Willamette Valley floor is a series of floodplain terraces and low rolling hills, many resulting from the Pleistocene or Holocene (i.e., Ice Age) flood events. In some areas throughout the ecoregion, flood-derived silts reach a depth of 100 ft. (30m). Productive soils and temperate climate have made this ecoregion important for agriculture, especially in the Willamette Valley. Soils vary from coarse-textured gravelly sands that are excessively drained to moderately well drained with underlying clays. There are also extensive fine-textured and poorly drained clays and silts. South of glaciated areas, well-weathered soils have developed on old erosional surfaces.

Biotic Communities

Biotic communities include terrestrial ecological systems as well as wetland, freshwater, and marine ecological systems. Each is briefly described below.

Terrestrial Ecological Systems

Over the past several thousand years, uplands throughout the northern $\frac{3}{4}$ of the ecoregion have been dominated by conifer forests; with oak woodlands, savanna, and grassland becoming dominant to the south. Douglas-fir (*Pseudotsuga menziesii*) dominates the vast majority of conifer forests except in wetlands, and is often mixed with western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), or grand fir

(*Abies grandis*), especially on less dry sites or climatic areas. Deciduous forests of big-leaf maple (*Acer macrophylla*) and red alder (*Alnus rubra*), and are found in more disturbance-prone, moist sites. Herbaceous “balds” are common on exposed bedrock outcrops with thin soils and sunny exposures. Oregon white oak (*Quercus garryana*), along with madrone (*Arbutus menziesii*), is common on dry sites from southern Vancouver Island south. Oak becomes more widespread in the Willamette Valley where it occupies more moist sites as well. Floristically diverse grasslands with Roemer’s fescue (*Festuca roemeri*) and California oatgrass (*Danthonia californica*) were historically dominant on open plains where wildfire passed frequently. Native American use of fire likely maintained or augmented historic grassland extent (Cooper 1994, Norton 1979).

A number of terrestrial animal species have shown significant declines in the ecoregion over the past 100 years, presumably related to increased human development. They include amphibians endemic to the northwest such as the tailed frog (*Ascaphus truei*) and Cope’s giant salamander (*Dicamptodon copei*), birds like marbled murrelets (*Brachyramphus marmorata*) and northern goshawks (*Accipiter gentilis*), invertebrates including Edith’s checkerspot butterfly (*Euphydryas editha taylori*) and the Oregon giant earthworm (*Driloleirus macelfreshi*), mammals like the western gray squirrel (*Sciurus griseus*) and reptiles such as the northwestern pond turtle (*Clemmys Marmorata marmorata*). Though populations of declining animals may still persist in many areas, their long-term viability is called into question as these populations become more isolated from each other by continued development.

Wetland, Freshwater and Marine Ecological Systems

Diverse depressional wetlands support conifer forest, broadleaf forest and shrubland, fens and bogs, marshes and vernal pools. River floodplains support forest and shrubland of ash, cottonwood, willow, red alder, and maple. Extensive inter-tidal salt marsh characterizes major river deltas. Tidally influenced freshwater wetlands occur along the Columbia River and on the lower portions of some smaller rivers entering Puget Sound. Extensive wet prairies were historically characteristic of the Willamette Valley on moderate-poorly drained soils. They were likely maintained both by water table fluctuation and wildfire. Freshwater aquatic ecosystems primarily occur as rivers of variable size and gradient. Most rivers within the ecoregion are moderate to large, being located low in the watersheds that drain surrounding mountain ranges.

The marine waters of the WPG consist of three natural basins that formed nearly 150 million years ago as colliding continental plates formed the Georgia Depression, or Georgia Basin. To the north lies the long (220 km), broad (25-55 km), and deep Strait of Georgia. To the south, the Puget Sound. The sound is shorter, not as deep, and subdivided into numerous channels and bays. Connecting these two basins with the Pacific Ocean to the west is the open Strait of Juan de Fuca, whose western end connects with the Pacific Ocean. These basins contain a wide variety of habitats include coastal lagoons, kelp and sea-grass beds, rocky shores, sand beaches and spits, and salt marsh.

Characterized as an inland sea, the Georgia Basin is an estuary of global significance. Here the marine waters from the Pacific are diluted by thousands of rivers, large and small. These rivers originate high in the surrounding glaciated mountain ranges of the Cascades, Olympics, and Vancouver Island. About ¾ of the freshwater entering the Georgia Basin comes from the Fraser River in southern British Columbia and the Skagit River in northwest Washington.

Land Use and Population

An influential man-made feature of the WPG ecoregion is Interstate Highway 5 that extends from the southern portion of the Willamette Valley through the Puget Sound region of Washington to the Canadian Border. As I-5 crosses into British Columbia it becomes Route 99 and proceeds northward through Vancouver. This major transportation corridor has facilitated the conversion of landscapes from rural land uses, i.e., forestry and agriculture, to urban and suburban land uses, i.e., residential and commercial. Currently 60 % of lands in the ecoregion are considered in some type of natural land cover (e.g. forest), 25 % is in agriculture production, and 15 % is in residential or urban development (Table 1.3).

Table 1.3. Land Cover Summary for the Willamette Valley-Puget Trough-Georgia Basin Ecoregion.

Hectares					
Section	Water	Natural	Urban	Agriculture	Sum
Georgia Basin	1,179,392	602,111	106,069	51,680	1,939,251
Puget Trough	355,380	995,589	334,933	232,799	1,918,701
Willamette Valley	12,522	409,569	47,479	578,014	1,047,584
Lower Columbia	23,608	345,576	82,525	190,511	642,219
Total	1,570,902	2,352,845	571,006	1,053,003	5,547,755
Acres					
Section	Water	Natural	Urban	Agriculture	Sum
Georgia Basin	2,914,336	1,487,845	262,102	127,703	4,791,987
Puget Trough	878,162	2,460,151	827,636	575,257	4,741,206
Willamette Valley	30,943	1,012,065	117,323	1,428,302	2,588,632
Lower Columbia	58,336	853,935	203,923	470,762	1,586,956
Total	3,881,777	5,813,997	1,410,983	2,602,023	13,708,780

A more telling statistic and one that specifically begins to characterize the current condition of the ecoregion is the change in the population that has occurred over the past century. Oregon had a total population of just over 400,000 at the turn of the century. Today Oregon's population has increased over 800% to over 3.4 million. Sixty-seven percent of Oregon's population resides within the Willamette Valley portion of the ecoregion (Risser et al. 2000).

Washington's population was approximately 520,000 in the year 1900. In 2000, the population increased to 5.9 million, more than an 1100% increase. The Washington portion of the ecoregion contains 74.2 % of the states overall population (US Census Bureau 2000).

British Columbia has seen the most significant increase in total population. At the turn of the century British Columbia had significantly less people than both Washington and Oregon. A 2300% increase in population has seen the province grow from 178,000 to 4.1 million people. Nearly 73% of the people residing in British Columbia reside within the WPG Ecoregion (StatCan 2002).

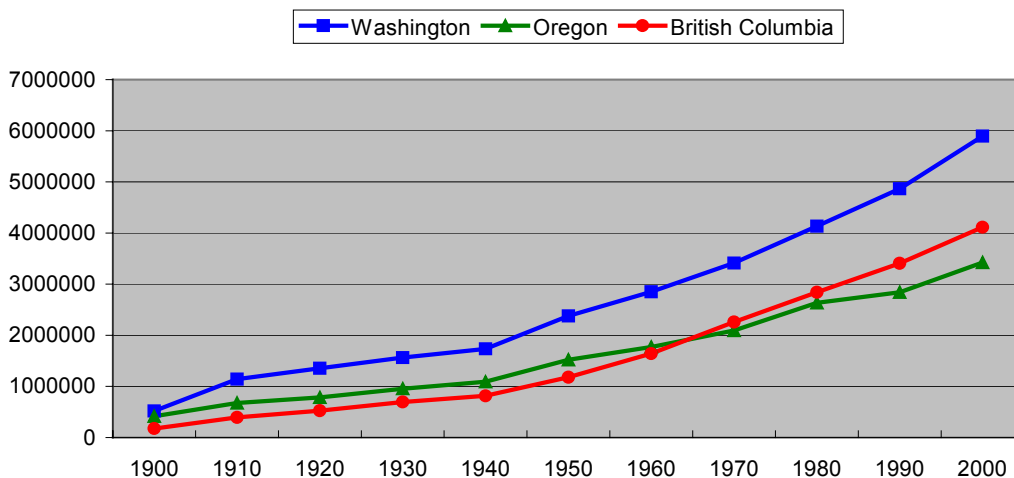


Figure 1.1. Population trends in Oregon, Washington, and British Columbia.

Ecosystems are dynamic and change at varying rates, with short-term cycles and long-term trajectories. In many places, however, Euro-American land use has abruptly altered the cycles and trajectories and has had

an obvious impact on native biodiversity. This is most evident in the Willamette Valley-Puget Trough-Georgia Basin with regard to fire regimes and the removal of relatively frequent, often human-ignited (Native American) fires from the landscape.

Ownership for the ecoregion is shown in Maps 1.4a and 1.4b.

Protected Status Classifications

Planning for conservation at a regional or large landscape scale requires comparing how much protection different land use jurisdictions provide for their species and natural processes. Biodiversity Management Status Categories (BMSC) or GAP codes were developed by the United States Geological Survey and have been used by governmental and non-governmental organizations to provide broad geographic information on the current protected status of a given land use jurisdiction. The BMSC are also called Gap Codes because they are used to identify gaps between land areas that are rich in biodiversity and areas that are managed for conservation. Gap code definitions are found in Table 1.4 and the area in hectares for GAP code classifications is shown in Table 1.5. Map 1.5 shows distribution of GAP code classifications in the ecoregion.

Table 1.4. Gap Analysis Program (GAP) Code Definitions

Code	Definition
Gap 1	An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, intensity, and legacy) are allowed to proceed without interference or are mimicked through management. Examples: National Parks, Nature Preserves, Wilderness Areas.
Gap 2	An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive uses or management practices that degrade the quality of existing natural communities, including suppression of natural disturbance. Example: State Parks, National Wildlife Refuges, National Recreation Areas.
Gap 3	An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type (e.g., logging) or localized intense type (e.g., mining). It also confers protection to federally listed endangered and threatened species throughout the area. Examples: National Forests, most Bureau of Land Management Land, Wildlife Management Areas.
Gap 4	There are no known public or private institutional mandates or legally recognized easements or deed restrictions held by the managing entity to prevent conversion of natural habitat types to anthropogenic habitat types. The area generally allows conversion to unnatural land cover throughout.
Gap 5	This is not a standard status category. This code is used to classify open bodies of water (e.g., lakes, ponds, reservoirs) for which protection is "unknown." ¹

¹ (Cassidy et al. 1997, Kagan et al. 1999)

² From <http://www.y2y.net/landuse/codes.asp>

The following show Gap Codes for all the sections in the ecoregion.

Table 1.5. GAP Code Areas for Sections of Willamette Valley-Puget Trough-Georgia Basin Ecoregion

(in hectares)	Lower Columbia	Willamette Valley	Puget Trough	Georgia Basin	TOTAL
Gap 1	710	1,430	14,770	38,140	55,070
Gap 2	11,620	9,940	25,460	16,710	63,730
Gap 3	10,990	39,980	167,090	51,050	269,110
Gap 4	618,900	996,220	1,472,520	678,510	3,766,150
Gap 5?	0	0	238,860	1,157,700	1,396,550
TOTAL	642,210	1,047,580	1,918,710	1,942,100	5,550,600

¹ From <http://www.y2y.net/landuse/codes.asp>

Appendix 4. Explanation of the SITES Model

Adapted from *SPOT: The Spatial Portfolio Optimization Tool, User Guide*. Dan Shoutis 2003. SPOT is a successor to the SITES model, and is being developed by The Nature Conservancy, using the same algorithm for selection.

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1. Overview

1.1 Introduction

The Spatial Portfolio Optimization Tool (SITES) is a generalized tool for conservation portfolio selection, using a flexible approach to automatically design an efficient portfolio around specified conservation goals.

About this documentation:

This guide is intended to explain the methodology behind the SITES model and the assumptions necessary for its application. To learn the application of the SITES model refer to the documentation that accompanies the application. To learn more about simulated annealing refer to the bibliography at the end of this appendix.

1.2 How it works

SITES analyzes a region by dividing it into small parcels called analysis units, then forming a portfolio by marking individual units as included or excluded from a portfolio.

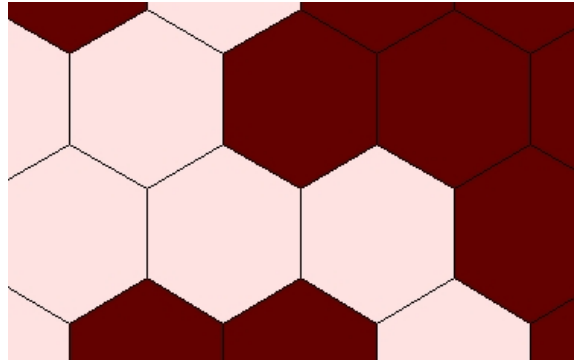


Figure 1.1: Detail of hexagonal analysis units in a SITES portfolio; dark units are in the portfolio and light units were not included.

Analysis unit: Analysis units form the portfolio; they are small areas that are marked as in or out to create a portfolio.

During a process known as simulated annealing, SITES forms and analyzes millions of portfolios while searching for the most efficient portfolio. Each is evaluated according to three criteria:

- How well it meets conservation goals
- The area included
- The fragmentation of the portfolio
- The portfolio that does the best job of minimizing the area and fragmentation while meeting conservation goals is considered the most optimal, and is output as the final result.

Simulated annealing: A general technique for finding the lowest value of a function through many trial runs and repeated adjustment to input values.

1.3 Limitations

- SITES is prone, just as any other automated tool, to the “Garbage In – Garbage Out” syndrome. Any results will only be as good as the input datasets. Additionally, although SITES is very flexible, the final portfolios it produces will be the best according only to its internal criteria, which may differ from what planners have in mind.
- SITES creates and evaluates an entire portfolio at a time, which means that it never makes a decision about any individual area. Thus, there is no information available as to why specific areas were included or excluded from resulting portfolio.
- Although SITES’s algorithm is statistically likely to find the most efficient portfolio given enough iterations, just how many iterations are necessary is variable and can change drastically with the nature of the region. Some experimentation will prove necessary.
- SITES’s portfolio assembly algorithm is not deterministic. Running the tool multiple times on the exact same data will produce many, slightly differing, result portfolios. To overcome this limitation, planners should be performing many runs on the same data to ensure that SITES is giving comparable results for each.

2. Methodology: The SITES Cost Function

2.1 Overview

SITES attempts to assemble a portfolio with the minimal possible value of a cost function that encapsulates desirable characteristics for an ecoregional plan. The SITES cost function is derived from the following goals for a portfolio:

- The portfolio should minimize the area required to adequately represent targets.
- The portfolio should meet conservation target goals set for the region.
- Fragmentation should be avoided; when choosing between a scattered area and a contiguous one with similar representation and size, the contiguous one is preferable.

Cost function: The cost function for SITES calculates a single cost value for a given portfolio that represents its effectiveness.

In order to search for a portfolio that meets these principles, the region is first broken into small units known as analysis units. SITES forms a portfolio by marking analysis units as included from the portfolio by marking analysis units as included or excluded from the portfolio. Conservation goals are specified on a per-target basis, and each unit is attributed with the amounts of each target that it contains. To take into account the three principles, the cost function is a sum of:

- A base cost for each analysis unit included in the portfolio. This will increase the value of the cost function as more analysis units are added, encouraging SITES to find solutions that use less units.
- A shortfall cost, penalizing the portfolio for failures to meet goals. Every unmet target will increase the cost function's value.
- A boundary cost the boundary of the portfolio. The way SITES measures a portfolio's fragmentation is by the length of its boundary, and longer boundaries mean a higher value of the cost function.

More formally:

$$\text{cost}(x) = \text{base}(x) + \text{boundary}(x) + \text{short fall}(x)$$

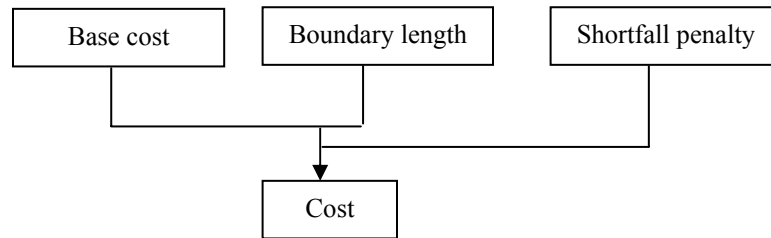


Figure 2.1: The cost function

Base cost: A component of the SITES cost function that encourages SITES to minimize the area of the portfolio. It is the sum of the cost specified for each analysis unit included in the portfolio.

Boundary cost: A component of the SITES cost function, aimed toward minimizing a portfolio's fragmentation by minimizing the length of its boundary.

Shortfall cost: A component of the SITES cost function that penalizes portfolios that don't meet conservation goals

2.2 Analysis units

Analysis units can be arbitrarily shaped and sized, depending on the needs of planners. In The Nature Conservancy's ecoregional plans, small hexagons have been used most often.

The prime consideration when choosing analysis units is size:

- If the units are too small, there will be so many of them that portfolio assembly will be unacceptably slow or fail to produce a robust answer.
- If the units are too large, the analysis will be too coarse and fail to adequately represent reality.

It is important to remember that everything in SITES is based around analysis units: target distributions or other spatial information, no matter how fine-grained, is rounded up to the nearest analysis unit, much like information in digital images is rounded up to the nearest pixel. See figure 2.5 for an example.

Analysis units consist of:

- An ID
- A base cost

When a unit is included in the portfolio, its cost is added to the total value of the cost function. This cost can represent simple area, or planners can use more sophisticated values to make some

units preferred over others. Often, measures of GIS suitability are integrated into the basic unit cost.

The total base cost is thus:

n

$$Base(x) = \sum_{k=1}^n BaseCost_k \quad (2.2)$$

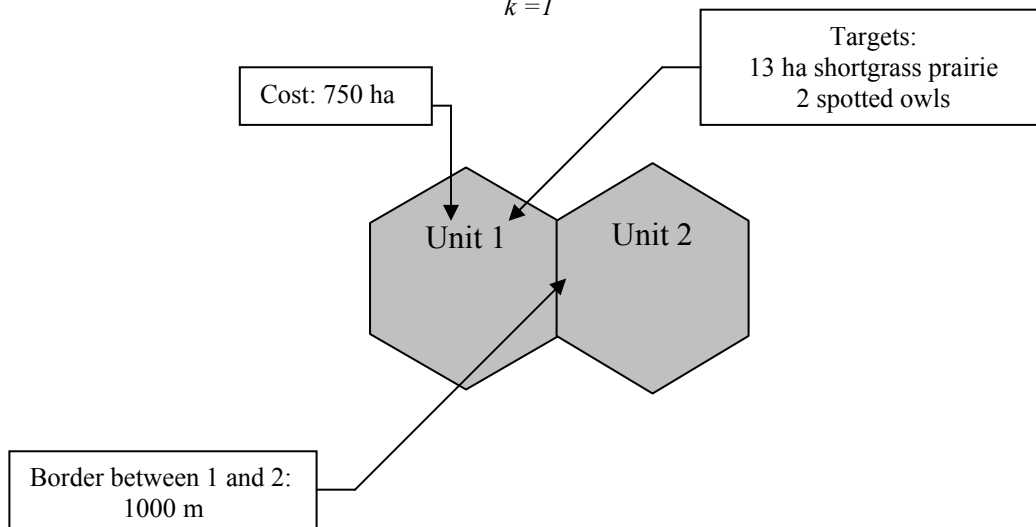


Figure 2.2: Analysis units, boundary information, and target distribution information for each unit k included in the portfolio.

2.3 Targets and goals

SITES represents planners' goals by a list of targets, each representing a separate biological value that needs to be preserved. A target consists of:

- A numeric ID
- A name
- A goal
- A penalty factor
- A minimum representative area

Target: a biological feature with a conservation goal that SITES attempts to meet during assembly.

For example, if a portfolio goal is to preserve at least 10,000 ha of a shortgrass prairie system type, then typical settings in SITES's target table might be an ID of 1001, a name of "prairie", a goal of 10,000, a penalty factor of 1.0 and a minimum representative area of 0 ha.

Minimum area: The minimum contiguous amount of a target required for it to contribute to a conservation goal.

SITES will attempt to find portfolios that contain enough of a target to meet its goal. Portfolios that cannot fully represent a target will be penalized with a shortfall cost. (This calculation is discussed in more detail in Section 2.7.)

The minimum area requirement prevents SITES from counting an occurrence of a target unless its contiguous size is greater than the specified amount. For example, if the type of prairie in the above sample target is only viable in occurrences of 1,000 ha or greater, then a minimum area requirement of 1,000 ha will force SITES to collect connected analysis units that represent more than this amount before they can contribute to this target's goal. See Section 2.6 for more information on how this is calculated.

Target patch: An occurrence of a target that can spread over several neighboring analysis units.

SITES also allows planners to give a target a variable degree of impact on the portfolio via the penalty factor. Any shortfall penalties generated by a target are multiplied by this factor before being added to the total portfolio cost, so planners can weigh individual targets appropriately.

Penalty factor: Sets the importance of representing a target, relative to other targets and the base and boundary costs.

It is important to note that this weighting is relative to both the overall base and boundary components of the total cost, as well as other targets. (See Section 3.5.2.)

2.4 Target distribution

SITES uses a table of target distributions to represent the spread of a target through a region, identifying each analysis unit with the targets that occur there and the amount of each:

- The analysis unit ID
- The target ID
- The amount of the target contained within the analysis unit

For the target distribution (with 1=Spotted Owl and 2=Shortgrass Prairie) given in Figure 2.2, SITES's target distribution table will look like:

Target ID	Unit ID	Amount
1	1	13
2	1	2

The portfolio boundary

In order to discourage portfolio fragmentation, SITES takes into account the portfolio's perimeter. (A fragmented portfolio will have a much longer boundary than a well-connected portfolio.) SITES represents boundaries with a table that contains the spatial relationship between neighboring analysis units.

Boundaries consist of:

- Two neighboring analysis unit Ids
- The length of the boundary shared between the units

To calculate the length of the portfolio boundary, SITES looks at every boundary between two units. If both units are in the portfolio, then that boundary is interior to the portfolio and not exposed. If one unit is in the portfolio, and the other out, the boundary is exposed and the indicated length is added to the total. Figure 2.3 illustrates the process.

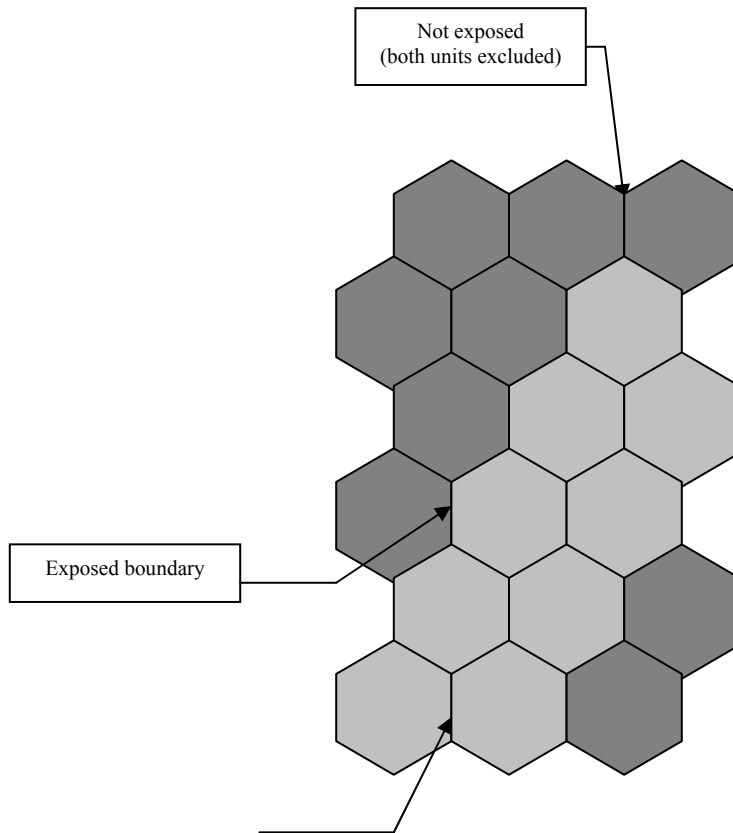


Figure 2.3: Finding exposed boundaries to calculate the boundary length of the portfolio.

Additionally, a unit can be specified as having a boundary with itself, which is useful for units that will always have a boundary when included in the portfolio (e.g., a unit at the edge of the region). Before combining the calculated boundary length with the rest of the cost function, it is multiplied by a coefficient called the boundary length modifier, or the BLM.

Boundary length modifier: A multiplier that converts and scales the boundary length of a portfolio before adding it to that portfolio's cost.

2.4.1 The boundary length modifier

Before the boundary length of a portfolio is added to the SITES cost function (as the boundary cost), it is scaled by a factor called the boundary length modifier (BLM). The BLM serves several purposes, and is thus somewhat confusing.

- To specify the relative importance of fragmentation in the cost function. Smaller values will make fragmentation less important than meeting goals and minimizing area.
- To convert units. If the base analysis unit cost is specified as hectares (or even more confusingly, GIS Suitability indexes), and boundary length as kilometers, the BLM must serve the purpose of converting the boundary into comparable units.
- To make “area” and “length” comparable. The least fragmented shape possible is a circle, and the area to circumference ratio can serve as a guide for this. Because of the many conflicting factors inherent in the BLM, the best way to arrive at a good number is via experimentation.

The boundary portion of the cost function is:

$$Boundary(x) = (BLM)(\sum_{k=1}^n boundary_k) \quad (2.2)$$

for every exposed boundary k .

2.5 Target representation

SITES calculates the representation of a target in a portfolio in the following way:
If the target has no minimum representation requirements:

- For every unit that is marked as being in the portfolio and contains the target, the amount is added to come up with a total. If the target has a minimum representation, SITES uses the following procedure to take into account the size of target patches before adding them to the total representation (Figures 2.4 and 2.5 illustrate this process):
- SITES begins by finding a unit that is in the portfolio with the target present.
- SITES adds the amount to a temporary running total.
- For every unit that: shares a boundary with the current unit, is in the portfolio, contains some of the target, and has not already been examined; SITES adds the amount to the running total.
- SITES then repeats the process with the neighbors' neighbors, then those units' neighbors, and so on, until it runs out of connected units that contain the target.
- If the running total of this connected patch is greater than the target's minimum area requirement, then SITES adds it to the target representation amount. Otherwise, it is dropped.
- SITES continues finding patches in the way described above until the entire portfolio has been examined.

It is important to note that the accuracy of this procedure depends to a large extent on analysis unit size: If two neighboring units have presence records for the same target, it is assumed that they are part of a larger presence that covers both. This may not be the case, since neighboring units may have two independent occurrences that will be erroneously added together during the minimum area assessment (Figure 2.5). One way to avoid this pitfall is to drop all occurrences that fall below the minimum area (such as the small patch in unit 6 in the figure) as a preprocessing step, before entering them into SITES's target distribution table.

SITES uses the target representation to calculate a shortfall penalty, as well as to report back to planners on goal performance.

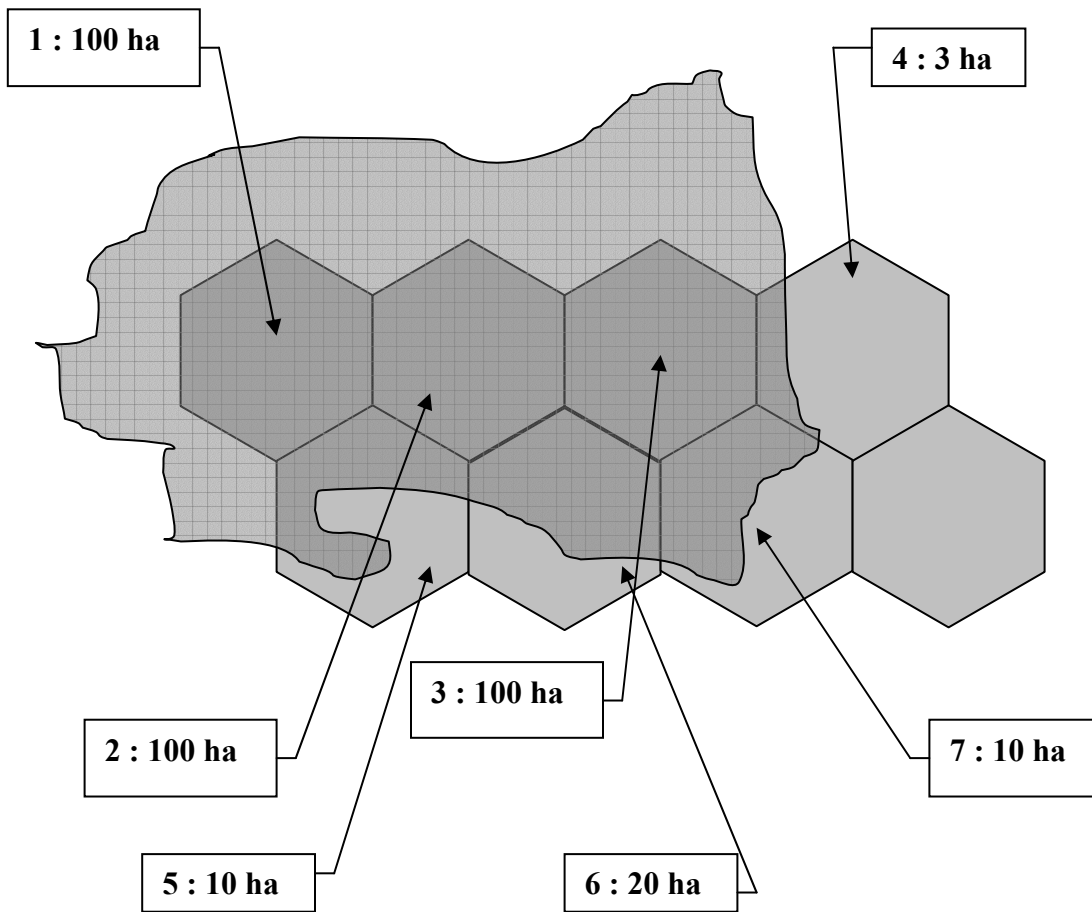


Figure 2.4: Minimum Representation in action: The distribution of a target with minimum representation. If the minimum representation for this target was 110 ha, then a portfolio that included units 1 and 2 would meet the requirement and contribute 200 ha toward the goal. A portfolio that included only units 1 and 6 would not have a connected target presence sufficient to meet the representation requirement, and so there nothing would be contributed toward the target goal.

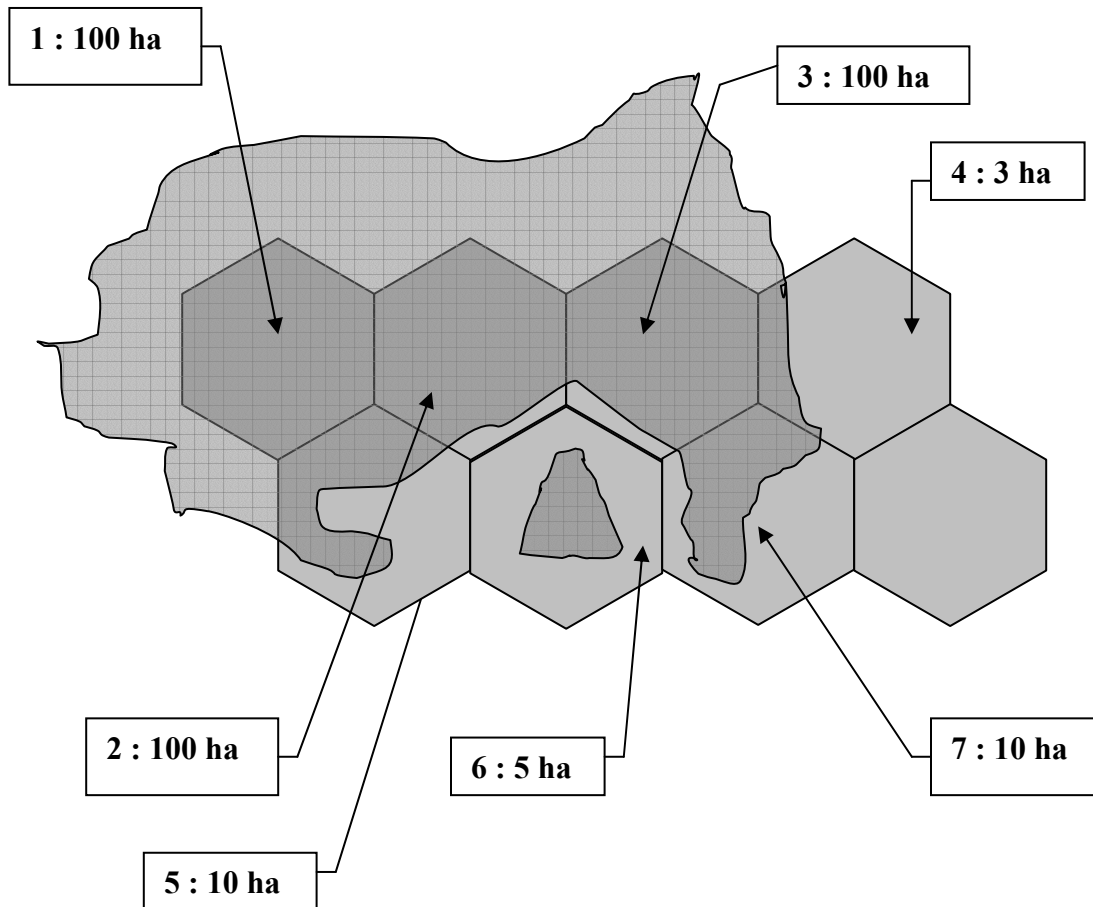


Figure 2.5: Issues with minimum representation and analysis unit size: With a minimum representation requirement of 110, a portfolio that includes units 1, 5, and 6 will meet the minimum necessary area. Even though the actual target distribution is not connected, SITES will assume that the 5 ha in unit 6 are connected to those in 5 and 1 because the analysis units are touching.

Shortfall penalties

In order to calculate a penalty for portfolios that fail to represent targets, SITES first pre-calculates an initial penalty amount for each target, designed so that the penalty imposed for a shortfall approximates, and is slightly greater than, the cost required (in terms of base cost + boundary length) to fully represent the target. Appendix B describes this in more detail.

The practical effect of this is that the cost of making up a shortfall will be slightly less than the penalty imposed by the shortfall; this way the simulated annealing process will favor portfolios with more complete target representation.

Each penalty is calculated in an initial phase where SITES builds a mini-portfolio for each target. The cost of this mini-portfolio, which is a good approximation of the cost to fully represent the target, is then stored as a penalty cost. Shortfall penalties are calculated by multiplying this cost by the proportion of any shortfall, as well as a target's penalty factor.

$$\text{Shortfall Penalty} = (\text{Penalty Factor}) \left(\frac{\text{Shortfall Amount}}{\text{Goal Amount}} \right) (\text{Penalty Cost}) \quad (2.4)$$

For example, if a goal is 90% met, the penalty cost will be 10% of the calculated amount to represent the full target. Additionally, a target's penalty factor is multiplied by the initial shortfall cost to arrive at a final shortfall penalty for that target.

2.6 Example cost function

This section ties everything together with a simplified portfolio assembly situation, calculating the cost function for a portfolio by hand.

2.6.1 Analysis units

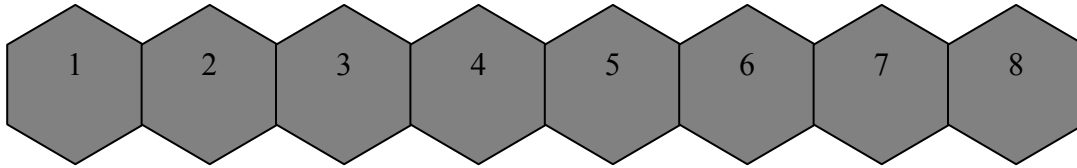


Figure 2.6: The analysis units for a simplified cost portfolio assembly situation.

The analysis units for this portfolio are specified in Figure 2.6, and the corresponding table of Ids and costs is:

Unit ID	Unit Cost
1	100
2	100
3	150
4	100
5	100
6	175
7	200
8	100

2.6.2 Boundaries

Each unit shares boundaries with one or two neighbors. If the side of each hexagon was 100 units long, the boundary definition table will be:

Unit A	Unit B	Length
1	2	100
2	3	100
3	4	100
4	5	100
5	6	100
6	7	100
7	8	100

2.6.3 Targets and distributions

This simple portfolio has targets “Trees and Grass” specified as follows:

Target Name	Goal	Penalty Factor	Penalty Amount
Trees	50	1	400
Grass	1000	1.5	200

The target distributions are:

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
Trees	30	30	30	30	0	0	0	0
Grass	0	600	0	0	800	0	120	0

2.6.4 Calculating the cost function

For this example, assume that units number 1, 3, and 5 are included in the portfolio. What would the value of the cost function be with a BLM of 0.5?

The base cost:

The base cost for the portfolio is the sum of the cost of each analysis unit:

$$basecost(x) = 100 + 150 + 100 = 350$$

The boundary cost:

The boundary cost is the BLM, times the length of all exposed boundaries. The boundaries between 1 and 2, 2 and 3, 3 and 4, 4 and 5, 5 and 6, are all exposed. This gives rise to:

$$boundcost(x) = 0.5 * (100 + 100 + 100 + 100 + 100) = 250$$

The shortfall cost:

The shortfall depends on the target representation. Since neither target has a minimum representative area, the amount in the portfolio is the sum of all distributions in selected units.

Target	Amount
Trees	$Amount(x) = 30 + 30 + 0 = 60$
Grass	$Amount(x) = 0 + 0 + 800 = 800$

The shortfall cost imposed by each target is calculated as follows:

$$Shortfall\ penalty = (Penalty\ Factor) \left(\frac{Shortfall\ Amount}{Goal\ Amount} \right) (Penalty\ Cost)$$

Target	Shortfall Cost
Trees	$Shortfall\ Penalty = (1.0)(0/50)(400) = 0$
Grass	$Shortfall\ Penalty = (1.5)(200/1000)(200) = 60$

$$Shortfall(x) = 60$$

The overall cost:

$$Cost(x) = base(x) + boundary(x) + shortfall(x) = 350 + 250 + 60 = 660$$

There is an interactive Excel worksheet distributed with SITES, called **SITES-CostMockup.xls** that allows you to experiment with the cost function in this situation.

3. Methodology: Simulated Annealing

3.1 Overview

Simulated annealing is the name for a general algorithm to find the general minimum value of a “mystery function” (Figure 3.1). Simulated annealing has proven to be an effective way of approaching many computationally difficult problems, including ecoregional portfolio assembly. In SITES’s case, this algorithm is used to search for the portfolio that produces the lowest value of the cost function described in Chapter 2.

3.1.1 Annealing

The name is derived from the process of a slowly changing state in materials such as water freezing from a liquid into a solid. When the speed of the temperature drop is carefully controlled in order to arrive at a near-ideal final crystalline state, it is known as annealing.

Annealing: The technique of slowly cooling a liquid into a solid such that its final form is a near-optimal crystal.

3.2 The Annealing function

This metaphor is extended to the SITES cost function, $f(x)$. If we treat x as a potential portfolio, then $f(x)$ is the value of the cost function for that portfolio. Because it is extremely difficult to predict anything about the impact of any given unit on the total portfolio cost, the SITES cost function is used as the mystery function for simulated annealing.

Although SITES uses simulated annealing with its own cost function, $f(x)$ could be any function that takes in a “state” and returns a single value we can refer to as “cost,” making annealing a very flexible technique for computationally daunting problems.

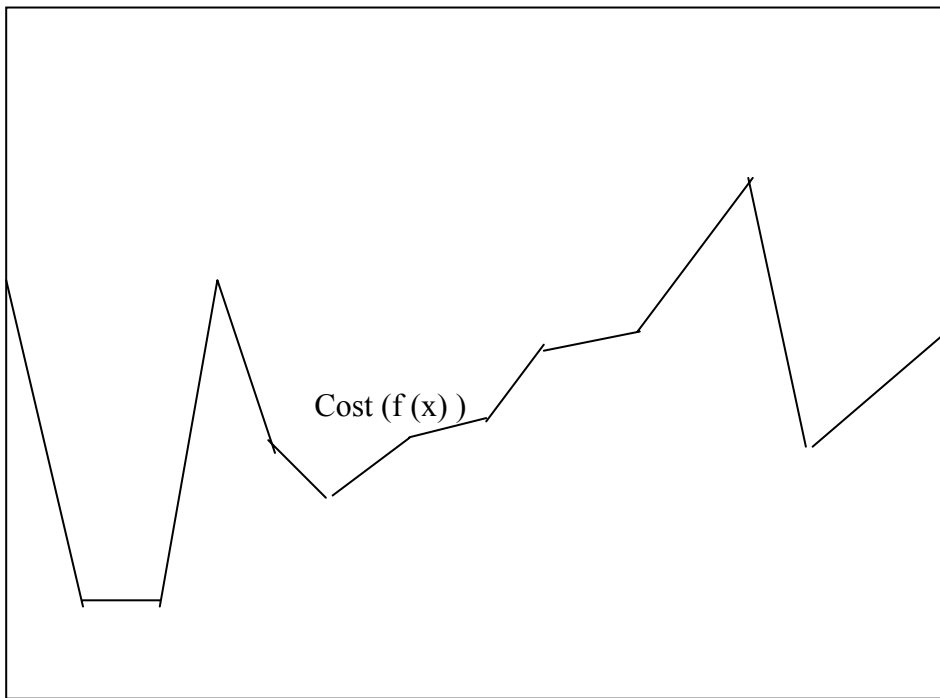


Figure 3.1: Annealing function

3.3 Hill descent

It would be impossible to evaluate every possible portfolio to determine the best configuration, since even a simple SITES portfolio assembly problem with 300 analysis units would have combinations, which is more than most estimates of the number of atoms in the entire universe. Instead, we can generate a starting portfolio randomly and evaluate $f(x)$ to determine the cost. From there, a simpleminded approach would be to generate another portfolio by making small random changes to the current one and accept them only if the changes made an improvement to the cost. This would continue for many iterations until no further improvements are possible.

This technique is called hill descent¹, and is closely related to simulated annealing. However, this algorithm will get stuck when it reaches a point where all small changes will result in higher cost, but a better solution exists elsewhere. This is called a local minimum. In Figure 3.2, B is a local minimum, while 4 is the absolute lowest minimum.

Iteration: A single change to the current state and re-evaluation of the cost function.

Local minimum: A low point in the cost function, but not the absolute lowest point.

¹ This is usually called hill *climbing* in the literature, but the name has been changed to reflect our search for minimums rather than maximums.

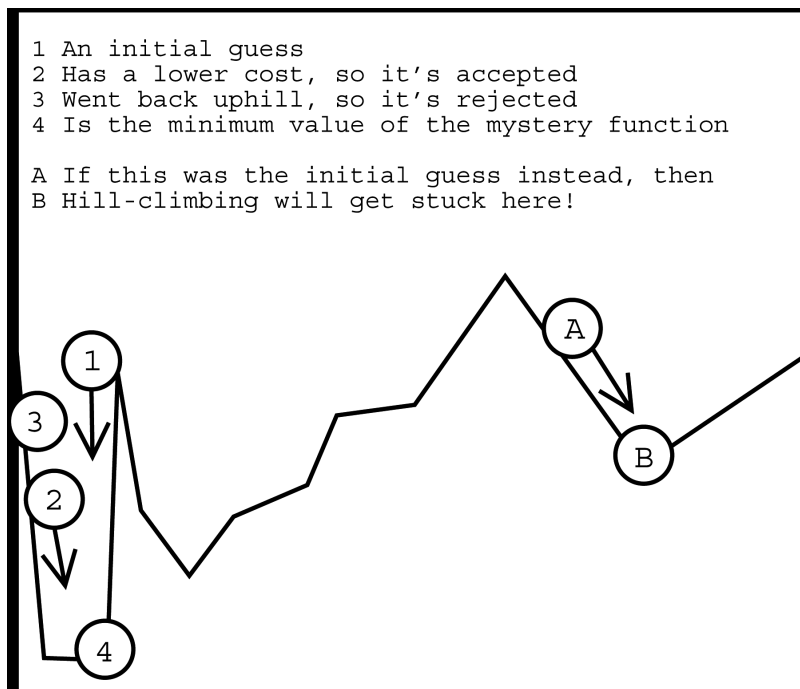


Figure 3.2

One way to visualize the process of hill descent is to imagine the cost function as a landscape. Each position represents a different portfolio, and the elevation at that point represents the cost. The current portfolio is like a ball that can only roll downhill, which means that it will quickly seek the lowest nearby value. However, if it starts in the wrong place, it will end up in a local minimum instead of the absolute minimum.

3.4 Simulated annealing

Simulated annealing is designed to avoid being stuck at a local minimum at the expense of increased runtime.

The simulated annealing process can also be imagined as a ball (the current solution) exploring the landscape, but rather than simply rolling downhill it bounces randomly. How the current portfolio changes (where the ball bounces) is driven by a factor called the temperature, which is analogous to the real-world temperature during physical (non-simulated) process of annealing.

At first, when the temperature is high, the ball will cover large distances and cross over hills easily. (Figure 3.3) As the algorithm progresses, the temperature is lowered and the annealing process is less likely to accept large cost increases – the ball is less likely to make large jumps uphill. (Figure 3.4)

Temperature: In simulated annealing, this defines the maximum allowable change in the cost function.

By lowering the temperature at an appropriately slow rate, depending on the size and steepness of the landscape, the solution has a much better chance of settling into the lowest possible point – much as slowly cooling a material will lead to an optimal crystalline structure.

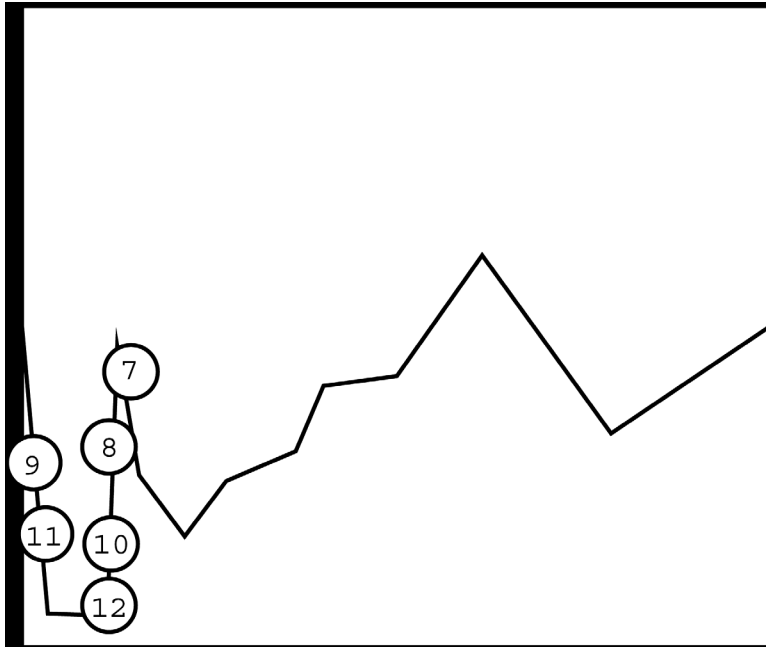


Figure 3.3

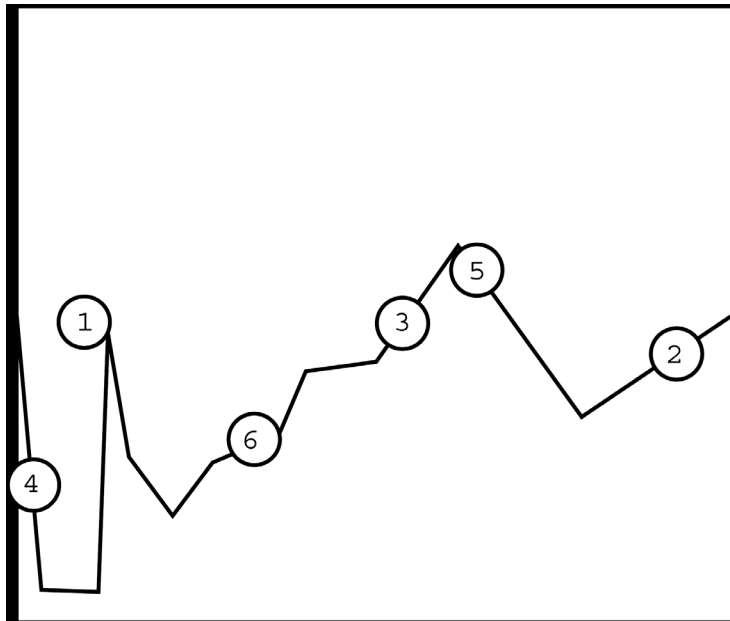


Figure 3.4

3.5 Considerations

3.5.1 Iterations

With this process of simulated annealing, the main concern is that enough iterations are specified, that the cost function adequately explores possible portfolios, and doesn't get stuck in a local minimum. Defining "enough" can be tricky. Much depends on the complexity of the cost function: A function with very steep and tall features (Figure 3.5) where the cost often changes drastically with only a small change to the portfolio will take more iterations than one that changes smoothly and has a broad, well-defined minimum (Figure 3.6).

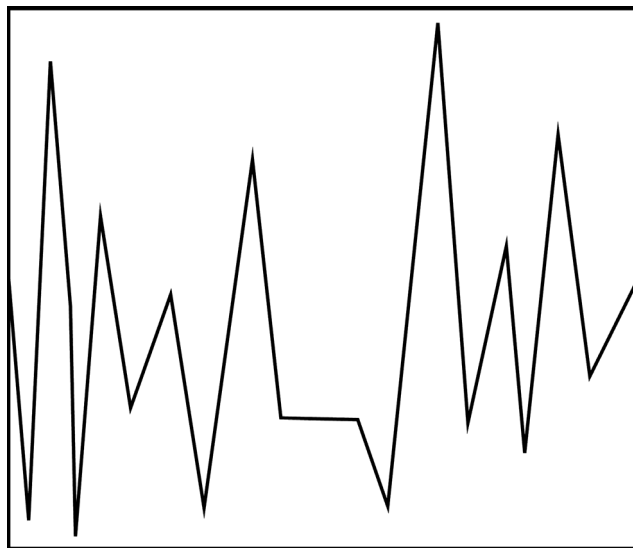


Figure 3.5

Balance

If all three terms in the SITES cost function are important to the final result, it's a good idea to be careful that their contribution to the portfolio cost is relatively equal. If any one term is weighted too heavily, the portfolios generated by SITES may find a reasonable way of satisfying that term but never reach a solution that also performs well on the less significant factors. (This is also closely related to the difficulty of the cost function, since factors that are over-weighted will increase the function's sensitivity to small changes.)

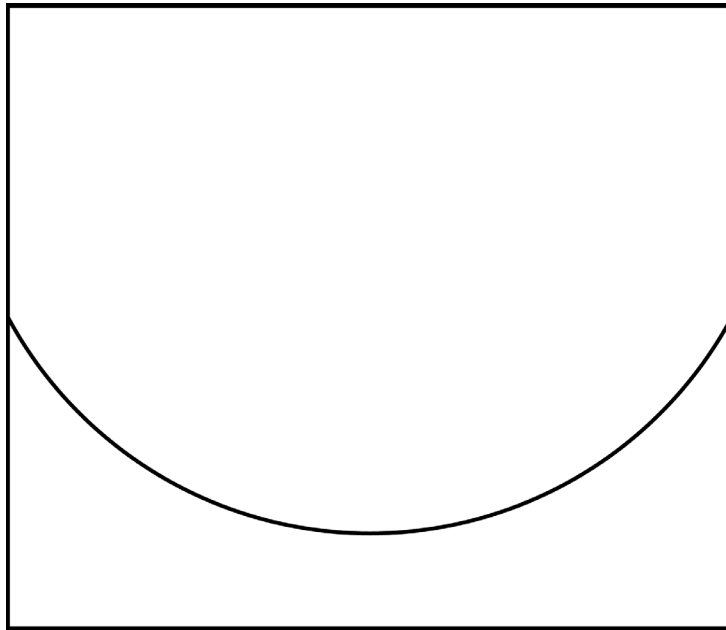


Figure 3.6

Terms Used:

- Analysis unit: analysis units form the portfolio; they are small areas that are marked as in or out to create portfolio.
- Annealing: the technique of slowly cooling a liquid into a solid such that its final form is a near optimal crystal.
- Base cost: a component of the SITES cost function that encourages SITES to minimize the area of the portfolio. It is the sum of the cost specified for each analysis unit included in the portfolio.
- Boundary cost: a component of the SITES cost function, aimed toward minimizing a portfolio's fragmentation by minimizing the length of its boundary
- Boundary length: The length of a portfolio's perimeter.
- Boundary length modifier: a multiplier that converts and scales the boundary length of a portfolio before adding it to that portfolio's cost.
- Core: the SITES module that performs the annealing process to create a portfolio.
- Cost function: the cost function for SITES calculates a single cost value for a given portfolio that represents its effectiveness.
- Iteration: a single change to the current state and re-evaluation of the cost function.
- Local minimum: a low point in the cost function, but not the absolute lowest point.
- Minimum area: the minimum contiguous amount of a target required for it to contribute to a conservation goal.

Penalty factor: sets the importance of representing a target, relative to other targets and the base and boundary costs.

Shortfall cost: a component of the SITES cost function that penalizes portfolios that don't meet conservation goals.

Simulated annealing: A general technique for finding the lowest value of a function through many trial runs and repeated adjustment to input values.

Target: a biological feature with a conservation goal that SITES attempts to meet during assembly.

Target patch: an occurrence of a target that can spread over several neighboring analysis units.

Temperature: in simulated annealing, this defines the maximum allowable change in the cost function.

Appendix 5. List of Targets

Organized by systems, communities and species.

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES Listing	Rationale and/or Description
Terrestrial Ecological Systems		<i>Codes listed at end of report:</i>			
Terrestrial Ecological Systems					
	Autumnal freshwater mudflats	GU	GU		10
	Coastal spits, dunes, and strand	GU	GU		10
	Coniferous forested wetlands	GU	GU		10
	Depressional wetland broadleaf forests	GU	GU		4,10
	Depressional wetland shrublands	GU	GU		10
	Douglas fir - western hemlock - western redcedar forests	GU	GU		10
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	GU		10
	Dry evergreen forests and woodlands	GU	GU		4,10
	Dry evergreen forests and woodlands (ranked occurrences)	GU	GU		4,10
	Freshwater aquatic beds	GU	GU		8
	Freshwater marshes	GU	GU		8,10
	Herbaceous balds and bluffs	GU	GU		4
	Intertidal salt marshes	GU	GU		10
	Oak woodlands	GU	GU		4
	Oak woodlands (ranked occurrences)	GU	GU		4
	Riparian forests and shrublands	GU	GU		4,10
	Riparian forests and shrublands (ranked occurrences)	GU	GU		4,10
	Sphagnum bogs and fens	GU	GU		10
	Tidally-influenced freshwater wetlands	GU	GU		10
	Upland prairies and savannas	GU	GU		4
	Vernal pools	GU	GU		4
	Wet prairies	GU	GU		4
Nearshore Marine Ecological Systems					
	Man-made / Unvegetated	n/a	n/a		
	Man-made / Vegetated	n/a	n/a		
	Mud flat / Unvegetated	n/a	n/a		
	Rock cliff / Unvegetated	n/a	n/a		
	Rock cliff / Vegetated	n/a	n/a		
	Rock platform / Unvegetated	n/a	n/a		
	Rock platform / Vegetated	n/a	n/a		
	Rock with sand and/or gravel beach / Unvegetated	n/a	n/a		
	Rocky reefs	n/a	n/a		
	Sand and gravel beach / Unvegetated	n/a	n/a		
	Sand and gravel flat / Unvegetated	n/a	n/a		
	Sand beach / Unvegetated	n/a	n/a		
	Sand flat / Unvegetated	n/a	n/a		
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a	n/a		
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a	n/a		

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES Listing	Rationale and/or Description
Nearshore Marine Ecological System		Codes listed at end of report:			
<i>Nereocystis/Macrocyctis</i>	Sand flat / Kelp	n/a	n/a		
<i>Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a	n/a		
<i>Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a	n/a		
<i>Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a	n/a		
<i>Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a	n/a		
<i>Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a	n/a		
<i>Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a	n/a		
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	n/a	n/a		
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a	n/a		
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a	n/a		
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a	n/a		
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocyctis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a	n/a		
Freshwater Ecological Systems					
	Cascade foothills headwaters - glacial drift and alluvium , low to mid elevation, mixed gradient	n/a	n/a		
	Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a	n/a		
	Cascade headwater - mostly sedimentary, high/mid elevation, steep	n/a	n/a		
	Cascade headwater/tributaries - volcanics, high/mid elevation, steep	n/a	n/a		
	Cascade headwaters - glacial, high elevation, low gradient	n/a	n/a		
	Cascade headwaters - glacial, high elevation, moderate gradient	n/a	n/a		
	Cascade headwaters - mostly granitic, high/mid elevation, steep	n/a	n/a		

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USESA Listing	Rationale and/or Description
Freshwater Ecological Systems		<i>Codes listed at end of report:</i>			
	Cascade headwaters - volcanics, high elevation, moderate gradient	n/a	n/a		
	Cascade headwaters - volcanics, high elevation, steep	n/a	n/a		
	Cascade headwaters - volcanics, mid elevation, moderate gradient	n/a	n/a		
	Cascade headwaters - volcanics, mid to high elevation	n/a	n/a		
	Cascade headwaters, glacier influenced - volcanics, high elevation, steep	n/a	n/a		
	Cascade medium river - volcanic, low to mid elevation	n/a	n/a		
	Cascade small river - volcanic with glacial features, mid to high elevation	n/a	n/a		
	Cascade small river - volcanic, mid elevation	n/a	n/a		
	Cascade small rivers - volcanic with glacial features, moderate elevation	n/a	n/a		
	Cascade small rivers - volcanic, high elevation	n/a	n/a		
	Cascade small rivers - volcanic, transitional elevation, transitional gradient	n/a	n/a		
	Cascade tributaries - sedimentary, mid elevation, steep	n/a	n/a		
	Cascade tributaries - volcanics, high/mid elevation, low gradient	n/a	n/a		
	Cascade/foothill small river - volcanic, low to mid elevation	n/a	n/a		
	Cascades headwaters - basalt and volcanics, high elevation, moderate to high gradient, glacier influence	n/a	n/a		
	Cascades headwaters - granitic, high elevation, moderate to high gradient	n/a	n/a		
	Cascades headwaters - mafic, mid elevation, mixed gradient	n/a	n/a		
	Cascades headwaters - sandstone, mid to high elevation, moderate to high gradient	n/a	n/a		
	Cascades headwaters, sedimentary, mid elevation	n/a	n/a		
	Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a	n/a		
	Cascades middle river systems - predominantly granitic watershed, low to mid elevation, variable gradient	n/a	n/a		
	Cascades tributary headwaters - granitic, low to mid elevation	n/a	n/a		
	Cascades upper river systems - predominantly granite watershed, mid elevation, variable gradient	n/a	n/a		
	Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a	n/a		
	Chehalis headwater small rivers - outwash, low elevation, low gradient	n/a	n/a		
	Chehalis headwater small rivers - volcanic, low to mid elevation, low to moderate gradient	n/a	n/a		
	Chehalis headwater small rivers - volcanic/outwash rivers, mid elevation	n/a	n/a		
	Chehalis River medium river - sandstone, low elevation, low gradient	n/a	n/a		
	Chehalis tributary small rivers - volcanic/outwash, low to mid elevation	n/a	n/a		

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES Listing	Rationale and/or Description
Freshwater Ecological Systems		<i>Codes listed at end of report:</i>			
	Coast Range headwaters - glacial outwash, high elevation, high gradient, probable glacial connection	n/a	n/a		
	Coast Range headwaters - sedimentary, high elevation, high gradient	n/a	n/a		
	Coast Range headwaters - sedimentary, mid elevation	n/a	n/a		
	Coast Range headwaters - volcanics, mid elevation	n/a	n/a		
	Coast Range headwaters streams - granite, high elevation, high gradient	n/a	n/a		
	Coast Range headwaters streams - granite, mid to high elevation, high gradient	n/a	n/a		
	Coast Range medium river - sedimentary, low elevation	n/a	n/a		
	Coast Range medium river - volcanic, low elevation	n/a	n/a		
	Coast Range small mountain rivers - granite, high elevation, high gradient	n/a	n/a		
	Coast Range small mountain rivers - granitic, mid to high elevation, mixed gradient	n/a	n/a		
	Coast Range small mountain rivers - outwash, mid to high elevation, mixed gradient	n/a	n/a		
	Coast Range small mountain rivers - sedimentary, mid to high elevation, mixed gradient	n/a	n/a		
	Coast Range small river - basalt, low elevation	n/a	n/a		
	Coast Range small rivers - sedimentary, low to mid elevation	n/a	n/a		
	Coast Range tributaries - sedimentary, low to mid elevation	n/a	n/a		
	Coast Range tributaries - shales, mid elevation, moderate gradient	n/a	n/a		
	Coast tributaries - outwash, low elevation, moderate gradients	n/a	n/a		
	Coastal headwaters - granitic, low elevation, low gradient	n/a	n/a		
	Coastal headwaters - granitic, low to mid elevation, low to steep gradient	n/a	n/a		
	Coastal headwaters - granitic, very small watersheds	n/a	n/a		
	Coastal medium rivers - granite and outwash, low to mid elevation, mixed gradient	n/a	n/a		
	Coastal medium rivers - granite, low elevation	n/a	n/a		
	Coastal medium rivers - granite, low to mid elevation, mixed gradient	n/a	n/a		
	Coastal medium rivers - sandstone	n/a	n/a		
	Coastal rivers - calcareous to granite transition, low to high elevation, mixed gradient	n/a	n/a		
	Coastal rivers - granitic, long inland reach	n/a	n/a		
	Coastal rivers - granitic, low elevation	n/a	n/a		
	Coastal rivers - granitic, low to high elevation, mixed gradient	n/a	n/a		
	Coastal rivers - granitic, short inland reach	n/a	n/a		
	Coastal rivers - sedimentary to granite, low to mid elevation, mixed gradient	n/a	n/a		
	Coastal rivers - volcanic to granite, low to mid elevation, mixed gradient	n/a	n/a		
	Coastal small rivers - granitic, low elevation, mixed gradient	n/a	n/a		

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES Listing	Rationale and/or Description
Freshwater Ecological Systems					<i>Codes listed at end of report:</i>
	Coastal small rivers - granitic, low to mid elevation, mixed gradient	n/a	n/a		
	Coastal small rivers - outwash, low elevation	n/a	n/a		
	Coastal small rivers and tributaries - granitic, low elevation, mixed gradient	n/a	n/a		
	Coastal upland - alluvium-colluvium, low elevation, moderate gradients	n/a	n/a		
	Coastal upland - glacial till, low elevation, low to moderate gradient	n/a	n/a		
	Coastal upland - sandstones, low elevation, moderate gradient	n/a	n/a		
	Columbia estuary tributaries - sedimentary, mid elevation, moderate gradient	n/a	n/a		
	Cowlitz tributary small rivers - sedimentary	n/a	n/a		
	East Olympics small rivers - predominantly mafic, low to mid elevation, low to moderate gradient	n/a	n/a		
	Foothills tributaries - basalt, low to mid elevation	n/a	n/a		
	Fraser River mainstem - predominantly granite watershed, low elevation, low gradient	n/a	n/a		
	Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a	n/a		
	Fraser/Nooksack coastal plain - sedimentary, low elevation, low gradient	n/a	n/a		
	Georgia Strait coastal streams - granitic, low elevation, high gradient, coastal connection	n/a	n/a		
	Georgia Strait coastal streams - granitic, low elevation, low to moderate gradient	n/a	n/a		
	Georgia Strait headwaters streams - granitic, mid elevation, high gradient	n/a	n/a		
	Georgia Strait headwaters streams - volcanic, low to high elevation, high gradient	n/a	n/a		
	Georgia Strait headwaters streams - volcanic, mid elevation, high gradient	n/a	n/a		
	Georgia Strait island coastal streams - granitic, low elevation, low to moderate gradient	n/a	n/a		
	Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	n/a	n/a		
	Georgia Strait island coastal streams - siltstone, low elevation, low to moderate gradient	n/a	n/a		
	Hood Canal coastal streams	n/a	n/a		
	Inland coastal headwaters streams - granitic, low elevation, high gradient	n/a	n/a		
	Inland coastal streams - granitic, low elevation, high gradient, coastal connection	n/a	n/a		
	Inland coastal streams - sedimentary, mid elevation, high gradient, coastal connection	n/a	n/a		
	Juan de Fuca coastal streams - sandstone, low to mid elevation, moderate gradient	n/a	n/a		
	Lower Columbia headwater - coarse outwash, low elevation, low gradient	n/a	n/a		
	Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient	n/a	n/a		
	Lower Columbia headwaters - volcanics, high elevation, steep	n/a	n/a		
	Lower Columbia mainstem	n/a	n/a		
	Lower Columbia sloughs and tributaries - flat gradient	n/a	n/a		

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USESA Listing	Rationale and/or Description
Freshwater Ecological Systems		<i>Codes listed at end of report:</i>			
	Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	n/a	n/a		
	Lower Columbia tributaries - volcanics, mid elevation, moderate gradient	n/a	n/a		
	Lower Columbia tributaries -alluvium/colluvium streams, low elevation, low gradient	n/a	n/a		
	Lower Columbia tributaries- sedimentary, moderate elevation, moderate gradient	n/a	n/a		
	Lower Columbia tributary medium rivers - not volcanic	n/a	n/a		
	Lower Columbia tributary medium rivers - volcanic	n/a	n/a		
	Lower Columbia tributary small rivers - outwash	n/a	n/a		
	Lower Columbia tributary small rivers - sedimentary	n/a	n/a		
	Lower Columbia tributary small rivers - volcanics	n/a	n/a		
	Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a	n/a		
	Lower Fraser River tributaries headwaters - granitic, low elevation, low to moderate gradient	n/a	n/a		
	Lower Fraser River tributary headwaters - granitic, mid to high elevation, high gradient	n/a	n/a		
	Lower Fraser River tributary headwaters - mixed geology, mid to high elevation, moderate to high gradient	n/a	n/a		
	Lower Fraser tributary rivers - granitic watersheds, low to mid elevation, variable gradient	n/a	n/a		
	Lower Willamette River mainstem	n/a	n/a		
	Mountain headwaters - calcareous, high elevation, steep	n/a	n/a		
	Mountain headwaters - granitic, high elevation, steep	n/a	n/a		
	Mountain headwaters - granitic, mid to high elevation, steep gradients	n/a	n/a		
	Mountain headwaters - mafic, mid to high elevation, steep gradients	n/a	n/a		
	Mountain headwaters - sedimentary, mid to high elevation, steep	n/a	n/a		
	Mountain headwaters - volcanic, high elevation, steep	n/a	n/a		
	Mountain rivers - granitic, low to high elevation, mixed gradient	n/a	n/a		
	Nooksack coastal plain headwaters - glacial drift and outwash, low elevation, low to moderate gradient	n/a	n/a		
	North Cascades - mafic , mid elevation, mixed gradient	n/a	n/a		
	North Cascades headwaters - mostly volcanic, mid to high elevation, moderate to high gradient	n/a	n/a		
	North Cascades headwaters - granitic , mid to high elevation, moderate to high gradient	n/a	n/a		
	North Cascades tributary rivers - sedimentary and granitic watersheds, moderate to high elevation, mixed gradient	n/a	n/a		
	Northern Cascades headwaters - sandstone, moderate to high elevation, moderate to high gradient	n/a	n/a		
	Northern Cascades medium rivers - predominantly granite watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a	n/a		

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES A Listing	Rationale and/or Description
Freshwater Ecological Systems		<i>Codes listed at end of report:</i>			
	Northern Olympics rivers - sandstone, mid to low elevation, mixed gradient	n/a	n/a		
	Olympics - sandstones, high elevation, high gradient	n/a	n/a		
	Olympics - sandstones, mid elevation, high gradient	n/a	n/a		
	Olympics headwaters - sandstone, mid to high elevation, moderate to high gradient	n/a	n/a		
	Olympics rainshadow coastal headwaters	n/a	n/a		
	Olympics rainshadow coastal headwaters - mafic, mid elevation, moderate to high gradient	n/a	n/a		
	Olympics small rivers - sandstone, low to mid elevation, low to moderate gradient	n/a	n/a		
	Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a	n/a		
	Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a	n/a		
	Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a	n/a		
	Puget lowlands - outwash, low elevation, moderate gradients	n/a	n/a		
	Puget lowlands - glacial till, low elevation, moderate gradients	n/a	n/a		
	Puget lowlands - sandstone, low elevation, moderate gradient	n/a	n/a		
	Puget Sound tributary rivers - glacial drift, low elevation, low gradient	n/a	n/a		
	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a	n/a		
	Skagit River Mouth and Sloughs	n/a	n/a		
	South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a	n/a		
	South Sound rivers and tributaries - glacial drift, low elevation, low gradient	n/a	n/a		
	Straight of Juan de Fuca small rivers - predominantly sandstone, low elevation, variable gradient	n/a	n/a		
	unclassified aquatic system	n/a	n/a		
	Upland small river - granitic, low to mid elevation, mixed gradient	n/a	n/a		
	Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	n/a		
	Valley small river - alluvium, low elevation	n/a	n/a		
	Valley small river - volcanic, low elevation	n/a	n/a		
	Valley/foothill medium river - volcanic, low elevation	n/a	n/a		
	Valley/foothill tributaries - volcanics, mid elevation	n/a	n/a		
	Willamette River mainstem	n/a	n/a		
	Willapa headwaters - mid elevations, high gradients	n/a	n/a		
	Willapa headwaters - sandstones, low to mid elevation, moderate/low gradient	n/a	n/a		
	Willapa Hills small rivers - sandstone, low elevation	n/a	n/a		

Plant Communities

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES Listing	Rationale and/or Description
Plant Communities		Codes listed at end of report:			
<i>Acer macrophyllum</i> - <i>abies grandis</i> / <i>symphoricarpos albus</i> forest	Bigleaf maple - grand fir / common snowberry	G3	G3		4
<i>Acer macrophyllum</i> - <i>alnus rubra</i> / <i>polystichum munitum</i> - <i>tellima grandiflora</i> forest	Bigleaf maple - red alder / swordfern - fringecup	G2	G2G3		1,4
<i>Acer macrophyllum</i> - <i>pseudotsuga menziesii</i> / <i>corylus cornuta</i> / <i>hydrophyllum tenuipes</i> forest	Bigleaf maple - douglas-fir / beaked hazel / slender-stem waterleaf	G3	G3		1,4
<i>Acer macrophyllum</i> - <i>thuja plicata</i> / <i>oemleria cerasiformis</i> forest	Bigleaf maple - western redcedar / indian plum	G2	G2		4
<i>Acer macrophyllum</i> / <i>carex deweyana</i> forest	Bigleaf maple / dewey's sedge	G3	G3		4
<i>Acer macrophyllum</i> / <i>rubus ursinus</i> forest	Bigleaf maple / creeping dewberry	G3	G3		4
<i>Acer macrophyllum</i> / <i>symphoricarpos albus</i> / <i>urtica dioica</i> ssp <i>gracilis</i> forest	Bigleaf maple / common snowberry / stinging nettle	G3	G3		4
<i>Acer macrophyllum</i> / <i>urtica dioica</i> ssp <i>gracilis</i> forest	Bigleaf maple / stinging nettle	G3	G3		4
<i>Alnus</i> (<i>incana</i> , <i>viridis</i> ssp. <i>sinuata</i>) / <i>lysichiton americanus</i> - <i>oenanthe sarmentosa</i> shrubland	Alder (mountain, sitka) / skunk-cabbage - water-parsley	G1	G1		1,4
<i>Arbutus menziesii</i> / <i>arctostaphylos columbiana</i> woodland	Pacific madrone / hairy manzanita	G2	G2		1,4
<i>Artemisia campestris</i> - <i>grindelia stricta</i> herbaceous vegetation	Northern wormwood - gumweed	G1	G1		1,4
<i>Betula papyrifera</i> var. <i>commutata</i> - <i>alnus rubra</i> / <i>polystichum munitum</i> forest	Paper birch - red alder / swordfern	G1	G1		1,4
<i>Brodiaea</i> sp herbaceous vegetation	Brodiaea	G2	G2		10
<i>Camassia quamash</i> wet prairie herbaceous vegetation	Common camas wet prairie	G3	G3		1
<i>Carex cusickii</i> - (<i>menyanthes trifoliata</i>) herbaceous vegetation	Cusick's sedge - (buckbean)	G2	G2G3		1,10
<i>Carex densa</i> - <i>deschampsia cespitosa</i> herbaceous vegetation	Dense sedge - tufted hairgrass	G2	G2		4
<i>Carex densa</i> - <i>eleocharis palustris</i> herbaceous vegetation	Dense sedge - creeping spikerush	G3	G3		4
<i>Carex macrocephala</i> herbaceous vegetation	Bighead sedge	G1	G1G2		1,10
<i>Carex unilateralis</i> - <i>hordeum brachyantherum</i> herbaceous vegetation	One-sided sedge - meadow barley	G2	G2		4
<i>Cladina</i> spp. - <i>selaginella wallacei</i> - <i>dicranum scoparium</i> bryophyte vegetation	Reindeer lichen - wallace's selaginella - broom moss	G2	G2		1,4
<i>Danthonia californica</i> valley grassland herbaceous vegetation	California oatgrass valley grassland	G1	G1		10
<i>Deschampsia caespitosa</i> - <i>danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2	G2		1,4
<i>Deschampsia caespitosa</i> - <i>sidalcea hendersonii</i> herbaceous vegetation	Tufted hairgrass - henderson's checkermallow	G1	G1		1,10
<i>Downingia elegans</i> vernal pool herbaceous vegetation	Common downingia vernal pool	G2	G2?		10
<i>Eleocharis palustris</i> - <i>carex unilateralis</i> herbaceous vegetation	Creeping spikerush - one-sided sedge	G2	G2		1,4
<i>Eleocharis palustris</i> - <i>ludwigia palustris</i> herbaceous vegetation	Creeping spikerush - water purslane	G2	G2		4
<i>Eragrostis hypnoides</i> - <i>gnaphalium palustre</i> herbaceous vegetation	Creeping lovegrass - lowland cudweed	G2	G2		1,4
<i>Eryngium petiolatum</i> - <i>grindelia nana</i> herbaceous vegetation	Coyote-thistle - low gumweed	G1	G1G2		4
<i>Eryngium petiolatum</i> - <i>lasthenia glaberrima</i> herbaceous vegetation	Coyote-thistle - smooth lasthenia	G1	G1G2		1,4

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Plant Communities		Codes listed at end of report:			
<i>Euthamia occidentalis herbaceous vegetation</i>	Western goldenrod	G3	G3		4
<i>Festuca roemerii - aster curtus herbaceous vegetation</i>	Roemer's fescue - white-topped aster	G1	G1		1,4
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	G1		1,4
<i>Festuca roemerii - sidalcea malviflora ssp. virgata herbaceous vegetation</i>	Roemer's fescue - rose checker-mallow	G1	G1		1,4
<i>Festuca rubra - (argentina egedii) herbaceous vegetation</i>	Red fescue - (pacific silverweed)	G1	G1		1
<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	G1	G1		1,10
<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	G1		1,4
<i>Fraxinus latifolia - populus balsamifera ssp. trichocarpa / acer circinatum forest</i>	Oregon ash - black cottonwood / vine maple	G3	G3		4
<i>Fraxinus latifolia - populus balsamifera ssp. trichocarpa / corylus cornuta - physocarpus capitatus forest</i>	Oregon ash - black cottonwood / hazelnut - pacific ninebark	G3	G3		4
<i>Fraxinus latifolia - populus balsamifera ssp. trichocarpa / rubus spectabilis forest</i>	Oregon ash - black cottonwood / salmonberry	G2	G2		4
<i>Fraxinus latifolia / carex deweyana - urtica dioica ssp gracilis forest</i>	Oregon ash / dewey sedge - stinging nettle	G2	G2		1,4
<i>Fraxinus latifolia / carex obnupta forest</i>	Oregon ash / slough sedge	G3	G3		1,4
<i>Fraxinus latifolia / juncus patens forest</i>	Oregon ash / spreading rush	G2	G2		1,10
<i>Fraxinus latifolia / spiraea douglasii forest</i>	Oregon ash / douglas' spirea	G3	G3		1,4
<i>Ledum groenlandicum - kalmia microphylla / xerophyllum tenax shrubland</i>	Bog labrador-tea - bog-laurel / beargrass	G1	G1		1,10
<i>Ledum groenlandicum - myrica gale / sphagnum spp. shrubland</i>	Bog labrador-tea - sweetgale / peat moss	G2	G2		1,10
<i>Ludwigia palustris - polygonum hydropiperoides herbaceous vegetation</i>	Water purslane - waterpepper	G2	G2		4
<i>Picea sitchensis / cornus sericea - salix hookeriana woodland</i>	Sitka spruce / red-osier dogwood - hooker's willow	G2	G2		16
<i>Pinus contorta var. contorta - pseudotsuga menziesii / cladina spp. forest</i>	Shore pine - douglas-fir / reindeer lichen	G2	G2		1,4
<i>Pinus contorta var. contorta - pseudotsuga menziesii / gaultheria shallon forest</i>	Shore pine - douglas-fir / salal	G2	G2		1,4
<i>Pinus monticola / ledum groenlandicum / sphagnum spp. wooded shrubland</i>	Western white pine / bog labrador-tea / peat moss	G1	G1		1,4
<i>Pinus ponderosa - quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Ponderosa pine -oregon white oak / romer's fescue	G1	G1		1,4
<i>Pinus ponderosa / carex inops - festuca roemerii woodland</i>	Ponderosa pine / long-stolon sedge - roemer's fescue	G1	G1		1,4
<i>Plagiobothrys figuratus vernal pool herbaceous vegetation</i>	Fragrant popcorn-flower	G1	G1G2		1,10
<i>Plagiobothrys scouleri - plantago bigelovii herbaceous vegetation</i>	Scouler's popcornflower - annual coastal plantain	G2	G2		1,4
<i>Populus balsamifera ssp. trichocarpa - acer macrophyllum / equisetum hyemale forest</i>	Black cottonwood - bigleaf maple / scouring-rush	G3	G3		1,4
<i>Populus balsamifera ssp. trichocarpa - alnus rhombifolia willamette forest</i>	Black cottonwood - white alder	G1	G1		1,4
<i>Populus balsamifera ssp. trichocarpa - alnus rubra / carex obnupta forest</i>	Black cottonwood - red alder / slough sedge	G2	G2		1,4
<i>Populus balsamifera ssp. trichocarpa - alnus rubra / rubus spectabilis forest</i>	Black cottonwood - red alder / salmonberry	G2	G2G3		10
<i>Populus balsamifera ssp. trichocarpa / cornus sericea / impatiens capensis woodland</i>	Black cottonwood / red-osier dogwood / spotted touch-me-not	G1	G1		4

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Plant Communities		Codes listed at end of report:			
<i>Populus tremuloides</i> / <i>Carex obnupta</i> forest	Quaking aspen / slough sedge	G2	G2		1,4
<i>Pseudotsuga menziesii</i> - <i>Abies grandis</i> / <i>Symphoricarpos albus</i> / <i>Melica subulata</i> forest	Douglas-fir - grand fir / common snowberry / alaska oniongrass	G1	G1		1,4
<i>Pseudotsuga menziesii</i> - <i>Arbutus menziesii</i> / <i>Lonicera hispidula</i> forest	Douglas-fir - pacific madrone / hairy honeysuckle	G2	G2G3		1,4
<i>Pseudotsuga menziesii</i> - <i>Quercus garryana</i> / <i>Melica subulata</i> forest	Douglas-fir - oregon white oak / alaska oniongrass	G1	G1G2		1,4
<i>Pseudotsuga menziesii</i> - <i>Thuja plicata</i> / <i>Gaultheria shallon</i> forest	Douglas-fir - western redcedar / salal	G2	G2		1,4
<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> var. <i>nervosa</i> forest	Douglas-fir - western hemlock / dwarf oregongrape	G2	G2G3		1,4,10
<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Rhododendron macrophyllum</i> - <i>Vaccinium ovatum</i> forest	Douglas-fir - western hemlock / pacific rhododendron - evergreen huckleberry	G2	G2		1,4
<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Vaccinium ovatum</i> forest	Douglas-fir - western hemlock / evergreen huckleberry	G2	G2		1,4
<i>Pseudotsuga menziesii</i> / <i>Corylus cornuta</i> / <i>Polystichum munitum</i> forest	Douglas-fir / beaked hazel / swordfern	G3	G3		1,4
<i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> - <i>Holodiscus discolor</i> forest	Douglas-fir / salal - oceanspray	G2	G2G3		1,4
<i>Pseudotsuga menziesii</i> / <i>Rosa gymnocarpa</i> - <i>Holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2	G2G3		1,10
<i>Pseudotsuga menziesii</i> / <i>Symphoricarpos albus</i> - <i>Holodiscus discolor</i> forest	Douglas-fir / common snowberry - oceanspray	G2	G2		1,4
<i>Pseudotsuga menziesii</i> / <i>Symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2	G2G3		1
<i>Quercus garryana</i> - (<i>Fraxinus latifolia</i>) / <i>Symphoricarpos albus</i> forest	Oregon white oak - (oregon ash) / common snowberry	G2	G2		1,10
<i>Quercus garryana</i> / <i>Carex inops</i> - <i>Camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	G1		1,4
<i>Quercus garryana</i> / <i>Ceanothus cuneatus</i> / <i>Festuca roemerii</i> woodland	Oregon white oak / wedgeleaf ceanothus / roemer's fescue	G2	G2		1,16
<i>Quercus garryana</i> / <i>Festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	G1		1,4
<i>Quercus garryana</i> / <i>Symphoricarpos albus</i> / <i>Carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	G2		1,4
<i>Quercus garryana</i> / <i>Symphoricarpos albus</i> / <i>Polystichum munitum</i> forest	Oregon white oak / common snowberry / common snowberry	G2	G2		1,4
<i>Quercus garryana</i> / <i>Viburnum ellipticum</i> - <i>Toxicodendron diversiloba</i> forest	Oregon white oak / oval-leaf viburnum - poison-oak	G1	G1		1,4
<i>Ranunculus lobbii</i> herbaceous vegetation	Lobb's water-buttercup	G2	G2		10
<i>Rosa nutkana</i> / <i>Deschampsia cespitosa</i> shrubland	Nootka rose / tufted hairgrass	G2	G2		4
<i>Rosa nutkana</i> / <i>Oenanthe sarmentosa</i> shrubland	Nootka rose / water parsley	G1	G1		4
<i>Salix geyeriana</i> - <i>Salix hookeriana</i> ssp. <i>piperi</i> shrubland	Geyer willow - piper willow	G1	G1		1,4
<i>Salix hookeriana</i> ssp. <i>piperi</i> - (<i>Salix sitchensis</i>) shrubland	Piper willow - (sitka willow)	G2	G2		1,4
<i>Salix lucida</i> ssp. <i>lasiandra</i> / <i>Salix x fluviatilis</i> woodland	Pacific willow / river willow	G2	G2		4
<i>Salix lucida</i> ssp. <i>lasiandra</i> / <i>Urtica dioica</i> ssp. <i>gracilis</i> forest	Pacific willow / stinging nettle	G2	G2		4
<i>Stipa lemmonii</i> / <i>Racomitrium canescens</i> herbaceous vegetation	Lemmon needlegrass / rock moss	G1	G1		1,10
<i>Thuja plicata</i> - <i>Abies grandis</i> / <i>Polystichum munitum</i> forest	Western redcedar - grand fir / swordfern	G2	G2		1,4

Scientific Name	Common Name	Global Rank rounded	Global Rank full	USES Listing	Rationale and/or Description
Plant Communities		Codes listed at end of report:			
<i>Tsuga heterophylla</i> / <i>sphagnum</i> spp. forest	Western hemlock - (western redcedar) / peat moss	G1	G1		1,10
<i>Vaccinium caespitosum</i> / lichen shrubland	Dwarf blueberry	G1	G1		10
Species					
<u>Birds</u>					
	Dabbling ducks	G5	G5		9
	Diving ducks/bay ducks	G5	G5		9
<i>Accipiter gentilis</i>	Northern goshawk	G5	G5		2,3,11
<i>Aechmophorus occidentalis</i>	Western grebe	G5	G5		
<i>Agelaius tricolor</i>	Tricolored blackbird	G3	G3		1,2
<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	G5		12
<i>Ardea herodias</i>	Great blue heron	G5	G5		3,9
<i>Asio flammeus</i>	Short-eared owl	G5	G5		3,11
<i>Athene cunicularia</i>	Burrowing owl	G4	G4		
<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	G3G4		1
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	G3G4		1
<i>Brachyramphus marmoratus</i>	Marbled murrelet - nesting	G3	G3G4		1
<i>Branta bernicla</i>	Brant	G5	G5		
<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2	G5T2		1
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	G5T2		1
<i>Chaetura vauxi</i>	Vaux's swift	G5	G5		7
<i>Chen caerulescens</i>	Snow goose	G5	G5		9
<i>Chlidonias niger</i>	Black tern	G4	G4		2,3,11
<i>Chordeiles minor</i>	Common nighthawk	G5	G5		3
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	G5	G5	PS	2,12
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	G5		9
<i>Columba fasciata</i>	Band-tailed pigeon mineral springs	G5	G5		9
<i>Contopus cooperi</i>	Olive-sided flycatcher	G4	G4		2,7
<i>Contopus sordidulus</i>	Western wood-pewee	G5	G5		7
<i>Cygnus buccinator</i>	Trumpeter swan	G4	G4		7
<i>Dendragapus obscurus</i>	Blue grouse	G5	G5		7
<i>Dendroica nigrescens</i>	Black-throated gray warbler	G5	G5		7
<i>Dendroica occidentalis</i>	Hermit warbler	G4	G4G5		7
<i>Dendroica townsendi</i>	Townsend's warbler	G5	G5		7
<i>Empidonax difficilis</i>	Pacific-slope flycatcher	G5	G5		7
<i>Empidonax traillii brewsteri</i>	Willow flycatcher	G5	G5T?		2,7
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	G5T2	C	1,2,12
<i>Falco peregrinus</i>	Peregrine falcon	G4	G4	PS:LE	
<i>Gavia spp</i>	Loons	GU	GU		
<i>Grus canadensis</i>	Sandhill crane	G5	G5		9
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	GU		
<i>Haematopus bachmani, arenaria melanocephala</i>	Shorebirds-rocky/dispersed	GU	G5		
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	G4		2,9
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	G4		2,9
<i>Icterus galbula</i>	Bullock's oriole	G5	G5		7
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	G5		2,3,11
<i>Melanerpes lewis</i>	Lewis's woodpecker	G5	G5		2,7
<i>Melanitta spp</i>	Scoters	GU	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5	G5		

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Species		Codes listed at end of report:			
Birds					
<i>Poecile rufescens</i>	Chestnut-backed chickadee	G5	G5		7
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	G5T3		1,2,3
<i>Progne subis</i>	Purple martin	G5	G5		2,3
<i>Regulus satrapa</i>	Golden-crowned kinglet	G5	G5		7
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	GU		
<i>Selasphorus rufus</i>	Rufous hummingbird	G5	G5		7
<i>Sialia mexicana</i>	Western bluebird	G5	G5		7
<i>Sialia mexicana</i>	Western bluebird habitat	G5	G5		7
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	G5	G5T?		11
<i>Sphyrapicus nuchalis</i>	Red-breasted sapsucker	G5	G5		3
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	G3T3	LT	1,2,7, 9
<i>Sturnella neglecta</i>	Western meadowlark	G5	G5		12
<i>Various</i>	Shorebird aggregations (non-marine)	GU	GU		9
<i>Various</i>	Wintering raptor concentrations	GU	GU		9
Fishes					
<i>Acipenser transmontanus pop2</i>	White Sturgeon (Columbia River)	G4T?	G4T?		11,4
<i>Acipenser transmontanus pop4</i>	White sturgeon (Fraser river)	G2	G4T1?		1,4,12
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	G?		
<i>Catostomus sp 4</i>	Salish sucker	G1	G1		1,4,12
<i>Clupea pallasii</i>	Pacific herring spawning	G?	G?		
<i>Gasterosteus sp</i>	Vananda Creek Benthic Stickleback	G1	G1		1,4
<i>Gasterosteus sp</i>	Vananda Creek Limnetic Stickleback	G1	G1		1,4
<i>Gasterosteus sp 2</i>	Enos Lake Limnetic Stickleback	G1	G1		1,4
<i>Gasterosteus sp 3</i>	Enos Lake Benthic Stickleback	G1	G1		1,4
<i>Gasterosteus sp 4</i>	Paxton Lake Limnetic Stickleback	G1	G1		1,4
<i>Gasterosteus sp 5</i>	Paxton Lake Benthic Stickleback	G1	G1		1,4
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	G?		
<i>Lampetra tridentata</i>	Pacific lamprey	G5	G5		2,8,11
<i>Novumbra hubbsi</i>	Olympic mudminnow	G3	G3		1,4
<i>Ophiodon elongatus</i>	Lingcod	G?	G?		
<i>Oregonichthys crameri</i>	Oregon chub	G2	G2		1,2,4
<i>Rhinichthys sp 4</i>	Nooksack dace	G3	G3		1,4,12
<i>Salvelinus confluentus pop 3</i>	Bull trout	G2	G3T2Q		1,2
<i>Sebastes caurinus</i>	Copper rockfish	G?	G?		
<i>Sebastes emphaeus</i>	Puget sound rockfish	G?	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?	G?		
<i>Sebastes melanops</i>	Black rockfish	G?	G?		
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?	G?		
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	G?		
Herpetofauna					
<i>Aneides ferreus</i>	Clouded salamander	G3	G3		1,13
<i>Ascaphus truei</i>	Tailed frog	G4	G4		3,12,14
<i>Batrachoseps wrighti</i>	Oregon slender salamander	G3	G3		1,2
<i>Bufo boreas</i>	Western toad	G4	G4	PS	2
<i>Chrysemys picta</i>	Painted turtle	G5	G5		11
<i>Clemmys marmorata</i>	Western pond turtle	G3	G3G4		
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	G3T3		1,2,3,12
<i>Coluber constrictor</i>	Racer	GU	G5		3,11
<i>Contia tenuis</i>	Sharptail snake	G5	G5		5,12
<i>Crotalus viridis</i>	Western rattlesnake	G5	G5		6
<i>Diadophis punctatus amabilis</i>	Pacific ringneck snake	G4	G5T4		11

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Species Herpetofauna		Codes listed at end of report:			
<i>Dicamptodon copei</i>	Cope's giant salamander	G3	G3		1
<i>Dicamptodon tenebrosus</i>	Pacific giant salamander	G5	G5		12,13
<i>Pituophis catenifer catenifer</i>	Pacific gopher snake	G5	G5T5		12
<i>Plethodon dunni</i>	Dunn's salamander	G4	G4		
<i>Plethodon larselli</i>	Larch mountain salamander	G2	G2		1,2
<i>Plethodon vandykei</i>	Van dyke's salamander	G2	G2		1,2
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	G4T4		2,3,9,11
<i>Rana boylei</i>	Foothill yellow-legged frog	G3	G3		1,2
<i>Rana pretiosa</i>	Oregon spotted frog	G2	G2G3	C	1,2,12
<i>Rhyacotriton cascadae</i>	Cascade torrent salamander	G3	G3		1
<i>Rhyacotriton kezeri</i>	Columbia torrent salamander	G3	G3		1
<i>Rhyacotriton olympicus</i>	Olympic torrent salamander	G2	G2		1
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	G3	G3		1
<i>Sceloporus occidentalis</i>	Western fence lizard	G5	G5		5,14
<i>Sceloporus occidentalis</i>	Western fence lizard habitat	G5	G5		5,14
<u>Insects</u>					
<i>Acetropis americana</i>	Grass bug	G1	G1		1
<i>Acupalpus punctulatus</i>	Marsh carabid beetle	G2	G2?		1
<i>Agonum belleri</i>	Beller's ground beetle	GU	GU		1,2
<i>Autographa speciosa</i>	Noctuid moth	G1	G1?		1
<i>Buprestis gibbsi</i>	Wood-borer beetle	GU	GU		4?
<i>Calopteryx aequabilis</i>	River Jewelwing	G5	G5		12,8
<i>Catocala allusa</i>	Endemic moth	G4	G4		4
<i>Ceraclea vertreesi</i>	Vertrees's ceracleean caddisfly	G2	G2?		1
<i>Ceratocapsus downesi</i>	Mirid bug	G1	G1?		1
<i>Chloealtis aspasma</i>	Siskiyou chloealtis grasshopper	G2	G2?		1,2
<i>Clivenema fusca</i>	Mirid bug	G1	G1?		1
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	G5T3T4		12
<i>Colias occidentalis occidentalis</i>	Western sulphur	G3	G3		1
<i>Coriomeris insularis</i>	Coreid bug	G2	G2G3		1
<i>Derephysia foliacea</i>	Foliaceous lace bug	G4	G?		4?
<i>Donacia idola</i>	Big idol leaf beetle	G4	G?		4?
<i>Eanus hatchi</i>	Hatch's click beetle	G2	G2?		1,2
<i>Euchloe ausonides</i>	Island marble (Large marble new subspecies?)	G1	G1T1		1
<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	G5T1		1,2
<i>Euphyes vestris vestris</i>	Dun skipper	G3	G5T3		1
<i>Gomphus kurilis</i>	Pacific Clubtail	G4	G4		3,8
<i>Hesperia comma oregonia</i>	Oregon branded skipper	G5	G5T?		11
<i>Icaricia icarioides blackmorei</i>	Blackmore's blue	G3	G5T3		1
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	G5T1		1,2
<i>Mitoura johnsoni</i>	Johnson's hairstreak	G3	G3		1
<i>Oistus edmonstoni</i>	Wood-borer beetle	GU	GU		3
<i>Plebeius saepiolus insulanus</i>	Vancouver Island blue	G1	G5T1?		1
<i>Polites mardon</i>	Mardon skipper	G2	G2G3		1,2
<i>Polites sonora siris</i>	Dog star skipper	G4	G4T?		3
<i>Proserpinus clarkiae</i>	Clark's sphinx moth	G4	G4G5		3
<i>Rhyacophila fenderi</i>	Fender's rhyacophilan caddisfly	G3	G3?		1
<i>Speyeria callippe ssp 1</i>	Willamette callippe fritillary	G1	G5T1?		
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5	G5T?		3
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4	G5T3T4		2,11
<u>Mammals</u>					

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Species		Codes listed at end of report:			
Mammals					
<i>Balaenoptera acutorostrata</i>	Minke whale	G5	G5		
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	G4T3T4		2,9
<i>Eschrichtius robustus</i>	Grey whale	G4	G4	PS:LE	
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	G3	LE, LT	2,1
<i>Eumetopias jubatus</i>	Steller sea lion rafting sites	G3	G3	LE, LT	2,1
<i>Lepus californicus</i>	Black-tailed jackrabbit	G5	G5		3
<i>Megaptera novaeangliae</i>	Humpback whale	G3	G3	LE	
<i>Microtus canicaudus</i>	Gray-tailed vole	G4	G4		4
<i>Microtus townsendii pugeti</i>	Shaw Island Townsend's vole	G2	G5T1T2		1
<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3	G5T3		1
<i>Myotis keenii</i>	Keen's long-eared myotis	G2	G2G3		1
<i>Odocoileus virginianus leucurus</i>	Columbian white-tailed deer	G2	G5T2Q		1,2
<i>Orcinus orca</i>	Killer whale	G4	G4G5		
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5	G5		9
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	G4G5		
<i>Scapanus townsendii</i>	Townsend's mole	G5	G5		12,13
<i>Sciurus griseus</i>	Western gray squirrel	G5	G5		2,3
<i>Sorex bairdi</i>	Baird's shrew	G4	G4		4
<i>Sorex bendirii</i>	Pacific water shrew	G4	G4		3,12
<i>Sorex palustris brooksi</i>	Vancouver Island water shrew	G2	G5T2		1
<i>Thomomys bulbivorus</i>	Camas pocket gopher	G4	G4?		2,3,4
<i>Thomomys mazama couchi</i>	Western pocket gopher, ssp couchi	G2	G4G5T2		1,2
<i>Thomomys mazama glacialis</i>	Western pocket gopher, ssp glacialis	G1	G4G5T1	C	1,2
<i>Thomomys mazama pugetensis</i>	Western pocket gopher, ssp pugetensis	GU	GU		1,2
<i>Thomomys mazama tumuli</i>	Western pocket gopher, ssp tumuli	G1	G4G5T1		1
<i>Thomomys mazama yelmensis</i>	Western pocket gopher, ssp yelmensis	GU	GU		1,2
<i>Thomomys talpoides douglasii</i>	Brush prairie pocket gopher	G1	G5T1		1
<i>Various</i>	Bat roost sites	GU	GU		9
Molluscs					
<i>Anodonta californiensis</i>	California Floater	G3	G3		1,2,8
<i>Anodonta wahlamensis</i>	Willamette papershell	G2	G2Q		1,10
<i>Calliostoma bernardi</i>	Bernard's shiny white top shell	G?	G?		
<i>Crassidoma giganteum</i>	Rock scallop	G?	G?		
<i>Cryptomastix devia</i>	Puget oregonian (snail)	G2	G2?		1
<i>Deroceras hesperium</i>	Evening fieldslug	G1	G1		1
<i>Fisherola nuttalli</i>	Shortface lanx	G2	G2		1,8
<i>Fluminicola columbiana</i>	Columbia pebblesnail	G3	G3		1,2,8
<i>Gonidea angulata</i>	Western ridged mussel	G3	G3		1,8
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	G?		
<i>Hanleyella oldroydi</i>	Tiny white black-spotted chiton	G?	G?		
<i>Hemphillia glandulosa</i>	Warty jumping-slug	G2	G2		1
<i>Juga hemphilli hemphilli</i>	Barren Juga	G2	G2?T2		1,4
<i>Lyogyrus sp. 4</i>	Columbia Dusksnail	G2	G2		1,4
<i>Megomphix hemphilli</i>	Oregon megomphix (snail)	G2	G2		1
<i>Monadenia fidelis columbiana</i>	Pacific sideband	G1	G?T1		1
<i>Ostrea lurida</i>	Olympia oyster	G?	G?		
<i>Physella columbiana</i>	Rotund Physa	G2	G2		1,4
<i>Vespericola sp 1</i>	Bald (oak springs) hesperian	G1	G1		1
<i>Vorticifex neritoides</i>	Nerite Ramshorn	G1Q	G1Q		1,4
Non-Vascular - Fungi					
<i>Amanita farinosa</i>	Amanita farinosa	G3	G3		1

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Species		Codes listed at end of report:			
<u>Non-Vascular - Fungi</u>					
<i>Amanita lanei</i>	Amanita lanei	G3	G3		1
<i>Ramaria celerivirescens</i>	Ramaria celerivirescens	G2	G2		1
<i>Ramaria maculatipes</i>	Ramaria maculatipes	G1	G1		1
<i>Ramaria verlotensis</i>	Ramaria verlotensis	G1	G1		1
<u>Non-Vascular - Lichen</u>					
<i>Alectoria lata</i>	Alectoria lata	G?	G?		
<i>Bryoria tortuosa</i>	Bryoria tortuosa	G2	G2		1
<i>Cladina portentosa</i>	Cladina portentosa	G?	G?		
<i>Cystocoleus ebeneus</i>	Cystocoleus ebeneus	G?	G?		
<i>Kaernefeltia californica</i>	Kaernefeltia californica	G2	G2		1
<i>Leptogium rivale</i>	Leptogium rivale	G?	G?		
<i>Lobaria linita</i>	Lobaria linita	G4	G4		
<i>Niebla cephalota</i>	Niebla cephalota	G?	G?		
<i>Pannaria rubiginosa</i>	Pannaria rubiginosa	G4	G4		
<i>Phylliscum demangeonii</i>	Phylliscum demangeonii	G?	G?		
<i>Pilphorus nigricaulis</i>	Pilphorus nigricaulis	G?	G?		
<i>Ramalina thrausta</i>	Ramalina thrausta	G?	G?		
<i>Sulcaria badia</i>	Sulcaria badia	G1	G1		1
<i>Thelomma mammosum</i>	Thelomma mammosum	G?	G?		
<i>Thelomma occidentale</i>	Thelomma occidentale	G?	G?		
<i>Trapeliopsis wallrothii</i>	Trapeliopsis wallrothii	G?	G?		
<i>Umbilicaria angulata</i>	Umbilicaria angulata	G2	G2		1
<i>Umbilicaria phaea</i>	Umbilicaria phaea	G?	G?T?		
<i>Umbilicaria polyrrhiza</i>	Umbilicaria polyrrhiza	G1	G1		1
<i>Usnea longissima</i>	Usnea longissima	G?	G?		
<i>Usnea wirthii</i>	Usnea wirthii	G2	G2		1
<u>Non-Vascular - Moss</u>					
<i>Andreaea megistospora</i>	Andreaea megistospora	G4	G4		
<i>Andreaea rothii</i>	Andreaea rothii	G5	G5		
<i>Bruchia flexuosa</i>	Bruchia flexuosa	G4	G4		
<i>Bryum violaceum</i>	Bryum violaceum	G4	G4?		
<i>Crumia latifolia</i>	Crumia latifolia	G3	G3		1
<i>Ditrichum schimperi</i>	Ditrichum schimperi	G4	G4?		
<i>Drepanocladus crassicosatus</i>	Drepanocladus crassicosatus	G3	G3		1
<i>Ephemerum crassinervium</i>	Ephemerum crassinervium	G5	G5		
<i>Ephemerum serratum</i>	Ephemerum serratum	G5	G5		
<i>Fissidens grandifrons</i>	Fissidens grandifrons	G4	G4		
<i>Fissidens pauperculus</i>	Fissidens pauperculus	G3	G3		1
<i>Funaria muhlenbergii</i>	Funaria muhlenbergii	G3	G3?		1
<i>Homalia trichomanioides</i>	Homalia trichomanioides	G5	G5		
<i>Huperzia occidentalis</i>	Fir club-moss	G5	G5		
<i>Lycopodiella inundata</i>	Northern bog clubmoss	G5	G5		
<i>Myurella julacea</i>	Myurella julacea	G4	G4		
<i>Neckera pennata</i>	Neckera pennata	G5	G5		
<i>Orthotrichum hallii</i>	Orthotrichum hallii	G4	G4		
<i>Platyhypnidium riparioides</i>	Platyhypnidium riparioides	G4	G4		
<i>Pohlia sphagnicola</i>	Pohlia sphagnicola	G3	G3		1
<i>Polytrichum strictum</i>	Polytrichum strictum	G5	G5		
<i>Tetradontium brownianum</i>	Little georgia	G3	G3		1
<i>Thamnobryum neckeroides</i>	Thamnobryum neckeroides	G3	G3		1
<i>Tortula papillosa</i>	Tortula papillosa	G5	G5		

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Non-Vascular - Moss					
<i>Trichostomopsis australasiae</i>	Trichostomopsis australasiae	G4	G4		
<u>Non-Vascular Plants</u>					
<i>Antithamnion kyllinii</i>	Antithamnion kyllinii	G3	G3G4		1
<i>Barbula eustegia</i>	Barbula eustegia	G3	G3?		1?
<i>Callocolax globosis</i>	Callocolax globosis	G3	G3		1
<i>Cassiope lycopodioides</i>	Clubmoss bell-heather	G4	G4		
<i>Eugomontia sacculata</i>	Eugomontia sacculata	G3	G3		1
<i>Herbertus aduncus</i>	Liverwort	G4	G4?		1
<i>Herposiphonia verticillata</i>	Herposiphonia verticillata	G3	G3G4		1
<i>Laminaria farlowii</i>	Laminaria farlowii	G4	G4G5		
<i>Myriogramme pulchra</i>	Myriogramme pulchra	G2	G2		1
<i>Myriogramme spectabilis</i>	Myriogramme spectabilis	G3	G3		1
<i>Ozophora latifolia</i>	Ozophora latifolia	G3	G3G4		1
<i>Phycodryis riggii</i>	Phycodryis riggii	G4	G4		
<i>Plagiopus oederiana</i>	Plagiopus oederiana	G5	G5		
<i>Polysiphonia macounii</i>	Polysiphonia macounii	G1	G1?Q		1
<i>Sphaerocarpos hians</i>	Liverwort	G1	G1		1
<i>Syringoderma phinneyi</i>	Syringoderma phinneyi	G1	G1		1
<u>Other Invertebrates</u>					
<i>Calcigorgia spiculifera</i>	Gorgonian coral	GU	GU		
<i>Cancer magister</i>	Dungeness crab	G?	G?		
<i>Ceramaster arcticus</i>	Arctic cookie star	G?	G?		
<i>Cucumaria miniata</i>	Burrowing sea cucumber	GU	GU		
<i>Cumanotus fernaldi</i>	Fernald's seaslug (cumanotus)	G?	G?		
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	G1		1,2
<i>Flabellina sp</i>	Snowy flabellina	GU	GU		
<i>Gorgonocephalus eucnemis</i>	Basket star	G?	G?		
<i>Halichondria species aff fibrosa</i>	White halichondrid sponge	G?	G?		
<i>Hololepida magna</i>	Giant swimming scaleworm	GU	GU		
<i>Lopholithodes (Various)</i>	Box crabs	G?	G?		
<i>Oeneis nevadensis gigas</i>	Greater arctic	G5	G5T?		11
<i>Okenia vancouverensis</i>	Vancouver's okenia	G?	G?		
<i>Pentamera trachyplaca</i>	Rough plated pentamera sea cucumber	G?	G?		
<i>Pollicipes plymerus</i>	Gooseneck barnacles	G?	G?		
<i>Polyorchis penicillatus</i>	Polyorchis jellyfish	G?	G?		
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?	G?		
<i>Serripes groenlandicus</i>	Greenland cockle	G?	G?		
<i>Synhalcurias species</i>	Tall, deep sea anemone	GU	GU		
<i>Tritonia diomedea</i>	Rosy tritonia	G?	G?		
<i>Various</i>	Six-rayed glass skeleton sponges	GU	GU		9
<i>Various</i>	Spiny vermilion star	G?	G?		9
<i>Virgularia spp</i>	Seawhips; virgularia spp	G?	G?		
<u>Vascular Plants</u>					
<i>Abronia umbellata ssp acutalata</i>	Pink sand verbena	GX	G5TXQ		10
<i>Agoseris elata</i>	Tall agoseris	G4	G4		5
<i>Agrostis hallii</i>	Hall's bentgrass	G4	G4G5		5
<i>Agrostis howellii</i>	Howell's bentgrass	G2	G2		1,2
<i>Agrostis microphylla</i>	Small-leaf bentgrass	G4	G4		5?
<i>Allium crenulatum</i>	Olympic onion	G4	G4		12,13
<i>Allium geyeri var geyeri</i>	Geyer's onion		G4G5T4		5,12
<i>Allium geyeri var tenerum</i>	Geyer onion		G4G5T3T5		5,12

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Vascular Plants					
<i>Allium unifolium</i>	One-leaved onion	G4	G4G5		5
<i>Alopecurus carolinianus</i>	Tufted foxtail	G5	G5		5,12
<i>Androsace filiformis</i>	Slender rock-jasmine	G4	G4		5
<i>Apocynum medium</i>	Western dogbane	G5	G5?		5
<i>Apocynum sibiricum var salignum</i>	Clasping-leaf dogbane	G5	G5?T?		5
<i>Arenaria paludicola</i>	Marsh sandwort	G1	G1		1,5,2
<i>Aristida oligantha</i>	Prairie three-awn grass	G5	G5		5
<i>Artemisia campestris ssp caudata</i>	Beach wormwood	G5	G5T5		5
<i>Artemisia campestris ssp scouleriana</i>	Pacific sage	G5	G5T4T5		5
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	G5	G5		5
<i>Asclepias speciosa</i>	Showy milkweed	G5	G5		5
<i>Aster borealis</i>	Boreal aster	G5	G5		5
<i>Aster curtus</i>	White-topped aster	G3	G3		1,12,4,2
<i>Aster eatonii</i>	Eaton aster	G5	G5		5
<i>Aster ericoides ssp pansus</i>	Squarrose white wild aster	G5	G5T5		5
<i>Aster hallii</i>	Hall's aster	G4	G4		4
<i>Aster laevis var geyeri</i>	Smooth aster	G5	G5T?		5
<i>Aster occidentalis var occidentalis</i>	Western bog aster	G5	G5T?		5
<i>Aster radulinus</i>	Rough-leaf aster	G4	G4G5		12,13
<i>Aster vialis</i>	Wayside aster	G2	G2		1,2,4
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	G5		5,12
<i>Balsamorhiza hookeri</i>	Hooker's balsam-root	G5	G5		5
<i>Bergia texana</i>	Texas bergia	G5	G5		5
<i>Berula erecta var incisa</i>	Wild parsnip	G5	G5T5		5
<i>Betula pumila var glandulifera</i>	Dwarf birch	G5	G5T5		5
<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	G3	G3		1,4
<i>Blepharipappus scaber</i>	Rough eyelash-weed	G5	G5		5
<i>Bolandra oregana</i>	Oregon bolandra	G3	G3		1
<i>Botrychium ascendens</i>	Upward-lobed moonwort	G2	G2G3		1,5
<i>Botrychium simplex</i>	Least grape-fern	G5	G5		5
<i>Calamagrostis howellii</i>	Howell reedgrass	G4	G4		
<i>Callitriche marginata</i>	Winged water-starwort	G4	G4		5
<i>Calochortus uniflorus</i>	Shortstem mariposa lily	G4	G4		5
<i>Caltha palustris var palustris</i>	Marsh marigold	G5	G5T5		5
<i>Calycadenia truncata</i>	Oregon western rosin-weed	G4	G4		5
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	G5T?		4
<i>Camissonia contorta (= Oenothera contorta)</i>	Dwarf contorted suncup	G5	G5		5,12
<i>Cardamine parviflora</i>	Small-flower bitter-cress	G5	G5		5
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	G4		4
<i>Carex comosa</i>	Bristly sedge	G5	G5		5
<i>Carex interrupta</i>	Green-fruited sedge	G3	G3G4		12,13
<i>Carex stylosa</i>	Long-styled sedge	G5	G5		5
<i>Carex swanii</i>	Swan sedge	G5	G5		13,12
<i>Carex tenera</i>	Slender sedge	G5	G5		5
<i>Carex vulpinoidea</i>	Fox sedge	G5	G5		5
<i>Castilleja levisecta</i>	Golden paintbrush	G1	G1	LT	1,12,4,2
<i>Castilleja tenuis</i>	Hairy owl's-clover	G5	G5		12,13
<i>Caulanthus lasiophyllus var lasiophyllus</i>	Slender-pod caulanthus	G5	G5		5
<i>Centaurium muehlenbergii</i>	Muhlenberg's centaury	G5	G5?		12,13
<i>Chrysolepis chrysophylla</i>	Golden chinquapin	G5	G5		5
<i>Cicendia quadrangularis</i>	Oregon microcala	G4	G4		5
<i>Cicuta bulbifera</i>	Bulb-bearing water-hemlock	G5	G5		5

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Vascular Plants					
<i>Cimicifuga elata</i>	Tall bugbane	G2	G2		1,12,2
<i>Clarkia purpurea ssp viminea</i>	Large clarkia	G3	G5T3		12,5
<i>Claytonia washingtoniana</i>	Washington springbeauty	G2	G2G4		1
<i>Cochlearia officinalis</i>	Scurvy-grass	G5	G5		5
<i>Crassula connata</i>	Pygmy-weed	G5	G5		5,12
<i>Cyperus acuminatus</i>	Short-point flatsedge	G5	G5		5
<i>Cyperus bipartitus</i>	Shining flatsedge	G5	G5		5
<i>Cyperus schweinitzii</i>	Schweinitz's flatsedge	G5	G5		5
<i>Cypripedium montanum</i>	Mountain lady's-slipper	G4	G4G5		5
<i>Darmera peltata</i>	Umbrella plant	G4	G4Q		5
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	G4T2		1,4,2
<i>Delphinium nuttallii</i>	Upland larkspur	G4	G4		4
<i>Delphinium oregonum</i>	Larkspur	G1	G1		1,4
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB	HYB		1,4,2
<i>Descurainia pinnata ssp filipes</i>	Western tansy mustard	G5	G5T?		5
<i>Dryopteris carthusiana</i>	Spinulose shield fern	G5	G5		5
<i>Elatine rubella</i>	Southwestern waterwort	G5	G5		5
<i>Elatine triandra</i>	Longstem water-wort	G5	G5		
<i>Eleocharis parvula</i>	Small spikerush	G5	G5		5
<i>Eleocharis rostellata</i>	Beaked spikerush	G5	G5		5
<i>Elodea nuttallii</i>	Nuttall's waterweed	G5	G5?		5,8
<i>Epilobium torreyi</i>	Brook spike-primrose	G5	G5		5,12
<i>Equisetum palustre</i>	Marsh horsetail	G5	G5		5
<i>Eremocarpus setigerus</i>	Fishpoison	G5	G5		5
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	G4T1	LE	4,2
<i>Erigeron flagellaris</i>	Running fleabane	G5	G5		5
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5	G5T?		5
<i>Eriophorum vaginatum ssp spissum</i>	Sheathed cottongrass	G5	G5T5		5
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	G5T5		4
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	G5		1,12
<i>Eupatorium maculatum var bruneri</i>	Joe-pye weed	G5	G5T4T5Q		5
<i>Floerkea proserpinacoides</i>	False mermaid-weed	G5	G5		5
<i>Gaillardia aristata</i>	Great blanket-flower	G5	G5		5
<i>Galium mexicanum ssp asperulum</i>	Rough bedstraw	G5	G5T?		5
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	G4G5		5
<i>Geum triflorum var campanulatum</i>	Western red avens	G4	G5T4		
<i>Gilia sinistra ssp sinistra</i>	Gilia sinistra ssp sinistra	G4	G4T4		5
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	G3		1
<i>Grindelia hirsutula var hirsutula</i>	Gum plant	G5	G5T?		5,12
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	G5		4
<i>Helianthus nuttallii ssp nuttallii</i>	Nuttall's sunflower	G5	G5T5		5,12
<i>Heterotheca oregona</i>	Oregon golden-aster	G4	G4		5
<i>Heterotheca villosa var villosa</i>	Hairy golden-aster	G5	G5T5		5
<i>Hieracium canadense var canadense</i>	Canada hawkweed	G5	G5T?		5
<i>Hieracium parryi</i>	Parry's hawkweed	GU	GU		5
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	G4T2		4,2
<i>Howellia aquatilis</i>	Water howellia	G2	G2	LT	1,2,10
<i>Hutchinsia procumbens</i>	Prostrate hymenolobus	G5	G5		5,12
<i>Hydrocotyle verticillata</i>	Whorled pennywort	G5	G5		5,8
<i>Hypericum scouleri ssp nortoniae</i>	Western st. john's-wort	G5	G5T?		5
<i>Idahoia scapigera</i>	Scapose scalepod	G5	G5		5,12
<i>Iris missouriensis</i>	Western blue iris	G5	G5		5

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Vascular Plants					
<i>Isopyrum stipitatum</i>	Siskiyou rue-anemone	G4	G4?		5
<i>Juncus hemiendytus</i> var <i>hemiendytus</i>	Dwarf rush	G5	G5T5		5
<i>Juncus kelloggii</i>	Kellogg's rush	G3	G3?		1?,5,12
<i>Juncus torreyi</i>	Torrey's rush	G5	G5		5,2
<i>Lactuca pulchella</i>	Blue lettuce	G5	G5T5		5
<i>Lagophylla ramosissima</i>	Slender hareleaf	G5	G5		5
<i>Lasthenia glaberrima</i>	Smooth goldfields	G5	G5		5
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	G4		4
<i>Lathyrus lanszwertii</i> var <i>lanszwertii</i>	Lathyrus lanszwertii var lanszwertii	G4	G4?		5
<i>Lathyrus torreyi</i>	Torrey's peavine	G5	G5		5
<i>Lepidium nitidum</i>	Shining pepper-grass	G5	G5		5
<i>Lepidium oxycarpum</i>	Sharp-pod pepper-grass	G4	G4		5
<i>Leymus triticoides</i>	Creeping wild rye	G4	G4G5		5,12
<i>Lilaea scilloides</i>	Flowering quillwort	G4	G4G5?		5
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	G3		1,4
<i>Linaria canadensis</i> var <i>texana</i>	Texas toadflax	G4	G4G5		5
<i>Linum (sclerolinon) digynum</i>	Northwestern yellow-flax	G5	G5		5
<i>Liparis loeselii</i>	Loesel's twayblade	G5	G5		5
<i>Lithophragma tenellum</i>	Slender woodland-star	G5	G5		5
<i>Lithospermum ruderale</i>	Western gromwell	G5	G5		5
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	G2	LE	1,2,4
<i>Lomatium dissectum</i> var <i>dissectum</i>	Fern-leaved desert-parsley	G4	G4T4		5
<i>Lomatium grayi</i>	Mountain desert-parsley	G5	G5		5,12
<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	G5	G5		5
<i>Lotus formosissimus</i>	Seaside trefoil	G5	G5		12,13
<i>Lotus pinnatus</i>	Bog bird's-foot-trefoil	G5	G5		12,13
<i>Lupinus affinis</i>	Fleshy lupine	G5	G5		1?,5
<i>Lupinus densiflorus</i> var <i>densiflorus</i>	Whitewhorl lupine	G4	G5T4		5,12
<i>Lupinus lepidus</i> var <i>lepidus</i>	Prairie lupine	G5	G5T5		12,13
<i>Lupinus rivularis</i>	Riverbank lupine	G4	G4G5		12,13
<i>Lupinus sulphureus</i> var <i>kincaidii</i>	Kincaid's lupine	G2	G5T2	LT	4,12,2
<i>Lysimachia (Steironema) ciliata</i>	Fringed loosestrife	G5	G5		5
<i>Malaxis brachypoda</i>	White adder's-mouth	G4	G4Q		5
<i>Marah oreganus</i>	Coast man-root	G4	G4		13
<i>Marsilea vestita</i>	Hairy water-fern	G5	G5		5,8
<i>Matteuccia struthiopteris</i>	Ostrich fern	G5	G5		5
<i>Meconella oregana</i>	White meconella	G2	G2		1,12,4,2
<i>Melampyrum lineare</i>	American cow-wheat	G5	G5		5
<i>Melica harfordii</i>	Harford's melic grass	G5	G5		
<i>Melica smithii</i>	Smith melic grass	G4	G4		5
<i>Microseris bigelovii</i>	Coast microseris	G4	G4		5,12
<i>Mimulus cardinalis</i>	Scarlet monkey-flower	G5	G5		5?
<i>Mimulus douglasii</i>	Douglas monkey-flower	G4	G4G5		5
<i>Mimulus tricolor</i>	Tricolor monkey-flower	G4	G4		5
<i>Minuartia californica</i>	California stitchwort	G4	G4		5,4
<i>Minuartia cismontana</i>	Minuartia cismontana	G4	G4G5T4		5
<i>Minuartia pusilla</i>	Dwarf stitchwort	G5	G5		5,12
<i>Minuartia stricta</i> var <i>puberulenta</i>	Michaux's stichwort	GU	GU		4
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	G3G4		2
<i>Muhlenbergia glomerata</i>	Marsh muhly	G5	G5		5
<i>Muhlenbergia racemosa</i>	Green muhly	G5	G5		5
<i>Myriophyllum pinnatum</i>	Cutleaf water-milfoil	G5	G5		5,12,8

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<i>Myriophyllum quitense</i>	Andean milfoil	G4	G4?		5,8
<i>Myriophyllum ussuriense</i>	Ussurian water-milfoil	G3	G3		1,5?,10?
<i>Navarretia leucocephala</i> ssp <i>leucocephala</i>	White-headed navarretia	G5	G5		5
<i>Navarretia willamettensis</i>	Willamette skunkweed	GU	GU		4?
<i>Nymphaea tetragona</i>	Pygmy water-lily	G5	G5		5,8
<i>Ophioglossum pusillum</i>	Adder's tongue	G5	G5		5,12
<i>Pellaea andromedifolia</i>	Coffee fern	G4	G4		5
<i>Penstemon rydbergii</i> (<i>hesperius</i>)	Rydberg's beardtongue	G4	G4G5		4,5?
<i>Phacelia linearis</i>	Linearleaf phacelia	G4	G4G5		5
<i>Physostegia parviflora</i>	Purple dragon-head	G4	G4G5		5
<i>Plagiobothrys figuratus</i>	Rough popcorn-flower	G4	G4Q		12,13
<i>Plagiobothrys nothofulvus</i>	Rusty popcorn-flower	G4	G4G5		5
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	G4	G4G5		5,12
<i>Plantago aristata</i>	Large-bract plantain	G5	G5		5
<i>Plectritis ciliosa</i>	Long-spur plectritis	G4	G4		5
<i>Poa howellii</i>	Howell's bluegrass	G4	G3G5		5
<i>Poa nervosa</i>	Hooker's bluegrass	G5	G5		5
<i>Polemonium micranthum</i>	Annual polemonium	G5	G5		5
<i>Polygonum californicum</i>	California knotweed	G5	G5		5
<i>Polygonum polygaloides</i> var <i>confertiflorum</i>	Dense-flower knotweed	G5	G5T5		5
<i>Polygonum punctatum</i>	Dotted smartweed	G5	G5		5
<i>Polystichum californicum</i>	California sword-fern	G4	G4		5,12
<i>Potamogeton foliosus</i> ssp. <i>fibrillosus</i>	Fibrous pondweed	G4	G5T2T4		5,8
<i>Potamogeton oakesianus</i>	Oakes pondweed	G4	G4		5,8
<i>Potamogeton obtusifolius</i>	Blunt-leaf pondweed	G5	G5		5,8
<i>Potentilla biennis</i>	Biennial cinquefoil	G5	G5		5
<i>Potentilla rivalis</i>	Brook cinquefoil	G5	G5		5
<i>Prunus subcordata</i>	Klamath plum	G5	G5		5
<i>Psilocarphus elatior</i>	Tall woolly-heads	G5	G5T5		12,13
<i>Psilocarphus tenellus</i> var <i>tenellus</i>	Slender woolly-heads	G4	G4T4		5,12
<i>Pyrocoma</i> (<i>haplopappus</i>) <i>racemosa</i> var <i>r</i>	Slender goldenweed	G5	G5T?		5
<i>Ranunculus alismaefolius</i> var <i>alismaefolius</i>	Plantain-leaved buttercup	G4	G4		12,13
<i>Ranunculus californicus</i>	California buttercup	G5	G5		5,12
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	G4		5,12
<i>Romanzoffia thompsonii</i>	Thompson mistmaiden	G3	G3		1,10
<i>Rorippa columbiae</i>	Columbia yellow-cress	G3	G3		1,2
<i>Rotala ramosior</i>	Toothcup	G5	G5		5
<i>Salix lemmonii</i>	Willow	G5	G5		5,12
<i>Salix prolixa</i> (<i>rigida</i> var <i>macrogamma</i>)	Mackenzie willow	G5	G5		5
<i>Sanicula arctopoides</i>	Bear's-foot sanicle	G5	G5		5,12
<i>Sanicula crassicaulis</i> var <i>tripartita</i>	Cutleaf pacific sanicle	G5	G5T?		4
<i>Scirpus pendulus</i> (=s. <i>lineatus</i>)	Pendulous bulrush	G4	G4?		5
<i>Scribneria bolanderi</i>	Scribner grass	G3	G3G4		
<i>Scutellaria angustifolia</i>	Narrow-leaf skullcap	G5	G5		5
<i>Scutellaria antirrhinoides</i>	Snap-dragon skullcap	G5	G5		5
<i>Sedum lanceolatum</i> var <i>nesioticum</i>	Lance-leaf stonecrop	G4	G5T4?		4
<i>Senecio hydrophilus</i>	Great swamp ragwort	G5	G5		5
<i>Senecio indecorus</i>	Plains ragwort	G5	G5		5
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	G5		5 (?)
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	G4		4
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	G3		1
<i>Sidalcea hirtipes</i>	Bristly-stemmed sidalcea	G2	G2		1

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Vascular Plants					Codes listed at end of report:
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	G4G5T?		4
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	G2	LT	1,2,4
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5	G5TU		5,12
<i>Sisyrinchium hitchcockii</i>	Hitchcock's blue-eye-grass	G1	G1		1,4?
<i>Sisyrinchium idahoense var macounii</i>	Macoun's blue-eyed grass	G5	G5T?		4
<i>Sisyrinchium idahoense var segetum</i>	Idaho blue-eyed grass	G5	G5T?		4
<i>Spiranthes porrifolia</i>	Western ladies-tresses	G4	G4		5
<i>Stachys palustris var pilosa</i>	Hairy hedge-nettle	G5	G5		5
<i>Sullivantia oregana</i>	Oregon sullivantia	G2	G2		1,2
<i>Thelypodium lasiophyllum</i>	California mustard	GU	GU		5
<i>Thelypteris nevadensis</i>	Sierra nevada marsh fern	G4	G4		13
<i>Tonella tenella</i>	Small-flower tonella	G5	G5T?		13
<i>Toxicodendron rydbergii (rhus radicans)</i>	Northern poison oak	G5	G5		5
<i>Trichostema lanceolatum</i>	Vinegar weed	G5	G5		5
<i>Trifolium ciliolatum</i>	Foothill clover	G5	G5		5
<i>Trifolium cyathiferum</i>	Bowl clover	G4	G4		13,12
<i>Trifolium dichotomum</i>	Branched Indian clover	G4?	G4?		5
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5	G5T?		5
<i>Trifolium eriocephalum ssp. arcuatum</i>	Trifolium eriocephalum ssp. Arcuatum	G3	G4T3?		5
<i>Triglochin concinnum var concinnum</i>	Dotted watermeal	G5	G5		5,12,13
<i>triglochin concinna var concinna</i>					
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	G2G3		1
<i>Triphysaria versicolor ssp versicolor</i>	Yellow owl's clover	G5	G5T5		5,12,13
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	G5T5		5,12
<i>Uropappus (microseris) lindleyi</i>	Lindley's silver-puffs	G5	G5		5,12
<i>Vaccinium myrtilloides</i>	Velvetleaf blueberry	G5	G5		5
<i>Verbena hastata</i>	Blue vervain	G5	G5		5,12
<i>Veronica anagallis-aquatica</i>	Brook-pimpernell	G5	G5		12,13
<i>Viola hallii</i>	Hall's violet	G4	G4		5
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	G5T3T5		12
<i>Wolffia borealis</i>	Dotted watermeal	G5	G5		5,12,13
<i>Wolffia columbiana</i>	Columbia water-meal	G5	G5		5,12,8
<i>Yabea microcarpa</i>	California hedge-parsley	G5	G5?		5,12
<i>Zigadenus paniculatus</i>	Foothill deathcamas	G5	G5		5
<i>Zizia aptera var occidentalis</i>	Golden alexanders	G5	G5		5

Scientific Name	Common Name	Global Rank	Global Rank	USES A Listing	Rationale and/or Description
Species		rounded	full		
Vascular Plants					<i>Codes listed at end of report:</i>

Notes:

Washington nearshore marine species of concern considered for assessment, but not used as targets:

Spiny dogfish
 Pacific hake
 Walleye pollock
 Rock sole spawning
 Pacific cod
 Dover sole
 English sole
 Sixgill shark
 Shiner perch
 Spotted ratfish
 Skates
 Cabezon
 Brown rockfish
 Canary rockfish
 Pacific giant octopus
 Gunnels
 Wolf eel
 Yellowtail rockfish
 Bocaccio rockfish
 China rockfish
 Tidepool sculpin

Legend:

Global Rank:

The relative rarity or endangerment of the target world-wide.
 G1 Critically imperiled globally.
 G2 Imperiled globally.
 G3 Either very rare and local throughout its range or found locally in a restricted range.
 n/a Not available (ranks have not been developed for ecological systems targets).
 Two codes (e.g. G1G2) represent an intermediate rank.

USES A Listing:

C Candidate

 LE Listed Endangered— a species, subspecies or variety in danger of extinction throughout all or a significant portion of its range.

 LT Listed Threatened— a species, subspecies, or variety likely to become endangered in the foreseeable future throughout all or a significant portion of its range.

 PS:*value* Partial status— status in only a portion of the species' range

Target Selection Rationale / Target Description Codes:

- 1 Imperiled or Vulnerable (includes G1-G3)
- 2 USA ESA status (including threatened or endangered)
- 3 Declining
- 4 Endemic
- 5 Disjunct
- 6 Vulnerable
- 7 Partners in Flight
- 8 Widespread
- 9 Species aggregations
- 10 Limited
- 11 State rank
- 12 Red listed (BC)
- 13 British Columbia only
- 14 Washington Only
- 15 Oregon Only
- 16 Peripheral

Appendix 6. Target Status Rationale and Ranking Definitions

Note: Definition types are listed alphabetically.

1. Ecoregional Distribution

- E Endemic (primarily or only occurring in the ecoregion)
- L Limited (occurs in the ecoregion and within a few other adjacent ecoregions)
- D Disjunct (found a significant distance from its primary range)
- W Widespread (typically found in the ecoregion, but common in other ecoregions; bulk of the distribution is elsewhere)

2. Endangered Species Status Definitions

Federal U.S. Status under Endangered Species Act of 1973 (as amended) US Department of Interior, Fish and Wildlife Service.

Listed Species

C	Candidate
E(S/A),T(S/A)	Listed endangered or threatened because of similarity of appearance
LE	Listed Endangered— a species, subspecies or variety in danger of extinction throughout all or a significant portion of its range
LT	Listed Threatened— a species, subspecies, or variety likely to become endangered in the foreseeable future throughout all or a significant portion of its range
Null Value	Usually indicates that the taxon does not have any federal status. However, because potential lag time between publication in the Federal Register and entry in the central databases and updates to the website, some taxa may have a status which does not yet appear.
PDL	Proposed for de-listing
PE	Proposed endangered
PS	Partial status— status in only a portion of the species' range
PS:value	Partial status— status in only a portion of the species' range
PT	Proposed threatened
SC	Species of concern— should be considered as terms-of-art that describe the entire realm of taxa whose conservation status may be of concern to the US Fish and Wildlife Service, but neither term has official status (former C2 species).
XE	Essential experimental population
XN	Nonessential experimental population

3. Global Heritage Status Rank Definitions¹

Listed below are definitions for interpreting the global, (range-wide) status ranks. Global ranks are assigned by Association for Biodiversity Information scientists or by a designated lead office in the Natural Heritage Network (Where no distinction is made, the definition is identical for species and ecological communities*).

Rank	Definition
G1	Critically Imperiled —Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically 5 or fewer occurrences or very few remaining individuals (<1,000) or acres (<2,000) or linear miles (<10).
G2	Imperiled —Imperiled globally because of rarity or because of some factor(s) making it very vulnerable to extinction or elimination. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000) or acres (2,000 to 10,000) or linear miles (10 to 50).
G3	Vulnerable —Vulnerable globally either because very rare and local throughout its range, found only in a restricted range, or because of other facets making it vulnerable to extinction or elimination. Typically 21-100 occurrences or between 3,000 and 10,000 individuals.
G4	Apparently Secure —Uncommon but not rare (although it may be rare in parts of its most of its range) but possibly cause for long-term concern. Typically more than 100 occurrences and more than 10,000 individuals.

¹ Ranks are updated as new information becomes available. The most current ranks for these elements are available at <http://www.natureserve.org/explorer/>. Ranks used in this assessment were current as of September 2001.

Rank	Definition
G5	Secure —Common, widespread, and abundant (although it may be rare in parts of its range, particularly on the periphery). Not vulnerable in most of its range. Typically with considerably more than 100 occurrences and more than 10,000 individuals.
GX	Presumed Extinct (species) —Believed to be extinct throughout its range. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered. Eliminated (ecological communities) —Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species.

- Acreage and distance measures for global ranking of ecological communities consider typical spatial pattern knowledge of long-term trends in relative extent. Acreage and distance estimates listed in the table above refer to G1 and G2 communities that typically occur as discrete patches on the landscape. Communities may occur today with acreage or distance greater than when originally recorded; these occurrences are still ranked G1 or G2 because of strong decline in extent or condition.

3. (Cont'd.) Additional Global Heritage Ranks

Criteria for Converting Global Ranks to Combined Global Ranks

Combined global ranks were determined from the following global rank designations:

G1	G1, G1?, G1?Q, G1Q, G?T1, G1T1, G4T1, G3T1Q, G5T1Q, G4G5T1, G5T1, G1G2
G2	G2, G2?, G2Q, G2?T2, G3T2, G3T2Q, G1G3, G2G3, G3T2, G3G4T2, G2G4T1T2Q, G4T1T2, G4T2, G4?T2?, G5T2, G5T2Q, G5T1T2, G5T1T2Q
G3	G3, G3?, G3Q, G3?Q, G2G3Q, G2G4, G2G4T?, G3G4T3, G3G4, G3QT2T3, G3T3, G3T3Q, , G4T2T3, G4T3, G4T3Q, G4T3?, G4?T3, G5T2T3, G5T2T4, G5T3, G5T3?, G5T2T3Q
G4	G4, G4?, G?, G?T?, G4Q, G4T?, G4T4, G3G5, G4T3T4, G5T4, G5T4?, G5?T4?, G5T3T4, G5T4T5, G4G5T3T4, G4G5T?, G4G5T4, G4G5T4T5, G4G5, G4G5?
G5	G5, G5?, G5?T?, G5T, G5TU, G5T5, G5T?, G5T4T5Q
GX	G5TXQ

Rank Qualifiers

Rank	Definition
?	Inexact Numeric Rank —Denotes inexact numeric rank
Q	Questionable taxonomy that may reduce conservation priority —Distinctiveness of this entity as a taxon at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority (numerically higher) conservation status rank.

Variant Global Ranks

Rank	Definition
G#G#	Range Rank —A numeric range rank (e.g., G2G3) is used to indicate uncertainty about the exact status of a taxon. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).
GU	Unrankable —Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. NOTE: Whenever possible, the most likely rank is assigned and the question mark qualifier is added (e.g., G2?) to express uncertainty, or a range rank (e.g., G2G3) is used to delineate the limits (range) of uncertainty.
G?	Unranked —Global rank not yet assessed.

4. Rationale for Including Species, Communities or Systems on the Targets List

- 1 Imperiled (includes G1-G3)
- 2 US ESA status (listed by US Fish and Wildlife Service)
- 3 Declining
- 4 Endemic
- 5 Disjunct
- 6 Vulnerable
- 7 Partners in Flight
(PIF AI: Area importance; PIF PT: Population trend; PIF Total: Total conservation priority ranking)
- 8 Widespread
- 9 Species aggregations
- 10 Limited
- 11 State rank
- 12 Red listed (BC)
- 13 Target only in BC
- 14 Peripheral

Appendix 7. Summary Descriptions of Terrestrial Ecological Systems Used as Conservation Targets in the Willamette Valley-Puget Trough-Georgia Basin Ecoregion

Systems are listed by type in the following order: marine associated, freshwater wetlands, dry herbaceous, oak woodlands and conifer forests.

Intertidal Salt Marshes

Intertidal saltwater and brackish marshes are small patch systems, confined to specific environments defined by salinity gradient, tidal inundation regime, and soil texture. They usually occur as zonal mosaics of multiple communities. Low marshes are located in areas that flood every day and are dominated by a variety of low-growing forbs and low to medium-height graminoids, especially *Salicornia virginica*, *Distichlis spicata*, and *Carex lyngbyei*. High marshes are located in areas that flood infrequently and are dominated by medium-tall graminoids and low forbs, especially *Deschampsia cespitosa*, *Argentina egedii* (*Potentilla pacifica*), and *Juncus balticus*.

Coastal Spits, Dunes, and Strand

These are linear communities dependent upon longshore drift and wind. Most of these are spits or berms behind sandy beaches, dunes are very rare in this ecoregion. In their natural state these are dominated by short to medium-tall grasses, sedges, or forbs, often with abundant bare sandy or gravelly surface exposed. *Leymus mollis* and *Festuca rubra* are the two most common dominant species, many other species are largely restricted to this environment.

Depressional Wetland Shrublands

These are medium to tall deciduous broadleaf shrub swamps that are located in depressions, or around lakes or ponds, where water tables fluctuate seasonally (seasonally to semi-permanently flooded). These are nutrient-rich systems that have muck or mineral soils. Various species of *Salix*, *Spirea douglasii*, *Malus fusca*, or *Cornus sericea* are typical. Some of these associations also occur in Sphagnum Bogs and Fens system or in Riparian Forests and Shrublands: fens are distinguished by their peat soils and an abundance of brown mosses, riparian by their riverine setting.

Depressional Wetland Broadleaf Forests

These are deciduous broadleaf forested wetlands that are located in depressions, or around lakes or ponds, where water tables fluctuate seasonally (mostly seasonally flooded regime). These are nutrient-rich systems that have muck or mineral soils. *Fraxinus latifolia* and *Alnus rubra* are the major dominant species. Some of these associations also may occur as Riparian Forests and Shrublands.

Riparian Forests and Shrublands

These forests and tall shrublands are linear in character, occurring on floodplains or terraces of rivers and streams. Riverine flooding and the succession that occurs after major flooding events are the major natural processes that drive this system. Very early successional stages can be sparsely vegetated or dominated by herbaceous vegetation. Conifers tend to increase with succession in the absence of major disturbance. Conifer-dominated types are now very rare and not well described, *Abies grandis*, *Pseudotsuga menziesii*, *Picea sitchensis*, and *Thuja plicata* are important. Major broadleaf dominant species are *Acer macrophyllum*, *Alnus rubra*, *Populus balsamifera* ssp. *trichocarpa*, *Salix sitchensis*, *Salix lucida* ssp. *lasiandra*, *Cornus sericea*, and *Fraxinus latifolia*. Some of these associations may also occur as Depressional Wetland Broadleaf Forests, Coniferous Forested Wetlands, or Depressional Wetland Shrublands.

Coniferous Forested Wetlands

Conifer-dominated swamps are mostly small patch size, occurring sporadically in glacial depressions, in river valleys, around the edges of lakes and marshes, or on slopes with seeps that form subirrigated soils. They typically have muck or mineral soils and are seasonally flooded or permanently subirrigated. They were probably never common or extensive in the landscape of WPG. Major dominant species are *Tsuga heterophylla*, *Thuja plicata*, and *Picea sitchensis*. Some of these associations may also occur as Riparian Forests and Shrublands or Tidally-influenced Freshwater Wetlands.

Tidally-influenced Freshwater Wetlands

Tidally-influenced Freshwater Wetlands occur as narrow strips to more extensive patches along tidally-influenced portions of rivers. This system is driven by daily tidal flooding of freshwater. Vegetation structure and composition is varied and depends on substrate characteristics and tidal flooding regime of particular sites. Many of these associations also occur in other systems including Autumnal Freshwater Mudflats, Freshwater Marshes, Intertidal Salt Marshes, Riparian Forests and Shrublands, and Coniferous Forested Wetlands. There has been little vegetation data collection in this type in this ecoregion.

Freshwater Aquatic Beds

Freshwater aquatic beds are small patch size, confined to lakes, ponds, rivers and streams. In large bodies of water, they are usually restricted to the littoral region where penetration of light is the limiting factor for growth. A variety of rooted or floating aquatic herbaceous species may dominate. These communities occur in water too deep for emergent vegetation.

Freshwater Marshes

Freshwater marshes are mostly small patch, confined to limited areas in suitable floodplain or basin topography. They are mostly seasonally to semi-permanently flooded. Soils are muck or mineral, and water is high nutrient. There is some compositional overlap with fens, which are distinguished by peat soils and an abundance of brown mosses, and with Tidally-influenced Freshwater wetlands, which differ by their tidal flooding regime. By definition, freshwater marshes are dominated by herbaceous species, mostly graminoids (*Carex*, *Scirpus*, *Eleocharis*, *Juncus*), but also some forbs (especially *Typha latifolia*). Marshes dominated by *Typha* or *Scirpus acutus* that occur in transition zones between salt and fresh marshes are included here in the freshwater marshes system. A few of these associations may also occur in Tidally-influenced Freshwater Wetlands or Intertidal Salt Marshes systems.

Autumnal Freshwater Mudflats

Autumnal freshwater mudflats are linear in nature along major rivers or in seasonally-flooded shallow lakebeds or floodplains that lack inflow and outflow where they may be small patch in character. They are flooded for significant portions during the wet season and exposed for significant portions of the dry season. They are dominated by a variety of forbs or graminoids. Some of these associations also occur in Tidally-influenced Freshwater Wetlands system.

Sphagnum Bogs and Fens

Sphagnum bogs and fens are distinguished from other wetlands by an abundance of sphagnum or brown mosses, and the presence of peat soils. Decomposition is so slow that peat accumulates, and the water ranges from very nutrient poor in bogs to rich in rich fens. Bogs tend to be influenced mostly by rainwater, whereas fens are significantly influenced by surface water or flowing ground water. Bogs and fens are often found together in the same wetland system. This system may be dominated by graminoids, evergreen or deciduous broadleaf shrubs, or evergreen needleleaf trees. Many plant species are confined to this system. Some of these associations, especially those in fens, also occur in Freshwater Marshes or Depressional Wetland Shrublands systems.

Wet Prairies

Wet prairies historically covered large areas of the Willamette Valley where they were maintained by a combination of wetland soil hydrology and frequent burning. These are high nutrient wetlands that are temporarily to seasonally flooded. They have been reduced to tiny fragments of their former extent. They are dominated primarily by graminoids, especially *Deschampsia cespitosa* and *Carex* spp., and to a lesser degree by forbs or shrubs.

Vernal Pools

Vernal pools are rare in the ecoregion being restricted to the Willamette Valley, Gulf Islands and San Juan Islands. They are characterized by freshwater inundation for much of the winter and spring, followed by dramatic lowering of the water table at the approach of summer, such that soils are dry in the summer. They are found in isolated small depressions with no inflow or outflow and a restrictive subsurface soil layer (clay or bedrock). Vegetation is dominated primarily by annual forbs.

Upland Prairies and Savannas

This ecosystem formed a complex mosaic of varying patch sizes with wet prairies and riparian forests over much of the Willamette Valley during the pre-European settlement era. In parts of the Puget Trough, it occurred as large patches in more forested landscapes, usually associated with deep, coarse outwash deposits. It occurs on well-drained soils and was maintained historically by frequent anthropogenic burning. In the absence of disturbance, many of them have succeeded to forest and others continue to do so. Dominant vegetation is perennial bunchgrasses, especially *Festuca roemerii*, and to a lesser degree, *Danthonia californica*, with abundant and diverse forbs. Scattered deciduous (*Quercus garryana*) and/or conifer (*Pseudotsuga menziesii*, *Pinus ponderosa*) trees are rarely found now, but such savannas historically covered about 1/3 of the total acreage.

Herbaceous Balds and Bluffs

Herbaceous balds and bluffs occur in the driest environmental settings within the ecoregion that support continuous vegetation: generally south- to west-facing slopes on shallow or sandy/gravelly soils. They are most numerous in the driest climatic portion of the ecoregion in the Gulf Islands, San Juan Islands, and southeastern Vancouver Island. They typically occur as isolated sites within a forest matrix or on coastal bluffs. Fire was probably an important process historically on most of these sites, and some of them are threatened by invasion of trees in the absence of disturbance. Vegetation is dominated by perennial bunchgrasses, forbs, and mosses. Scattered trees, especially *Pseudotsuga menziesii*, are often present.

Dry Evergreen Forests and Woodlands

This system occupies small to large patches associated with dry sites or prairie landscapes throughout the ecoregion. In the Willamette Valley section, this system becomes the dominant upland conifer forest type. It acts as a matrix type on foothills around the perimeter of the ecoregion in the Willamette Valley section, but historically was probably more like a large patch type in those areas. This system historically had moderate- to low-severity fires moderately frequently. Historically, these communities were either part of larger forested landscapes or occupied sheltered topographic positions in prairie-dominated landscapes. They now also occur on some sites that formerly supported prairies or tall shrublands (*Coylus cornuta*) with scattered trees. This is a forest or woodland primarily dominated by the long-lived conifer *Pseudotsuga menziesii*. The evergreen broadleaf *Arbutus menziesii*, the short-lived conifer *Pinus contorta*, the broadleaf deciduous *Acer macrophyllum*, and the shade-tolerant conifer *Abies grandis* are local dominant or co-dominant species. These sites are too dry and warm or have been too frequently and extensively burned for anything more than small amounts of *Tsuga heterophylla* or *Thuja plicata* present as regeneration.

Douglas-fir – Western Hemlock – Western Redcedar Forests

These communities together formed the matrix in much of the ecoregion, occurring on moderately dry to moist sites. In the Willamette Valley section, this system is less extensive and occurs mostly as large patches around the periphery of the ecoregion. Most of these associations occur as a mosaic of large patches across the landscape, differing in vegetation with their response to moisture and nutrient gradients. This system for the most part formerly supported a moderate-severity fire regime involving occasional stand-replacement fires and more frequent moderate-severity fires. This fire regime would create a

complex mosaic of stand structures across the landscape. The dominant vegetation is evergreen conifer forest, especially the very long-lived seral *Pseudotsuga menziesii*, and the shade-tolerant *Abies grandis*, *Tsuga heterophylla* and *Thuja plicata*. The deciduous broadleaf trees *Alnus rubra* and *Acer macrophyllum* are common but subordinate. The short-lived *Pinus contorta* can dominate on some sites after high-severity fires if an adequate seed source is present.

Willamette Oak Woodlands

By definition, this system occurs only in the Willamette Valley section where oak woodlands were historically a large patch type dependent on aboriginal burning activity. Soils are generally mesic yet well-drained. Succession in the absence of fire tends to favor increased shrub dominance in the understory, increased tree density, and increased importance of conifers, with the end result being conversion to a conifer forest. The vegetation is a woodland or forest dominated by deciduous broadleaf trees, mostly *Quercus garryana*. Co-dominance by the evergreen conifer *Pseudotsuga menziesii* is common.

Northern Oak Woodlands

This small patch system is associated with dry sites and frequent pre-settlement fires north of the Willamette Valley section, i.e., from the Portland Basin north. It is typically found on either shallow bedrock soils or deep gravelly glacial outwash soils. Succession in the absence of fire tends to favor increased shrub dominance in the understory, increased tree density, and increased importance of conifers, with the end result being conversion to a conifer forest. The vegetation is a woodland or forest dominated by deciduous broadleaf trees, mostly *Quercus garryana*. Co-dominance by the evergreen conifer *Pseudotsuga menziesii* is common.

Appendix 8. Summary of Representation of Terrestrial Ecological Systems for SITES Algorithm Runs in Willamette Valley-Puget Trough-Georgia Basin Ecoregion

Systems are listed by type in the following order: marine associated, freshwater wetlands, dry herbaceous, oak woodlands and conifer forests.

X = used the data source to represent the system; () = minimum sizes for conversion to points and other notes regarding conversion process; WV, CO = used only for representation in Willamette Valley (WV) or Lower Columbia (CO) sections. See text for details.

Ecological System	Spatial Representation	Known Element Occurrences	British Columbia Sensitive Ecosystems Inventory	Fraser Wetlands Inventory (Ward et al. 1992)	Puget Oak & Grassland Layer (Chappell et al. 1999)	Willamette Valley Wetlands Inventory (Titus et al. 1996)	Willamette Valley Vegetation Layer	National Wetlands Inventory	Washington Riparian Layer	Ecological Systems Layer
Intertidal Salt Marshes	Point	X	X (>2 ha)							
Coastal Spits, Dunes, and Strand	Point	X	X (>.5 km)							
Depressional Wetland Shrublands	Point	X	X (>2 ha)	X (>2 ha)		X (>2 ha) WV		X (>2 ha) CO		
Depressional Wetland Broadleaf Forests	Point	X								X (>2 ha)
Coniferous Forested Wetlands	Point	X								
Tidally-influenced Freshwater Wetlands	Point	X		X (>2 ha)						
Riparian Forests and Shrublands	Polygon/Point	X (point)	X (polygon)			X (polygon)			X (polygon)	
Freshwater Marshes	Point	X	X (>2 ha)	X (>2 ha)						
Freshwater Aquatic Beds	Point	X	X (>1.2 ha)	X (>1.2ha)		X (>1.2 ha) WV		X (>1.2ha) CO		
Autumnal Freshwater Mudflats	Point	X								
Sphagnum Bogs and Fens	Point	X	X (>2 ha)	X (>2 ha)						
Wet Prairies	Point	X								
Vernal Pools	Point	X								

Ecological System	Spatial Representation	Known Element Occurrences	British Columbia Sensitive Ecosystems Inventory	Fraser Wetlands Inventory (Ward et al. 1992)	Puget Oak & Grassland Layer (Chappell et al. 1999)	Willamette Valley Wetlands Inventory (Titus et al. 1996)	Willamette Valley Vegetation Layer	National Wetlands Inventory	Washington Riparian Layer	Ecological Systems Layer
Upland Prairies and Savannas	Point	X								
Herbaceous Balds and Bluffs	Point	X	X (>2 ha)		X (>2 ha)					
Northern Oak Woodlands	Point	X	X (>4 ha)		X (>4 ha and undeveloped)					
Willamette Oak Woodlands	Polygon/Point	X (point)					X			
Dry Evergreen Forests and Woodlands	Polygon/Point	X (point)								X (polygon)
Douglas-fir - Western Hemlock - Western Redcedar Forests	Polygon/Point	X (point)	X (point if >64 ha & old-growth)							X (polygon)

Appendix 9. Methodology for Creation of Terrestrial Ecological Systems Model

This GIS model was developed to depict the distribution of terrestrial ecological systems at the ecoregional level and at a coarse geographic scale. This involved integrating a variety of GIS datasets and multiple iterations of expert review and interpretation.

Section I lists and describes the source GIS data. Section II lists the model rules and describes how the source GIS datasets were integrated to predict the distribution of the four terrestrial ecological system targets.

I. Source GIS Data

These datasets are listed in order of their geographical location and extent

A. Entire Ecoregion

1. Biophysical Landscape Classification (Ecological Land Units)

In a GIS, Elevation zones, landform types, and surficial geology classes were intersected and re-attributed to yield a biophysical landscape classification of ecological land units (ELUs). (A subset of these map units was selected by Chris Chappell, WA NHP, to predict the distribution of Dry Evergreen Forest in Washington.)

B. Portions of Ecoregion

1. British Columbia

- Regional and Zonal Ecosystems of the Shining Mountains.

Depicts regional and zonal ecosystems of British Columbia, provided by the BC Ministry of Sustainable Resource Management, Broad Ecosystem Inventory, Shining Mountains project.

See <http://srmwww.gov.bc.ca/ecology/bei/shiningmntns.html> for metadata.

- Baseline Thematic Mapping Present Land Use Mapping at 1:250 000.

Landcover classification of Landsat 5 TM satellite imagery. Developed by British Columbia Ministry of Environment, Lands and Parks, Surveys and Resource Mapping Branch, 1995.

See <http://srmwww.gov.bc.ca/bmgs/products/btmspecn.pdf> for metadata.

- Sensitive Ecosystems Inventory, East Vancouver Island and Gulf Islands.

Canadian Wildlife Service, Environment Canada, 1998. See

<http://srmwww.gov.bc.ca/cdc/sei/vancouverisland/publications/technical/ttitle.htm> for methods and ecosystem descriptions.

- Fraser Lowland Wetland Inventory.

Canadian Wildlife Service, Environment Canada, 1998.

2. Washington & Oregon

- **A GIS Map of Existing Grasslands and Oak Woodlands in the Puget Lowland and Willamette Valley Ecoregions, Washington.**

Developed by Chris Chappell et al., WA NHP, WA DNR. Unified digital map of: (1) untilled grasslands now existing in landscapes that formerly supported native dry grasslands, and (2) oak dominated or co-dominated canopies.

3. Washington

- **USGS National Land Cover Dataset (NLCD)**

Early version of the National Land Cover Dataset developed and released by Pacific Meridian, 1999. See http://edc2.usgs.gov/lccp/nlcd/show_data.asp?code=wa&state=washington for metadata.

- **USFWS National Wetlands Inventory**

Wetland delineations from the National Wetlands Inventory (NWI) were appended to cover the portion of the ecoregion in Washington. See <http://wetlands.fws.gov/index.html>.

- **Riparian Areas in Washington**

Forested riparian areas in Washington State were delineated using FEMA 100-year floodplain data and the National Land Cover Dataset. Metadata available from the Nature Conservancy of Washington, upon request.

- **Washington DNR Soils**

Developed by WA DNR State soils mapping program, Forestland Soil Survey, 2000. See <http://www.dnr.wa.gov/dataandmaps/metadata/soilsmeta.html> for metadata. A subset of soil types was selected by Chris Chappell, WA NHP, to predict the distribution of Dry Evergreen Forest in the southern Puget Trough.

4. Oregon

- **Willamette Valley Vegetation Map**

Created by Oregon Natural Heritage Program, using data from OR NHP Wetland Survey, WDFW wildlife habitats and species associations layer (O'Neil & Johnson), Hullse landcover classification (OSU).

- **Willamette Valley Pre-Settlement Vegetation, c. 1851.**

Developed by Oregon Natural Heritage Program, The Nature Conservancy of Oregon and Oregon State University. Downloaded via <http://www.fsl.orst.edu/pnwer/wrb/access.html>; see http://www.fsl.orst.edu/pnwer/wrb/metadata/veg1851_v4.html#TOC. This data was re-classified by Ed Alverson, OR NHP, to identify the following historic vegetation classes:

- Oak Woodland
- Dry Evergreen Forest - Woodland
- Douglas Fir – W. Hemlock – W. Redcedar Forest

- **Native Wetland and Riparian Plant Communities in the Willamette Valley, Oregon.**

Titus et al., Oregon Natural Heritage Program and The Nature Conservancy of Oregon, 1996.

II. GIS Model

This portion of the appendix lists the model rules and describes how the source GIS datasets were integrated to predict the distribution of the following four terrestrial ecological system targets. (Ecoregional sections are those described in Appendix 3.)

A. Oak Woodland

Puget Trough and Lower Columbia sections within Washington:

Any occurrences depicted in the WA NHP Oak Grassland dataset (7.), excluding any occurrences coinciding with residential or commercial development, per the NLCD (8.).

Willamette Valley section:

Any occurrences of Oak Hardwood, as depicted in the Willamette Valley vegetation dataset (12.).

Deciduous forest, per the Willamette Valley vegetation dataset (12.), occurring within the 'Oak Woodland' 1851 historic vegetation class (13.).

B. Riparian Forests and Shrubland

British Columbia

All areas identified in the BC Sensitive Ecosystems Inventory (5.) as Riparian (RI).

Washington

Riparian forest as represented in the Washington Riparian Forest coverage (10.).

Oregon

Riparian forest as represented in the Willamette Valley vegetation dataset (12.).

Erroneous occurrences along irrigation canals and upland from the riparian corridor were eliminated.

C. Dry Evergreen Forest & Woodland

British Columbia

All areas identified in the BC Sensitive Ecosystems Inventory (5.) as Woodland (WD).

Within the Shining Mountains 'Coastal Western Hemlock' vegetation zone (3.), all forest defined by the BC landcover dataset (4.) occurring on Dry Evergreen-specific ELU types (2.).

Within the Shining Mountains 'Coastal Douglas Fir' vegetation zone (3.), all forest defined by the BC landcover dataset (4.) occurring on steep, southwest facing slopes.

Washington

Within the Georgia Depression section (1.), all evergreen forest defined by the NLCD (8.) occurring on steep, southwest facing slopes (2.).

Within the Puget Trough and Lower Columbia sections (1.), all evergreen forest defined by the NLCD (8.) occurring on Dry Evergreen-specific ELU (2.) and soil (11.) types.

Oregon

Closed and Open Conifer forest, as depicted in the Willamette Valley vegetation dataset (12.), excluding wetlands, per OR Native Wetlands dataset (14.), and occurring within the 'Dry Evergreen' 1851 historic vegetation class (13.).

Mixed forest, as depicted in the Willamette Valley vegetation dataset (12.), excluding wetlands, per OR Native Wetlands dataset (14.), and occurring on steep, SW-facing slopes (2.).

¹ In areas outside the extent of the Willamette Valley vegetation dataset, Evergreen forest was used as a surrogate for Closed and Open Conifer forest, per the Pacific Meridian landcover classification (lulc90-puget).

D. Douglas Fir - Western Hemlock - Western Redcedar Forest

British Columbia

All areas identified in the BC Sensitive Ecosystems Inventory (5.) as Second Growth Forest (SG).

Washington

All evergreen, deciduous, and mixed forest, per the NLCD (8.), excluding wetlands, per NWI (9.), and NOT occurring on sites previously predicted to support Dry Evergreen forest, i.e. NOT steep, SW-facing slopes (2.) and NOT the Dry Evergreen-specific ELU and soil types (11.).

Oregon

Closed Conifer, Open Conifer, Deciduous, Closed Mixed, and Open Mixed Forest, as depicted in the Willamette Valley vegetation dataset (12.), excluding wetlands, per OR Native Wetlands dataset (14.), and occurring within the 'Douglas Fir' 1851 historic vegetation class (13.).

Appendix 10. Remnant Dependent Native Prairie, Savanna, and Rocky Bald Plant Species of the Willamette Valley-Puget Trough-Georgia Basin Ecoregion

Species	Occurrence ¹	Type ²
<i>Agoseris grandiflora</i>	O,W	up, ba
<i>Elymus trachycaulus (Agropyron caninum)</i>	O, W, BC	up, ba
<i>Allium amplexens</i>	O,W, BC	up, wp, ba
<i>Allium acuminatum</i>	O,W, BC	up, ba
<i>Allium cernuum</i>	W, BC	ba
<i>Armeria maritima</i>	W, BC	up, ba
<i>Asclepias fascicularis</i>	O	wp
<i>Athysanus pusillus</i>	W, BC	ba
<i>Balsamorhiza deltoidea</i>	O,W	up
<i>Brodiaea coronaria/elegans</i>	O,W, BC	wp, up, ba
<i>Brodiaea congesta</i>	O,W	up
<i>Brodiaea howellii</i>	O,W,BC	up
<i>Brodiaea hyacinthina</i>	O,W, BC	wp, ba
<i>Bromus sitchensis var. sitchensis</i>	O,W, BC	up, ba
<i>Calochortus tolmiei</i>	O, W?	up
<i>Camassia quamash</i>	O, W, BC	wp, up, ba, sa
<i>Camassia leichtlinii ssp. suksdorfii</i>	O, W, BC	wp, up, ba
<i>Carex aurea</i>	O, BC	wp
<i>Carex tumulicola</i>	O,W	up
<i>Castilleja hispida</i>	O,W, BC	up, ba
<i>Centaurium muehlenbergii</i>	O,W,BC	wp, ba
<i>Cerastium arvense</i>	W, BC	up, ba, sa
<i>Cirsium remotifolium</i>	O	up
<i>Clarkia amoena</i>	O,W, BC	up, ba
<i>Clarkia quadrivulnera</i>	O,W	up, ba
<i>Comandra umbellata var. californica</i>	O, BC	up
<i>Convolvulus nyctagineus</i>	O	up
<i>Crocidium multicaule</i>	W, BC	ba
<i>Cynoglossum grande</i>	O	sa
<i>Daucus pusillus</i>	O,W, BC	up, ba
<i>Delphinium menziesii</i>	O,W	up, ba
<i>Dodecatheon hendersonii</i>	O,W, BC	up, sa
<i>Dodecatheon pulchellum</i>	O,W, BC	wp, ba
<i>Epilobium minutum</i>	O,W, BC	up, ba
<i>Erigeron speciosus</i>	O,W, BC	up
<i>Eriophyllum lanatum</i>	O,W, BC	wp, up, ba, sa
<i>Erythronium oregonum</i>	O,W, BC	up, sa, ba
<i>Festuca californica</i>	O	sa
<i>Fritillaria affinis (lanceolata)</i>	O,W, BC	up, sa
<i>Galium boreale</i>	O	sa
<i>Gentiana sceptrum</i>	O	wp
<i>Geranium oreganum</i>	O	up
<i>Githopsis specularioides</i>	O,W,BC	ba
<i>Haplopappus racemosus var. racemosus</i>	O	wp
<i>Hieracium cynoglossoides</i>	O,W, BC	up
<i>Hordeum brachyantherum</i>	O, BC	wp

Species	Occurrence ¹	Type ²
<i>Koeleria macrantha</i>	O,W, BC	up, wp, ba
<i>Ligusticum apiifolium</i>	O,W	sa, up
<i>Lithophragma parviflora</i>	O,W, BC	sa, ba
<i>Lomatium nudicaule</i>	O,W, BC	up, ba
<i>Lomatium triternatum</i>	O,W, BC	up
<i>Lomatium utriculatum</i>	O,W, BC	up, ba
<i>Lomatium dissectum</i>	O,W, BC	sa, up
<i>Lotus formosissimus</i>	O,W, BC	wp
<i>Lotus pinnatus</i>	O, BC	wp
<i>Lupinus albicaulis</i>	O,W	up
<i>Lupinus rivularis</i>	W, BC	up
<i>Lupinus laxiflorus</i>	O	up
<i>Lupinus lepidus</i>	O,W,BC	up
<i>Madia gracilis</i>	O,W, BC	ba
<i>Microseris laciniata</i>	O,W	wp, up
<i>Mimulus alsinoides</i>	O, W, BC	ba
<i>Nemophila menziesii</i> var. <i>atromaria</i>	O	up
<i>Opuntia fragilis</i>	W, BC	ba
<i>Orobanche californica</i>	W	ba
<i>Orobanche uniflora</i>	O,W, BC	ba
<i>Orthocarpus attenuatus</i>	W, BC	up, ba
<i>Perideridia gairdneri</i> ssp. <i>borealis</i>	O,W, BC	wp, ba, up
<i>Plectritis congesta</i>	O,W, BC	wp, up, ba, sa
<i>Poa scabrella</i>	O,W	wp, up, ba
<i>Polygonum bistortoides</i>	O,W	wp
<i>Polygonum douglasii</i> ssp. <i>spergulariaeforme</i>	O,W	ba
<i>Potentilla gracilis</i> var. <i>gracilis</i>	O,W, BC	wp, up
<i>Potentilla glandulosa</i> var. <i>glandulosa</i>	O,W, BC	up, sa
<i>Ranunculus alismaefolius</i> var. <i>a</i>	O,W,BC	wp
<i>Ranunculus occidentalis</i>	O,W,BC	up, ba, sa
<i>Sanicula bipinnatifida</i>	O,W,BC	up, ba, sa
<i>Saxifraga oregana</i>	O,W	wp
<i>Saxifraga integrifolia</i>	O,W, BC	up, ba
<i>Sedum lanceolatum</i>	W	ba
<i>Sidalcea cusickii</i>	O	wp
<i>Silene hookeri</i>	O	up
<i>Sisyrinchium (Olysinium) douglasii</i>	O,W, BC?	ba
<i>Solidago spathulata</i>	W	up
<i>Stipa lemmonii</i>	O,W, BC	up, ba
<i>Thysanocarpus curvipes</i>	O,W,BC	up, ba
<i>Tonella tenella</i>	O,W,BC	sa
<i>Trifolium eriocephalum</i>	O	up, sa
<i>Trifolium macraei</i> var. <i>dichotomum</i>	O,W, BC	ba
<i>Trifolium oliganthum</i>	O,W, BC	ba
<i>Trifolium tridentatum</i>	O,W	ba
<i>Trifolium variegatum</i>	O,W, BC	ba
<i>Trifolium microdon</i>	O,W, BC	ba
<i>Trifolium microcephalum</i>	O,W, BC	ba
<i>Trillium albidum</i>	O	sa
<i>Viola adunca</i>	O,W,BC	up, sa
<i>Viola sheltonii</i>	O	sa

Species	Occurrence ¹	Type ²
<i>Viola praemorsa (nuttallii var. p.)</i>	O,W,BC	up, sa
<i>Wyethia angustifolia</i>	O,W	wp, up
<i>Zigadenus venenosus</i>	O,W, BC	wp, up, ba, sa

Codes:

Occurrence¹

O: Occurs in the Willamette Valley, Oregon

W: Occurs in the Puget Trough, Washington

BC: Occurs in the Georgia Basin, British Columbia

Type²

wp: Wet prairie

up: Upland prairie, deep soils

sa: Oak savanna

ba: Rocky balds and vernal moist seepage areas with shallow soil over bedrock

Appendix 11. Willamette Valley - Puget Trough - Georgia Basin Ecoregion Terrestrial Ecological System EO Specs and EO Rank Specs

Systems are listed by type in the following order: marine associated, freshwater wetlands, dry herbaceous, oak woodlands and conifer forests.

INTERTIDAL SALT MARSHES

CAREX LYNGBYEI - (DISTICHLIS SPICATA - TRIGLOCHIN MARITIMUM) HERBACEOUS VEGETATION
CAREX LYNGBYEI HERBACEOUS VEGETATION
DISTICHLIS SPICATA - (SALICORNIA VIRGINICA) HERBACEOUS VEGETATION
GLAUX MARITIMA HERBACEOUS VEGETATION
SALICORNIA VIRGINICA - DISTICHLIS SPICATA - TRIGLOCHIN MARITIMUM - (JAUMEA CARNOSA) HERBACEOUS VEGETATION
SALICORNIA VIRGINICA HERBACEOUS VEGETATION
SCIRPUS (AMERICANUS, PUNGENS) TIDAL HERBACEOUS VEGETATION
SCIRPUS MARITIMUS TIDAL HERBACEOUS VEGETATION
TRIGLOCHIN MARITIMUM - (SALICORNIA VIRGINICA) HERBACEOUS VEGETATION
ARGENTINA EGEDII - ASTER SUBSPICATUS HERBACEOUS VEGETATION
ARGENTINA EGEDII - JUNCUS BALTICUS HERBACEOUS VEGETATION
CAREX LYNGBYEI - ARGENTINA EGEDII HERBACEOUS VEGETATION
DESCHAMPSIA CESPITOSA - (CAREX LYNGBYEI - DISTICHLIS SPICATA) HERBACEOUS VEGETATION
DESCHAMPSIA CESPITOSA - ARGENTINA EGEDII HERBACEOUS VEGETATION
DESCHAMPSIA CESPITOSA - SIDALCEA HENDERSONII HERBACEOUS VEGETATION
FESTUCA RUBRA - (ARGENTINA EGEDII) HERBACEOUS VEGETATION

Intertidal salt marshes are small patch systems, confined to specific environments defined by salinity, tidal inundation regime, and soil texture. They usually occur as zonal mosaics of multiple communities. Low marshes are located in areas that flood every day and are dominated by a variety of low-growing forbs and low to medium-height graminoids, especially *Salicornia virginica*, *Distichlis spicata*, and *Carex lyngbyei*. High marshes are located in areas that flood infrequently and are dominated by medium-tall graminoids and low forbs, especially *Deschampsia cespitosa*, *Argentina egedii* (*Potentilla pacifica*), and *Juncus balticus*.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) a natural community from a different ecological system wider than 0.5 km.

Justification: Intertidal marsh associations are usually intermixed. They sometimes occur as mosaics over large areas at estuaries of major rivers, where all patches of the same community type at the same estuary should probably be considered the same occurrence, i.e. other intertidal marsh communities are probably not barriers.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, filling, grazing, dredging, digging, vehicle use, etc. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or slightly altered by local drainage, filling, grazing, dredging, digging, or vehicle use. Alteration is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs, though high marsh may have abundant *Agrostis alba*.

C -rated condition: Natural hydrologic regime altered by local drainage, diking, filling, digging, or dredging. Alteration is extensive but potentially restorable over several decades. Vehicle use or grazing disturbance, if present, is extensive and significant enough to have notable impact on species composition. Exotic species (especially *Spartina* spp.) may be widespread but potentially manageable with restoration of most natural processes, except for *Agrostis alba* in the high marsh which is currently unmanageable.

D -rated condition: Natural hydrologic regime or disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Invasive exotic species (*Spartina*) may be dominant over significant portions of area, with little hope for control. Community may be a result of colonization of fill material.

Justification for AA@-rated criteria: Intertidal marshes are dependent on specific hydrologic regimes, soils, and topographic levels. A-ranked Occurrences have processes, species composition, and physical environment intact.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Intertidal marshes are composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: No evidence of human-caused alteration of longshore currents or sedimentation processes. No invasive *Spartina* present on adjacent tidal flats. Uplands and/or freshwater wetlands surrounding Occurrence are largely unaltered by urban or agricultural uses (>90% natural). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. Minor or no known water quality problem in the estuary, due to local or upstream sources. No flood control dams on river feeding the estuary.

B -rated landscape context: Limited or minor human-caused alteration of longshore currents or sedimentation processes. No or very little, and easily controlled, invasive *Spartina* present on adjacent tidal flats. Uplands and freshwater wetlands surrounding Occurrence with moderate urban or agricultural alteration (60-90% natural), but retaining much connectivity. Few barriers present. Minor water quality problems in the estuary, due to local or upstream sources. Flood control dams on river feeding the estuary may be present.

C -rated landscape context: Local or moderate human-caused alteration of longshore currents or sedimentation processes that are restorable. Invasive *Spartina* may be abundant on adjacent tidal flats, altering hydrology and sedimentation processes. Uplands and freshwater wetlands surrounding Occurrence are fragmented by alteration (20-60% natural), with limited connectivity. Some barriers are present. Significant, but easily restorable, water quality problems in the estuary, due to local or upstream sources. Flood control dams on river feeding the estuary may be present.

D -rated landscape context: Major human-caused alteration of longshore currents or sedimentation processes, that may be unrestorable. Uplands and freshwater wetlands surrounding Occurrence are mostly converted to agricultural or urban uses. Connectivity is severely hampered. Major water quality problems in the estuary, due to local or upstream sources. Flood control dams on river feeding the estuary may be present.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences. Flood control dams can have indirect influence by controlling sedimentation and erosion.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Natural processes are severely altered. *Spartina* on adjacent mudflats alters hydrology and sedimentation and threatens to invade marshes.

AUTHORSHIP: Chris Chappell

DATE: May 11, 2000

COASTAL SPITS, DUNES, AND STRAND

CAREX MACROCEPHALA HERBACEOUS VEGETATION
FESTUCA RUBRA - AMBROSIA CHAMISSONIS HERBACEOUS VEGETATION
LEYMUS MOLLIS SSP. MOLLIS - LATHYRUS JAPONICUS HERBACEOUS VEGETATION
ARTEMISIA CAMPESTRIS - GRINDELIA STRICTA HERBACEOUS VEGETATION

These are linear communities dependent upon longshore drift and wind. Most of these are spits or berms behind sandy beaches, dunes are very rare in this ecoregion. In their natural state these are dominated by short to medium-tall grasses, sedges, or forbs, often with abundant bare sandy or gravelly surface exposed. *Leymus mollis* and *Festuca rubra* are the two most common dominant species, many other species are largely restricted to this environment.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including major highways, urban development, large bodies of water, (2) a natural community from a different ecological system wider than 2 km, unless the two areas of strand are part of the same contiguous beach, spit, or dune system.

Justification: These communities typically occur as linear bands together or as small patch mosaics, and may shift about in their precise locations over time. Communities within the same dune, spit, or berm system (site), are probably connected ecologically regardless of distance from nearest patch of same vegetation type.

RANK.PROCEDURE: (1) landscape context, (2) condition, (3) size. Primary and secondary factors should be weighted equally.

CONDITION.SPECS

A -rated condition: No evidence of alteration due to filling, grazing, digging, vehicle use, erosion control structures, recreation, or development. No or very few exotic species present with very little potential for expansion. Shrubs and trees absent or present as scattered small individuals. At least 10 dune or beach-associated native plant species present.

B -rated condition: Evidence of minor or local alteration by filling, grazing, digging, recreation, or vehicle use. No development of human structures. Alteration is easily restorable by ceasing such activities. Few exotic species, cover of exotics <10%. Exotic *Ammophila arenaria* is absent or present in very small amounts and easily controlled. Shrubs or trees may be present but are small and do not dominate significant areas.

C -rated condition: Evidence of local to widespread alteration by grazing, digging, erosion control structures, recreation, or vehicle use. Alteration may be restored over several decades with active intervention. Local development of human structures may be present but limited and apparently restorable. Exotic species generally co-dominant over significant portions of occurrence. Exotic *Ammophila arenaria* may be prevalent in patches, but still potentially controllable. Shrubs or trees may be numerous and widespread, with potential to convert to different vegetation type in the next few decades.

D -rated condition: Alteration or disturbance to site not restorable over the next several decades. Exotics species dominant, <10% cover of native species. *Ammophila arenaria*, if present, is beyond reasonable control. Shrubs or small trees may be dominating significant portions of occurrence.

Justification for AA@-rated criteria: Native dominated with natural environment intact. No threats from invader species.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation.

SIZE.SPECS

A -rated size: Very large (>5 mi/8 km long)

B -rated size: Large (1.25-5 mi/2-8 km)

C -rated size: Moderate (0.3-1.25 mi/0.5-2 km)

D -rated size: Small (<0.3 mi/0.5 km)

Justification for AA@-rated criteria: Occurrences of this size may have high species diversity and are well buffered from edge effects. They are naturally rare in this ecoregion.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: No evidence of human-caused alteration of longshore currents or sedimentation processes. No bulkheads or other erosion control structures on connecting beaches or nearby bluffs. Uplands or wetlands surrounding Occurrence are largely unaltered by urban or agricultural uses (>90% natural). No barriers present. Connectivity of habitats allows natural processes and species migration to occur.

B -rated landscape context: Little evidence of human-caused alteration of longshore currents or sedimentation processes. No erosion control structures on connecting beaches. Uplands and wetlands surrounding Occurrence with moderate urban or agricultural alteration (60-90% natural), but retaining much connectivity. Few barriers present.

C -rated landscape context: Moderate human-caused alteration of longshore currents or sedimentation processes. Bulkheads or other erosion control structures may be present on connecting beaches or nearby bluffs, but the impacts to processes appear to be restorable if structures are removed. Uplands and wetlands surrounding Occurrence are fragmented by alteration (20-60% natural), with limited connectivity. Some barriers are present.

D -rated landscape context: Alteration of longshore currents or sedimentation processes is moderate to major and appears unrestorable. Bulkheads or other erosion control structures are located on connecting beaches or nearby bluffs. Uplands and wetlands surrounding Occurrence are mostly converted to agricultural or urban uses. Connectivity is severely hampered.

Justification for AA@-rated criteria: Natural processes and connectivity appear to be intact. No off-site impacts to processes.

Justification for AC/D@ threshold: Natural processes (sedimentation, longshore currents) appear to be restorable for C, so altered that not restorable for D. Connectivity with surrounding systems disrupted completely in D.

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DATE: May 11, 2000

DEPRESSIONAL WETLAND SHRUBLANDS

CORNUS SERICEA - SALIX (HOOKERIANA, SITCHENSIS) SHRUBLAND
CORNUS SERICEA SHRUBLAND SEASONALLY FLOODED SHRUBLAND
ALNUS (INCANA, VIRIDIS SSP. SINUATA) / LYSICHITON AMERICANUS - OENANTHE SARMENTOSA SHRUBLAND
MALUS FUSCA - (SALIX HOOKERIANA) / CAREX OBNUPTA SHRUBLAND
MALUS FUSCA SHRUBLAND
SALIX (HOOKERIANA, SITCHENSIS) - SPIRAEA DOUGLASII SHRUBLAND
SALIX GEYERIANA - SALIX HOOKERIANA SSP. PIPERI SHRUBLAND
SALIX HOOKERIANA SSP. PIPERI - (SALIX SITCHENSIS) SHRUBLAND
SALIX SITCHENSIS SHRUBLAND
SPIRAEA DOUGLASII SHRUBLAND

These are medium to tall deciduous broadleaf shrub swamps that are located in depressions, or around lakes or ponds, where water tables fluctuate seasonally (seasonally to semi-permanently flooded). These are nutrient-rich systems that have muck or mineral soils. Various species of *Salix*, *Spirea douglasii*, *Malus fusca*, or *Cornus sericea* are typical. Some of these associations also occur in Sphagnum Bogs and Fens system or in Riparian Forests and Shrublands: fens are distinguished by their peat soils and an abundance of brown mosses, riparian by their riverine setting.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) different natural community wider than 1 km along a river corridor or within a wetland, or 0.5 km in other situations, (3) major break in topography, soils, geology, etc., especially one resulting in a hydrologic break.

Justification: Shrub swamps are usually intermixed because of similar hydrologic requirements and topography. Shrub swamps may be large or small depending on size of wetland. They are often isolated hydrologically from other wetlands, and easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or very little evidence of alteration due to drainage, flood control, clearing, grazing, logging, fire suppression, etc. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, clearing or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage or diking. Alteration from local drainage, diking, clearing, grazing, logging, or fire suppression is extensive but potentially restorable over several decades. Exotic species may be widespread, but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species dominant or co-dominant, at least in understory, with little hope for control.

Justification for AA@-rated criteria: Most shrub swamps in the Pacific Northwest depend on seasonal water regime. A-ranked Occurrences have these processes intact, with no or little history of logging, clearing or grazing.

Justification for AC/D@ threshold: C-ranked occurrences have potential for restoration over several decades. D-ranked occurrences have little or no potential for restoration because of extensive degradation.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Shrub swamps are usually composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects.

Justification for AC/D@ threshold: C-ranked occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked occurrences occur in small patches surrounded by uplands, and are actually typical for some of the associations included in this system. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No effects from regional flood control dams.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts). Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low.

AUTHORSHIP: John Christy

DATE: March 31, 2000

DEPRESSIONAL WETLAND BROADLEAF FORESTS

ALNUS RUBRA / ATHYRIUM FILIX-FEMINA - LYSICHTON AMERICANUS FOREST
ALNUS RUBRA / RUBUS SPECTABILIS / CAREX OBNUPTA - LYSICHTON AMERICANUS WOODLAND
FRAXINUS LATIFOLIA - (POPULUS BALSAMIFERA SSP. TRICHOCARPA) / CORNUS SERICEA FOREST
FRAXINUS LATIFOLIA / CAREX DEWEYANA - URTICA DIOICA SSP GRACILIS FOREST
FRAXINUS LATIFOLIA / CAREX OBNUPTA FOREST
FRAXINUS LATIFOLIA / JUNCUS PATENS FOREST
FRAXINUS LATIFOLIA / SPIRAEA DOUGLASII FOREST
FRAXINUS LATIFOLIA / SYMPHORICARPOS ALBUS FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ALNUS RUBRA / CAREX OBNUPTA FOREST
POPULUS TREMULOIDES / CAREX OBNUPTA FOREST
QUERCUS GARRYANA - (FRAXINUS LATIFOLIA) / SYMPHORICARPOS ALBUS FOREST

These are deciduous broadleaf forested wetlands that are located in depressions, or around lakes or ponds, where water tables fluctuate seasonally (mostly seasonally flooded regime). These are nutrient-rich systems that have muck or mineral soils. *Fraxinus latifolia* and *Alnus rubra* are the major dominant species. Some of these associations also may occur as Riparian Forests and Shrublands.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) different natural community wider than 1 km along a river corridor or within a wetland, or 0.5 km in other situations, (3) major break in topography, soils, geology, etc., especially one resulting in a hydrologic break.

Justification: These wetlands are sometimes intermixed and may be large or small depending on size of wetland. They are often isolated hydrologically from other wetlands, and easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or very little evidence of alteration due to drainage, flood control, clearing, grazing, logging, fire suppression, etc. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, clearing or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage or diking. Alteration from local drainage, diking, clearing, grazing, logging, or fire suppression is extensive but potentially restorable over several decades. Exotic species may be widespread, but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species dominant or co-dominant, at least in understory, with little hope for control.

Justification for AA@-rated criteria: These systems depend on seasonal water regime. A-ranked Occurrences have these processes intact, with no or little history of logging, clearing or grazing.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Occurrences of this size may have high species diversity and are well buffered from edge effects.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked Occurrences occur in small patches surrounded by uplands, and are

actually typical for some of the associations included in this system. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No effects from regional flood control dams.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts). Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low.

AUTHORSHIP: John Christy

DATE: March 31, 2000

RIPARIAN FORESTS AND SHRUBLANDS

ACER MACROPHYLLUM - ABIES GRANDIS / SYMPHORICARPOS ALBUS FOREST
ACER MACROPHYLLUM - PSEUDOTSUGA MENZIESII / ACER CIRCINATUM / POLYSTICHUM MUNITUM FOREST
ACER MACROPHYLLUM - PSEUDOTSUGA MENZIESII / CORYLUS CORNUTA / HYDROPHYLLUM TENUIPES FOREST
ACER MACROPHYLLUM / ACER CIRCINATUM FOREST
ACER MACROPHYLLUM / CAREX DEWEYANA FOREST
ACER MACROPHYLLUM / RUBUS SPECTABILIS FOREST
ACER MACROPHYLLUM / RUBUS URSINUS FOREST
ACER MACROPHYLLUM / SYMPHORICARPOS ALBUS / URTICA DIOICA SSP GRACILIS FOREST
ACER MACROPHYLLUM / URTICA DIOICA SSP GRACILIS FOREST
ALNUS RUBRA / ACER CIRCINATUM / CLAYTONIA SIBIRICA FOREST
ALNUS RUBRA / ELYMUS GLAUCUS FOREST
ALNUS RUBRA / OPLOPAX HORRIDUS - RUBUS SPECTABILIS FOREST
ALNUS RUBRA / OXALIS (OREGANA, TRILLIFOLIA) FOREST
ALNUS RUBRA / PETASITES FRIGIDUS FOREST
ALNUS RUBRA / RUBUS PARVIFLORUS FOREST
ALNUS RUBRA / RUBUS SPECTABILIS FOREST
ALNUS RUBRA / RUBUS SPECTABILIS / CAREX OBNUPTA - LYSICHTON AMERICANUS WOODLAND
ALNUS RUBRA / STACHYS CILIATA - TOLMIEA MENZIESII FOREST
CORNUS SERICEA - SALIX (HOOKERIANA, SITCHENSIS) SHRUBLAND
EQUISETUM ARVENSE HERBACEOUS VEGETATION
FRAXINUS LATIFOLIA / CAREX DEWEYANA - URTICA DIOICA SSP GRACILIS FOREST
FRAXINUS LATIFOLIA / CAREX OBNUPTA FOREST
FRAXINUS LATIFOLIA / SYMPHORICARPOS ALBUS FOREST
FRAXINUS LATIFOLIA - (POPULUS BALSAMIFERA SSP. TRICHOCARPA) / CORNUS SERICEA FOREST
FRAXINUS LATIFOLIA - POPULUS BALSAMIFERA SSP. TRICHOCARPA / ACER CIRCINATUM FOREST
FRAXINUS LATIFOLIA - POPULUS BALSAMIFERA SSP. TRICHOCARPA / CORYLUS CORNUTA - PHYSOCARPUS
CAPITATUS FOREST
FRAXINUS LATIFOLIA - POPULUS BALSAMIFERA SSP. TRICHOCARPA / RUBUS SPECTABILIS FOREST
FRAXINUS LATIFOLIA - POPULUS BALSAMIFERA SSP. TRICHOCARPA / SYMPHORICARPOS ALBUS FOREST
QUERCUS GARRYANA - (FRAXINUS LATIFOLIA) / SYMPHORICARPOS ALBUS FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ACER MACROPHYLLUM / EQUISETUM HYEMALE FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ACER MACROPHYLLUM / SYMPHORICARPOS ALBUS FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ALNUS RHOMBIFOLIA FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ALNUS RUBRA / RUBUS SPECTABILIS FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ALNUS RUBRA / SYMPHORICARPOS ALBUS / URTICA DIOICA
FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA / CORNUS SERICEA / IMPATIENS CAPENSIS WOODLAND
SALIX LUCIDA SSP. LASIANDRA / URTICA DIOICA SSP GRACILIS FOREST
SALIX LUCIDA SSP. LASIANDRA / SALIX X FLUVIATILIS WOODLAND
SALIX SITCHENSIS / EQUISETUM ARVENSE - PETASITES FRIGIDUS SHRUBLAND
TSUGA HETEROPHYLLA - (THUJA PLICATA) / OPLOPAX HORRIDUS / POLYSTICHUM MUNITUM FOREST

These forests and tall shrublands are linear in character, occurring on floodplains or terraces of rivers and streams. Riverine flooding and the succession that occurs after major flooding events are the major natural processes that drive this system. Very early successional stages can be sparsely vegetated or dominated by herbaceous vegetation. Conifers tend to increase with succession in the absence of major disturbance. Conifer-dominated types are now very rare and not well described, *Abies grandis*, *Pseudotsuga menziesii*, *Picea sitchensis*, and *Thuja plicata* are important. Major broadleaf dominant species are *Acer macrophyllum*, *Alnus rubra*, *Populus balsamifera ssp. trichocarpa*, *Salix sitchensis*, *Salix lucida ssp. lasiandra*, *Cornus sericea*, and *Fraxinus latifolia*. Some of these associations may also occur as Depressional Wetland Broadleaf Forests, Coniferous Forested Wetlands, or Depressional Wetland Shrublands.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation or very degraded example of same community greater than 2 km wide, major highways, urban development, large bodies of water, (2) major break in hydrology, topography, soils, geology, etc.

Justification: Riparian forest associations are usually intermixed because of similar hydrologic requirements and topography. They are usually linear because of land conversion and/or topography. Hydrologic divides are particularly important functionally.

RANK.PROCEDURE: (1) landscape context, (2) condition, (3) size. Secondary and tertiary factors should be weighted equally.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. Possible indicators of intact hydrology include depositional features, silt stains, or other evidence of seasonal flooding, though many communities flood less than annually. No or little evidence of alteration due to drainage, flood control, clearing, grazing, logging, fire suppression, etc. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime largely intact or altered by local drainage. Alteration from local drainage, clearing or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage or diking, or regional flood control dams. Alteration from local drainage, diking, clearing, grazing, logging, and fire suppression is extensive but potentially restorable over several decades. Alteration from regional flood control dams not restorable. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Riparian Occurrence may be reduced to narrow strip with much edge effect. Exotic species may be dominant, at least in understory, with little hope for control.

Justification for AA@-rated criteria: Most riparian forests in the Pacific Northwest depend on frequent to occasional disturbance by flood. A-ranked Occurrences have these processes intact, with no or little history of logging, clearing or grazing, or hydrograph impacts from flood control dams.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Riparian Occurrences along higher-order rivers are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

Streams with limited floodplain development, primarily braided channels, or extremely sinuous stable channels (mostly A, B, D, E, or F in Rosgen 1996)

A -rated size: Very large (>10 mi/16 km)

B -rated size: Large (4-10 mi/6.4-16 km)

C -rated size: Moderate (1-4 mi/1.6-6.4 km)

D -rated size: Small (<1 mi/1.6 km)

Meandering streams with well-developed floodplains and wide channels (mostly C in Rosgen 1996).

A -rated size: Very large (>25 meander wavelengths or 50 point bars)

B -rated size: Large (10-25 meander wavelengths or 20-50 point bars)

C -rated size: Moderate (4-10 meander wavelengths or 8-20 point bars)

D -rated size: Small (<4 meander wavelengths or <8 point bars)

Justification for AA@-rated criteria: Riparian forests are usually composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects. Streams with differing floodplain morphology need different size criteria. Relatively straight channels with not much floodplain have narrow riparian strips that lend themselves to length as a criterion. Classic actively meandering streams should be scaled depending on the size of the stream, thus the number of meander wavelengths (or point bars) accomplishes this.

Justification for AC/D@ threshold: C-ranked occurrences have minimally enough length or area to support the dynamic nature of the flooding regime and its disturbances. D-ranked occurrences are clearly too small to support a shifting mosaic of disturbance patches. C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked Occurrences occur in small patches surrounded by uplands. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No regional flood control dam upstream.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised. No regional flood control dam upstream, or effects mostly dampened due to distance.

C -rated landscape context: Uplands surrounding Occurrence or upstream watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts. Some barriers are present, and natural processes few. No regional flood control dam upstream, or effects known to be mostly dampened due to distance.

D -rated landscape context: Uplands surrounding Occurrence or upstream watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted. One or more regional flood control dams located upstream.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low. Riparian occurrences depend upon flooding disrupted by large dams upstream.

AUTHORSHIP: John Christy and Chris Chappell

DATE: December 22, 2000

Rosgen, D. 1996. Applied river morphology. Wildland Hydrology, Pagosa Springs, Colorado. 352 pp.

CONIFEROUS FORESTED WETLANDS

PICEA SITCHENSIS / CAREX OBNUPTA - LYSICHITON AMERICANUS FOREST
THUJA PLICATA - TSUGA HETEROPHYLLA / LYSICHITON AMERICANUS FOREST
TSUGA HETEROPHYLLA - (THUJA PLICATA) / OPLOPANAX HORRIDUS / POLYSTICHUM MUNITUM FOREST

Conifer-dominated swamps are mostly small patch size, occurring sporadically in glacial depressions, in river valleys, around the edges of lakes and marshes, or on slopes with seeps that form subirrigated soils. They typically have muck or mineral soils and are seasonally flooded or permanently subirrigated. They were probably never common or extensive in the landscape. Major dominant species are *Tsuga heterophylla*, *Thuja plicata*, and *Picea sitchensis*. Some of these associations may also occur as Riparian Forests and Shrublands or Tidally-influenced Freshwater Wetlands.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) different natural community wider than 0.5 km, (3) major break in topography, soils, geology, etc., especially one resulting in a hydrologic break.

Justification: Conifer swamps are usually contiguous with other wetland types such as marshes or riparian stands because of similar hydrologic requirements and topography. They are usually round or elliptical, but may be linear when constrained or in narrow valleys or floodplains.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, clearing, grazing, logging, fire suppression, etc. No or very few exotic species present with no potential for expansion. At least half of occurrence has old-growth stands of trees (>200 years old).

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, clearing or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage, local diking, or regional flood control dams. Alteration from local drainage, diking, clearing, grazing, logging, and fire suppression is extensive but potentially restorable over several decades. Alteration from regional flood control dams most likely not restorable. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime or disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Occurrence on narrow floodplain or in narrow valley may be reduced to narrow strip with much edge effect. Exotic species may be dominant in understory, with little hope for control.

Justification for AA@-rated criteria: Most conifer swamps in the Pacific Northwest depend on a perennial water and infrequent disturbance by windstorm, flood or fire. A-ranked Occurrences have these processes intact, with no or little history of logging, clearing or grazing. Historically, a major portion of occurrences at any one time would be old-growth in age, now this condition is very rare.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Riparian Occurrences along higher-order rivers are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Conifer swamps are usually composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked Occurrences occur in small patches surrounded by uplands, and are actually typical for some of the associations included in this system. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No effects from regional flood control dams.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts). Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low. Riparian occurrences depend upon flooding disrupted by large dams upstream.

AUTHORSHIP: John Christy

DATE: March 31, 2000

TIDALLY-INFLUENCED FRESHWATER WETLANDS

ALNUS RUBRA / RUBUS SPECTABILIS / CAREX OBNUPTA - LYSICHITON AMERICANUS WOODLAND
BIDENS CERNUA HERBACEOUS VEGETATION
CAREX LYNGBYEI HERBACEOUS VEGETATION
CORNUS SERICEA - SALIX (HOOKERIANA, SITCHENSIS) SHRUBLAND
LILAEOPSIS OCCIDENTALIS HERBACEOUS VEGETATION
MYRIOPHYLLUM HIPPUROIDES HERBACEOUS VEGETATION
PICEA SITCHENSIS / CAREX OBNUPTA - LYSICHITON AMERICANUS FOREST
PICEA SITCHENSIS / CORNUS SERICEA - SALIX HOOKERIANA WOODLAND
POPULUS BALSAMIFERA SSP. TRICHOCARPA - ACER MACROPHYLLUM / EQUISETUM HYEMALE FOREST
POPULUS BALSAMIFERA SSP. TRICHOCARPA / CORNUS SERICEA / IMPATIENS CAPENSIS WOODLAND

Tidally-influenced Freshwater Wetlands occur as narrow strips to more extensive patches along tidally-influenced portions of rivers. This system is driven by daily tidal flooding of freshwater. Vegetation structure and composition is varied and depends on substrate characteristics and tidal flooding regime of particular sites. Many of these associations also occur in other systems including Autumnal Freshwater Mudflats, Freshwater Marshes, Intertidal Salt Marshes, Riparian Forests and Shrublands, and Coniferous Forested Wetlands. There has been little vegetation data collection in this type in this ecoregion.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) a natural community from a different ecological system wider than 0.5 km.

Justification: Tidally-influenced Freshwater wetlands associations are usually intermixed. All patches of the same community type at the same estuary should probably be considered the same occurrence, i.e. other Tidally-influenced Freshwater communities are probably not barriers because of tidal movements.

RANK.PROCEDURE: (1) landscape context, (2) condition, (3) size. Primary and secondary factors should be weighted equally.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact, evidence of daily tidal flooding. No or little evidence of alteration due to drainage, flood control, dredging, excessive siltation, logging, or invasion by upland species. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact, evidence of daily tidal flooding, or altered by local drainage. Alteration from local drainage or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage or diking. Alteration from local drainage, logging and/or diking is extensive but potentially restorable over several decades. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species may be dominant, with little hope for control.

Justification for AA@-rated criteria: These systems depend on tidal regime. A-ranked Occurrences have these processes intact, with no history of drainage, dredging, or diking.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Floodplain Occurrences along higher-order rivers are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Occurrences of this size may have relatively high species diversity and are well buffered from edge effects. Occurrences of this size are rare because most of these have been converted to agricultural or urban uses.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate species diversity and may be well buffered from edge effect. D-ranked Occurrences are small sites with low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No regional flood control dam upstream.

B -rated landscape context: Uplands surrounding Occurrence and upstream watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. No regional flood control dam upstream, or its effects mostly dampened.

C -rated landscape context: Uplands surrounding Occurrence or upstream watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts). Some barriers are present, and natural processes few. Regional flood control dam may be significantly altering hydrograph.

D -rated landscape context: Uplands surrounding Occurrence or upstream watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted. One or more regional flood control dams may be located upstream.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Flood control dams have some influence on hydrograph, but tidal action is primary hydrologic process.

AUTHORSHIP: John Christy

DATE: March 31, 2000

FRESHWATER AQUATIC BEDS

AZOLLA (FILICULOIDES, MEXICANA) HERBACEOUS VEGETATION
BRASENIA SCHREBERI HERBACEOUS VEGETATION
CALLITRICHE HETEROPHYLLA HERBACEOUS VEGETATION
CERATOPHYLLUM DEMERSUM HERBACEOUS VEGETATION
ELODEA CANADENSIS HERBACEOUS VEGETATION
FONTINALIS (ANTIPYRETICA, HOWELLII) BRYOPHYTE VEGETATION
LEMNA MINOR HERBACEOUS VEGETATION
MENYANTHES TRIFOLIATA HERBACEOUS VEGETATION
NUPHAR LUTEA SSP. POLYSEPALA HERBACEOUS VEGETATION
POLYGONUM AMPHIBIUM HERBACEOUS VEGETATION [PROVISIONAL]
POTAMOGETON NATANS HERBACEOUS VEGETATION
RANUNCULUS AQUATILIS HERBACEOUS VEGETATION
RANUNCULUS LOBBII HERBACEOUS VEGETATION
SCIRPUS SUBTERMINALIS HERBACEOUS VEGETATION
UTRICULARIA MACRORHIZA HERBACEOUS VEGETATION
WOLFFIA (BOREALIS, COLUMBIANA) HERBACEOUS VEGETATION

Freshwater aquatic beds are small patch size, confined to lakes, ponds, rivers and streams. In large bodies of water, they are usually restricted to the littoral region where penetration of light is the limiting factor for growth. A variety of rooted or floating aquatic herbaceous species may dominate. These communities occur in water too deep for emergent vegetation.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including all uplands, deep water for some taxa, or water degraded by turbidity or pollution; (2) different natural community wider than 0.5 km.

Justification: Freshwater aquatic bed associations are usually intermixed because of similar hydrologic requirements. Taxa may be linear in littoral areas, or may completely fill bodies of water. Aquatic beds are isolated from other wetlands by intervening uplands, and are vulnerable to sedimentation and turbidity caused by runoff. Herbivory and/or turbidity caused by exotic fish such as carp and grass carp also isolate and eliminate populations on a landscape scale.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, clearing, grazing, logging, fire suppression, etc., in the water body and surrounding uplands. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, clearing or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage, local diking, or regional flood control dams. Alteration from local drainage, diking, clearing, grazing, logging, and fire suppression is extensive but potentially restorable over several decades. Alteration from regional flood control dams most likely not restorable. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species may be dominant, with little hope for control.

Justification for AA@-rated criteria: Most aquatic bed Occurrences in the Pacific Northwest depend on a seasonal or perennial water regime, and floodplain Occurrences may need frequent to occasional disturbance by flooding. A-ranked Occurrences have these processes intact, with no history of logging, clearing or grazing on surrounding uplands.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Aquatic bed Occurrences on floodplains of higher-order rivers are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Aquatic bed Occurrences are usually composed of mosaics of different associations included in this system. Water bodies of this size may have high species diversity and are better buffered from edge effects than smaller-sized bodies of water.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate species diversity and will be better buffered from edge effect than smaller-sized bodies of water. D-ranked Occurrences occur in small bodies of water, have low species diversity, and are highly vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No effects from regional flood control dams.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts. Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have limited buffering from upland influences. D-ranked Occurrences have very little buffering and are subject to siltation and pollution. Species diversity will be very low.

AUTHORSHIP: John Christy

DATE: March 31, 2000

FRESHWATER MARSHES

CALAMAGROSTIS CANADENSIS WESTERN HERBACEOUS VEGETATION
CAREX EXSICCATA HERBACEOUS VEGETATION
CAREX OBNUPTA HERBACEOUS VEGETATION
DULICHIMUM ARUNDINACEUM HERBACEOUS VEGETATION
ELEOCHARIS PALUSTRIS - CAREX UNILATERALIS HERBACEOUS VEGETATION
ELEOCHARIS PALUSTRIS - LUDWIGIA PALUSTRIS HERBACEOUS VEGETATION
ELEOCHARIS PALUSTRIS HERBACEOUS VEGETATION
EQUISETUM ARVENSE HERBACEOUS VEGETATION
EQUISETUM FLUVIATILE HERBACEOUS VEGETATION
HIPPIRIS VULGARIS HERBACEOUS VEGETATION
JUNCUS BALTICUS - CAREX OBNUPTA HERBACEOUS VEGETATION
JUNCUS BALTICUS HERBACEOUS VEGETATION
JUNCUS BUFONIUS HERBACEOUS VEGETATION
JUNCUS EFFUSUS HERBACEOUS VEGETATION
LYSICHITON AMERICANUS HERBACEOUS VEGETATION
OENANTHE SARMENTOSA HERBACEOUS VEGETATION
PASPALUM DISTICHUM HERBACEOUS VEGETATION
SAGITTARIA LATIFOLIA HERBACEOUS VEGETATION
SCIRPUS ACUTUS HERBACEOUS VEGETATION
SCIRPUS MICROCARPUS HERBACEOUS VEGETATION
SCIRPUS TABERNAEMONTANI TEMPERATE HERBACEOUS VEGETATION
SPARGANIUM ANGUSTIFOLIUM HERBACEOUS VEGETATION
SPARGANIUM EURYCARPUM HERBACEOUS VEGETATION
TYPHA LATIFOLIA WESTERN HERBACEOUS VEGETATION

Freshwater marshes are mostly small patch, confined to limited areas in suitable floodplain or basin topography. They are mostly seasonally to semi-permanently flooded. Soils are muck or mineral, and water is high nutrient. There is some compositional overlap with fens, which are distinguished by peat soils and an abundance of brown mosses, and with Tidally-influenced Freshwater wetlands, which differ by their tidal flooding regime. By definition, freshwater marshes are dominated by herbaceous species, mostly graminoids (*Carex*, *Scirpus*, *Eleocharis*, *Juncus*), but also some forbs (especially *Typha latifolia*). Marshes dominated by *Typha* or *Scirpus acutus* that occur in transition zones between salt and fresh marshes are included here in the freshwater marshes system. A few of these associations may also occur in Tidally-influenced Freshwater Wetlands or Intertidal Salt Marshes systems.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) different upland natural community wider than 0.5 km, (3) different wetland natural community wider than 1 km, (4) major break in topography, soils, geology, etc., especially one resulting in a hydrologic break.

Justification: Freshwater marsh associations are usually intermixed because of similar hydrologic requirements and topography. They may be highly fragmented because of land conversion and/or topography. They are often isolated hydrologically from other wetlands, and easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, grazing, fire suppression, etc. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage, local diking, or regional flood control dams. Alteration from local drainage, diking, grazing, and fire suppression is extensive but potentially restorable over several decades. Alteration from regional flood control dams most likely not restorable. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species may be dominant, with little hope for control.

Justification for AA@-rated criteria: Most freshwater marshes in the Pacific Northwest depend on seasonal or perennial water regime and frequent to occasional disturbance by flood or fire. A-ranked Occurrences have these processes intact, with no history of grazing.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Riparian Occurrences along higher-order rivers are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

A -rated size: Very large (> 200 ac/80 ha)

B -rated size: Large (75-200 ac/30-80 ha)

C -rated size: Moderate (5-75 ac/2-30 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Freshwater marshes are usually composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects. Occurrences of this size are rare because hydric landforms of this size are rare, and most of these have been converted to agricultural or urban uses.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked Occurrences occur in small patches surrounded by uplands, and are actually typical for some of the associations included in this system. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No effects from regional flood control dams.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised. No or minor effects from regional flood control dams.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts. Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low. Riparian occurrences depend upon flooding disrupted by large dams upstream.

AUTHORSHIP: John Christy **DATE:** March 31, 2000

AUTUMNAL FRESHWATER MUDFLATS

BIDENS CERNUA HERBACEOUS VEGETATION
BIDENS FRONDOSA HERBACEOUS VEGETATION
ELEOCHARIS OBTUSA HERBACEOUS VEGETATION
ERAGROSTIS HYPNOIDES - GNAPHALIUM PALUSTRE HERBACEOUS VEGETATION
EUTHAMIA OCCIDENTALIS HERBACEOUS VEGETATION
LUDWIGIA PALUSTRIS - POLYGONUM HYDROPIPEROIDES HERBACEOUS VEGETATION
MYRIOPHYLLUM HIPPUROIDES HERBACEOUS VEGETATION

Autumnal freshwater mudflats are linear in nature along major rivers or in seasonally-flooded shallow lakebeds or floodplains that lack inflow and outflow where they may be small patch in character. They are flooded for significant portions during the wet season and exposed for significant portions of the dry season. They are dominated by a variety of forbs or graminoids. Some of these associations also occur in Tidally-influenced Freshwater Wetlands system.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including all uplands and large bodies of water, (2) different natural community wider than 0.5 km.

Justification: Freshwater mudflat associations are usually fairly uniform because of similar hydrologic requirements and topography. Those found on drying lakebeds are isolated hydrologically from other wetlands and easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size. Primary and secondary factors should be weighted equally because the type is sometimes linear and sometimes small patch.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, dredging, excessive siltation, or invasion by upland species. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage, local diking, or regional flood control dams. Alteration from local drainage and diking is extensive but potentially restorable over several decades. Alteration from regional flood control dams and dredging most likely not restorable. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species dominant may be dominant, with little hope for control.

Justification for AA@-rated criteria: Most freshwater mudflats in the Pacific Northwest depend on tidal or seasonal water regime. A-ranked Occurrences have these processes intact, with no history of drainage, dredging, diking or dams.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Floodplain Occurrences along higher-order rivers are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

A -rated size: Very large (> 100 ac/40 ha)

B -rated size: Large (25-100 ac/10-40 ha)

C -rated size: Moderate (5-25 ac/2-10 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Occurrences of this size may have relatively high species diversity and are well buffered from edge effects. Occurrences of this size are rare because hydric landforms of this size are rare, and most of these have been converted to agricultural or urban uses.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate species diversity and may be well buffered from edge effect. D-ranked Occurrences are small sites with low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur. No effects from regional flood control dams.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised. No or minor effects from regional flood control dams.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts). Some barriers are present, and natural processes few. May be significant effects from regional flood control dams.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low. Riparian occurrences depend upon flooding impacted by flood control dams upstream.

AUTHORSHIP: John Christy

DATE: March 31, 2000

SPHAGNUM BOGS AND FENS

CAREX AQUATILIS VAR. DIVES - CAREX UTRICULATA HERBACEOUS VEGETATION
CAREX AQUATILIS VAR. DIVES HERBACEOUS VEGETATION
CAREX AQUATILIS VAR. DIVES / SPHAGNUM SPP. HERBACEOUS VEGETATION
CAREX CUSICKII - (MENYANTHES TRIFOLIATA) HERBACEOUS VEGETATION
CAREX EXSICCATA HERBACEOUS VEGETATION
CAREX LASIOCARPA HERBACEOUS VEGETATION
CAREX OBNUPTA HERBACEOUS VEGETATION
DULICHIMUM ARUNDINACEUM HERBACEOUS VEGETATION
ERIOPHORUM CHAMISSONIS / SPHAGNUM SPP. HERBACEOUS VEGETATION
LEDUM GROENLANDICUM - KALMIA MICROPHYLLA / XEROPHYLLUM TENAX SHRUBLAND
LEDUM GROENLANDICUM - KALMIA MICROPHYLLA / SPHAGNUM SPP. SHRUBLAND
LEDUM GROENLANDICUM - MYRICA GALE / SPHAGNUM SPP. SHRUBLAND
MYRICA GALE / CAREX (AQUATILIS VAR. DIVES, UTRICULATA) SHRUBLAND
PINUS CONTORTA VAR. CONTORTA / LEDUM GROENLANDICUM / SPHAGNUM SPP. WOODLAND
PINUS MONTICOLA / LEDUM GROENLANDICUM / SPHAGNUM SPP. WOODED SHRUBLAND
RHYNCHOSPORA ALBA - (VACCINIUM OXYCOCCUS) / SPHAGNUM SPP. HERBACEOUS VEGETATION
SPIRAEA DOUGLASII SHRUBLAND
SPIRAEA DOUGLASII / CAREX AQUATILIS VAR. DIVES SHRUBLAND
SPIRAEA DOUGLASII / SPHAGNUM SPP. SHRUBLAND
TSUGA HETEROPHYLLA - (THUJA PLICATA) / LEDUM GROENLANDICUM / SPHAGNUM SPP. WOODLAND
TSUGA HETEROPHYLLA / SPHAGNUM SPP. FOREST

Sphagnum bogs and fens are distinguished from other wetlands by an abundance of sphagnum or brown mosses, and the presence of peat soils. Decomposition is so slow that peat accumulates, and the water ranges from very nutrient poor in bogs to rich in rich fens. Bogs tend to be influenced mostly by rainwater, whereas fens are significantly influenced by surface water or flowing ground water. Bogs and fens are often found together in the same wetland system. This system may be dominated by graminoids, evergreen or deciduous broadleaf shrubs, or evergreen needleleaf trees. Many plant species are confined to this system. Some of these associations, especially those in fens, also occur in Freshwater Marshes or Depressional Wetland Shrublands systems.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) different natural community wider than 0.5 km, (3) major break in topography, soils, geology, etc., especially one resulting in a hydrologic break.

Justification: Sphagnum bogs and fens may be intermixed with other wetlands because of similar hydrologic requirements and topography. They are often isolated hydrologically from other wetlands, and easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, peat excavation, clearing, grazing, logging, fire suppression, etc. No or very few exotic species present with no potential for expansion. Native species that increase with disturbance or changes in hydrology/nutrients (e.g *Juncus effusus*, *Spirea douglasii*, *Carex obnupta*) are absent or confined to nutrient-medium to rich communities (fens).

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, clearing or logging is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs. Native species that increase with disturbance or changes in hydrology/nutrients are absent, low in abundance, or restricted to high-nutrient microsites or nutrient-medium to rich communities (fens).

C -rated condition: Natural hydrologic regime altered by local drainage. Alteration from local drainage, clearing, grazing, logging, and fire suppression is extensive but potentially restorable over several decades. Alteration from peat excavation may be present, but minor in extent or severity. Exotic species may be widespread but potentially manageable with restoration of most natural processes. Native species that increase with disturbance or changes in hydrology/nutrients may be very prominent, even in communities adapted to nutrient poor conditions (sphagnum bogs).

D -rated condition: Natural hydrologic regime or disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Major alteration by peat excavation. Exotic species may be

dominant. Native species that increase with disturbance or changes in hydrology/nutrients are prominent to dominant.

Justification for AA@-rated criteria: Most sphagnum bogs in the Pacific Northwest depend on perennial water regime and occasional disturbance by fire. A-ranked Occurrences have these processes intact, with no history of logging, clearing, grazing or peat excavation.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several to many decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Occurrences with deep peat excavation may take centuries to rebuild peat mass, and have the least likelihood of restoration as palustrine systems.

SIZE.SPECS

A -rated size: Very large (> 150 ac/60 ha)

B -rated size: Large (50-150 ac/20-60 ha)

C -rated size: Moderate (5-50 ac/2-20 ha)

D -rated size: Small (< 5 ac/2 ha)

Justification for AA@-rated criteria: Sphagnum bogs are usually composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked Occurrences occur in small patches surrounded by uplands, generally have low species diversity, and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts. Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact watersheds and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low.

AUTHORSHIP: John Christy and Chris Chappell

DATE: May 10, 2000

WET PRAIRIES

BRODIAEA SP HERBACEOUS VEGETATION
CAMASSIA QUAMASH WET PRAIRIE HERBACEOUS VEGETATION
CAREX APERTA HERBACEOUS VEGETATION
CAREX Densa - DESCHAMPSIA CESPITOSA HERBACEOUS VEGETATION
CAREX Densa - ELEOCHARIS PALUSTRIS HERBACEOUS VEGETATION
CAREX UNILATERALIS - HORDEUM BRACHYANTHERUM HERBACEOUS VEGETATION
DESCHAMPSIA CESPITOSA - DANTHONIA CALIFORNICA HERBACEOUS VEGETATION
ISOETES NUTTALLII HERBACEOUS VEGETATION
ROSA NUTKANA / DESCHAMPSIA CESPITOSA SHRUBLAND
ROSA NUTKANA / OENANTHE SARMENTOSA SHRUBLAND
VACCINIUM CAESPITOSUM / LICHEN SHRUBLAND

Wet prairies historically covered large areas of the Willamette Valley where they were maintained by a combination of wetland soil hydrology and frequent burning. These are high nutrient wetlands that are temporarily to seasonally flooded. They have been reduced to tiny fragments of their former extent. They are dominated primarily by graminoids, especially *Deschampsia cespitosa* and *Carex* spp., and to a lesser degree by forbs or shrubs.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .5 km wide, major highways, urban development, large bodies of water, (2) different natural community wider than 1 km, (3) major break in topography, soils, geology, etc., especially one resulting in a hydrologic break.

Justification: Willamette Valley wet prairie associations may be intermixed because of similar hydrologic requirements and topography. Remnant stands are usually surrounded by converted land, and are easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size. Secondary and tertiary factors should be equally weighted because this was naturally a large patch type but existing examples are mostly small patch with degraded landscapes.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, agriculture, grazing, fire suppression, etc. No or very few exotic species present with no potential for expansion. At least 15 grassland-associate species present (Appendix A).

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, fire suppression, or light grazing is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs. At least 10 grassland-associate species present.

C -rated condition: Natural hydrologic regime altered by local drainage, or excessive flooding from altered drainage from surrounding land. Alteration from local drainage, prior agricultural use, grazing, and fire suppression is extensive but potentially restorable over several decades. Exotic species widespread but potentially manageable with restoration of most natural processes. At least 10 grassland-associate species present.

D -rated condition: Natural hydrologic regime and disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species dominant, with little hope for control. Alteration from prolonged agricultural use or prolonged grazing most likely not restorable.

Justification for AA@-rated criteria: Most Willamette Valley wet prairies depend on seasonal water regime and frequent fire. A-ranked Occurrences have these processes intact, with no history of agricultural use or grazing. Very few prairie remnants in the region now meet these criteria, and most that do will be small in size, making them vulnerable to edge effect.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation.

SIZE.SPECS

A -rated size: Very large (>300 ac/120 ha)

B -rated size: Large (100-300 ac/40-120 ha)

C -rated size: Moderate (10-100 ac/4-40 ha)

D -rated size: Small (<10 ac/4 ha)

Justification for AA@-rated criteria: Willamette Valley wet prairies are usually composed of mosaics of different associations included in this system. Occurrences of this size may have high species diversity and are well buffered from edge effects. Occurrences of this size are rare because hydric landforms of this size that have not been converted to agricultural or urban uses are rare.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. D-ranked Occurrences occur in small patches surrounded by converted lands, and generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered). No barriers present. Connectivity of habitats allows natural processes and species migration to occur.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity. Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity. If there is little to no urban development in the surrounding landscape, then a landscape consisting largely of agriculture (50-100% agricultural alteration) is acceptable. Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to urban (>50% altered), or are a mix of urban and agriculture. Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact surroundings and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences. C-ranked occurrences in agricultural landscapes have potential to expand with restoration. D-ranked Occurrences have no buffering, and are subject to invasion of exotic species. Species diversity will be very low.

AUTHORSHIP: John Christy

DATE: March 31, 2000

VERNAL POOLS

DOWNINGIA ELEGANS VERNAL POOL HERBACEOUS VEGETATION
ERYNGIUM PETIOLATUM - GRINDELIA NANA HERBACEOUS VEGETATION
ERYNGIUM PETIOLATUM - LASTHENIA GLABERRIMA HERBACEOUS VEGETATION
PLAGIOBOTHRYUS FIGURATUS VERNAL POOL HERBACEOUS VEGETATION
PLAGIOBOTHRYUS SCOULERI - PLANTAGO BIGELOVII HERBACEOUS VEGETATION

Vernal pools are rare in the ecoregion being restricted to the Willamette Valley, Gulf Islands and San Juan Islands. They are characterized by freshwater inundation for much of the winter and spring, followed by dramatic lowering of the water table at the approach of summer, such that soils are dry in the summer. They are found in isolated small depressions with no inflow or outflow and a restrictive subsurface soil layer (clay or bedrock). Vegetation is dominated primarily by annual forbs.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .25 km wide, major highways, urban development, large bodies of water, (2) different natural community or degraded example of same community wider than .5 km, (3) major break in topography, soils, geology, etc.

Justification: Vernal pool associations are often intermixed because of similar hydrologic requirements, microtopography within the pools, and fluctuating water levels. Occurrences are often zonal. They are isolated hydrologically from other wetlands, and easily impacted by surrounding land use.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size.

CONDITION.SPECS

A -rated condition: Natural hydrologic regime intact. No or little evidence of alteration due to drainage, flood control, plowing, grazing, or fire suppression. No or very few exotic species present with no potential for expansion.

B -rated condition: Natural hydrologic regime intact or altered by local drainage. Alteration from local drainage, fire suppression, or light grazing is easily restorable by ceasing such activities. Few exotic species with little potential for expansion if restoration occurs.

C -rated condition: Natural hydrologic regime altered by local drainage, local diking, or regional flood control dams. Alteration from local drainage, diking, plowing, grazing, and fire suppression is extensive but potentially restorable over several decades. Alteration from regional flood control dams most likely not restorable. Exotic species widespread but potentially manageable with restoration of most natural processes.

D -rated condition: Natural hydrologic regime or disturbance to site not restorable. System remains fundamentally compromised despite restoration of some processes. Exotic species dominant or co-dominant with little hope for control.

Justification for AA@-rated criteria: Most vernal pools in the Pacific Northwest depend on seasonal water regime and frequent disturbance by flood and fire. A-ranked Occurrences have these processes intact, with no history of flood control, fire suppression, plowing, or grazing. Very few wetlands in the region now meet these criteria, and most that do will be small in size, making them vulnerable to edge effect.

Justification for AC/D@ threshold: C-ranked Occurrences have potential for restoration over several decades. D-ranked Occurrences have little or no potential for restoration because of extensive degradation. Occurrences on floodplains are particularly impacted by flood control dams, and have the least likelihood of restoration unless dams are removed.

SIZE.SPECS

A -rated size: Very large (> 25 ac/10 ha)

B -rated size: Large (5-25 ac/2-10 ha)

C -rated size: Moderate (.5-5 ac/.2-2 ha)

D -rated size: Small (< .5 ac/.2 ha)

Justification for AA@-rated criteria: Remnant vernal pools are usually composed of mosaics of different associations included in this system. Occurrences may have high species diversity and are well buffered from edge

effects. Occurrences of this size are rare because hydric landforms not already converted to agricultural or urban uses are extremely rare.

Justification for AC/D@ threshold: C-ranked Occurrences may have moderate to high species diversity and may be well buffered from edge effect. Small sites generally have low species diversity and are vulnerable to edge effect.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Uplands surrounding Occurrence and in the watershed of the occurrence are largely unaltered by urban or agricultural uses (<5% altered), and have few to no recent (<20 years) clearcuts (<10% of landscape). No barriers present. Connectivity of habitats allows natural processes and species migration to occur.

B -rated landscape context: Uplands surrounding Occurrence and its watershed with moderate urban or agricultural alteration (5-20% altered), but retaining much connectivity, or uplands are heavily managed forest landscape with many tree plantations (<50% of watershed in recent clearcuts). Few barriers present. Some natural processes such as fire may be compromised.

C -rated landscape context: Uplands surrounding Occurrence and its watershed are fragmented by urban or agricultural alteration (20-50% altered), with limited connectivity, or >50% of watershed in recent clearcuts). Some barriers are present, and natural processes few.

D -rated landscape context: Uplands surrounding Occurrence and its watershed are mostly converted to intensive agriculture or urban (>50% altered). Connectivity and natural processes are largely disrupted.

Justification for AA@-rated criteria: These are Occurrences with nearly intact surroundings and processes. Wetlands are fully connected with uplands, and fully buffered from upland influences.

Justification for AC/D@ threshold: C-ranked Occurrences have some limited buffering from upland influences because of size. D-ranked Occurrences have no buffering, and are subject to siltation and pollution. Species diversity will be very low.

AUTHORSHIP: John Christy

DATE: March 31, 2000

UPLAND PRAIRIES AND SAVANNAS

DANTHONIA CALIFORNICA VALLEY GRASSLAND HERBACEOUS VEGETATION
FESTUCA ROEMERI - ASTER CURTUS HERBACEOUS VEGETATION
FESTUCA ROEMERI - SIDDALCEA MALVIFLORA SSP. VIRGATA HERBACEOUS VEGETATION
QUERCUS GARRYANA / FESTUCA ROEMERI WOODED HERBACEOUS VEGETATION
PINUS PONDEROSA / CAREX INOPS - FESTUCA ROEMERI WOODLAND
PINUS PONDEROSA - QUERCUS GARRYANA / FESTUCA ROEMERI WOODED HERBACEOUS

This ecosystem formed a complex mosaic of varying patch sizes with wet prairies and riparian forests over much of the Willamette Valley during the pre-European settlement era. In parts of the Puget Trough, it occurred as large patches in more forested landscapes, usually associated with deep, coarse outwash deposits. It occurs on well-drained soils and was maintained historically by frequent anthropogenic burning. In the absence of disturbance, many of them have succeeded to forest and others continue to do so. Dominant vegetation is perennial bunchgrasses, especially *Festuca roemeri*, and to a lesser degree, *Danthonia californica*, with abundant and diverse forbs. Scattered deciduous (*Quercus garryana*) and/or conifer (*Pseudotsuga menziesii*, *Pinus ponderosa*) trees are rarely found now, but such savannas historically covered about 1/3 of the total acreage.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than .5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km; (3) a major break or change in the ecological land unit (e.g. topography, soils, geology).

Justification: Small fragments close to each other may have some genetic interchange.

RANK.PROCEDURE: (1) size, (2) landscape setting, (3) condition. All three factors should be weighted equally.

CONDITION.SPECS

A -rated condition: Native species dominate, non-native species are typically present but in small amounts <5% total cover, native species that increase with grazing disturbance are <10% cover; invasive exotics with major potential to alter structure and composition are absent, e.g. *Cytisus scoparius*, *Arrhenatherum elatius*, *Holcus lanatus*, *Agrostis capillaris*, *Chrysanthemum leucanthemum*; Douglas fir, if present, consists of widely scattered large, old trees; native invader shrubs, e.g. *Toxicodendron diversiloba*, absent or very sparse; at least 15 species of grassland-associates (appendix A) present.

B -rated condition: Native species dominate, non-native species are present but in small amounts <10% total cover, native increaser species <20% total cover; invasive exotics with major potential to alter structure and composition may be present; Douglas fir, if present, found at densities of <4 individuals/acre regardless of size; native invader shrubs may be frequent but <10% cover; at least 10 species of grassland-associates present.

C -rated condition: Vascular plant cover is co-dominated by native and non-native species or dominated by native increaser species (e.g. *Carex inops*), non-native and native species each typically occupy >10% total cover, with native species >20% relative cover; invasive exotics with major potential to alter structure and composition may be very prominent; Douglas fir may be numerous as seedlings/saplings/small trees; native invader shrubs may be present to abundant but do not completely dominate; >10 species of grassland-associates are present.

D -rated condition: Non-native species dominate, native species <10% cover and <20% relative cover; native invader shrubs may be threatening to overwhelm herbaceous vegetation; less than 10 species of grassland-associates present.

Justification for AA@-rated criteria: This may not exist anymore but is probably within reach on best condition extant sites. Small component of non-natives is inescapable. Problematic invasives, native invader shrubs, and Douglas fir pose major threats to viability.

Justification for AC/D@ threshold: Restoration of a D would be unfeasible. C still providing lots of habitat for natives and potentially restorable.

SIZE.SPECS

A -rated size: Very large (>500 ac/400 ha)

B -rated size: Large (100-500 ac/40-400 ha)

C -rated size: Moderate (20-100 ac/8-40 ha)

D -rated size: Small (<20 ac/8 ha)

Justification for AA@-rated criteria: Large enough to support a population of western meadowlarks (Altman 1999).

Justification for AC/D@ threshold: C-ranked occurrences are large enough to manage with a prescribed fire rotation (E. Alverson pers. comm.). Sites smaller than this unlikely to have western meadowlarks (Altman 1999), sites larger are marginal for that species. Restoration of a truly pre-settlement fire regime is not possible due to societal constraints (large, potentially intense, and unpredictable fires). Conservation of existing C-ranked occurrences, despite their relatively small size is crucial for many species that are still extant.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a landscape with native-dominated (in all physiognomic layers) vegetation, very little to no development or agriculture, and little to no industrial forestry.

B -rated landscape context: 1000 acres of surrounding landscape composed of at least 75% natural or semi-natural vegetation, with any development occurring not directly adjacent to the occurrence; or landscape has very little development or agriculture but has major components of non-native vegetation in at least one physiognomic layer.

C -rated landscape context: Landscape is a mosaic of agricultural or semi-developed areas and natural or semi-natural vegetation. Urban alteration <50% of landscape. Agricultural alteration can be near 100% if urban alteration is <10%.

D -rated landscape context: Landscape has >50% urban alteration or has >10% urban alteration combined with >50% agricultural alteration. Minority of landscape in natural or semi-natural landscape.

Justification for AA@-rated criteria: Connectivity intact; non-native species not a landscape threat; no obvious hindrances to use of prescribed fire, e.g. roads, development.

Justification for AC/D@ threshold: Occurrences surrounded by agriculture with little urban development have potential to be expanded through restoration. Landscapes with much urban development limit connectivity and opportunities for prescribed fire.

AUTHORSHIP: Chris Chappell

DATE: May 10, 2000

Altman, B. 1999. Status and conservation of grassland birds in the Willamette Valley. Unpubl. report submitted to Oregon Dept. of Fish and Wildlife, Corvallis, Oregon.

HERBACEOUS BALDS AND BLUFFS

STIPA LEMMONII / RACOMITRIUM CANESCENS HERBACEOUS VEGETATION

FESTUCA RUBRA - (CAMASSIA LEICHTLINII - GRINDELIA INTEGRIFOLIA VAR. MACROPHYLLA) HERBACEOUS VEGETATION

FESTUCA ROEMERI - CERASTIUM ARVENSE - KOELERIA MACRANTHA HERBACEOUS VEGETATION

RACOMITRIUM CANESCENS - SELAGINELLA WALLACEI BRYOPHYTE VEGETATION

MIMULUS GUTTATUS - BRYUM MINIATUM HERBACEOUS VEGETATION

Herbaceous balds and bluffs occur in the driest environmental settings within the ecoregion that support continuous vegetation: generally south- to west-facing slopes on shallow or sandy/gravelly soils. They are most numerous in the driest climatic portion of the ecoregion in the Gulf Islands, San Juan Islands, and southeastern Vancouver Island. They typically occur as isolated sites within a forest matrix or on coastal bluffs. Fire was probably an important process historically on most of these sites, and some of them are threatened by invasion of trees in the absence of disturbance. Vegetation is dominated by perennial bunchgrasses, forbs, and mosses. Scattered trees, especially *Pseudotsuga menziesii*, are often present.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation greater than 0.5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km; (3) a major break or change in the ecological land unit (e.g. topography, soils, geology).

Justification: Occurrences further away than 1 km are unlikely to have much interaction. These are small patches associated with specific environments.

RANK.PROCEDURE: (1) condition, (2) landscape setting, (3) size.

CONDITION.SPECS

A -rated condition: Native species dominate, non-native species are typically present but in small amounts <5% total cover; *Festuca idahoensis*, *Festuca rubra* (native varieties), or *Stipa lemmonii* are the dominant graminoids; invasive exotics with major potential to alter structure and composition are absent, e.g. *Cytisus scoparius*, *Ulex europaeus*, *Holcus lanatus*, *Agrostis capillaris*; Douglas fir, if present, consists of widely scattered large, old trees; native invader shrubs (e.g. *Rosa nutkana*, *Symphoricarpos albus*) absent or present only at edges; at least 15 species of grassland-associates (appendix A) present.

B -rated condition: Native species dominate, non-native species are present but in small amounts <10% total cover; *Festuca idahoensis*, *Festuca rubra* (native varieties), or *Stipa lemmonii* are the dominant graminoids, *Danthonia californica* may be co-dominant; invasive exotics with major potential to alter structure and composition may be present; Douglas fir, if present, found at densities of <8 individuals/acre regardless of size; native invader shrubs may be frequent but <10% cover; at least 10 species of grassland-associates present.

C -rated condition: Vascular plant cover is co-dominated by native and non-native species, non-native and native species each typically occupy >10% total cover, with native species >20% relative cover; native graminoids other than *F. idahoensis*, native *F. rubra*, or *Stipa lemmonii* may be dominant, especially *Danthonia californica* or *Carex inops*; invasive exotics with major potential to alter structure and composition may be very prominent; Douglas fir may be relatively numerous as seedlings/saplings; native invader shrubs may be present to abundant but do not dominate; >10 species of grassland-associates are present.

D -rated condition: Non-native species dominate, native species <10% cover and <20% relative cover; Douglas fir may have numerous seedlings/saplings; native invader shrubs may be threatening to overwhelm herbaceous vegetation with high percent cover; less than 10 species of grassland-associates present.

Justification for AA@-rated criteria: Small component of non-natives is inescapable. Problematic invasives, native invader shrubs, and Douglas fir pose major threats to viability.

Justification for AC/D@ threshold: Restoration of a D would be unfeasible. C still providing lots of habitat for natives and potentially restorable.

SIZE.SPECS

A -rated size: Very large (>50 ac/20 ha)

B -rated size: Large (10-50 ac/4-20 ha)

C -rated size: Moderate (1-10 ac/0.4-4 ha)

D -rated size: Small (<1 ac/0.4 ha)

Justification for AA@-rated criteria: Near upper range of extant patches. Likely to have high diversity. Likely to be large enough to support multiple Vesper Sparrow territories (Altman 1999).

Justification for AC/D@ threshold: Smaller than this likely to be very vulnerable to invasion by shrubs and trees, low diversity. Vesper sparrows do not appear to be area-sensitive and occur in small patches of habitat scattered across the landscape. Area-sensitive western meadowlarks do not use this habitat.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a landscape with native-dominated (in all physiognomic layers) vegetation, very little to no development or agriculture, and little to no industrial forestry.

B -rated landscape context: Landscape composed of at least 75% natural or semi-natural vegetation, with any development occurring not directly adjacent to the occurrence; or surrounding landscape has very little development or agriculture but has major components of non-native vegetation in at least one physiognomic layer.

C -rated landscape context: Landscape is a mosaic of agricultural or semi-developed areas and natural or semi-natural vegetation, the latter composing 35-75% of the landscape.

D -rated landscape context: Occurrence surrounded primarily by urban or agricultural landscape, with <35% landscape cover of natural or semi-natural vegetation.

Justification for AA@-rated criteria: Connectivity intact; non-native species not a landscape threat; no obvious hindrances to use of prescribed fire, e.g. roads, development.

Justification for AC/D@ threshold: Landscape connectivity seriously impacted below about 35% cover of natural/semi-natural vegetation.

AUTHORSHIP: Chris Chappell

DATE: May 10, 2000

Altman, B. 1999. Status and conservation of grassland birds in the Willamette Valley. Unpubl. report submitted to Oregon Dept. of Fish and Wildlife, Corvallis, Oregon.

DRY EVERGREEN FORESTS AND WOODLANDS

ARBUTUS MENZIESII / ARCTOSTAPHYLOS COLUMBIANA WOODLAND
PSEUDOTSUGA MENZIESII - ABIES GRANDIS / SYMPHORICARPOS ALBUS / MELICA SUBULATA FOREST
PSEUDOTSUGA MENZIESII / CORYLUS CORNUTA / POLYSTICHUM MUNITUM FOREST
PSEUDOTSUGA MENZIESII / GAULTHERIA SHALLON - HOLODISCUS DISCOLOR FOREST
PSEUDOTSUGA MENZIESII / ROSA GYMNOCARPA - HOLODISCUS DISCOLOR FOREST
PSEUDOTSUGA MENZIESII / SYMPHORICARPOS ALBUS - HOLODISCUS DISCOLOR FOREST
PINUS CONTORTA VAR. CONTORTA - PSEUDOTSUGA MENZIESII / GAULTHERIA SHALLON FOREST
PINUS CONTORTA VAR. CONTORTA - PSEUDOTSUGA MENZIESII / LICHEN FOREST
PSEUDOTSUGA MENZIESII - ARBUTUS MENZIESII / GAULTHERIA SHALLON FOREST
PSEUDOTSUGA MENZIESII - ARBUTUS MENZIESII / LONICERA HISPIDULA FOREST
PSEUDOTSUGA MENZIESII - ARBUTUS MENZIESII - QUERCUS SPP. / TOXICODENDRON DIVERSILOBUM -
SYMPHORICARPOS ALBUS FOREST
PSEUDOTSUGA MENZIESII / SYMPHORICARPOS HESPERIUS FOREST

This system occupies small to large patches associated with dry sites or prairie landscapes in most of the ecoregion. In the Willamette Valley section, this system becomes the dominant upland conifer forest type. It acts as a matrix type on foothills around the perimeter of the ecoregion in the Willamette Valley section, but historically was probably more like a large patch type in those areas. This system historically had moderate- to low-severity fires moderately frequently. Historically, these communities were either part of larger forested landscapes or occupied sheltered topographic positions in prairie-dominated landscapes. They now also occur on some sites that formerly supported prairies or tall shrublands (*Coylus cornuta*) with scattered trees. This is a forest or woodland primarily dominated by the long-lived conifer *Pseudotsuga menziesii*. The evergreen broadleaf *Arbutus menziesii*, the short-lived conifer *Pinus contorta*, the broadleaf deciduous *Acer macrophyllum*, and the shade-tolerant conifer *Abies grandis* are local dominant or co-dominant species. These sites are too dry and warm or have been too frequently and extensively burned for anything more than small amounts of *Tsuga heterophylla* or *Thuja plicata* present as regeneration.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation (includes clearcuts/tree plantations) greater than .5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km; (3) a major break or change in the ecological land unit (e.g. topography, soils, geology).

Justification: These communities are somewhat specific in the environment within which they occur, but can intergrade with other forest communities, so separation distances are intermediate.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size. All three factors should be weighted equally.

CONDITION.SPECS

A -rated condition: At least 1/2 of occurrence has stand age greater > 200 years or multi-cohort stand with significant component of >200 year old trees (>10/acre) (Franklin and Spies 1984); no or very little evidence of past logging disturbance; non-native species absent or present with low frequency; community is not a result of tree invasion on former grasslands or savanna within the last 150 years. *Pinus contorta* stands do not need to meet the first criteria.

B -rated condition: Little to no evidence of past logging disturbance over a major proportion of the occurrence and majority of stands are <200 years of age, or majority of stands >200 years of age but show evidence of selective logging that has altered their structure; non-native species may be present with low to moderate frequency in the understory, but have low percent cover; community is not a result of tree invasion on former grasslands or savanna within the last 150 years.

C -rated condition: Stands regenerated naturally after logging or young to mature stands with significant history of selective logging disturbance that altered composition or structure; non-native species may be uncommon to frequent but do not dominate or co-dominate understory (<10-20% cover); community may be a result of tree invasion on former grasslands or savanna within the last 150 years.

D -rated condition: Non-native species abundant in the understory; or dominant trees were planted; stand is typically regenerated after logging.

Justification for AA@-rated criteria: Frequency of old-growth stands has been much reduced in this ecoregion, so old-growth carries a premium for condition. Communities little altered by logging. Non-native species with low threat of spread.

Justification for AC/D@ threshold: Plantations do not have native genetic stock so are not restorable in the short term. Prescribed fire is almost out of the question in forests of this ecoregion.

SIZE.SPECS

A -rated size: Very large (>400 ac/160 ha)

B -rated size: Large (100-400 ac/40-160 ha)

C -rated size: Moderate (20-100 ac/8-40 ha)

D -rated size: Small (< 20 ac/8 ha)

Justification for AA@-rated criteria: More resistant to non-native invasions, toward the high end of natural size for the type, more likely to contain high diversity, some natural processes have space in which to operate and create disturbance mosaics.

Justification for AC/D@ threshold: Areas smaller than 20 acres are highly susceptible to being eliminated or severely degraded by disturbance.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a large (>1500 acres/600 ha) area of natural-origin forest or native prairie that has been little disturbed by past logging or other human activities; surrounding landscape can include other natural communities in addition to forest but has little to no urbanization or agriculture.

B -rated landscape context: Occurrence surrounded primarily by an area of largely intact native (not a plantation) forest or other natural community that is at least 250 acres in total size; larger landscape of at least 1000 acres can be tree plantations; development, if present, is a minor landscape component (<20%).

C -rated landscape context: Occurrence surrounded by degraded forest vegetation, e.g. clearcuts or tree plantations, by agriculture, or by a mosaic of urban/suburban/agriculture and forest or other natural community (maximum 50% urbanized)

D -rated landscape context: Occurrence surrounded by urbanized or semi-urbanized land cover, >50% urban development in landscape.

Justification for AA@-rated criteria: Occurrences part of a landscape large enough to support some degree of patch dynamics over time, as well as a high degree of diversity.

Justification for AC/D@ threshold: Isolated occurrences with very little opportunity for genetic exchange or natural processes. Agricultural landscapes do not pose major threats, especially in landscapes where pre-settlement prairies were common.

AUTHORSHIP: Chris Chappell

DATE: 10 May 2000

Franklin, J. F., and T. A. Spies. 1984. Characteristics of old-growth Douglas-fir forests. Pages 328-334 *in* Proceedings, Soc. of American Foresters national convention, Oct. 16-20, 1983. Soc. of American Foresters, Washington, D.C.

UPLAND MOIST-SITE BROADLEAF FORESTS

ALNUS RUBRA / POLYSTICHUM MUNITUM FOREST

BETULA PAPIRIFERA VAR. COMMUTATA - ALNUS RUBRA/ POLYSTICHUM MUNITUM FOREST

ACER MACROPHYLLUM - THUJA PLICATA / OEMLERIA CERASIFORMIS FOREST

ACER MACROPHYLLUM - ALNUS RUBRA / POLYSTICHUM MUNITUM - TELLIMA GRANDIFLORA FOREST

These forests occur as dynamic successional patches (large patch character). They occur on relatively moist sites, many of which have seasonally fluctuating water tables. They are found in two contrasting landscape settings, driven by two different natural processes. The first and most common is early-successional patches (lasting up to about 100 years after disturbance) in Douglas-fir - Western Hemlock – Western Redcedar Forests or Dry Evergreen Forests and Woodlands, initiated by fire, windthrow, or logging. The second landscape setting where they occur is steep slopes and bluffs that are susceptible to mass movements. Here they are found in patches of differing age associated with different landslide events. The vegetation is deciduous broadleaf forests, sometimes with varying components of conifers also. *Alnus rubra* and *Acer macrophyllum* are the major species. For the purposes of conservation targets for the ecoregion, this system was lumped with the Douglas-fir - Western Hemlock – Western Redcedar Forests or Dry Evergreen Forests and Woodlands within which it occurs. However, these EO Specs and EO Rank Specs were used to rank occurrences of the above plant associations.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation (includes clearcuts/tree plantations) greater than .5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km; (3) a major break in topography, soils, geology, etc.

Justification: These communities are naturally patchy and dynamic, and generally not confined to very specific environments. Therefore, patches somewhat near each other are expected to interact with each other over time if the intervening communities are forested.

RANK.PROCEDURE: (1) condition, (2) size, (3) landscape context. All three factors should be weighted equally.

CONDITION.SPECS

A -rated condition: Non-native species absent or present in very low abundance; community initiated after natural disturbance, no sign of past logging; natural processes favor continued existence of community (i.e. located on steep slope prone to erosion, or part of large forested landscape likely to experience blowdown or fire prior to successional transition).

B -rated condition: Non-native species in low abundance but may be frequent with potential to spread over time; community initiated after natural disturbance, may be signs of past selective logging that did not have a major impact on community structure; natural processes favoring continued existence of community appear to be present but there is considerable uncertainty about likelihood of disturbance prior to successional transition.

C -rated condition: Non-native understory species may be frequent or important but not dominant; or evidence of logging as a primary disturbance agent in community initiation; or natural processes favoring continued existence of community apparently not present.

D -rated condition: Non-native understory species >20% cover; community initiated from logging disturbance; natural processes favoring continued existence of community not present.

Justification for A-rated criteria: Natural-origin occurrences with high likelihood of continued existence associated with natural processes.

Justification for AC/D@ threshold: Occurrences with abundant non-native species are difficult if not impossible to restore.

SIZE.SPECS

A -rated size: Very large (>300 ac/120 ha)

B -rated size: Large (100-300 ac/40-120 ha)

C -rated size: Moderate (40-100 ac/15-40 ha)

D -rated size: Small (< 40 ac/15 ha)

Justification for AA@-rated criteria: Large enough to have likelihood of natural processes operating, including successional dynamic; more resistant to non-native invasions.

Justification for AC/D@ threshold: Areas smaller than 40 acres are susceptible to non-native invasions and not large enough to accommodate a shifting mosaic of small disturbance patches.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a large (>1500 acres/600 ha) area of natural-regeneration forest; surrounding landscape can include other natural communities in addition to forest but has little to no urbanization or agriculture.

B -rated landscape context: Occurrence surrounded primarily by an area of largely intact native (not a plantation) forest or other natural community that is at least 250 acres in total size; larger landscape of at least 1000 acres can be tree plantations; development and agriculture are minor landscape components, <20%.

C -rated landscape context: Occurrence surrounded by degraded forest vegetation, e.g. clearcuts or plantations, or by a mosaic of urban/suburban/agriculture and forest or other natural community (25-80% natural or semi-natural vegetation). Landscape <50% urbanized.

D -rated landscape context: Occurrence surrounded by urbanized or semi-urbanized land cover or agriculture (<25% natural or semi-natural vegetation). Landscape may be >50% urbanized.

Justification for AA@-rated criteria: Occurrences part of a landscape large enough to support patch dynamics over time, as well as a high degree of diversity.

Justification for AC/D@ threshold: Isolated occurrences with very little opportunity for genetic exchange or natural processes.

AUTHORSHIP: Chris Chappell **DATE:** 2 May 2000

DOUGLAS FIR - WESTERN HEMLOCK - WESTERN REDCEDAR FORESTS

PINUS CONTORTA VAR. CONTORTA - PSEUDOTSUGA MENZIESII / GAULTHERIA SHALLON FOREST
PSEUDOTSUGA MENZIESII - THUJA PLICATA / GAULTHERIA SHALLON FOREST
PSEUDOTSUGA MENZIESII - TSUGA HETEROPHYLLA / GAULTHERIA SHALLON FOREST
PSEUDOTSUGA MENZIESII - TSUGA HETEROPHYLLA / MAHONIA NERVOSA VAR. NERVOSA FOREST
PSEUDOTSUGA MENZIESII - TSUGA HETEROPHYLLA / POLYSTICHUM MUNITUM FOREST
PSEUDOTSUGA MENZIESII - TSUGA HETEROPHYLLA / RHODODENDRON MACROPHYLLUM - VACCINIUM OVATUM FOREST
PSEUDOTSUGA MENZIESII - TSUGA HETEROPHYLLA / VACCINIUM OVATUM FOREST
THUJA PLICATA - ABIES GRANDIS / POLYSTICHUM MUNITUM FOREST
TSUGA HETEROPHYLLA/POLYSTICHUM MUNITUM FOREST
TSUGA HETEROPHYLLA/OXALIS OREGANA-POLYSTICHUM MUNITUM FOREST

These communities together formed the matrix in much of the ecoregion, occurring on moderately dry to moist sites. In the Willamette Valley section, this system is less extensive and occurs mostly as large patches around the periphery of the ecoregion. Most of these associations occur as a mosaic of large patches across the landscape, differing in vegetation with their response to moisture and nutrient gradients. This system for the most part formerly supported a moderate-severity fire regime involving occasional stand-replacement fires and more frequent moderate-severity fires. This fire regime would create a complex mosaic of stand structures across the landscape. The dominant vegetation is evergreen conifer forest, especially the very long-lived seral *Pseudotsuga menziesii*, and the shade-tolerant *Abies grandis*, *Tsuga heterophylla* and *Thuja plicata*. The deciduous broadleaf trees *Alnus rubra* and *Acer macrophyllum* are common but subordinate. The short-lived *Pinus contorta* can dominate on some sites after high-severity fires if an adequate seed source is present.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation (includes clearcuts/tree plantations) greater than .5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km if the communities do not frequently occur in a mosaic or 2 km if the communities frequently occur together in a mosaic; (3) a major break or change in the ecological land unit (e.g. topography, soils, geology); (4) residential development that is more dense than one house per 20 acres.

Justification: Many of these communities occur naturally in a mosaic much of the time so minor breaks or small barriers are probably a very common part of the natural distribution and variability. If the breaks are larger, barriers may exist for some species.

RANK.PROCEDURE: (1) size, (2) landscape context, (3) condition. Secondary and tertiary factors should be weighted equally.

CONDITION.SPECS

A -rated condition: At least 1/3 of occurrence has stand age greater > 200 years or multi-cohort stand with significant component of >200 year old trees (>10/acre) (Franklin and Spies 1984); no or very little evidence of past logging disturbance; non-native species absent or present with low frequency. Community is not the result of tree invasion on former grasslands or savanna within the last 150 years. No residential development within the occurrence.

B -rated condition: Little to no evidence of past logging disturbance over a major proportion of the occurrence and majority of stands are <200 years of age, or majority of stands >200 years of age but show evidence of selective logging that has altered their structure; non-native species may be present with low to moderate frequency in the understory, but have low percent cover. Community is not the result of tree invasion on former grasslands or savanna within the last 150 years. No or very little residential development within the occurrence.

C -rated condition: Stands regenerated naturally after logging or young to mature stands with significant history of selective logging disturbance that altered composition or structure; non-native species may be uncommon to frequent but do not dominate or co-dominate understory (<10-20% cover). Community may be a result of tree invasion on former grasslands or savanna within the last 150 years. There may be up to one house per 20 acres over limited areas of the occurrence.

D -rated condition: Non-native species abundant in the understory; or dominant trees were planted; stand is typically regenerated after logging. Residential development scattered over a significant portion of the occurrence, or exceeding one house per 20 acres.

Justification for AA@-rated criteria: Frequency of old-growth stands has been much reduced in this ecoregion, so old-growth carries a premium for condition. It is likely that about 1/3 of the pre-settlement landscape had old-growth conditions at any one time. Communities little altered by logging. Non-native species with low threat of spread.

Justification for AC/D@ threshold: Plantations do not have native genetic stock so considered unrestorable.

SIZE.SPECS

A -rated size: Very large (>5000 ac/2000 ha)

B -rated size: Large (1500-5000 ac/600-2000 ha)

C -rated size: Moderate (160-1500 ac/64-600 ha)

D -rated size: Small (<160 ac/64 ha)

Justification for AA@-rated criteria: Large enough to support a full mosaic of stand conditions, ages, and disturbance patterns. Mean high-severity patch size for a moderate-severity fire regime in somewhat similar Douglas-fir forests in the central Oregon Cascades is about 30 acres (Morrison and Swanson 1990): 50 times this size is 1500 acres, three times that size provides some extra latitude for very high-severity events. Large enough to support all forest-dependent fauna except those largely extirpated from the ecoregion.

Justification for AC/D@ threshold: C-ranked occurrences are large enough to support multiple pairs of breeding varied thrushes and brown creepers, two area-sensitive bird species (Brooks 1978, McGarigal and McComb 1995, Manuwal and Pearson 1997). D-ranked occurrences have only a small area that is not being influenced by microenvironmental edge effects. C-ranked occurrences have some opportunity to absorb effects of small disturbances.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a large area (>1500 ac/600 ha) of natural vegetation. Few small roads in the surrounding landscape.

B -rated landscape context: Landscape composed of at least 80% natural or semi-natural vegetation; or landscape has very little development or agriculture but has major components of non-native vegetation in at least one physiognomic layer or is composed primarily of young tree plantations.

C -rated landscape context: Landscape is a mosaic of agricultural or semi-developed areas and natural or semi-natural vegetation, the latter composing 35-80% of the landscape, or landscape is dominated by very young tree plantations (cut within last 20 years). Landscape is no more than 50% urbanized.

D -rated landscape context: Occurrence surrounded primarily by urban or agricultural landscape, with <25% landscape cover of natural or semi-natural vegetation. Landscape can be >50% urbanized.

Justification for AA@-rated criteria: Connectivity intact. Natural processes can function.

Justification for AC/D@ threshold: Landscape connectivity seriously impacted below about 35% cover of natural/semi-natural vegetation.

AUTHORSHIP: Chris Chappell

DATE: 2 May 2000

Brooks, J. P. 1997. Bird-habitat relationships at multiple spatial resolutions in the Oregon Coast Range. M.S. thesis, Oregon State Univ., Corvallis, Oregon.

Franklin, J. F., and T. A. Spies. 1984. Characteristics of old-growth Douglas-fir forests. Pages 328-334 in Proceedings, Soc. of American Foresters national convention, Oct. 16-20, 1983. Soc. of American Foresters, Washington, D.C.

Manuwal, D. A., and S. Pearson. 1997. Bird populations in managed forests in the western Cascade Mountains, Washington. In Wildlife use of managed forests: a landscape perspective. Vol. 2, West-side research studies.

McGarigal, K., and W. C. McComb. 1995. Relationships between landscape structure and breeding birds in the Oregon Coast Range. Ecol. Monographs 65:235-260.

Morrison, P., and F. J. Swanson. 1990. Fire history and pattern in a Cascade Range landscape. U.S.D.A. For. Serv. Gen. Tech. Rep. PNW-GTR-254.

WILLAMETTE OAK WOODLANDS

QUERCUS GARRYANA - QUERCUS KELLOGII - (ARBUTUS MENZIESII) / TOXICODENDRON DIVERSILOBA WOODLAND
QUERCUS GARRYANA / SYMPHORICARPOS ALBUS / POLYSTICHUM MUNITUM FOREST
QUERCUS GARRYANA / TOXICODENDRON DIVERSILOBA/ ELYMUS GLAUCUS WOODLAND
PSEUDOTSUGA MENZIESII - QUERCUS GARRYANA / SYMPHORICARPOS ALBUS FOREST
PSEUDOTSUGA MENZIESII - QUERCUS GARRYANA / TOXICODENDRON DIVERSILOBA FOREST
QUERCUS GARRYANA / CEANOTHUS CUNEATUS / FESTUCA IDAHOENSIS WOODLAND

By definition, this system occurs only in the Willamette Valley section where oak woodlands were historically a large patch type dependent on aboriginal burning activity. Soils are generally mesic yet well-drained. Succession in the absence of fire tends to favor increased shrub dominance in the understory, increased tree density, and increased importance of conifers, with the end result being conversion to a conifer forest. The vegetation is a woodland or forest dominated by deciduous broadleaf trees, mostly *Quercus garryana*. Co-dominance by the evergreen conifer *Pseudotsuga menziesii* is common.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation (includes clearcuts/tree plantations) greater than .5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km; (3) a major break or change in the ecological land unit (e.g. topography, soils, geology).

Justification: These are naturally patchy communities.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size. All three factors should be weighted equally.

CONDITION.SPECS

A -rated condition: Native species dominate all physiognomic layers, non-native species are present in very low abundance without an immediate threat of spreading rapidly; conifers are absent, scattered, or small and of moderate density (<30 saplings per acre); mature (>150 years old or >24" dbh) cohort of oaks is prominent, though not necessarily dominant, in the canopy; multiple age classes or size classes of oak are present; very little to no evidence of past logging or grazing. No residential development within the occurrence.

B -rated condition: Native species largely dominate in understory and overstory, non-native species may be frequent with some potential to spread but are <10% cover overall; conifers are absent or present but do not pose a near-term threat to the oak canopy; little to no evidence of past logging or grazing, with perhaps noticeable but minor changes in species composition. Residential development absent or minor and located at edge of occurrence.

C -rated condition: Native species at least co-dominant in understory, dominant in canopy, non-native species may be low in abundance to co-dominant in understory layers; conifers may be numerous in the canopy and/or understory, but have not overtopped and shaded the majority of the oak canopy; moderate to no logging history; grazing impacts to understory composition may be significant but restorable. Residential development may cover a limited area at no more than 1 house per 5 acres.

D -rated condition: Non-native species dominate understory with minor native understory component; or successional pathway appears headed very soon for conifer dominance (conifers have overtopped and are shading majority of oaks); may be much disturbed by logging or grazing. Residential development of more than 1 house per 5 acres or covering a substantial portion of the occurrence.

Justification for AA@-rated criteria: Natural occurrences with few non-native species and no near-term within-community threats. This condition is rare but still does exist. Some trees large enough to support white-breasted nuthatches, or old enough to provide structural complexity. Multiple age or size classes indicate potentially greater long-term viability.

Justification for AC/D@ threshold: C occurrences still have substantial native component in the understory and are not in immediate danger of being shaded out by conifers, therefore they are restorable.

SIZE.SPECS

A -rated size: Very large (>100 ac/40 ha)

B -rated size: Large (40-100 ac/16-40 ha)

C -rated size: Moderate (5-40 ac/2-16 ha)

D -rated size: Small (<5 ac/2 ha)

Justification for AA@-rated criteria: Large enough to support white-breasted nuthatches (Hagar and Stern 1997), for substantial within-community diversity, and to provide some buffer against catastrophic events.

Justification for AC/D@ threshold: Area smaller than 5 acres unlikely to provide habitat for oak-associated wildlife, subject to extreme edge effects and vulnerable to extirpation, low within-community diversity.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a landscape with native-dominated (in all physiognomic layers) vegetation, very little to no development or agriculture, and little to no industrial forestry.

B -rated landscape context: Landscape composed of at least 80% natural or semi-natural vegetation, with any development occurring not directly adjacent to the occurrence; or landscape surrounding has very little development or agriculture but has major components of non-native vegetation in at least one physiognomic layer.

C -rated landscape context: Landscape is a mosaic of agricultural or semi-developed areas and natural or semi-natural vegetation, the latter composing 25-80% of the landscape. No more than 50% of landscape is urbanized.

D -rated landscape context: Occurrence surrounded primarily by urban or agricultural landscape, with <25% landscape cover of natural or semi-natural vegetation. May be more than 50% of landscape urbanized.

Justification for AA@-rated criteria: Connectivity intact; non-native species not a landscape threat; no obvious hindrances to use of prescribed fire, e.g. roads, development.

Justification for AC/D@ threshold: Landscape connectivity seriously impacted below about 35% cover of natural/semi-natural vegetation.

AUTHORSHIP: Chris Chappell

DATE: May 2, 2000

Hagar, J. C., and M. A. Stern. 1997. Avifauna in oak woodland habitats of the Willamette Valley, Oregon 1994-1996. Unpubl. report, U.S. Fish and Wildlife Service, Portland, Oregon.

NORTHERN OAK WOODLANDS

QUERCUS GARRYANA / CAREX INOPS - CAMASSIA QUAMASH WOODLAND
QUERCUS GARRYANA / SYMPHORICARPOS ALBUS / CAREX INOPSWOODLAND
QUERCUS GARRYANA / TOXICODENDRON DIVERSILOBA/ ELYMUS GLAUCUS WOODLAND
QUERCUS GARRYANA / VIBURNUM ELLIPTICUM - TOXICODENDRON DIVERSILOBA FOREST
PSEUDOTSUGA MENZIESII - QUERCUS GARRYANA / MELICA SUBULATA FOREST
PSEUDOTSUGA MENZIESII - QUERCUS GARRYANA / SYMPHORICARPOS ALBUS FOREST

This small patch system is associated with dry sites and frequent pre-settlement fires north of the Willamette Valley section, i.e., from the Portland Basin north. It is typically found on either shallow bedrock soils or deep gravelly glacial outwash soils. Succession in the absence of fire tends to favor increased shrub dominance in the understory, increased tree density, and increased importance of conifers, with the end result being conversion to a conifer forest. The vegetation is a woodland or forest dominated by deciduous broadleaf trees, mostly *Quercus garryana*. Co-dominance by the evergreen conifer *Pseudotsuga menziesii* is common.

SEPARATION DISTANCES: (1) substantial barriers to natural processes or species movement, including cultural vegetation (includes clearcuts/tree plantations) greater than .5 km wide, major highways, urban development, large bodies of water; (2) a different natural community wider than 1 km; (3) a major break or change in the ecological land unit (e.g. topography, soils, geology).

Justification: These are naturally patchy communities.

RANK.PROCEDURE: (1) condition, (2) landscape context, (3) size. All three factors should be weighted equally.

CONDITION.SPECS

A -rated condition: Native species dominate all physiognomic layers, non-native species are present in very low abundance without an immediate threat of spreading rapidly; conifers are absent, scattered, or small and of moderate density (<30 saplings per acre); mature (>150 years old or >24" dbh) cohort of oaks is prominent, though not necessarily dominant, in the canopy; multiple age classes or size classes of oak are present; very little to no evidence of past logging or grazing. No residential development within the occurrence.

B -rated condition: Native species largely dominate in understory and overstory, non-native species may be frequent with some potential to spread but are <10% cover overall; conifers are absent or present but do not pose a near-term threat to the oak canopy; little to no evidence of past logging or grazing, with perhaps noticeable but minor changes in species composition. Residential development absent or minor and located at edge of occurrence.

C -rated condition: Native species at least co-dominant in understory, dominant in canopy, non-native species may be low in abundance to co-dominant in understory layers; conifers may be numerous in the canopy and/or understory, but have not overtopped and shaded the majority of the oak canopy; moderate to no logging history; grazing impacts to understory composition may be significant but restorable. Residential development may cover a limited area at no more than 1 house per 5 acres.

D -rated condition: Non-native species dominate understory with minor native understory component; or successional pathway appears headed very soon for conifer dominance (conifers have overtopped and are shading majority of oaks); may be much disturbed by logging or grazing. Residential development of more than 1 house per 5 acres or covering a substantial portion of the occurrence.

Justification for AA@-rated criteria: Natural occurrences with few non-native species and no near-term within-community threats. This condition is rare but still does exist. Some trees large enough to support white-breasted nuthatches, or old enough to provide structural complexity. Multiple age or size classes indicate potentially greater long-term viability.

Justification for AC/D@ threshold: C occurrences still have substantial native component in the understory and are not in immediate danger of being shaded out by conifers, therefore they are restorable.

SIZE.SPECS

A -rated size: Very large (>100 ac/40 ha)

B -rated size: Large (40-100 ac/16-40 ha)

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D -rated size: Small (<5 ac/2 ha)

Justification for AA@-rated criteria: Large enough to support white-breasted nuthatches (Hagar and Stern 1997), for substantial within-community diversity, and to provide some buffer against catastrophic events.

Justification for AC/D@ threshold: Area smaller than 5 acres unlikely to provide habitat for oak-associated wildlife, subject to extreme edge effects and vulnerable to extirpation, low within-community diversity.

LANDSCAPE.CONTEXT.SPECS

A -rated landscape context: Occurrence surrounded by a landscape with native-dominated (in all physiognomic layers) vegetation, very little to no development or agriculture, and little to no industrial forestry.

B -rated landscape context: Landscape composed of at least 80% natural or semi-natural vegetation, with any development occurring not directly adjacent to the occurrence; or landscape surrounding has very little development or agriculture but has major components of non-native vegetation in at least one physiognomic layer.

C -rated landscape context: Landscape is a mosaic of agricultural or semi-developed areas and natural or semi-natural vegetation, the latter composing 25-80% of the landscape. No more than 50% of landscape is urbanized.

D -rated landscape context: Occurrence surrounded primarily by urban or agricultural landscape, with <25% landscape cover of natural or semi-natural vegetation. May be more than 50% of landscape urbanized.

Justification for AA@-rated criteria: Connectivity intact; non-native species not a landscape threat; no obvious hindrances to use of prescribed fire, e..g. roads, development.

Justification for AC/D@ threshold: Landscape connectivity seriously impacted below about 35% cover of natural/semi-natural vegetation.

AUTHORSHIP: Chris Chappell

DATE: May 2, 2000

Hagar, J. C., and M. A. Stern. 1997. Avifauna in oak woodland habitats of the Willamette Valley, Oregon 1994-1996. Unpubl. report, U.S. Fish and Wildlife Service, Portland, Oregon.

Appendix 12a. Goals for Terrestrial Ecological Systems in the Willamette Valley-Puget Trough-Georgia Basin Ecoregion

Systems are listed by type in the following order: marine associated, freshwater wetlands, dry herbaceous, oak woodlands and conifer forests.

ECOLOGICAL SYSTEM	Distribution of Component Associations in relation to Ecoregion	Estimated Percent Loss since 1850	Goal in Percent of Modeled Extant Area	Ecoregion-wide Numerical Goal for Point Occurrences	Numerical Goal Georgia Basin Section	Numerical Goal Puget Trough Section	Numerical Goal Lower Columbia Section	Numerical Goal Willamette Valley Section
Intertidal salt marshes	Limited			39	20	20		
Coastal spits, dunes, and strand	Limited	50	60	total extant X .6	25	4		
Depressional wetland shrublands	Limited			39	10	10	10	10
Depressional wetland broadleaf forests	Limited/Endemic			57	14	14	14	14
Coniferous forested wetlands	Limited			13	5	5	2	1
Tidally-influenced freshwater wetlands	Limited	90	100	All extant viable				
Riparian forests and shrublands	Limited/Endemic	60	50-85 (varies by section)	57	14	14	14	14
Freshwater marshes	Widespread/Limited			30	8	8	8	8
Freshwater aquatic beds	Widespread			21	5	5	5	5
Autumnal freshwater mudflats	Limited			13			10	3
Sphagnum bogs and fens	Limited			39	18	18	2	2
Wet prairies	Endemic	95	100	All extant viable				
Vernal pools	Endemic			25	13			13
Upland prairies and savannas	Endemic	95	100	All extant viable				
Herbaceous balds and bluffs	Endemic			75	40	7	8	20
Northern oak woodlands	Endemic			75	25	25	25	
Willamette oak woodlands	Endemic	80	100	All extant viable				
Dry evergreen forests and woodlands	Endemic/Limited	variable	20-70 (varies by section)	57	14	14	14	14
Douglas fir – western hemlock – western redcedar forests	Limited/Endemic	variable	37-50 (varies by section)	39	10	10	10	10

Appendix 12b. Terrestrial Ecological Systems with Area Goals and Input Parameters

System	Section	Minimum ha/hex	Minimum Area in SITES	Available	Goal	Area Goal	Method
Riparian Forests and Shrubland	WV	10	50	44,672.04	0.5	22,336.02	Historic veg
Riparian Forests and Shrubland	CV	10	50	25,170.75	0.6	15,102.45	Historic veg
Riparian Forests and Shrubland	PT	10	50	41,356.80	0.85	35,153.28	Historic veg
Riparian Forests and Shrubland	GB	10	50	7,183.35	0.6	4,310.01	Estimate
Willamette Oak Woodland	WV	10	100	24,456.87	0.8	19,565.50	Historic veg
Dry Evergreen Forest-Woodland	WV	60	400	228,656.61	0.21	48,017.89	Historic veg
Dry Evergreen Forest-Woodland	CV	20	40	38,042.64	0.7	26,629.85	Historic veg
Dry Evergreen Forest-Woodland	PT	20	40	69,814.08	0.35	24,434.93	Historic veg
Dry Evergreen Forest-Woodland	GB	20	40	57,696.30	0.5	28,848.15	Estimate
Douglas Fir-W. Hemlock-Western Redcedar Forest	WV	20	100	32,068.08	0.366	11,736.92	Historic veg
Douglas Fir-W. Hemlock-Western Redcedar Forest	CV	60	400	234,774.00	0.45	105,648.30	Historic veg
Douglas Fir-W. Hemlock-Western Redcedar Forest	PT	60	400	739,850.22	0.5	369,925.11	Historic veg
Douglas Fir-W. Hemlock-Western Redcedar Forest	GB	60	400	434,669.04	0.37	160,827.54	Estimate

Appendix 13. List of Terrestrial Animal Targets Showing Conservation Status

Note: Terrestrial animals are listed here according to group.

Conservation status assigned by NatureServe, U.S. Fish and Wildlife Service, Conservation Data Centre of British Columbia, and the Natural Heritage Programs of Washington and Oregon. This list does not include some special animal targets (see Table 2.11 in assessment.)

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
Mammals									
Baird's shrew	<i>Sorex bairdi</i>	G4		--	SU	--			
Pacific water shrew	<i>Sorex bendirii</i>	G4		S1S2	S4	S5?	red		
Vancouver Island water shrew	<i>Sorex palustris brooksi</i>	G5T2		S2	--	--	red		
Townsend's mole	<i>Scapanus townsendii</i>	G5		S1	S4	S5	red		
Townsend's western big-eared bat	<i>Corynorhinus townsendii townsendii</i>	G4T3T4	SC	S2S3	S2S3	S2	blue	Cr	C
Keen's long-eared myotis	<i>Myotis keenii</i>	G2G3		S1S3	--	S1	red		C
black-tailed jackrabbit	<i>Lepus californicus</i>	G5		--	S4	S4			C
gray-tailed vole	<i>Microtus canicaudus</i>	G4		--	S4	S3			C
Shaw Island Townsend's vole	<i>Microtus townsendii pugeti</i>	G5T1T2		--	--	S1?			
western gray squirrel	<i>Sciurus griseus</i>	G5	C	--	S4?	S2		U	T
Camas pocket gopher	<i>Thomomys bulbivorus</i>	G3G4	SC	--	S3S4	--			
western pocket gopher ssp.	<i>Thomomys mazama</i>	G4G5T2	SC	--	SU	S1			C
Brush Prairie pocket gopher	<i>Thomomys talpoides douglasi</i>	G5T1		--	--	S2			C
Vancouver island ermine	<i>Mustela erminea anguinae</i>	G5T3		S3	--	--	blue		
Columbian white-tailed deer	<i>Odocoileus virginianus leucurus</i>	G5T2	E	--	S2	S2		Vu	E
Birds									
great blue heron	<i>Ardea herodias</i>	G5		S3B	S4	S4S5	blue		
sandhill crane	<i>Grus canadensis</i>	G5		S3S4B	S3	S1B, S1N	blue	Vu	E
trumpeter swan	<i>Cygnus buccinator</i>	G4		S3S4B	S2	S3N	blue		
Aleutian Canada goose	<i>Branta canadensis leucopareia</i>	G5T2		SXN	S2N	SZN	blue	T	T
dusky Canada goose	<i>Branta canadensis occidentalis</i>	G5T2		S1N	S2N		blue		
snow goose	<i>Chen caerulescens</i>	G5		S2N	S4	S3N	yellow		
harlequin duck (wintering)	<i>Histrionicus histrionicus</i>	G4	SC	S3N	S3N	S3N	yellow	U	
blue grouse	<i>Dendragapus obscurus</i>	G5		S4	S4	S5	yellow		
peregrine falcon	<i>Falco peregrinus</i>	G4T3	SC	S2	S1	S2B, S3N	red	E	S

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
bald eagle (winter roosts and feeding areas)	<i>Haliaeetus leucocephalus</i>	G4		S4	S3B	S3S4B	yellow	T	T
northern goshawk	<i>Accipiter gentilis</i>	G5	SC	S4B	S3	S3	yellow	Cr	C
black tern	<i>Chlidonas niger</i>	G4	SC	S4B	S3B	S4B	yellow		
marbled murrelet (nesting)	<i>Brachyramphus marmoratus</i>	G3G4	T	S2B	S2	S3	red	T	T
band-tailed pigeon (breeding)	<i>Columba fasciata</i>	G5	SC	S3S4B	S4	S4B	blue		
yellow-billed cuckoo	<i>Coccyzus americanus</i>	G5	SC	SXB	S1B	SHB	red	Cr	C
short-eared owl	<i>Asio flammeus</i>	G5		S3B	S4?	S4B	blue		
northern spotted owl	<i>Strix occidentalis caurina</i>	G3T3	T	--	S3	S3		T	T
burrowing owl	<i>Athene cunicularia hypugaea</i>	G4TU	SC	S1B	S2?B	S3B	red	Cr	C
common nighthawk	<i>Chordeiles minor</i>	G5		S4S5B	S5	S4B	yellow	Cr	
Vaux's swift	<i>Chaetura vauxi</i>	G5		S4B	S5	S3S4B	yellow		C
rufous hummingbird	<i>Selasphorus rufus</i>	G5		S3S5B	S4	S5B	yellow		
acorn woodpecker	<i>Melanerpes formicivorus</i>	G5	SC	--	S3?	S1			
Lewis' woodpecker	<i>Melanerpes lewis</i>	G5	SC	SXB	S3B	S3	red	Cr	C
red-breasted sapsucker	<i>Sphyrapicus nuchalis</i>	G5		S5B	S4	S4S5	yellow		
Pacific-slope flycatcher	<i>Empidonax difficilis</i>	G5		S4S5B	S4	S5B	yellow		
willow flycatcher	<i>Empidonax traillii brewsteri</i>	G5	SC	S4B	S4	S5B	yellow	U	
olive-sided flycatcher	<i>Contopus cooperi</i>	G4	SC	S4B	S4	S4S5B	yellow	Vu	
western wood-pewee	<i>Contopus sordidulus</i>	G5		S4B	S4	S5B	yellow		
purple martin	<i>Progne subis</i>	G5	SC	S2B	S3B	S3B	red	Cr	C
chestnut-backed chickadee	<i>Poecile rufescens</i>	G5		S5B	S5	S5	yellow		
white-breasted nuthatch	<i>Sitta carolinensis aculeata</i>	G5		S4	S4	S1	yellow		C
western bluebird	<i>Sialia mexicana</i>	G5		SHB	S4B	S3B	red	Vu	
golden-crowned kinglet	<i>Regulus satrapa</i>	G5		S5B	S4	S5B	yellow		
black-throated gray warbler	<i>Dendroica nigrescens</i>	G5		S4S5B	S5	S5B	yellow		
hermit warbler	<i>Dendroica occidentalis</i>	G4G5		--	S4	S4B			
Townsend's warbler	<i>Dendroica townsendi</i>	G5		--	S4	S5B			
Oregon vesper sparrow	<i>Pooecetes gramineus affinis</i>	G5T3	SC	--	S2B	S1B		Cr	C
grasshopper sparrow	<i>Ammodramus savannarum</i>	G5		S2B	S2B?	S3B	red	Vu	
tricolored blackbird	<i>Agelaius tricolor</i>	G3	SC	--	S2B	SA			
streaked horned lark	<i>Eremophila alpestris strigata</i>	G5T2	SC	SH	S2?	S1B	red	Cr	C

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
western meadowlark	<i>Sturnella neglecta</i>	G5		SXB	S5	S5B	red	Cr	
Bullock's oriole	<i>Icterus galbula</i>	G5		S5B	S4	S4S5B	yellow		
Reptiles									
painted turtle	<i>Chrysemys picta</i>	G5		S3S4	S2	S5	blue	Cr	
Northwestern pond turtle	<i>Clemmys marmorata marmorata</i>	G3T3	SC	SX	S2	S1	red	Cr	E
western fence lizard	<i>Sceloporus occidentalis</i>	G5		--	S5	S5			
Racer	<i>Coluber constrictor</i>	G5		S3S4	S4?	S5	blue		
sharptail snake	<i>Contia tenuis</i>	G5		S1	S3	S2	red	Vu	C
pacific ringneck snake	<i>Diadophis punctatus amabilis</i>	G5T4		--	S4?	S3			
gopher snake	<i>Pituophis catenipher catenipher</i>	G5T5		SX	S5	S5	red		
western rattlesnake	<i>Crotalus viridis</i>	G5		S3	S4	S5	blue	Vu	
Amphibians									
Cope's giant salamander	<i>Dicamptodon copei</i>	G3		--	S2	S3S4		U	
Pacific giant salamander	<i>Dicamptodon tenebrosus</i>	G5		S2	S4	S5	red		
Cascade torrent salamander	<i>Rhyacotriton cascadei</i>	G3		--	S2	S3		Vu	C
Columbia torrent salamander	<i>Rhyacotriton kezeri</i>	G3		--	S3	S3		Cr	C
Olympic torrent salamander	<i>Rhyacotriton olympicus</i>	G2		--	--	S3			
southern torrent salamander	<i>Rhyacotriton variegatus</i>	G3		--	S3	--		Vu	
Dunn's salamander	<i>Plethodon dunnii</i>	G4		--	S4	S2S3			C
Larch Mountain salamander	<i>Plethodon larselli</i>	G2	SC	--	S2	S3		Vu	S
Van Dyke's salamander	<i>Plethodon vandykei</i>	G2	SC	--	--	S3			C
Oregon slender salamander	<i>Batrachoseps wrighti</i>	G3	SC	--	S3	--		U	
clouded salamander	<i>Aneides ferreus</i>	G3		--	S3	--		U	
tailed frog	<i>Ascaphus truei</i>	G4		S3S4	S3	S4	red	Vu	
western toad	<i>Bufo boreas</i>	G4	SC	S4	S4	S3S4	yellow	Vu	C
Oregon spotted frog	<i>Rana pretiosa</i>	G2G3	C	S1	S2	S1	red	Cr	E
northern red-legged frog	<i>Rana aurora aurora</i>	G4T4	SC	S3S4	S3	S4	blue	Vu	
foothill yellow-legged frog	<i>Rana boylei</i>	G3	SC	--	S2	--		Vu	
Lepidoptera									
Vancouver Island ringlet	<i>Coenonympha californica insulana</i>	G5T3T4		S2	--	--	red		
western sulphur	<i>Colias occidentalis occidentalis</i>	G3		--	S?	S5	--		
large marble, new subspecies	<i>Euchloe ausonides, new ssp.</i>	G1T1		SX	S?	S?	red		

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
Edith's checkerspot	<i>Euphydryas editha taylori</i>	G5T1	SC	SH	S?	S4	red		
Dun skipper, vestris subsp	<i>Euphyes vestris vestris</i>	G5T3		S3	S?	S1	blue		
Oregon branded skipper	<i>Hesperia comma oregonia</i>	G5		--	--	S2	--		
Puget blue (Blackmore's blue)	<i>Icaricia icarioides blackmorei</i>	G5T3		S3	--	S2	blue		C
Fender's blue	<i>Icaricia icarioides fenderi</i>	G5T1	LE	--	S1	--			
Johnson's hairstreak	<i>Mitoura johnsoni</i>	G3		S1S2	S2?	S2S3	red		C
greater arctic (great grayling)	<i>Oeneis nevadensis gigas</i>	G5		S3	S?	SH	blue		C
Vancouver Island (greenish) blue	<i>Plebeius saepiolus insulanus</i>	G5T1?		SH	S?	S5	red		
Mardon skipper	<i>Polites mardon</i>	G2G3	C	--	S2	S1	--		E
Sonora skipper (dog star)	<i>Polites sonora siris</i>	G4		S?	S?	S4	yellow		
Willamette callippe fritillary	<i>Speyeria callippe ssp.</i>	G5T1?	SC	S5	SH	--	yellow		
great spangled fritillary	<i>Speyeria cybele pugetensis</i>	G5		--	S?	S4			
valley silverspot (Bremner's)	<i>Speyeria zerene bremnerii</i>	G5T3T4	SC	--	SH	S2			C
Clark's sphinx moth	<i>Proserpinus clarikiae</i>	G4G5		--	SU	SU			
noctuid moth	<i>Autographa speciosa</i>	G1?		S1	--	--			
endemic moth	<i>Catocola allusa</i>			--	S?	SU			
Other insects									
marsh carabid beetle	<i>Acupalpus punctulatus</i>	G2?		--	S2?	--			
Beller's ground beetle	<i>Agonum belleri</i>	G3	SC	--	S1?	S3			C
Big idol leaf beetle	<i>Donacia idola</i>	G?		--	--	S?			C
Hatch's click beetle	<i>Eanus hatchii</i>	G2?	SC	--	S?	S1			C
Wood-borer beetle 1	<i>Oistus edmonstoni</i>			--	S?	SU			
Wood-borer beetle 2	<i>Buprestis gibbsi</i>			--	S?	SU			
Mirid bug 1	<i>Clivenema fusca</i>	G1?		--	S?	SU			
Mirid bug 2	<i>Ceratocapsus downesi</i>	G1?		--	S?	SU			
Coreid bug	<i>Coriomeris insularis</i>	G2G3		--	S?	SU			
American grass bug	<i>Acetropis americana</i>	G1		--	S1	--			
Foliaceous lace bug	<i>Derephysia foliacea</i>	G?		--	S1	SU			
Siskiyou chloealtis grasshopper	<i>Chloealtis aspasma</i>	G2?	SC	--	S1	--			
Molluscs									
Puget oregonian (snail)	<i>Cryptomastix devia</i>	G2?		--	S1	S?			
evening fieldslug	<i>Deroceras hesperium</i>	G1		--	S1	SU			

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
warty jumping-slug	<i>Hemphillia glandulosa</i>	G2		--	S1	SU			
Oregon megomphix (snail)	<i>Megomphix hemphilli</i>	G2		--	S2S3	SU			
Columbia (Pacific) sideband (snail)	<i>Monadenia fidelis columbiana</i>	G?T1		--	S1	SU			
Bald (oak springs) hesperian	<i>Vespericola sp1</i>	G1		--	S1	SU			
Annelids									
Oregon giant earthworm	<i>Driloleirus macelfreshi (megascolides macelfreshi)</i>	G1	SC	--	S1	--			

Rank

G1, S1, T1	critically imperiled
G2, S2, T2	imperiled
G3, S3, T3	vulnerable to extirpation or extinction
G4, S4, T4	apparently secure
G5, S5, T5	demonstrably widespread, abundant, and secure
G_	global rank
S_	state or subnational rank
T_	taxonomic or subspecies rank
X	extirpated
B	breeding population
N	non-breeding population
H	historic
A	accidental occurrence, not breeding
E	exotic species
U	unrankable
?	ranking questionable
R	reported but unconfirmed
--	does not exist in state or province

Status Codes

E, red
T, blue
SC, yellow
S
C
Cr
Vu
U

Meaning

listed as endangered
listed as threatened
species of concern
listed as sensitive; Washington only
candidate for listing
critical, candidate for listing; Oregon only
vulnerable; Oregon only
status undetermined; Oregon only

Appendix 14. Information on Terrestrial Animal Targets

Note: Terrestrial animals are listed here according to group.

The following are the main reasons the species was selected as a target, means of spatial representation in the optimal site selection algorithm, number and rank of occurrences, and the maximum goal used in the analysis. Historic (H) and extirpated (X) element occurrences were not used in the analysis.

Common Name	Target Selection Criteria	Spatial Representation	Element Occurrences								Maximum Goal
			A	B	C	D	K	H	X	Total	
Mammals											
Baird's shrew	endemic	no data	--	--	--	--	--	--	--	--	--
Pacific water shrew	red list	EO & coarse filter	0	0	0	0	7	0	0	7	all EOs
Vancouver Island water shrew	T rank	EO	0	0	0	0	4	0	0	4	all EOs
Townsend's mole	red list	EO	0	0	0	0	1	0	0	1	all EOs
Townsend's big-eared bat	vulnerable colonies	EO	3	0	8	13	2	1	0	26	all EOs
Keen's long-eared myotis	G rank	EO	0	0	0	1	2	0	0	3	all EOs
black-tailed jackrabbit	declining	no data	--	--	--	--	--	--	--	--	--
gray-tailed vole	endemic	coarse filter	--	--	--	--	--	--	--	--	--
Shaw Island Townsend's vole	T rank	no data	--	--	--	--	--	--	--	--	--
western gray squirrel	state list	EO	9	0	3	0	1	31	0	44	all EOs
Camas pocket gopher	declining	coarse filter	--	--	--	--	--	--	--	--	--
western pocket gopher ssp.	T rank	EO	5	0	12	1	3	2	0	23	all EOs
Brush Prairie pocket gopher	T rank	no data	--	--	--	--	--	--	--	--	--
Vancouver island ermine	T rank	EO	0	0	0	0	6	0	0	6	all EOs
Columbian white-tailed deer	US list, T rank	EO	1	0	0	1	0	0	0	2	all EOs
Birds											
great blue heron	vulnerable colonies	EO	11	1	14	10	40	0	0	76	all EOs
sandhill crane	vulnerable stop-over sites	no data ²	--	--	--	--	--	--	--	--	--
trumpeter swan	PIF	EO	2	0	0	0	0	0	0	2	all EOs
Aleutian Canada goose	T rank	EO	0	0	8	1	0	0	0	9	all EOs
dusky Canada goose	T rank	EO	0	0	0	0	12	0	0	12	all EOs
snow goose	signif. aggregations	EO	0	0	0	0	1	0	0	1	all EOs
harlequin duck (wintering)	signif. aggregations	marine portfolio ¹	--	--	--	--	--	--	--	--	--
blue grouse	PIF	coarse filter	--	--	--	--	--	--	--	--	--
peregrine falcon	US list, red list	EO	0	8	35	2	0	0	0	45	all EOs
bald eagle	US list	EO	8	3	41	5	0	0	0	57	all EOs

Common Name	Target Selection Criteria	Spatial Representation	Element Occurrences								Maximum Goal
			A	B	C	D	K	H	X	Total	
(winter roosts and feeding areas)											
northern goshawk	declining, S rank	EO	0	0	2	1	1	1	0	5	all EOs
black tern	declining, S rank	no data	--	--	--	--	--	--	--	--	--
marbled murrelet (nesting)	US list, red list	EO & critical habitat	0	0	0	11	0	0	0	11	all EOs & all critical habitat
band-tailed pigeon (breeding)	PIF	EO & coarse filter	0	0	4	0	9	0	0	13	all EOs
yellow-billed cuckoo	red-list	EO	0	0	5	0	1	4	1	11	all EOs
short-eared owl	declining, S rank	EO	0	0	2	0	0	0	0	2	all EOs
northern spotted owl	US list, T rank	critical habitat	--	--	--	--	--	--	--	--	all critical habitat
burrowing owl	S rank	EO	0	0	4	0	0	0	0	4	all EOs
common nighthawk	declining	EO	0	0	0	0	8	0	0	8	all EOs
Vaux's swift	PIF	EO	0	0	0	3	0	0	0	3	all EOs
rufous hummingbird	PIF	coarse filter	--	--	--	--	--	--	--	--	--
acorn woodpecker	declining, S rank	EO	8	0	5	0	0	0	0	13	all EOs
Lewis' woodpecker	PIF	EO	0	0	6	0	0	1	0	7	all EOs
red-breasted sapsucker	declining	coarse filter	--	--	--	--	--	--	--	--	--
Pacific-slope flycatcher	PIF	coarse filter	--	--	--	--	--	--	--	--	--
willow flycatcher	PIF	EO & coarse filter	0	0	2	0	0	0	0	2	all EOs
olive-sided flycatcher	PIF	coarse filter	--	--	--	--	--	--	--	--	--
western wood-pewee	PIF	coarse filter	--	--	--	--	--	--	--	--	--
purple martin	declining, state cand.	EO	3	0	26	42	13	0	0	84	all EOs
chestnut-backed chickadee	PIF	coarse filter	--	--	--	--	--	--	--	--	--
white-breasted nuthatch	S rank	EO	1	0	5	0	0	0	0	6	all EOs
western bluebird	PIF	EO & habitat, OR only	0	0	50	51	0	0	0	101	all EOs & habitat
golden-crowned kinglet	PIF	coarse filter	--	--	--	--	--	--	--	--	--
black-throated gray warbler	PIF	coarse filter	--	--	--	--	--	--	--	--	--
hermit warbler	PIF	coarse filter	--	--	--	--	--	--	--	--	--
Townsend's warbler	PIF	coarse filter	--	--	--	--	--	--	--	--	--
Oregon vesper sparrow	T rank, declining	EO	6	0	35	4	38	0	0	83	all EOs
grasshopper sparrow	red list	EO	1	0	3	0	7	0	0	11	all EOs
tricolored blackbird	G rank	EO	--	--	2	--	--	--	--	--	all EOs

Common Name	Target Selection Criteria	Spatial Representation	Element Occurrences								Maximum Goal
			A	B	C	D	K	H	X	Total	
streaked horned lark	red list	EO	6	0	18	2	35	0	0	61	all EOs
western meadowlark	red list	EO & habitat, OR only	14	0	10	0	0	0	0	24	all EOs
Bullock's oriole	PIF	coarse filter	--	--	--	--	--	--	--	--	--
Reptiles											
painted turtle	S rank	EO	2	0	1	0	51	0	0	54	all EOs
northwestern pond turtle	G and T ranks, red list	EO & habitat	28	0	113	16	12	0	6	174	all EOs &
western fence lizard	disjunct	EO & habitat, WA only	0	0	0	0	2	0	0	2	all EOs & habitat
racer	S rank	no data	--	--	--	--	--	--	--	--	--
sharptail snake	disjunct, red list	EO & habitat, WA only	2	0	9	16	10	0	0	37	all EOs &
pacific ringneck snake	S rank	no data	--	--	--	--	--	--	--	--	--
gopher snake	redlist	no data	--	--	--	--	--	--	--	--	--
western rattlesnake	vulnerable hibernacula	EO	0	0	3	0	0	0	0	3	all EOs
Amphibians											
Cope's giant salamander	G rank	EO	0	0	5	0	0	1	0	6	all EOs
Pacific giant salamander	red list	EO	0	2	1	0	0	0	0	3	all EOs
Cascade torrent salamander	G rank	EO	0	0	12	0	0	0	0	12	all EOs
Columbia torrent salamander	G rank	EO	0	0	1	0	0	0	0	1	all EOs
Olympic torrent salamander	G rank	EO	0	0	1	0	0	4	0	5	all EOs
southern torrent salamander	G rank	EO	3	0	2	0	0	0	0	5	all EOs
Dunn's salamander	state cand.	no data ²	--	--	--	--	--	--	--	--	all EOs
Larch Mountain salamander	G rank	EO	0	0	1	0	0	1	0	2	all EOs
Van Dyke's salamander	G rank	EO	0	0	2	0	0	0	0	2	all EOs
Oregon slender salamander	G rank	EO	7	0	0	0	0	0	0	7	all EOs
clouded salamander	G rank	EO	0	0	4	0	0	0	0	4	all EOs
tailed frog	declining, red list	EO	2	0	0	0	20	0	0	22	all EOs
western toad	state cand.	EO	0	2	4	1	0	0	0	7	all EOs
Oregon spotted frog	G rank, red list	EO	3	0	0	2	3	8	0	16	all EOs
northern red-legged frog	S rank	EO	28	1	35	1	22	0	0	87	
foothill yellow-legged frog	G rank	habitat, OR only	--	--	--	--	--	--	--	--	1174 ha

Common Name	Target Selection Criteria	Spatial Representation	Element Occurrences								Maximum Goal
			A	B	C	D	K	H	X	Total	
Lepidoptera											
Vancouver Island ringlet	red list	EO	0	2	1	0	9	0	0	12	all EOs
western sulphur	G rank	EO	0	0	0	0	2	0	0	2	all EOs
large marble, new subspecies	G and T ranks	EO	0	0	1	0	0	0	0	1	all EOs
Edith's checkerspot	T rank	EO	0	0	6	5	2	0	0	13	all EOs
Dun skipper, vestris subsp	T rank	EO	0	0	4	2	4	0	0	10	all EOs
Oregon branded skipper	S rank	EO	0	0	2	0	0	0	0	2	all EOs
Puget blue (Blackmore's blue)	T rank	EO	0	2	4	0	0	0	0	6	all EOs
Fender's blue	T rank	EO	6	0	11	2	3	0	0	22	all EOs
Johnson's hairstreak	G rank	EO	0-	0	0	0	2	0	0	2	all EOs
great arctic (great grayling)	S rank	EO	0	0	1	0	2	0	0	3	all EOs
greenish blue	T rank	no data	--	--	--	--	--	--	--	--	--
Mardon skipper	G rank, state list	EO	0	1	1	0	0	0	2	4	all EOs
Sonora skipper	declining	EO	0	0	3	0	0	0	0	3	all EOs
Willamette callippe fritillary	T rank	no data	0	0	0	0	0	0	1	1	--
great spangled fritillary	declining	EO	0	1	9	0	0	0	0	10	all EOs
valley silverspot (Bremner's)	S rank	EO	0	1	7	2	3	0	1	14	all EOs
Clark's sphinx moth	declining	EO	0	0	2	3	1	0	0	6	all EOs
noctuid moth	G rank	no data	--	--	--	--	--	--	--	--	--
endemic moth	endemic	EO	0	0	0	0	1	1	0	2	all EOs
Other insects											
marsh ground beetle	G rank	no data	--	--	--	--	--	--	--	--	--
Beller's ground beetle	G rank	EO	0	0	1	0	0	0	0	1	all EOs
bog idol leaf beetle	potentially endemic	no data	--	--	--	--	--	--	--	--	--
Hatch's click beetle	G rank	no data	--	--	--	--	--	--	--	--	--
wood-borer beetle 1	declining	EO	1	0	2	0	0	1	0	4	all EOs
wood-borer beetle 2	potentially endemic	no data	--	--	--	--	--	--	--	--	--
mirid bug 1	G rank	no data	--	--	--	--	--	--	--	--	--
mirid bug 2	G rank	no data	--	--	--	--	--	--	--	--	--
coreid bug	G rank	EO	0	0	0	0	6	0	0	6	all EOs
American grass bug	G rank	EO	0	0	0	2	0	0	0	2	all EOs
foliaceous lace bug	potentially endemic	no data	--	--	--	--	--	--	--	--	--

Common Name	Target Selection Criteria	Spatial Representation	Element Occurrences								Maximum Goal
			A	B	C	D	K	H	X	Total	
Siskiyou chloealtis grasshopper	G rank	EO	0	0	0	1	0	0	0	1	all EOs
Molluscs											
Puget Oregonian (snail)	G rank	no data	--	--	--	--	--	--	--	--	--
evening fieldslug	G rank	no data	--	--	--	--	--	--	--	--	--
warty jumping-slug	G rank	no data	--	--	--	--	--	--	--	--	--
Oregon megomphix (snail)	G rank	EO	1	0	3	0	0	0	0	4	all EOs
Columbia sideband (snail)	T rank	EO	0	0	0	2	0	0	0	2	all EOs
oak springs hesperian	G rank	EO	1	0	0	0	0	0	0	1	all EOs
Annelids											
Oregon giant earthworm	G rank	EO	3	0	3	3	5	0	0	13	all EOs

¹ Wintering habitat for harlequin ducks is mostly confined to marine waters. Hence, harlequins were dealt with in the marine assessment.

² No GIS data, so relied on expert review of draft portfolio to identify locations.

³ No data for locations in ecoregion. One known location was just outside the ecoregion and was used to delineate a conservation priority area.

Appendix 15a. List of Targets with Goals for Ecoregion

Organized by systems, communities, and species. Targets with ecoregion-wide goals are listed here; for the complete target list, see Appendix 5.

Terrestrial Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
	Autumnal freshwater mudflats	6050	Occurrence Score	6050	9750	<input type="checkbox"/>	6050	T
	Coastal spits, dunes, and strand	30150	Occurrence Score	26600	21750	<input checked="" type="checkbox"/>	22300	T
	Coniferous forested wetlands	15050	Occurrence Score	12550	9750	<input checked="" type="checkbox"/>	8500	T
	Depressional wetland broadleaf forests	212400	Occurrence Score	96150	42000	<input checked="" type="checkbox"/>	42000	T
	Depressional wetland shrublands	201800	Occurrence Score	109550	30000	<input checked="" type="checkbox"/>	30000	T
	Douglas fir - western hemlock - western redcedar forests	1418651	Hectares	675479	648138	<input checked="" type="checkbox"/>	648138	T
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	74000	Occurrence Score	66850	30000	<input checked="" type="checkbox"/>	23350	T
	Dry evergreen forests and woodlands	367926	Hectares	210776	127931	<input checked="" type="checkbox"/>	127931	T
	Dry evergreen forests and woodlands (ranked occurrences)	145750	Occurrence Score	132450	42000	<input checked="" type="checkbox"/>	28250	T
	Freshwater aquatic beds	84600	Occurrence Score	51850	15000	<input checked="" type="checkbox"/>	14750	T
	Freshwater marshes	77850	Occurrence Score	45850	24000	<input checked="" type="checkbox"/>	14500	T
	Herbaceous balds and bluffs	153950	Occurrence Score	135650	56250	<input checked="" type="checkbox"/>	44800	T
	Intertidal salt marshes	41300	Occurrence Score	38250	30000	<input checked="" type="checkbox"/>	30000	T
	Oak woodlands (ranked occurrences)	108250	Occurrence Score	99100	66050	<input checked="" type="checkbox"/>	54100	T
	Riparian forests and shrublands	114246	Hectares	77645	76901	<input checked="" type="checkbox"/>	76902	T
	Riparian forests and shrublands (ranked occurrences)	58150	Occurrence Score	54000	42000	<input checked="" type="checkbox"/>	34750	T
	Sphagnum bogs and fens	99250	Occurrence Score	73450	30000	<input checked="" type="checkbox"/>	29000	T
	Tidally-influenced freshwater wetlands	16300	Occurrence Score	14750	ha	<input type="checkbox"/>	16250	T
	Upland prairies and savannas	39600	Occurrence Score	10050	ha	<input type="checkbox"/>	39000	T
	Vernal pools	13500	Occurrence Score	13500	18750	<input type="checkbox"/>	10750	T
	Wet prairies	13250	Occurrence Score	13200	ha	<input type="checkbox"/>	13000	T

Nearshore Marine Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Mud flat / Unvegetated	196	Kilometers	75	ud <input type="checkbox"/>	49	NM
	Rock cliff / Unvegetated	1027	Kilometers	382	ud <input type="checkbox"/>	257	NM
	Rock cliff / Vegetated	425	Kilometers	160	ud <input type="checkbox"/>	127	NM
	Rock platform / Unvegetated	129	Kilometers	44	ud <input type="checkbox"/>	32	NM
	Rock platform / Vegetated	156	Kilometers	69	ud <input type="checkbox"/>	47	NM
	Rock with sand and/or gravel beach / Unvegetated	80	Kilometers	29	ud <input type="checkbox"/>	24	NM
	Rocky reefs	308150	Occurrence Score	112100	ud <input type="checkbox"/>	92445	NM
	Sand and gravel beach / Unvegetated	432	Kilometers	143	ud <input type="checkbox"/>	108	NM
	Sand and gravel flat / Unvegetated	320	Kilometers	111	ud <input type="checkbox"/>	80	NM
	Sand beach / Unvegetated	163	Kilometers	59	ud <input type="checkbox"/>	41	NM
	Sand flat / Unvegetated	153	Kilometers	44	ud <input type="checkbox"/>	38	NM
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	255	Kilometers	96	ud <input type="checkbox"/>	76	NM
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	182	Kilometers	59	ud <input type="checkbox"/>	55	NM
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	75	Kilometers	28	ud <input type="checkbox"/>	22	NM
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	136	Kilometers	50	ud <input type="checkbox"/>	41	NM
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	33	Kilometers	14	ud <input type="checkbox"/>	10	NM
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	48	Kilometers	31	ud <input type="checkbox"/>	19	NM
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	110	Kilometers	49	ud <input type="checkbox"/>	44	NM
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	180	Kilometers	75	ud <input type="checkbox"/>	72	NM
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	121	Kilometers	41	ud <input type="checkbox"/>	48	NM
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	64	Kilometers	16	ud <input type="checkbox"/>	26	NM
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	60	Kilometers	22	ud <input type="checkbox"/>	24	NM
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	18	Kilometers	14	ud <input type="checkbox"/>	7	NM
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	263	Kilometers	83	ud <input type="checkbox"/>	79	NM

Nearshore Marine Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	208	Kilometers	76	ud <input type="checkbox"/>	62	NM
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	194	Kilometers	76	ud <input type="checkbox"/>	58	NM
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	233	Kilometers	83	ud <input type="checkbox"/>	70	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	618	Kilometers	300	ud <input type="checkbox"/>	185	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	37	Kilometers	18	ud <input type="checkbox"/>	11	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	41	Kilometers	23	ud <input type="checkbox"/>	12	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	67	Kilometers	22	ud <input type="checkbox"/>	20	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	67	Kilometers	29	ud <input type="checkbox"/>	20	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	137	Kilometers	83	ud <input type="checkbox"/>	55	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	1042	Kilometers	385	ud <input type="checkbox"/>	261	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	37	Kilometers	20	ud <input type="checkbox"/>	15	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	57	Kilometers	29	ud <input type="checkbox"/>	23	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	57	Kilometers	24	ud <input type="checkbox"/>	23	NM
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	114	Kilometers	50	ud <input type="checkbox"/>	46	NM

Freshwater Ecological Systems

(Goals and measures based on EDU, not ecoregion)

Cascade foothills headwaters - glacial drift and alluvium , low to mid elevation, mixed gradient	22	Occurrences	7	7 <input checked="" type="checkbox"/>	7	FW
Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	11	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Cascade headwater - mostly sedimentary, high/mid elevation, steep	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascade headwater/tributaries - volcanics, high/mid elevation, steep	58	Occurrences	17	17 <input checked="" type="checkbox"/>	17	FW
	Cascade headwaters - glacial, high elevation, low gradient	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascade headwaters - glacial, high elevation, moderate gradient	7	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascade headwaters - mostly granitic, high/mid elevation, steep	10	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Cascade headwaters - volcanics, high elevation, moderate gradient	22	Occurrences	7	7 <input checked="" type="checkbox"/>	7	FW
	Cascade headwaters - volcanics, high elevation, steep	26	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Cascade headwaters - volcanics, mid elevation, moderate gradient	67	Occurrences	20	20 <input checked="" type="checkbox"/>	20	FW
	Cascade headwaters - volcanics, mid to high elevation	101	Occurrences	30	30 <input checked="" type="checkbox"/>	30	FW
	Cascade headwaters, glacier influenced - volcanics, high elevation, steep	14	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	Cascade medium river - volcanic, low to mid elevation	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascade small river - volcanic with glacial features, mid to high elevation	9	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Cascade small river - volcanic, mid elevation	8	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascade small rivers - volcanic with glacial features, moderate elevation	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Cascade small rivers - volcanic, high elevation	8	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascade small rivers - volcanic, transitional elevation, transitional gradient	14	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	Cascade tributaries - sedimentary, mid elevation, steep	13	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	Cascade tributaries - volcanics, high/mid elevation, low gradient	67	Occurrences	20	20 <input checked="" type="checkbox"/>	20	FW
	Cascade/foothill small river - volcanic, low to mid elevation	9	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Cascades headwaters - basalt and volcanics, high elevation, moderate to high gradient, glacier influence	28	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Cascades headwaters - granitic, high elevation, moderate to high gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Cascades headwaters - mafic, mid elevation, mixed gradient	28	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Cascades headwaters - sandstone, mid to high elevation, moderate to high gradient	7	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascades headwaters, sedimentary, mid elevation	19	Occurrences	6	6 <input checked="" type="checkbox"/>	6	FW
	Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	5	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Cascades middle river systems - predominantly granitic watershed, low to mid elevation, variable gradient	9	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Cascades tributary headwaters - granitic, low to mid elevation	51	Occurrences	15	15 <input checked="" type="checkbox"/>	15	FW
	Cascades upper river systems - predominantly granite watershed, mid elevation, variable gradient	14	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	11	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Chehalis headwater small rivers - volcanic, low to mid elevation, low to moderate gradient	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Chehalis tributary small rivers - volcanic/outwash, low to mid elevation	4	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coast Range headwaters - glacial outwash, high elevation, high gradient, probable glacial connection	27	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Coast Range headwaters - sedimentary, high elevation, high gradient	18	Occurrences	5	5 <input checked="" type="checkbox"/>	5	FW
	Coast Range headwaters - sedimentary, mid elevation	33	Occurrences	10	10 <input checked="" type="checkbox"/>	10	FW
	Coast Range headwaters - volcanics, mid elevation	13	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Coast Range headwaters streams - granite, high elevation, high gradient	33	Occurrences	10	10 <input checked="" type="checkbox"/>	10	FW
	Coast Range headwaters streams - granite, mid to high elevation, high gradient	203	Occurrences	61	61 <input checked="" type="checkbox"/>	61	FW
	Coast Range small mountain rivers - granite, high elevation, high gradient	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Coast Range small mountain rivers - granitic, mid to high elevation, mixed gradient	31	Occurrences	9	9 <input checked="" type="checkbox"/>	9	FW
	Coast Range small mountain rivers - outwash, mid to high elevation, mixed gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coast Range small river - basalt, low elevation	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coast Range small rivers - sedimentary, low to mid elevation	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Coast Range tributaries - sedimentary, low to mid elevation	11	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Coast Range tributaries - shales, mid elevation, moderate gradient	11	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Coast tributaries - outwash, low elevation, moderate gradients	32	Occurrences	10	10 <input checked="" type="checkbox"/>	10	FW
	Coastal headwaters - granitic, low elevation, low gradient	147	Occurrences	44	44 <input checked="" type="checkbox"/>	44	FW
	Coastal headwaters - granitic, low to mid elevation, low to steep gradient	57	Occurrences	17	17 <input checked="" type="checkbox"/>	17	FW
	Coastal headwaters - granitic, very small watersheds	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Coastal medium rivers - granite and outwash, low to mid elevation, mixed gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal medium rivers - granite, low elevation	4	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal medium rivers - granite, low to mid elevation, mixed gradient	8	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal medium rivers - sandstone	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Coastal rivers - calcareous to granite transition, low to high elevation, mixed gradient	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Coastal rivers - granitic, low to high elevation, mixed gradient	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Coastal rivers - granitic, short inland reach	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal rivers - sedimentary to granite, low to mid elevation, mixed gradient	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal rivers - volcanic to granite, low to mid elevation, mixed gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal small rivers - granitic, low elevation, mixed gradient	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal small rivers - granitic, low to mid elevation, mixed gradient	4	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal small rivers - outwash, low elevation	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Coastal small rivers and tributaries - granitic, low elevation, mixed gradient	9	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Coastal upland - alluvium-colluvium, low elevation, moderate gradients	10	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Coastal upland - glacial till, low elevation, low to moderate gradient	42	Occurrences	13	13 <input checked="" type="checkbox"/>	13	FW
	Coastal upland - sandstones, low elevation, moderate gradient	40	Occurrences	12	12 <input checked="" type="checkbox"/>	12	FW
	Columbia estuary tributaries - sedimentary, mid elevation, moderate gradient	18	Occurrences	5	5 <input checked="" type="checkbox"/>	5	FW
	Cowlitz tributary small rivers - sedimentary	2	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	East Olympics small rivers - predominantly mafic, low to mid elevation, low to moderate gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Foothills tributaries - basalt, low to mid elevation	37	Occurrences	11	11 <input checked="" type="checkbox"/>	11	FW
	Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	31	Occurrences	9	9 <input checked="" type="checkbox"/>	9	FW
	Fraser/Nooksack coastal plain - sedimentary, low elevation, low gradient	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Georgia Strait coastal streams - granitic, low elevation, high gradient, coastal connection	142	Occurrences	43	43 <input checked="" type="checkbox"/>	43	FW
	Georgia Strait coastal streams - granitic, low elevation, low to moderate gradient	82	Occurrences	25	25 <input checked="" type="checkbox"/>	25	FW
	Georgia Strait headwaters streams - granitic, mid elevation, high gradient	60	Occurrences	18	18 <input checked="" type="checkbox"/>	18	FW
	Georgia Strait headwaters streams - volcanic, low to high elevation, high gradient	12	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	Georgia Strait headwaters streams - volcanic, mid elevation, high gradient	41	Occurrences	12	12 <input checked="" type="checkbox"/>	12	FW
	Georgia Strait island coastal streams - granitic, low elevation, low to moderate gradient	189	Occurrences	57	57 <input checked="" type="checkbox"/>	57	FW
	Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	65	Occurrences	20	20 <input checked="" type="checkbox"/>	20	FW
	Georgia Strait island coastal streams - siltstone, low elevation, low to moderate gradient	21	Occurrences	6	6 <input checked="" type="checkbox"/>	6	FW
	Hood Canal coastal streams	8	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Inland coastal headwaters streams - granitic, low elevation, high gradient	115	Occurrences	34	34 <input checked="" type="checkbox"/>	34	FW
	Inland coastal streams - granitic, low elevation, high gradient, coastal connection	497	Occurrences	149	149 <input checked="" type="checkbox"/>	149	FW
	Inland coastal streams - sedimentary, mid elevation, high gradient, coastal connection	26	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Juan de Fuca coastal streams - sandstone, low to mid elevation, moderate gradient	38	Occurrences	11	11 <input checked="" type="checkbox"/>	11	FW
	Lower Columbia headwater - coarse outwash, low elevation, low gradient	10	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient	25	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Lower Columbia headwaters - volcanics, high elevation, steep	10	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Lower Columbia sloughs and tributaries - flat gradient	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	11	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Lower Columbia tributaries - volcanics, mid elevation, moderate gradient	28	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Lower Columbia tributaries - alluvium/colluvium streams, low elevation, low gradient	7	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Lower Columbia tributaries- sedimentary, moderate elevation, moderate gradient	18	Occurrences	5	5 <input checked="" type="checkbox"/>	5	FW
	Lower Columbia tributary medium rivers - volcanic	4	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Lower Columbia tributary small rivers - sedimentary	5	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Lower Columbia tributary small rivers - volcanics	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	10	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Lower Fraser River tributaries headwaters - granitic, low elevation, low to moderate gradient	18	Occurrences	5	5 <input checked="" type="checkbox"/>	5	FW
	Lower Fraser River tributary headwaters - granitic, mid to high elevation, high gradient	25	Occurrences	8	8 <input checked="" type="checkbox"/>	8	FW
	Lower Fraser tributary rivers - granitic watersheds, low to mid elevation, variable gradient	4	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Mountain headwaters - calcareous, high elevation, steep	11	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Mountain headwaters - granitic, high elevation, steep	39	Occurrences	12	12 <input checked="" type="checkbox"/>	12	FW
	Mountain headwaters - granitic, mid to high elevation, steep gradients	64	Occurrences	19	19 <input checked="" type="checkbox"/>	19	FW
	Mountain headwaters - mafic, mid to high elevation, steep gradients	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Mountain headwaters - volcanic, high elevation, steep	22	Occurrences	7	7 <input checked="" type="checkbox"/>	7	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Mountain rivers - granitic, low to high elevation, mixed gradient	5	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Nooksack coastal plain headwaters - glacial drift and outwash, low elevation, low to moderate gradient	23	Occurrences	7	7 <input checked="" type="checkbox"/>	7	FW
	North Cascades - mafic , mid elevation, mixed gradient	17	Occurrences	5	5 <input checked="" type="checkbox"/>	5	FW
	North Cascades headwaters - mostly volcanic, mid to high elevation, moderate to high gradient	14	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	North Cascades headwaters - granitic , mid to high elevation, moderate to high gradient	134	Occurrences	40	40 <input checked="" type="checkbox"/>	40	FW
	North Cascades tributary rivers - sedimentary and granitic watersheds, moderate to high elevation, mixed gradient	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Northern Cascades headwaters - sandstone, moderate to high elevation, moderate to high gradient	31	Occurrences	9	9 <input checked="" type="checkbox"/>	9	FW
	Northern Cascades medium rivers - predominantly granite watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Northern Olympics rivers - sandstone, mid to low elevation, mixed gradient	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Olympics - sandstones, high elevation, high gradient	12	Occurrences	4	4 <input checked="" type="checkbox"/>	4	FW
	Olympics - sandstones, mid elevation, high gradient	31	Occurrences	9	9 <input checked="" type="checkbox"/>	9	FW
	Olympics headwaters - sandstone, mid to high elevation, moderate to high gradient	24	Occurrences	7	7 <input checked="" type="checkbox"/>	7	FW
	Olympics rainshadow coastal headwaters	9	Occurrences	3	3 <input checked="" type="checkbox"/>	3	FW
	Olympics rainshadow coastal headwaters - mafic, mid elevation, moderate to high gradient	32	Occurrences	10	10 <input checked="" type="checkbox"/>	10	FW
	Olympics small rivers - sandstone, low to mid elevation, low to moderate gradient	9	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	74	Occurrences	22	22 <input checked="" type="checkbox"/>	22	FW

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
	Puget lowland headwaters south - glacial drift, low elevation, low gradient	33	Occurrences	10	10 <input checked="" type="checkbox"/>	10	FW
	Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	206	Occurrences	62	62 <input checked="" type="checkbox"/>	62	FW
	Puget lowlands - outwash, low elevation, moderate gradients	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Puget lowlands - glacial till, low elevation, moderate gradients	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Puget lowlands - sandstone, low elevation, moderate gradient	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Puget Sound tributary rivers - glacial drift, low elevation, low gradient	6	Occurrences	2	2 <input checked="" type="checkbox"/>	2	FW
	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	141	Occurrences	42	42 <input checked="" type="checkbox"/>	42	FW
	Skagit River Mouth and Sloughs	8	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	6	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	South Sound rivers and tributaries - glacial drift, low elevation, low gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Straight of Juan de Fuca small rivers - predominantly sandstone, low elevation, variable gradient	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	80	Occurrences	24	24 <input checked="" type="checkbox"/>	24	FW
	Valley small river - alluvium, low elevation	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Valley small river - volcanic, low elevation	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW
	Valley/foothill tributaries - volcanics, mid elevation	39	Occurrences	12	12 <input checked="" type="checkbox"/>	12	FW
	Willapa headwaters - mid elevations, high gradients	36	Occurrences	11	11 <input checked="" type="checkbox"/>	11	FW
	Willapa headwaters - sandstones, low to mid elevation, moderate/low gradient	41	Occurrences	12	12 <input checked="" type="checkbox"/>	12	FW
	Willapa Hills small rivers - sandstone, low elevation	3	Occurrences	1	1 <input checked="" type="checkbox"/>	1	FW

Plant Communities

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
<i>Acer macrophyllum - alnus rubra / polystichum munitum - tellima grandiflora forest</i>	Bigleaf maple - red alder / swordfern - fringecup	3500	Occurrence Score	3500	13500 <input type="checkbox"/>	3500	T
<i>Acer macrophyllum - pseudotsuga menziesii / corylus cornuta / hydrophyllum tenuipes forest</i>	Bigleaf maple - douglas-fir / beaked hazel / slender-stem waterleaf	1050	Occurrence Score	1050	18750 <input type="checkbox"/>	1000	T
<i>Alnus (incana, viridis ssp. sinuata) / lysichiton americanus - oenanthe sarmentosa shrubland</i>	Alder (mountain, sitka) / skunk-cabbage - water-parsley	2000	Occurrence Score	2000	18750 <input type="checkbox"/>	2000	T
<i>Arbutus menziesii / arctostaphylos columbiana woodland</i>	Pacific madrone / hairy manzanita	6500	Occurrence Score	6500	18750 <input type="checkbox"/>	6500	T
<i>Artemisia campestris - grindelia stricta herbaceous vegetation</i>	Northern wormwood - gumweed	2000	Occurrence Score	2000	18750 <input type="checkbox"/>	2000	T
<i>Betula papyrifera var. commutata - alnus rubra/ polystichum munitum forest</i>	Paper birch - red alder / swordfern	500	Occurrence Score	500	13500 <input type="checkbox"/>	500	T
<i>Carex cusickii - (menyanthes trifoliata) herbaceous vegetation</i>	Cusick's sedge - (buckbean)	3000	Occurrence Score	3000	9750 <input type="checkbox"/>	3000	T
<i>Carex macrocephala herbaceous vegetation</i>	Bighead sedge	2000	Occurrence Score	2000	9750 <input type="checkbox"/>	2000	T
<i>Cladina spp. - selaginella wallacei - dicranum scoparium bryophyte vegetation</i>	Reindeer lichen - wallace's selaginella - broom moss	5000	Occurrence Score	5000	9750 <input type="checkbox"/>	5000	T
<i>Deschampsia caespitosa - danthonia californica herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	8750	Occurrence Score	7700	13500 <input type="checkbox"/>	8500	T
<i>Deschampsia caespitosa - sidalcea hendersonii herbaceous vegetation</i>	Tufted hairgrass - henderson's checkermallow	4500	Occurrence Score	4500	9750 <input type="checkbox"/>	4500	T
<i>Downingia elegans vernal pool herbaceous vegetation</i>	Common downingia vernal pool	500	Occurrence Score	500	9750 <input type="checkbox"/>	500	T
<i>Eleocharis palustris - carex unilateralis herbaceous vegetation</i>	Creeping spikerush - one-sided sedge	500	Occurrence Score	500	18750 <input type="checkbox"/>	500	T
<i>Eragrostis hypnoides - gnaphalium palustre herbaceous vegetation</i>	Creeping lovegrass - lowland cudweed	500	Occurrence Score	500	18750 <input type="checkbox"/>	500	T
<i>Eryngium petiolatum - lasthenia glaberrima herbaceous vegetation</i>	Coyote-thistle - smooth lasthenia	500	Occurrence Score	500	18750 <input type="checkbox"/>	500	T
<i>Festuca roemerii - aster curtus herbaceous vegetation</i>	Roemer's fescue - white-topped aster	10600	Occurrence Score	10550	13500 <input type="checkbox"/>	10500	T

Plant Communities

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	26000	Occurrence Score	24500	18750	<input checked="" type="checkbox"/>	18750	T
<i>Festuca roemerii - sidalcea malviflora ssp. virgata herbaceous vegetation</i>	Roemer's fescue - rose checker-mallow	9750	Occurrence Score	9750	13500	<input type="checkbox"/>	9500	T
<i>Festuca rubra - (argentina egedii) herbaceous vegetation</i>	Red fescue - (pacific silverweed)	2500	Occurrence Score	2500	9750	<input type="checkbox"/>	2500	T
<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	5050	Occurrence Score	5000	9750	<input type="checkbox"/>	5000	T
<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	10500	Occurrence Score	10500	18750	<input type="checkbox"/>	10500	T
<i>Fraxinus latifolia / carex deweyana - urtica dioica ssp gracilis forest</i>	Oregon ash / dewey sedge - stinging nettle	500	Occurrence Score	500	18750	<input type="checkbox"/>	500	T
<i>Fraxinus latifolia / carex obnupta forest</i>	Oregon ash / slough sedge	1550	Occurrence Score	1550	18750	<input type="checkbox"/>	1500	T
<i>Fraxinus latifolia / juncus patens forest</i>	Oregon ash / spreading rush	2000	Occurrence Score	2000	9750	<input type="checkbox"/>	2000	T
<i>Fraxinus latifolia / spiraea douglasii forest</i>	Oregon ash / douglas' spirea	1000	Occurrence Score	1000	18750	<input type="checkbox"/>	1000	T
<i>Ledum groenlandicum - kalmia microphylla / xerophyllum tenax shrubland</i>	Bog labrador-tea - bog-laurel / beargrass	1500	Occurrence Score	1500	9750	<input type="checkbox"/>	1500	T
<i>Ledum groenlandicum - myrica gale / sphagnum spp. shrubland</i>	Bog labrador-tea - sweetgale / peat moss	500	Occurrence Score	500	9750	<input type="checkbox"/>	500	T
<i>Pinus contorta var. contorta - pseudotsuga menziesii / cladina spp. forest</i>	Shore pine - douglas-fir / reindeer lichen	3000	Occurrence Score	3000	18750	<input type="checkbox"/>	3000	T
<i>Pinus contorta var. contorta - pseudotsuga menziesii / gaultheria shallon forest</i>	Shore pine - douglas-fir / salal	5050	Occurrence Score	5050	13500	<input type="checkbox"/>	5000	T
<i>Pinus monticola / ledum groenlandicum / sphagnum spp. wooded shrubland</i>	Western white pine / bog labrador-tea / peat moss	500	Occurrence Score	500	18750	<input type="checkbox"/>	500	T
<i>Pinus ponderosa - quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Ponderosa pine -oregon white oak / roemer's fescue	4150	Occurrence Score	4100	13500	<input type="checkbox"/>	4000	T
<i>Pinus ponderosa / carex inops - festuca roemerii woodland</i>	Ponderosa pine / long-stolon sedge - roemer's fescue	1500	Occurrence Score	1500	13500	<input type="checkbox"/>	1500	T
<i>Plagiobothrys figuratus vernal pool herbaceous vegetation</i>	Fragrant popcorn-flower	500	Occurrence Score	500	9750	<input type="checkbox"/>	500	T
<i>Plagiobothrys scouleri - plantago bigelovii herbaceous vegetation</i>	Scouler's popcornflower - annual coastal plantain	6000	Occurrence Score	6000	18750	<input type="checkbox"/>	6000	T
<i>Populus balsamifera ssp. trichocarpa - acer macrophyllum / equisetum hyemale forest</i>	Black cottonwood - bigleaf maple / scouring-rush	2500	Occurrence Score	2500	18750	<input type="checkbox"/>	2500	T
<i>Populus balsamifera ssp. trichocarpa - alnus rhombifolia willamette forest</i>	Black cottonwood - white alder	50	Occurrence Score	50	18750	<input type="checkbox"/>	na	T

Plant Communities

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Populus balsamifera ssp. trichocarpa - alnus rubra / carex obnupta forest</i>	Black cottonwood - red alder / slough sedge	500	Occurrence Score	500	18750	<input type="checkbox"/>	500	T
<i>Populus balsamifera ssp. trichocarpa - alnus rubra / rubus spectabilis forest</i>	Black cottonwood - red alder / salmonberry	50	Occurrence Score	50	9750	<input type="checkbox"/>	na	T
<i>Populus tremuloides / carex obnupta forest</i>	Quaking aspen / slough sedge	3500	Occurrence Score	3500	18750	<input type="checkbox"/>	3500	T
<i>Pseudotsuga menziesii - abies grandis / symphoricarpos albus / melica subulata forest</i>	Douglas-fir - grand fir / common snowberry / alaska oniongrass	2000	Occurrence Score	2000	13500	<input type="checkbox"/>	2000	T
<i>Pseudotsuga menziesii - arbutus menziesii / lonicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	10000	Occurrence Score	10000	18750	<input type="checkbox"/>	10000	T
<i>Pseudotsuga menziesii - quercus garryana / melica subulata forest</i>	Douglas-fir - oregon white oak / alaska oniongrass	2000	Occurrence Score	2000	18750	<input type="checkbox"/>	2000	T
<i>Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest</i>	Douglas-fir - western redcedar / salal	6500	Occurrence Score	6500	13500	<input type="checkbox"/>	6500	T
<i>Pseudotsuga menziesii - tsuga heterophylla / mahonia nervosa var. nervosa forest</i>	Douglas-fir - western hemlock / dwarf oregongrape	7050	Occurrence Score	7050	10500	<input type="checkbox"/>	7000	T
<i>Pseudotsuga menziesii - tsuga heterophylla / rhododendron macrophyllum - vaccinium ovatum forest</i>	Douglas-fir - western hemlock / pacific rhododendron - evergreen huckleberry	3100	Occurrence Score	2600	13500	<input type="checkbox"/>	3000	T
<i>Pseudotsuga menziesii - tsuga heterophylla / vaccinium ovatum forest</i>	Douglas-fir - western hemlock / evergreen huckleberry	3200	Occurrence Score	3100	13500	<input type="checkbox"/>	3000	T
<i>Pseudotsuga menziesii / corylus cornuta / polystichum munitum forest</i>	Douglas-fir / beaked hazel / swordfern	2050	Occurrence Score	2050	18750	<input type="checkbox"/>	2000	T
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	18500	Occurrence Score	17000	16500	<input checked="" type="checkbox"/>	16500	T
<i>Pseudotsuga menziesii / rosa gymnocarpa - holodiscus discolor forest</i>	Douglas-fir / baldhip rose - oceanspray	14500	Occurrence Score	14500	13500	<input checked="" type="checkbox"/>	13500	T
<i>Pseudotsuga menziesii / symphoricarpos albus - holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	8550	Occurrence Score	7550	18750	<input type="checkbox"/>	8500	T
<i>Pseudotsuga menziesii / symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	12000	Occurrence Score	11000	9750	<input checked="" type="checkbox"/>	9750	T
<i>Quercus garryana - (fraxinus latifolia) / symphoricarpos albus forest</i>	Oregon white oak - (oregon ash) / common snowberry	7500	Occurrence Score	7500	9750	<input type="checkbox"/>	7500	T
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	16500	Occurrence Score	16000	18750	<input type="checkbox"/>	16500	T
<i>Quercus garryana / ceanothus cuneatus / festuca roemerii woodland</i>	Oregon white oak / wedgeleaf ceanothus / roemer's fescue	1500	Occurrence Score	1500	2250	<input type="checkbox"/>	1500	T
<i>Quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Oregon white oak / roemer's fescue	12800	Occurrence Score	11750	13500	<input type="checkbox"/>	12500	T

Plant Communities

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Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	11600	Occurrence Score	11600	18750	<input type="checkbox"/>	11500	T
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>polystichum munitum</i> forest	Oregon white oak / common snowberry / common snowberry	1600	Occurrence Score	1550	13500	<input type="checkbox"/>	1500	T
<i>Quercus garryana</i> / <i>viburnum ellipticum</i> - <i>toxicodendron diversiloba</i> forest	Oregon white oak / oval-leaf viburnum - poison-oak	4050	Occurrence Score	4050	18750	<input type="checkbox"/>	4000	T
<i>Salix geyreriana</i> - <i>salix hookeriana</i> ssp <i>piperi</i> shrubland	Geyer willow - piper willow	2000	Occurrence Score	2000	18750	<input type="checkbox"/>	2000	T
<i>Salix hookeriana</i> ssp. <i>piperi</i> - (<i>salix sitchensis</i>) shrubland	Piper willow - (sitka willow)	1000	Occurrence Score	1000	18750	<input type="checkbox"/>	1000	T
<i>Stipa lemmonii</i> / <i>racomitrium canescens</i> herbaceous vegetation	Lemmon needlegrass / rock moss	14000	Occurrence Score	13000	9750	<input checked="" type="checkbox"/>	9750	T
<i>Thuja plicata</i> - <i>abies grandis</i> / <i>polystichum munitum</i> forest	Western redcedar - grand fir / swordfern	6000	Occurrence Score	6000	13500	<input type="checkbox"/>	6000	T
<i>Tsuga heterophylla</i> / <i>sphagnum</i> spp. forest	Western hemlock - (western redcedar) / peat moss	1500	Occurrence Score	1500	9750	<input type="checkbox"/>	1500	T
<i>Vaccinium caespitosum</i> / lichen shrubland	Dwarf blueberry	1500	Occurrence Score	1500	ud	<input type="checkbox"/>	1500	T

Species

Birds

<i>Accipiter gentilis</i>	Northern goshawk	1550	Occurrence Score	1550	22000	<input type="checkbox"/>	1550	T
<i>Agelaius tricolor</i>	Tricolored blackbird	1000	Occurrence Score	1000	12000	<input type="checkbox"/>	1000	T
<i>Ammodramus savannarum</i>	Grasshopper sparrow	5000	Occurrence Score	5000	12000	<input type="checkbox"/>	5000	T
<i>Ardea herodias</i>	Great blue heron	37500	Occurrence Score	36850	ud	<input type="checkbox"/>	37000	T
<i>Asio flammeus</i>	Short-eared owl	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Athene cucularia</i>	Burrowing owl	2000	Occurrence Score	2000	ud	<input type="checkbox"/>	2000	T
<i>Brachyramphus marmoratus</i>	Marbled murrelet	13609	Hectares	10641	ud	<input type="checkbox"/>	13609	T
<i>Brachyramphus marmoratus</i>	Marbled murrelet - nesting	550	Occurrence Score	500	9000	<input type="checkbox"/>	550	T
<i>Branta canadensis leucopareia</i>	Aleutian canada goose	4050	Occurrence Score	4050	9000	<input type="checkbox"/>	4050	T
<i>Branta canadensis occidentalis</i>	Dusky canada goose	6000	Occurrence Score	6000	9000	<input type="checkbox"/>	6000	T
<i>Chaetura vauxi</i>	Vaux's swift	150	Occurrence Score	100	ud	<input type="checkbox"/>	150	T
<i>Chen caerulescens</i>	Snow goose	500	Occurrence Score	500	ud	<input type="checkbox"/>	500	T
<i>Chordeiles minor</i>	Common nighthawk	3500	Occurrence Score	3500	9000	<input type="checkbox"/>	3500	T
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat		Occurrence Score	6000	6500	<input type="checkbox"/>	na	T

Species

Birds

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<i>Cygnus buccinator</i>	Trumpeter swan	2000	Occurrence Score	2000	ud	<input type="checkbox"/>	2000	T
<i>Empidonax traillii brewsteri</i>	Willow flycatcher	1000	Occurrence Score	1000	ud	<input type="checkbox"/>	1000	T
<i>Eremophila alpestris strigata</i>	Streaked horned lark	18100	Occurrence Score	18100	39000	<input type="checkbox"/>	18100	T
<i>Falco peregrinus</i>	Peregrine falcon	25600	Occurrence Score	25050	63000	<input type="checkbox"/>	25600	T
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	25700	Occurrence Score	12100	ud	<input type="checkbox"/>	9000	T
<i>Melanerpes formicivorus</i>	Acorn woodpecker	10500	Occurrence Score	9000	21000	<input type="checkbox"/>	10500	T
<i>Melanerpes lewis</i>	Lewis's woodpecker	3000	Occurrence Score	3000	12000	<input type="checkbox"/>	3000	T
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	25200	Occurrence Score	22000	39000	<input type="checkbox"/>	21200	T
<i>Progne subis</i>	Purple martin	19500	Occurrence Score	17350	9000	<input checked="" type="checkbox"/>	17500	T
<i>Seabird nesting colonies</i>	Seabird nesting colonies	29350	Occurrence Score	17800	ud	<input type="checkbox"/>	17610	NM
<i>Sialia mexicana</i>	Western bluebird	732	Occurrence Score	732	9000	<input checked="" type="checkbox"/>	730	T
<i>Sialia mexicana</i>	Western bluebird habitat	732	Hectares	732	ud	<input type="checkbox"/>	730	T
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	3500	Occurrence Score	3500	39000	<input type="checkbox"/>	3500	T
<i>Strix occidentalis caurina</i>	Northern spotted owl	53686	Hectares	46552	ud	<input type="checkbox"/>	67866	T
<i>Sturnella neglecta</i>	Western meadowlark	12104	Occurrence Score	12000	42000	<input type="checkbox"/>	12000	T
<i>Various</i>	Shorebird aggregations (non-marine)	2000	Occurrence Score	2000	ud	<input type="checkbox"/>	2000	T
<i>Various</i>	Wintering raptor concentrations	2000	Occurrence Score	2000	ud	<input type="checkbox"/>	2000	T
Fishes								
<i>Acipenser transmontanus pop4</i>	White sturgeon (Fraser river)	3000	Occurrence Score	1500	na	<input type="checkbox"/>	0	T,FW
<i>Ammodytes hexapterus</i>	Pacific sandlance	231	Kilometers	147	ud	<input type="checkbox"/>	139	NM
<i>Catostomus sp 4</i>	Salish sucker	6050	Occurrence Score	4500	na	<input type="checkbox"/>	0	T,FW
<i>Hypomesus pretiosus</i>	Surf smelt spawning	418	Kilometers	260	ud	<input type="checkbox"/>	251	NM
<i>Lampetra tridentata</i>	Pacific lamprey	7500	Occurrence Score	4000	na	<input type="checkbox"/>	2	T,FW
<i>Novumbra hubbsi</i>	Olympic mudminnow	9000	Occurrence Score	5000	na	<input type="checkbox"/>	na	T,FW
<i>Ophiodon elongatus</i>	Lingcod	55050	Occurrence Score	25400	ud	<input type="checkbox"/>	16515	NM
<i>Oregonichthys crameri</i>	Oregon chub	11400	Occurrence Score	5100	na	<input type="checkbox"/>	na	T,FW
<i>Rhinichthys sp 4</i>	Nooksack dace	1500	Occurrence Score	1000	na	<input type="checkbox"/>	na	T,FW
<i>Sebastes caurinus</i>	Copper rockfish	103450	Occurrence Score	32700	ud	<input type="checkbox"/>	31035	NM
<i>Sebastes maliger</i>	Quillback rockfish	110050	Occurrence Score	39450	ud	<input type="checkbox"/>	33015	NM
<i>Sebastes melanops</i>	Black rockfish	10200	Occurrence Score	5800	ud	<input type="checkbox"/>	6120	NM

Species

Fishes

Codes listed at end of report:

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<i>Sebastes nigrocinctus</i>	Tiger rockfish	2650	Occurrence Score	2650	ud	<input type="checkbox"/>	1590	NM
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	6300	Occurrence Score	5250	ud	<input type="checkbox"/>	3780	NM
Herpetofauna								
<i>Aneides ferreus</i>	Clouded salamander	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Ascaphus truei</i>	Tailed frog	11000	Occurrence Score	11000	9000	<input checked="" type="checkbox"/>	11000	T
<i>Batrachoseps wrighti</i>	Oregon slender salamander	6000	Occurrence Score	6000	9000	<input type="checkbox"/>	6000	T
<i>Bufo boreas</i>	Western toad	4050	Occurrence Score	4000	9000	<input type="checkbox"/>	4050	T
<i>Chrysemys picta</i>	Painted turtle	22850	Occurrence Score	20050	ud	<input type="checkbox"/>	16100	T
<i>Clemmys marmorata</i>	Western pond turtle		hectares	11823	12155	<input type="checkbox"/>	na	T
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	80050	Occurrence Score	57200	ud	<input type="checkbox"/>	12000	T
<i>Contia tenuis</i>	Sharptail snake	9800	Occurrence Score	9800	9800	<input type="checkbox"/>	9800	T
<i>Crotalus viridis</i>	Western rattlesnake	1500	Occurrence Score	1500	12000	<input type="checkbox"/>	1500	T
<i>Dicamptodon copei</i>	Cope's giant salamander	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Dicamptodon tenebrosus</i>	Pacific giant salamander	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Plethodon larselli</i>	Larch mountain salamander	500	Occurrence Score	500	12000	<input type="checkbox"/>	500	T
<i>Plethodon vandykei</i>	Van dyke's salamander	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Rana aurora aurora</i>	Northern red-legged frog	54550	Occurrence Score	45050	36000	<input type="checkbox"/>	7050	T
<i>Rana boylei</i>	Foothill yellow-legged frog	1174	Hectares	1084	ud	<input type="checkbox"/>	1173	T
<i>Rana pretiosa</i>	Oregon spotted frog	3500	Occurrence Score	3500	9000	<input type="checkbox"/>	3500	T
<i>Rhyacotriton cascadae</i>	Cascade torrent salamander		Occurrence Score	5500	6000	<input type="checkbox"/>	na	T
<i>Rhyacotriton kezeri</i>	Columbia torrent salamander	500	Occurrence Score	500	ud	<input type="checkbox"/>	500	T
<i>Rhyacotriton olympicus</i>	Olympic torrent salamander	500	Occurrence Score	500	12000	<input type="checkbox"/>	500	T
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	5000	Occurrence Score	3500	12000	<input type="checkbox"/>	5000	T
<i>Sceloporus occidentalis</i>	Western fence lizard	5000	Occurrence Score	2500	20000	<input type="checkbox"/>	5000	T
<i>Sceloporus occidentalis</i>	Western fence lizard habitat	1909	Hectares	1738	ud	<input type="checkbox"/>	5000	T
Insects								
<i>Acetropis americana</i>	Grass bug	150	Occurrence Score	100	ud	<input type="checkbox"/>	150	T
<i>Agonum belleri</i>	Beller's ground beetle	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	4500	Occurrence Score	4500	12000	<input type="checkbox"/>	4500	T
<i>Colias occidentalis occidentalis</i>	Western sulphur	1000	Occurrence Score	1000	12000	<input type="checkbox"/>	1000	T
<i>Coriomeris insularis</i>	Coreid bug	3000	Occurrence Score	3000	9000	<input type="checkbox"/>	3000	T

Species

Insects

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Euchloe ausonides</i>	Island marble (Large marble new subspecies?)	500	Occurrence Score	500	ud	<input type="checkbox"/>	500	T
<i>Euphydryas editha taylori</i>	Taylor's checkerspot	4250	Occurrence Score	4250	12000	<input type="checkbox"/>	4250	T
<i>Euphyes vestris vestris</i>	Dun skipper	11100	Occurrence Score	4050	12000	<input type="checkbox"/>	11100	T
<i>Hesperia comma oregonia</i>	Oregon branded skipper	1000	Occurrence Score	1000	15000	<input type="checkbox"/>	1000	T
<i>Icaricia icarioides blackmorei</i>	Blackmore's blue	4000	Occurrence Score	4000	20000	<input type="checkbox"/>	4000	T
<i>Icaricia icarioides fenderi</i>	Fender's blue	11100	Occurrence Score	11100	15000	<input type="checkbox"/>	11100	T
<i>Mitoura johnsoni</i>	Johnson's hairstreak	1000	Occurrence Score	1000	12000	<input type="checkbox"/>	1000	T
<i>Polites mardon</i>	Mardon skipper	1500	Occurrence Score	1500	12000	<input type="checkbox"/>	1500	T
<i>Polites sonora siris</i>	Dog star skipper	4500	Occurrence Score	1500	12000	<input type="checkbox"/>	4500	T
<i>Proserpinus clarkiae</i>	Clark's sphinx moth	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Rhyacophila fenderi</i>	Fender's rhyacophilan caddisfly	1550	Occurrence Score	1550	na	<input type="checkbox"/>	1550	T
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	17500	Occurrence Score	5500	12000	<input checked="" type="checkbox"/>	17500	T
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	5000	Occurrence Score	5000	ud	<input type="checkbox"/>	5000	T
Mammals								
<i>Balaenoptera acutorostrata</i>	Minke whale		Hectares	6539	ud	<input type="checkbox"/>	na	NM
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	7600	Occurrence Score	7450	ud	<input type="checkbox"/>	7600	T
<i>Eschrichtius robustus</i>	Grey whale		Hectares	10366	ud	<input type="checkbox"/>	na	NM
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	8000	Occurrence Score	5000	ud	<input type="checkbox"/>	4800	NM
<i>Eumetopias jubatus</i>	Steller sea lion rafting sites	4466	Hectares	2744	ud	<input type="checkbox"/>	2680	NM
<i>Megaptera novaeangliae</i>	Humpback whale		Hectares	7453	ud	<input type="checkbox"/>	na	NM
<i>Mustela erminea anguinae</i>	Vancouver Island ermine	3000	Occurrence Score	3000	12000	<input type="checkbox"/>	3000	T
<i>Myotis keenii</i>	Keen's long-eared myotis	1050	Occurrence Score	1000	12000	<input type="checkbox"/>	1050	T
<i>Odocoileus virginianus leucurus</i>	Columbian white-tailed deer	1050	Occurrence Score	1050	12000	<input type="checkbox"/>	1050	T
<i>Orcinus orca</i>	Killer whale		Hectares	164814	ud	<input type="checkbox"/>	na	NM
<i>Phoca vitulina</i>	Harbor seal pupping sites	11000	Occurrence Score	7000	ud	<input type="checkbox"/>	6600	NM
<i>Phocoena phocoena</i>	Pacific harbor porpoise		Hectares	58498	ud	<input type="checkbox"/>	na	NM
<i>Scapanus townsendii</i>	Townsend's mole	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Sciurus griseus</i>	Western gray squirrel	11000	Occurrence Score	10500	39000	<input type="checkbox"/>	11000	T
<i>Sorex bendirii</i>	Pacific water shrew	3500	Occurrence Score	3500	9000	<input type="checkbox"/>	3500	T
<i>Sorex palustris brooksi</i>	Vancouver Island water shrew	2000	Occurrence Score	2000	12000	<input type="checkbox"/>	2000	T

Species

Mammals

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
<i>Thomomys mazama couchi</i>	Western pocket gopher, ssp couchi	5000	Occurrence Score	5000	20000 <input type="checkbox"/>	5000	T
<i>Thomomys mazama glacialis</i>	Western pocket gopher, ssp glacialis	1000	Occurrence Score	1000	20000 <input type="checkbox"/>	1000	T
<i>Thomomys mazama pugetensis</i>	Western pocket gopher, ssp pugetensis	4050	Occurrence Score	4050	20000 <input type="checkbox"/>	4050	T
<i>Thomomys mazama yelmensis</i>	Western pocket gopher, ssp yelmensis	2500	Occurrence Score	2500	20000 <input type="checkbox"/>	2500	T
<i>Various</i>	Bat roost sites	2000	Occurrence Score	2000	ud <input type="checkbox"/>	2000	T
Molluscs							
<i>Crassedoma giganteum</i>	Rock scallop	2840	Hectares	1262	ud <input type="checkbox"/>	852	NM
<i>Gonidea angulata</i>	Western ridged mussel	1500	Occurrence Score	1500	na <input type="checkbox"/>	1500	T,FW
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	8007	Hectares	3591	ud <input type="checkbox"/>	2402	NM
<i>Megomphix hemphilli</i>	Oregon megomphix (snail)	2500	Occurrence Score	2500	20000 <input type="checkbox"/>	2500	T
<i>Ostrea lurida</i>	Olympia oyster		Hectares	4834	ud <input type="checkbox"/>	na	NM
<i>Vespericola sp 1</i>	Bald (oak springs) hesperian	1000	Occurrence Score	1000	12000 <input type="checkbox"/>	1000	T
Non-Vascular - Fungi							
<i>Amanita farinosa</i>	Amanita farinosa	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Amanita lanei</i>	Amanita lanei	1500	Occurrence Score	1500	ud <input type="checkbox"/>	1500	T
<i>Ramaria celerivirescens</i>	Ramaria celerivirescens	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Ramaria maculatipes</i>	Ramaria maculatipes	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
Non-Vascular - Lichen							
<i>Bryoria tortuosa</i>	Bryoria tortuosa	4500	Occurrence Score	4500	ud <input type="checkbox"/>	4500	T
<i>Cladina portentosa</i>	Cladina portentosa	4500	Occurrence Score	4500	ud <input type="checkbox"/>	4500	T
<i>Cystocoleus ebeneus</i>	Cystocoleus ebeneus	1500	Occurrence Score	1500	ud <input type="checkbox"/>	1500	T
<i>Kaernefeltia californica</i>	Kaernefeltia californica	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Leptogium rivale</i>	Leptogium rivale	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Lobaria linita</i>	Lobaria linita	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Niebla cephalota</i>	Niebla cephalota	2500	Occurrence Score	2500	ud <input type="checkbox"/>	2500	T
<i>Pannaria rubiginosa</i>	Pannaria rubiginosa	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Ramalina thrausta</i>	Ramalina thrausta	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Sulcaria badia</i>	Sulcaria badia	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Thelomma mammosum</i>	Thelomma mammosum	1500	Occurrence Score	1500	ud <input type="checkbox"/>	1500	T
<i>Trapeliopsis wallrothii</i>	Trapeliopsis wallrothii	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T

Species

Non-Vascular - Lichen

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
<i>Umbilicaria phaea</i>	Umbilicaria phaea	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Umbilicaria polyrrhiza</i>	Umbilicaria polyrrhiza	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Usnea wirthii</i>	Usnea wirthii	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
Non-Vascular - Moss							
<i>Andreaea megistospora</i>	Andreaea megistospora	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Andreaea rothii</i>	Andreaea rothii	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Bruchia flexuosa</i>	Bruchia flexuosa	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Bryum violaceum</i>	Bryum violaceum	1000	Occurrence Score	500	ud <input type="checkbox"/>	1000	T
<i>Crumia latifolia</i>	Crumia latifolia	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Ditrichum schimperi</i>	Ditrichum schimperi	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Drepanocladus crassicosatus</i>	Drepanocladus crassicosatus	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Ephemerum crassinervium</i>	Ephemerum crassinervium	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Ephemerum serratum</i>	Ephemerum serratum	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Fissidens grandifrons</i>	Fissidens grandifrons	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Fissidens pauperculus</i>	Fissidens pauperculus	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Funaria muhlenbergii</i>	Funaria muhlenbergii	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Homalia trichomanioides</i>	Homalia trichomanioides	1500	Occurrence Score	1500	ud <input type="checkbox"/>	1500	T
<i>Myurella julacea</i>	Myurella julacea	1000	Occurrence Score	1000	ud <input type="checkbox"/>	1000	T
<i>Neckera pennata</i>	Neckera pennata	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Orthotrichum hallii</i>	Orthotrichum hallii	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Platyhypnidium riparioides</i>	Platyhypnidium riparioides	1500	Occurrence Score	1500	ud <input type="checkbox"/>	1500	T
<i>Pohlia sphagnicola</i>	Pohlia sphagnicola	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Polytrichum strictum</i>	Polytrichum strictum	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Tetradontium brownianum</i>	Little georgia	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Thamnobryum neckeroides</i>	Thamnobryum neckeroides	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Tortula papillosa</i>	Tortula papillosa	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Trichostomopsis australasiae</i>	Trichostomopsis australasiae	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
Non-Vascular Plants							
<i>Herbertus aduncus</i>	Liverwort	500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
<i>Sphaerocarpos hians</i>		500	Occurrence Score	500	ud <input type="checkbox"/>	500	T
Other Invertebrates							

Species

Other Invertebrates

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Calcigorgia spiculifera</i>	Gorgonian coral		Occurrence Score	5015	ud	<input type="checkbox"/>	na	NM
<i>Cancer magister</i>	Dungeness crab		Occurrence Score	10250	ud	<input type="checkbox"/>	na	NM
<i>Ceramaster arcticus</i>	Arctic cookie star		Occurrence Score	500	ud	<input type="checkbox"/>	na	NM
<i>Cucumaria miniata</i>	Burrowing sea cucumber		Occurrence Score	1200	ud	<input type="checkbox"/>	na	NM
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	4150	Occurrence Score	4100	9000	<input type="checkbox"/>	4150	T
<i>Gorgonocephalus eucnemis</i>	Basket star	4750	Occurrence Score	1500	ud	<input type="checkbox"/>	1425	NM
<i>Halichondria species aff fibrosa</i>	White halichondrid sponge		Occurrence Score	500	ud	<input type="checkbox"/>	na	NM
<i>Lopholithodes (Various)</i>	Box crabs	1600	Occurrence Score	1050	ud	<input type="checkbox"/>	480	NM
<i>Oeneis nevadensis gigas</i>	Greater arctic	1500	Occurrence Score	1500	12000	<input type="checkbox"/>	1500	T
<i>Pollicipes plymerus</i>	Gooseneck barnacles	3000	Occurrence Score	3000	ud	<input type="checkbox"/>	900	NM
<i>Polyorchis penicillatus</i>	Polyorchis jellyfish	4000	Occurrence Score	2000	ud	<input type="checkbox"/>	1200	NM
<i>Ptilosarcus gurneyi</i>	Orange sea pens	13600	Occurrence Score	4800	ud	<input type="checkbox"/>	4080	NM
<i>Serripes groenlandicus</i>	Greenland cockle		Occurrence Score	1000	ud	<input type="checkbox"/>	na	NM
<i>Synhalcurias species</i>	Tall, deep sea anemone		Occurrence Score	500	ud	<input type="checkbox"/>	na	NM
<i>Tritonia diomedea</i>	Rosy tritonia	10300	Occurrence Score	3200	ud	<input type="checkbox"/>	3090	NM
<i>Various</i>	Spiny vermilion star	4450	Occurrence Score	1600	ud	<input type="checkbox"/>	1335	NM
<i>Virgularia spp</i>	Seawhips; virgularia spp	1550	Occurrence Score	1550	ud	<input type="checkbox"/>	465	NM
Vascular Plants								
<i>Agrostis hallii</i>	Hall's bentgrass	3150	Occurrence Score	3150	9000	<input type="checkbox"/>	3150	T
<i>Agrostis howellii</i>	Howell's bentgrass	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Agrostis microphylla</i>	Small-leaf bentgrass	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Allium crenulatum</i>	Olympic onion	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Allium geyeri var geyeri</i>	Geyer's onion	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Allium geyeri var tenerum</i>	Geyer onion	3500	Occurrence Score	3500	9000	<input type="checkbox"/>	3500	T
<i>Alopecurus carolinianus</i>	Tufted foxtail	3050	Occurrence Score	3000	9000	<input type="checkbox"/>	3050	T
<i>Apocynum medium</i>	Western dogbane	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Apocynum sibiricum var salignum</i>	Clasping-leaf dogbane	50	Occurrence Score	50	9000	<input type="checkbox"/>	50	T
<i>Aristida oligantha</i>	Prairie three-awn grass	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Artemisia campestris ssp caudata</i>	Beach wormwood	3000	Occurrence Score	3000	9000	<input type="checkbox"/>	3000	T
<i>Artemisia campestris ssp scouleriana</i>	Pacific sage	3000	Occurrence Score	3000	9000	<input type="checkbox"/>	3000	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	3150	Occurrence Score	3050	9000	<input type="checkbox"/>	3150	T
<i>Asclepias speciosa</i>	Showy milkweed	1850	Occurrence Score	1800	9000	<input type="checkbox"/>	1850	T
<i>Aster borealis</i>	Boreal aster	50	Occurrence Score	50	9000	<input type="checkbox"/>	50	T
<i>Aster curtus</i>	White-topped aster	51500	Occurrence Score	44800	18000	<input checked="" type="checkbox"/>	18000	T
<i>Aster eatonii</i>	Eaton aster	1550	Occurrence Score	1500	9000	<input type="checkbox"/>	1550	T
<i>Aster hallii</i>	Hall's aster	29500	Occurrence Score	29500	18000	<input checked="" type="checkbox"/>	18000	T
<i>Aster radulinus</i>	Rough-leaf aster	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Aster vialis</i>	Wayside aster	18500	Occurrence Score	17950	9000	<input checked="" type="checkbox"/>	18000	T
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	18650	Occurrence Score	17650	9000	<input checked="" type="checkbox"/>	10000	T
<i>Berula erecta var incisa</i>	Wild parsnip	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Betula pumila var glandulifera</i>	Dwarf birch	2550	Occurrence Score	2500	9000	<input type="checkbox"/>	2550	T
<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	2500	Occurrence Score	2500	18000	<input type="checkbox"/>	2500	T
<i>Bolandra oregana</i>	Oregon bolandra	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Botrychium ascendens</i>	Upward-lobed moonwort	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Botrychium simplex</i>	Least grape-fern	1700	Occurrence Score	1700	9000	<input type="checkbox"/>	1700	T
<i>Callitriche marginata</i>	Winged water-starwort	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Calochortus uniflorus</i>	Shortstem mariposa lily	1550	Occurrence Score	1550	9000	<input type="checkbox"/>	1550	T
<i>Caltha palustris var palustris</i>	Marsh marigold	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Calycadenia truncata</i>	Oregon western rosin-weed	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Camassia quamash ssp maxima</i>	Common Camas	29150	Occurrence Score	29150	18000	<input type="checkbox"/>	18000	T
<i>Camissonia contorta (= Oenothera contorta)</i>	Dwarf contorted suncup	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Cardamine parviflora</i>	Small-flower bitter-cress	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	13050	Occurrence Score	13000	18000	<input type="checkbox"/>	13050	T
<i>Carex comosa</i>	Bristly sedge	3850	Occurrence Score	3850	9000	<input type="checkbox"/>	3850	T
<i>Carex interrupta</i>	Green-fruited sedge	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Carex vulpinoidea</i>	Fox sedge	6500	Occurrence Score	6500	9000	<input type="checkbox"/>	6500	T
<i>Castilleja levisecta</i>	Golden paintbrush	4550	Occurrence Score	4550	18000	<input type="checkbox"/>	4550	T
<i>Castilleja tenuis</i>	Hairy owl's-clover	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Centaurium muehlenbergii</i>	Muhlenberg's centaury	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Chrysolepis chrysophylla</i>	Golden chinquapin	1100	Occurrence Score	1100	9000	<input type="checkbox"/>	1100	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Cicendia quadrangularis</i>	Oregon microcala	7950	Occurrence Score	7850	9000	<input type="checkbox"/>	7950	T
<i>Cicuta bulbifera</i>	Bulb-bearing water-hemlock	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Cimicifuga elata</i>	Tall bugbane	33000	Occurrence Score	23350	9000	<input checked="" type="checkbox"/>	10000	T
<i>Clarkia purpurea ssp viminea</i>	Large clarkia	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Claytonia washingtoniana</i>	Washington springbeauty	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Cochlearia officinalis</i>	Scurvy-grass	550	Occurrence Score	550	9000	<input type="checkbox"/>	550	T
<i>Crassula connata</i>	Pygmy-weed	8500	Occurrence Score	8500	9000	<input type="checkbox"/>	8500	T
<i>Cyperus bipartitus</i>	Shining flatsedge	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Cypripedium montanum</i>	Mountain lady's-slipper	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Darmera peltata</i>	Umbrella plant	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Delphinium leucophaeum</i>	White-rock larkspur	6400	Occurrence Score	6400	18000	<input type="checkbox"/>	6400	T
<i>Delphinium nuttallii</i>	Upland larkspur	6200	Occurrence Score	6150	18000	<input type="checkbox"/>	6200	T
<i>Delphinium oregonum</i>	Larkspur	6250	Occurrence Score	5800	18000	<input type="checkbox"/>	6250	T
<i>Delphinium pavonaceum</i>	Peacock larkspur	4000	Occurrence Score	3750	18000	<input type="checkbox"/>	4000	T
<i>Descurainia pinnata ssp filipes</i>	Western tansy mustard	50	Occurrence Score	50	9000	<input type="checkbox"/>	50	T
<i>Dryopteris carthusiana</i>	Spinulose shield fern	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Elatine rubella</i>	Southwestern waterwort	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Elatine triandra</i>	Longstem water-wort	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Eleocharis parvula</i>	Small spikerush	4050	Occurrence Score	3550	9000	<input type="checkbox"/>	4050	T
<i>Eleocharis rostellata</i>	Beaked spikerush	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Elodea nuttallii</i>	Nuttall's waterweed	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T,FW
<i>Epilobium torreyi</i>	Brook spike-primrose	4750	Occurrence Score	4650	9000	<input type="checkbox"/>	4750	T
<i>Equisetum palustre</i>	Marsh horsetail	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Eremocarpus setigerus</i>	Fishpoison	600	Occurrence Score	600	9000	<input type="checkbox"/>	600	T
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	11550	Occurrence Score	11400	18000	<input type="checkbox"/>	11550	T
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	8450	Occurrence Score	8350	9000	<input type="checkbox"/>	8450	T
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	17500	Occurrence Score	17500	18000	<input type="checkbox"/>	17500	T
<i>Euonymus occidentalis</i>	Western strawberry-bush	7750	Occurrence Score	7750	9000	<input type="checkbox"/>	7750	T
<i>Gaillardia aristata</i>	Great blanket-flower	150	Occurrence Score	150	9000	<input type="checkbox"/>	150	T
<i>Galium mexicanum ssp asperulum</i>	Rough bedstraw	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Geranium oregonum</i>	Oregon crane's-bill	10300	Occurrence Score	10200	9000	<input checked="" type="checkbox"/>	10000	T
<i>Geum triflorum var campanulatum</i>	Western red avens	550	Occurrence Score	500	9000	<input type="checkbox"/>	550	T
<i>Glyceria leptostachya</i>	Slim-head manna grass	4100	Occurrence Score	4000	9000	<input type="checkbox"/>	4100	T
<i>Grindelia integrifolia</i>	Willamette gumweed	12000	Occurrence Score	12000	18000	<input type="checkbox"/>	12000	T
<i>Helianthus nuttallii ssp nuttallii</i>	Nuttall's sunflower	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Heterotheca oregona</i>	Oregon golden-aster	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Heterotheca villosa var villosa</i>	Hairy golden-aster	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Hieracium parryi</i>	Parry's hawkweed	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	8750	Occurrence Score	8700	18000	<input type="checkbox"/>	8750	T
<i>Howellia aquatilis</i>	Water howellia	8800	Occurrence Score	8800	9000	<input type="checkbox"/>	8800	T,FW
<i>Hutchinsia procumbens</i>	Prostrate hymenolobus	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Hypericum scouleri ssp nortoniae</i>	Western st. john's-wort	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Idahoia scapigera</i>	Scapose scalepod	5600	Occurrence Score	5550	9000	<input type="checkbox"/>	5600	T
<i>Iris missouriensis</i>	Western blue iris	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Isopyrum stipitatum</i>	Siskiyou rue-anemone	1100	Occurrence Score	1100	9000	<input type="checkbox"/>	1100	T
<i>Juncus kelloggii</i>	Kellogg's rush	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Juncus torreyi</i>	Torrey's rush	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Lactuca pulchella</i>	Blue lettuce	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Lagophylla ramosissima</i>	Slender hareleaf	550	Occurrence Score	550	9000	<input type="checkbox"/>	550	T
<i>Lasthenia glaberrima</i>	Smooth goldfields	6000	Occurrence Score	6000	9000	<input type="checkbox"/>	6000	T
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	13800	Occurrence Score	12500	18000	<input type="checkbox"/>	13800	T
<i>Lathyrus torreyi</i>	Torrey's peavine	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Lepidium oxycarpum</i>	Sharp-pod pepper-grass	50	Occurrence Score	50	9000	<input type="checkbox"/>	50	T
<i>Leymus triticoides</i>	Creeping wild rye	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Lilaea scilloides</i>	Flowering quillwort	4000	Occurrence Score	4000	9000	<input type="checkbox"/>	4000	T
<i>Limnanthes macounii</i>	Macoun's meadow-foam	16800	Occurrence Score	16800	18000	<input type="checkbox"/>	16800	T
<i>Linaria canadensis var texana</i>	Texas toadflax	1700	Occurrence Score	1650	9000	<input type="checkbox"/>	1700	T
<i>Linum (sclerolinon) digynum</i>	Northwestern yellow-flax	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	20850	Occurrence Score	17850	18000	<input checked="" type="checkbox"/>	18000	T
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	6350	Occurrence Score	6100	9000	<input type="checkbox"/>	6350	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Lomatium grayi</i>	Mountain desert-parsley	2550	Occurrence Score	2550	9000	<input type="checkbox"/>	2550	T
<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	1250	Occurrence Score	1250	9000	<input type="checkbox"/>	1250	T
<i>Lotus formosissimus</i>	Seaside trefoil	3550	Occurrence Score	3550	9000	<input type="checkbox"/>	3550	T
<i>Lotus pinnatus</i>	Bog bird's-foot-trefoil	9050	Occurrence Score	9050	9000	<input checked="" type="checkbox"/>	9050	T
<i>Lupinus affinis</i>	Fleshy lupine	600	Occurrence Score	600	9000	<input type="checkbox"/>	600	T
<i>Lupinus densiflorus var densiflorus</i>	Whitewhorl lupine	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Lupinus rivularis</i>	Riverbank lupine	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	12650	Occurrence Score	12500	18000	<input type="checkbox"/>	12650	T
<i>Lysimachia (Steironema) ciliata</i>	Fringed loosestrife	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Malaxis brachypoda</i>	White adder's-mouth	800	Occurrence Score	800	9000	<input type="checkbox"/>	800	T
<i>Marah oreganus</i>	Coast man-root	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Marsilea vestita</i>	Hairy water-fern	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T,FW
<i>Meconella oregana</i>	White meconella	4100	Occurrence Score	4100	18000	<input type="checkbox"/>	4100	T
<i>Melampyrum lineare</i>	American cow-wheat	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Melica smithii</i>	Smith melic grass	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Microseris bigelovii</i>	Coast microseris	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Mimulus cardinalis</i>	Scarlet monkey-flower	550	Occurrence Score	550	9000	<input type="checkbox"/>	550	T
<i>Mimulus tricolor</i>	Tricolor monkey-flower	2250	Occurrence Score	2200	9000	<input type="checkbox"/>	2250	T
<i>Minuartia pusilla</i>	Dwarf stitchwort	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	6050	Occurrence Score	6050	18000	<input type="checkbox"/>	6050	T
<i>Montia howellii</i>	Howell's miner's-lettuce	23400	Occurrence Score	21450	9000	<input checked="" type="checkbox"/>	10000	T
<i>Myriophyllum pinnatum</i>	Cutleaf water-milfoil	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T,FW
<i>Myriophyllum quitense</i>	Andean milfoil	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T,FW
<i>Myriophyllum ussuriense</i>	Ussurian water-milfoil	3000	Occurrence Score	3000	9000	<input type="checkbox"/>	3000	T,FW
<i>Ophioglossum pusillum</i>	Adder's tongue	13150	Occurrence Score	11600	9000	<input checked="" type="checkbox"/>	10000	T
<i>Phacelia linearis</i>	Linearleaf phacelia	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Physostegia parviflora</i>	Purple dragon-head	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Plagiobothrys figuratus</i>	Rough popcorn-flower	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Plagiobothrys nothofulvus</i>	Rusty popcorn-flower	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	2600	Occurrence Score	2550	9000	<input type="checkbox"/>	2600	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Poa howellii</i>	Howell's bluegrass	1550	Occurrence Score	1550	9000	<input type="checkbox"/>	1550	T
<i>Poa nervosa</i>	Hooker's bluegrass	3550	Occurrence Score	3550	9000	<input type="checkbox"/>	3550	T
<i>Polygonum polygaloides var confertiflorum</i>	Dense-flower knotweed	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Polygonum punctatum</i>	Dotted smartweed	2100	Occurrence Score	2050	9000	<input type="checkbox"/>	2100	T
<i>Polystichum californicum</i>	California sword-fern	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Potamogeton oakesianus</i>	Oakes pondweed	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T,FW
<i>Potamogeton obtusifolius</i>	Blunt-leaf pondweed	2050	Occurrence Score	2050	9000	<input type="checkbox"/>	2050	T,FW
<i>Prunus subcordata</i>	Klamath plum	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Psilocarphus elatior</i>	Tall woolly-heads	3500	Occurrence Score	3500	9000	<input type="checkbox"/>	3500	T
<i>Psilocarphus tenellus var tenellus</i>	Slender woolly-heads	7250	Occurrence Score	7250	9000	<input type="checkbox"/>	7250	T
<i>Pyrrocoma (haplopappus) racemosa var r</i>	Slender goldenweed	1500	Occurrence Score	1500	9000	<input type="checkbox"/>	1500	T
<i>Ranunculus alismaefolius var alismaefolius</i>	Plantain-leaved buttercup	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Ranunculus californicus</i>	California buttercup	7000	Occurrence Score	6500	9000	<input type="checkbox"/>	7000	T
<i>Ranunculus lobbii</i>	Lobb water-buttercup	2100	Occurrence Score	2100	9000	<input type="checkbox"/>	2100	T
<i>Rorippa columbiae</i>	Columbia yellow-cress	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Rotala ramosior</i>	Toothcup	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T
<i>Salix lemmonii</i>	Willow	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Salix prolixa (rigida var macrogemma)</i>	Mackenzie willow	3000	Occurrence Score	3000	9000	<input type="checkbox"/>	3000	T
<i>Sanicula arctopoides</i>	Bear's-foot sanicle	2500	Occurrence Score	2500	9000	<input type="checkbox"/>	2500	T
<i>Sanicula crassicaulis var tripartita</i>	Cutleaf pacific sanicle	1500	Occurrence Score	1500	18000	<input type="checkbox"/>	1500	T
<i>Senecio hydrophilus</i>	Great swamp ragwort	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Senecio indecorus</i>	Plains ragwort	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
<i>Senecio macounii</i>	Siskiyou mountains butterweed	17200	Occurrence Score	10200	9000	<input checked="" type="checkbox"/>	10000	T
<i>Sidalcea campestris</i>	Meadow checker-mallow	23500	Occurrence Score	19100	18000	<input checked="" type="checkbox"/>	18000	T
<i>Sidalcea hendersonii</i>	Henderson mallow	9550	Occurrence Score	9550	9000	<input checked="" type="checkbox"/>	9550	T
<i>Sidalcea hirtipes</i>	Bristly-stemmed sidalcea	550	Occurrence Score	550	9000	<input type="checkbox"/>	550	T
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	29200	Occurrence Score	28350	18000	<input checked="" type="checkbox"/>	18000	T
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	19000	Occurrence Score	13200	9000	<input checked="" type="checkbox"/>	10000	T
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	5100	Occurrence Score	5100	9000	<input type="checkbox"/>	5100	T
<i>Sisyrinchium hitchcockii</i>	Hitchcock's blue-eye-grass	2250	Occurrence Score	2250	18000	<input type="checkbox"/>	2250	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
<i>Sisyrinchium idahoense</i> var <i>macounii</i>	Macoun's blue-eyed grass	500	Occurrence Score	500	18000	<input type="checkbox"/>	500	T
<i>Sisyrinchium idahoense</i> var <i>segetum</i>	Idaho blue-eyed grass	2000	Occurrence Score	2000	18000	<input type="checkbox"/>	2000	T
<i>Spiranthes porrifolia</i>	Western ladies-tresses	50	Occurrence Score	50	9000	<input type="checkbox"/>	50	T
<i>Sullivantia oregana</i>	Oregon sullivantia	550	Occurrence Score	500	9000	<input type="checkbox"/>	550	T
<i>Thelypteris nevadensis</i>	Sierra nevada marsh fern	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Tonella tenella</i>	Small-flower tonella	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Trichostema lanceolatum</i>	Vinegar weed	1550	Occurrence Score	1550	9000	<input type="checkbox"/>	1550	T
<i>Trifolium cyathiferum</i>	Bowl clover	1000	Occurrence Score	1000	ud	<input type="checkbox"/>	1000	T
<i>Trifolium dichotomum</i>	Branched Indian clover	1100	Occurrence Score	1100	9000	<input type="checkbox"/>	1100	T
<i>Trifolium eriocephalum</i> ssp <i>eriocephalum</i>	Woolly-head clover	2650	Occurrence Score	2650	9000	<input type="checkbox"/>	2650	T
<i>Trifolium eriocephalum</i> ssp. <i>arcuatum</i>	Trifolium eriocephalum ssp. Arcuatum	2650	Occurrence Score	2650	9000	<input type="checkbox"/>	2650	T
<i>Triglochin concinnum</i> var <i>concinnum</i> <i>triglochin concinna</i> var <i>concinna</i>	Dotted watermeal	1550	Occurrence Score	1550	9000	<input type="checkbox"/>	1550	T
<i>Trillium parviflorum</i>	Small-flowered trillium	16900	Occurrence Score	16900	18000	<input type="checkbox"/>	16900	T
<i>Triphysaria versicolor</i> ssp <i>versicolor</i>	Yellow owl's clover	8500	Occurrence Score	8500	9000	<input type="checkbox"/>	8500	T
<i>Triteleia (brodiaea) grandiflora</i> var <i>howellii</i>	Howell's triteleia	7450	Occurrence Score	7400	9000	<input type="checkbox"/>	7450	T
<i>Uropappus (microseris) lindleyi</i>	Lindley's silver-puffs	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Vaccinium myrtilloides</i>	Velvetleaf blueberry	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Verbena hastata</i>	Blue vervain	600	Occurrence Score	600	9000	<input type="checkbox"/>	600	T
<i>Veronica anagallis-aquatica</i>	Brook-pimpernell	500	Occurrence Score	500	9000	<input type="checkbox"/>	500	T
<i>Viola hallii</i>	Hall's violet	2000	Occurrence Score	2000	9000	<input type="checkbox"/>	2000	T
<i>Viola praemorsa</i> ssp <i>praemorsa</i>	Canary violet	28450	Occurrence Score	27750	9000	<input checked="" type="checkbox"/>	10000	T
<i>Wolffia borealis</i>	Dotted watermeal	1550	Occurrence Score	1550	9000	<input type="checkbox"/>	1550	T
<i>Wolffia columbiana</i>	Columbia water-meal	1050	Occurrence Score	1050	9000	<input type="checkbox"/>	1050	T,FW
<i>Yabea microcarpa</i>	California hedge-parsley	3500	Occurrence Score	3500	9000	<input type="checkbox"/>	3500	T

Species

Vascular Plants

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ² Met?	SITES ³ Goal	SITES ⁴ Model
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Legend

1 Units:

- Hectares: represent area measurements
- Kilometers: represent linear (shoreline) measurements
- Occurrence Score: represent counts of ranked occurrences:
 - 1000 points - each 'A' or 'B' ranked occurrence
 - 500 points - each 'C' ranked occurrence
 - 50 points - each 'D' ranked occurrence
 - 500 points - each 'K' ranked occurrence
 - 250 points - each 'K' ranked modeled system occurrence

Occurrence Score (*) = calculated from point densities (nearshore marine targets)

2 Goals:

- ha = "hectares": Goal for target was set in hectares, see notes.
- na = "not applicable": no data was available to set the SITES Goal.
- ud = "undefined": not enough information was available to set a Goal.

Terrestrial Ecological Systems Goals marked "ha"

Goals for these targets are not listed because the goal was set in units other than those shown in table.

Tidally-influenced freshwater wetlands: because of decline and incomplete historical documentation of extent, SITES goal was 'all available occurrences'.

Upland prairies and savannas: Goal was 179,289 hectares. Occurrence data measured in hectares was not available to develop a hectare-based SITES goal. SITES goal was "all available occurrences ranked 'C' or better."

Wet prairie: Goal was 43,960 hectares. Occurrence data measured in hectares was not available to develop a hectare-based SITES goal. SITES goal was "all available occurrences ranked 'C' or better."

Freshwater Ecological Systems Goals

Goals and measures were based on Ecological Drainage Units (EDUs), not ecoregional boundaries.

3 Goal Calculations:

For Terrestrial Targets goals calculated by Occurrence Score:

Amount Available and Amount Captured occurrence scores were calculated using A, B, C, D, and K ranks.

SITES Goal = Amount Available (using A, B, C, D, and K ranks) for all terrestrial species and community targets, and for all terrestrial ecological systems targets for which Amount Available >= Ecological Goal.

All SITES Goals were met through the modeling process.

For terrestrial ecological systems targets for which Amount Available < Ecological Goal, SITES Goal was calculated using only A, B, C, and K ranked occurrences (not including D-ranked occurrences). In these cases, the goal ultimately applied was to capture all available occurrences, so that Amount Captured may equal Amount available, thus exceeding the SITES Goal.

For Nearshore Marine targets:

SITES goals were set as percentage of Amount Available.

For Freshwater targets:

SITES goals served to provide representation of targets.

Targets having a Goal, but no Amount Available reflect ecological targets for which no data was available at the time of the assessment.

4 SITES Model:

Each target was considered in one or more analyses conducted using the SITES model.

- T = Terrestrial
- NM = Nearshore Marine
- FW = Freshwater

T,FW = Targets in both Terrestrial and Freshwater assessments. These records show data resulting from the terrestrial assessment only. The target as used in freshwater assessment may have had a different goal and data than the same species target considered in terrestrial assessment. Refer to text for summary of freshwater target data.

Appendix 15b. List of Targets with Goals by Section

Organized by systems, communities, and species. Only targets with sectional goals are listed here; for complete target list, see Appendix 5.

Section: Georgia Basin

Terrestrial Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
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Section: Georgia Basin

Terrestrial

Terrestrial Ecological Systems

	Coastal spits, dunes, and strand	26600	Occurrence Score	23550	18750	<input checked="" type="checkbox"/>	18750	T
	Coniferous forested wetlands	8000	Occurrence Score	7000	3750	<input checked="" type="checkbox"/>	3750	T
	Depressional wetland broadleaf forests	21750	Occurrence Score	15750	10500	<input checked="" type="checkbox"/>	10500	T
	Depressional wetland shrublands	69250	Occurrence Score	21750	7500	<input checked="" type="checkbox"/>	7500	T
	Douglas fir - western hemlock - western redcedar forests	426294	Hectares	161007	160828	<input checked="" type="checkbox"/>	160828	T
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	53250	Occurrence Score	47600	7500	<input checked="" type="checkbox"/>	7500	T
	Dry evergreen forests and woodlands	47509	Hectares	28845	28848	<input checked="" type="checkbox"/>	28848	T
	Dry evergreen forests and woodlands (ranked occurrences)	121400	Occurrence Score	108700	10500	<input checked="" type="checkbox"/>	10500	T
	Freshwater aquatic beds	34750	Occurrence Score	18250	3750	<input checked="" type="checkbox"/>	3750	T
	Freshwater marshes	34500	Occurrence Score	19000	6000	<input checked="" type="checkbox"/>	6000	T
	Herbaceous balds and bluffs	139150	Occurrence Score	120950	30000	<input checked="" type="checkbox"/>	30000	T
	Intertidal salt marshes	23550	Occurrence Score	22000	15000	<input checked="" type="checkbox"/>	15000	T
	Oak woodlands (ranked occurrences)	72650	Occurrence Score	64400	18750	<input checked="" type="checkbox"/>	18750	T
	Riparian forests and shrublands	6366	Hectares	4311	4310	<input checked="" type="checkbox"/>	4310	T
	Riparian forests and shrublands (ranked occurrences)	3250	Occurrence Score	3000	10500	<input type="checkbox"/>	3250	T
	Sphagnum bogs and fens	36900	Occurrence Score	19150	13500	<input checked="" type="checkbox"/>	13500	T
	Tidally-influenced freshwater wetlands	3000	Occurrence Score	3000	ha	<input type="checkbox"/>	3000	T
	Vernal pools	12500	Occurrence Score	12500	9750	<input checked="" type="checkbox"/>	9750	T

Section: Georgia Basin

<u>Species</u>		Codes listed at end of report:						
Birds								
Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
Species								
Birds								
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas		Occurrence Score	2500	ud	<input type="checkbox"/>	2500	T
<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	550	Occurrence Score	550	ud	<input type="checkbox"/>	50	T
Herpetofauna								
<i>Rana aurora aurora</i>	Northern red-legged frog	2000	Occurrence Score	2000	ud	<input type="checkbox"/>	2000	T
<i>Sceloporus occidentalis</i>	Western fence lizard habitat	273	Hectares	269	ud	<input type="checkbox"/>	272	T

Section: Lower Columbia
Terrestrial

Terrestrial Ecological Systems

	Autumnal freshwater mudflats	5000	Occurrence Score	5000	7500	<input type="checkbox"/>	5000	T
	Coniferous forested wetlands	1000	Occurrence Score	1000	1500	<input type="checkbox"/>	1000	T
	Depressional wetland broadleaf forests	22300	Occurrence Score	11300	10500	<input checked="" type="checkbox"/>	10500	T
	Depressional wetland shrublands	78250	Occurrence Score	38500	7500	<input checked="" type="checkbox"/>	7500	T
	Douglas fir - western hemlock - western redcedar forests	228625	Hectares	130873	105648	<input checked="" type="checkbox"/>	105648	T
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	5800	Occurrence Score	5600	7500	<input type="checkbox"/>	5800	T
	Dry evergreen forests and woodlands	35181	Hectares	26613	26630	<input type="checkbox"/>	26630	T
	Dry evergreen forests and woodlands (ranked occurrences)	600	Occurrence Score	600	10500	<input type="checkbox"/>	600	T
	Freshwater aquatic beds	11500	Occurrence Score	6750	3750	<input checked="" type="checkbox"/>	3750	T
	Freshwater marshes	1500	Occurrence Score	1500	6000	<input type="checkbox"/>	1500	T
	Herbaceous balds and bluffs	1100	Occurrence Score	1000	6000	<input type="checkbox"/>	1100	T
	Oak woodlands (ranked occurrences)	6800	Occurrence Score	6550	18750	<input type="checkbox"/>	6800	T
	Riparian forests and shrublands	24148	Hectares	15098	15102	<input type="checkbox"/>	15102	T
	Riparian forests and shrublands (ranked occurrences)	10700	Occurrence Score	10600	10500	<input checked="" type="checkbox"/>	10500	T
	Sphagnum bogs and fens	1000	Occurrence Score	1000	1500	<input type="checkbox"/>	1000	T

Section: Lower Columbia

Terrestrial Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
	Tidally-influenced freshwater wetlands	3500	Occurrence Score	3000	ha	<input type="checkbox"/>	3500	T
	Upland prairies and savannas		Occurrence Score		ha	<input type="checkbox"/>		T
	Wet prairies	500	Occurrence Score	500	ha	<input type="checkbox"/>	500	T
Species								
Birds								
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas		Occurrence Score	2000	ud	<input type="checkbox"/>	2000	T
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	5000	Occurrence Score	4500	ud	<input type="checkbox"/>	1500	T
<i>Sialia mexicana</i>	Western bluebird habitat	732	Hectares	732	ud	<input type="checkbox"/>	730	T
<i>Sturnella neglecta</i>	Western meadowlark		Occurrence Score	12079	ud	<input type="checkbox"/>	12000	T
Herpetofauna								
<i>Chrysemys picta</i>	Painted turtle	16100	Occurrence Score	16050	ud	<input type="checkbox"/>	16100	T
<i>Contia tenuis</i>	Sharptail snake	134	Occurrence Score	134	130	<input checked="" type="checkbox"/>	130	T
<i>Rana aurora aurora</i>	Northern red-legged frog	6550	Occurrence Score	6550	ud	<input type="checkbox"/>	7050	T

Section: Puget Trough
Terrestrial

Terrestrial Ecological Systems

	Coastal spits, dunes, and strand	3550	Occurrence Score	3050	3000	<input checked="" type="checkbox"/>	3000	T
	Coniferous forested wetlands	6050	Occurrence Score	4550	4500	<input checked="" type="checkbox"/>	3750	T
	Depressional wetland broadleaf forests	32800	Occurrence Score	10800	10500	<input checked="" type="checkbox"/>	10500	T
	Depressional wetland shrublands	20050	Occurrence Score	20050	7500	<input checked="" type="checkbox"/>	7500	T
	Douglas fir - western hemlock - western redcedar forests	729551	Hectares	369926	369925	<input checked="" type="checkbox"/>	369925	T
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	12400	Occurrence Score	11650	7500	<input checked="" type="checkbox"/>	7500	T
	Dry evergreen forests and woodlands	61709	Hectares	42122	24435	<input checked="" type="checkbox"/>	24435	T
	Dry evergreen forests and woodlands (ranked occurrences)	6600	Occurrence Score	6600	10500	<input type="checkbox"/>	6650	T

Section: Puget Trough

Terrestrial Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
	Freshwater aquatic beds	34850	Occurrence Score	24600	3750	<input checked="" type="checkbox"/>	3750	T
	Freshwater marshes	40850	Occurrence Score	24350	6000	<input checked="" type="checkbox"/>	6000	T
	Herbaceous balds and bluffs	2500	Occurrence Score	2500	5250	<input type="checkbox"/>	2500	T
	Intertidal salt marshes	17750	Occurrence Score	16250	15000	<input checked="" type="checkbox"/>	15000	T
	Oak woodlands (ranked occurrences)	8550	Occurrence Score	8050	8550	<input type="checkbox"/>	8550	T
	Riparian forests and shrublands	40402	Hectares	35154	35153	<input checked="" type="checkbox"/>	35153	T
	Riparian forests and shrublands (ranked occurrences)	15550	Occurrence Score	14050	10500	<input checked="" type="checkbox"/>	10500	T
	Sphagnum bogs and fens	60350	Occurrence Score	52300	13500	<input checked="" type="checkbox"/>	13500	T
	Tidally-influenced freshwater wetlands	9800	Occurrence Score	8750	ha	<input type="checkbox"/>	9750	T
	Upland prairies and savannas	10100	Occurrence Score	10050	ha	<input type="checkbox"/>	10000	T
Species								
Birds								
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas		Occurrence Score	13600	ud	<input type="checkbox"/>	9000	T
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	4150	Occurrence Score	4150	ud	<input type="checkbox"/>	4150	T
Herpetofauna								
<i>Rana aurora aurora</i>	Northern red-legged frog	28500	Occurrence Score	21500	ud	<input type="checkbox"/>	9000	T
<i>Sceloporus occidentalis</i>	Western fence lizard habitat	1910	Hectares	1469	ud	<input type="checkbox"/>	1909	T

Section: Willamette Valley
Terrestrial

Terrestrial Ecological Systems

	Autumnal freshwater mudflats	1050	Occurrence Score	1050	2250	<input type="checkbox"/>	1050	T
	Depressional wetland broadleaf forests	135550	Occurrence Score	58300	10500	<input checked="" type="checkbox"/>	10500	T
	Depressional wetland shrublands	34250	Occurrence Score	29250	7500	<input checked="" type="checkbox"/>	7500	T
	Douglas fir - western hemlock - western redcedar forests	34181	Hectares	13673	11737	<input checked="" type="checkbox"/>	11737	T

Section: Willamette Valley

Terrestrial Ecological Systems

Codes listed at end of report:

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	2550	Occurrence Score	2000	7500	<input type="checkbox"/>	2550	T
	Dry evergreen forests and woodlands	223527	Hectares	113196	48018	<input checked="" type="checkbox"/>	48018	T
	Dry evergreen forests and woodlands (ranked occurrences)	17150	Occurrence Score	16550	10500	<input checked="" type="checkbox"/>	10500	T
	Freshwater aquatic beds	3500	Occurrence Score	2250	3750	<input type="checkbox"/>	3500	T
	Freshwater marshes	1000	Occurrence Score	1000	6000	<input type="checkbox"/>	1000	T
	Herbaceous balds and bluffs	11200	Occurrence Score	11200	15000	<input type="checkbox"/>	11200	T
	Oak woodlands	22916	Hectares	19566	41688	<input type="checkbox"/>	19565	T
	Oak woodlands (ranked occurrences)	20250	Occurrence Score	20100	20000	<input checked="" type="checkbox"/>	20000	T
	Riparian forests and shrublands	43330	Hectares	23082	22336	<input checked="" type="checkbox"/>	22336	T
	Riparian forests and shrublands (ranked occurrences)	28650	Occurrence Score	26350	10500	<input checked="" type="checkbox"/>	10500	T
	Sphagnum bogs and fens	1000	Occurrence Score	1000	1500	<input type="checkbox"/>	1000	T
	Upland prairies and savannas	29500	Occurrence Score	28400	ha	<input type="checkbox"/>	29000	T
	Vernal pools	1000	Occurrence Score	1000	9000	<input type="checkbox"/>	1000	T
	Wet prairies	12750	Occurrence Score	12700	ha	<input type="checkbox"/>	12500	T

Species

Birds

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas		Occurrence Score	1500	ud	<input type="checkbox"/>	1550	T
<i>Melanerpes lewis</i>	Lewis's woodpecker	3000	Occurrence Score	3000	ud	<input type="checkbox"/>	3000	T
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	31500	Occurrence Score	31500	ud	<input type="checkbox"/>	15500	T
<i>Sturnella neglecta</i>	Western meadowlark		Occurrence Score	7743	ud	<input type="checkbox"/>	7000	T

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	6750	Occurrence Score	6650	ud	<input type="checkbox"/>	6750	T
<i>Rana aurora aurora</i>	Northern red-legged frog	20500	Occurrence Score	15000	ud	<input type="checkbox"/>	9000	T

Section: Canada

Nearshore Marine

Species

Section: Canada

<u>Species</u>		Codes listed at end of report:						
Birds								
Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
Birds								
	Dabbling ducks	106500	Occurrence Score	77000	ud	<input type="checkbox"/>	63900	NM
	Diving ducks/bay ducks	141500	Occurrence Score	86000	ud	<input type="checkbox"/>	84900	NM
<i>Aechmophorus occidentalis</i>	Western grebe	101000	Occurrence Score (*)	70000	ud	<input type="checkbox"/>	60600	NM
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	136000	Occurrence Score (*)	87500	ud	<input type="checkbox"/>	81600	NM
<i>Branta bernicla</i>	Brant	111000	Occurrence Score	70000	ud	<input type="checkbox"/>	66600	NM
<i>Gavia spp</i>	Loons	105000	Occurrence Score (*)	75000	ud	<input type="checkbox"/>	63000	NM
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	90500	Occurrence Score	55500	ud	<input type="checkbox"/>	54300	NM
<i>Histrionicus histrionicus</i>	Harlequin duck	101500	Occurrence Score (*)	67500	ud	<input type="checkbox"/>	60900	NM
<i>Melanitta spp</i>	Scoters	138000	Occurrence Score (*)	86000	ud	<input type="checkbox"/>	82800	NM
<i>Podiceps grisegena</i>	Red-necked grebe	103500	Occurrence Score	68000	ud	<input type="checkbox"/>	62100	NM
Fishes								
<i>Clupea pallasii</i>	Pacific herring spawning	443	Kilometers	277	ud	<input type="checkbox"/>	265	NM

Section: US
Nearshore Marine

<u>Species</u>								
Birds								
	Dabbling ducks	323250	Occurrence Score	118700	ud	<input type="checkbox"/>	96975	NM
	Diving ducks/bay ducks	173950	Occurrence Score	62750	ud	<input type="checkbox"/>	52185	NM
<i>Aechmophorus occidentalis</i>	Western grebe	313050	Occurrence Score (*)	90500	ud	<input type="checkbox"/>	93915	NM
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	161950	Occurrence Score (*)	49550	ud	<input type="checkbox"/>	48585	NM
<i>Branta bernicla</i>	Brant	60550	Occurrence Score	34200	ud	<input type="checkbox"/>	18165	NM
<i>Gavia spp</i>	Loons	157200	Occurrence Score (*)	49400	ud	<input type="checkbox"/>	47160	NM
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	97100	Occurrence Score	67100	ud	<input type="checkbox"/>	58260	NM
<i>Histrionicus histrionicus</i>	Harlequin duck	98500	Occurrence Score (*)	35500	ud	<input type="checkbox"/>	29550	NM
<i>Melanitta spp</i>	Scoters	727650	Occurrence Score (*)	229200	ud	<input type="checkbox"/>	218295	NM
<i>Podiceps grisegena</i>	Red-necked grebe	176500	Occurrence Score	54200	ud	<input type="checkbox"/>	52950	NM

Section: US

Species

Codes listed at end of report:

Fishes

Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model
Fishes								
<i>Clupea pallasii</i>	Pacific herring spawning	13470	Kilometers	8443	ud	<input type="checkbox"/>	8082	NM

Section: US

<u>Species</u>		<i>Codes listed at end of report:</i>						
Fishes								
Scientific Name	Common Name	Amount Available	Units ¹	Amount Captured	Goal ²	Met?	SITES ³ Goal	SITES ⁴ Model

Legend

1 Units:

Hectares: represent area measurements
 Kilometers: represent linear (shoreline) measurements
 Occurrence Score: represent counts of ranked occurrences:

- 1000 points - each 'A' or 'B' ranked occurrence
- 500 points - each 'C' ranked occurrence
- 50 points - each 'D' ranked occurrence
- 500 points - each 'K' ranked occurrence
- 250 points - each 'K' ranked modeled system occurrence

Occurrence Score (*) = calculated from point densities (nearshore marine targets)

2 Goals:

ha = "hectares": Goal for target was set in hectares, see notes.
 na = "not applicable": no data was available to set the SITES Goal.
 ud = "undefined": not enough information was available to set a Goal.

Terrestrial Ecological Systems Goals marked "ha"

Goals for these targets are not listed because the goal was set in units other than those shown in table.

Tidally-influenced freshwater wetlands: because of decline and incomplete historical documentation of extent, SITES goal was 'all available occurrences'.

Upland prairies and savannas: Goal was developed in hectares. Occurrence data measured in hectares was not available to develop a hectare-based SITES goal. Lower Columbia section: 9561 ha; Puget Trough section: 18,900 ha; Willamette Valley section: 148,993 ha.

Wet prairie: Goal was developed in hectares. Occurrence data measured in hectares was not available to develop a hectare-based SITES goal. Lower Columbia section: 7635 ha; Willamette Valley section: 36,085 ha.

Freshwater Ecological Systems Goals

Goals and measures were based on Ecological Drainage Units (EDUs), not ecoregional boundaries.

3 Goal Calculations:

For Terrestrial Targets goals calculated by Occurrence Score:

Amount Available and Amount Captured occurrence scores were calculated using A, B, C, D, and K ranks.

SITES Goal = Amount Available (using A, B, C, D, and K ranks) for all terrestrial species and community targets, and for all terrestrial ecological systems targets for which Amount Available >= Ecological Goal.

All SITES Goals were met through the modeling process.

For terrestrial ecological systems targets for which Amount Available < Ecological Goal, SITES Goal was calculated using only A, B, C, and K ranked occurrences (not including D-ranked occurrences). In these cases, the goal ultimately applied was to capture all available occurrences, so that Amount Captured may equal Amount available, thus exceeding the SITES Goal.

For Nearshore Marine targets:

SITES goals were set as percentage of Amount Available.

For Freshwater targets:

SITES goals served to provide representation of targets.

Targets having a Goal, but no Amount Available reflect ecological targets for which no data was available at the time of the assessment.

4 SITES Model:

Each target was considered in one or more analyses conducted using the SITES model.

- T = Terrestrial
- NM = Nearshore Marine
- FW = Freshwater

T,FW = Targets in both Terrestrial and Freshwater assessments. These records show data resulting from the terrestrial assessment only. The target as used in freshwater assessment may have had a different goal and data than the same species target considered in terrestrial assessment. Refer to text for summary of freshwater target data.

Appendix 16. List of Freshwater Animal Targets Showing Conservation Status

Note: Freshwater animals are listed according to group.

Conservation status assigned by NatureServe, U.S. Fish and Wildlife Service, Conservation Data Centre of British Columbia, and the Natural Heritage Programs of Washington and Oregon. Anadromous salmonids were not considered for selection because of their complex life history and complicated taxonomy (i.e., species, evolutionary significant units, stocks, and runs).

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
Fish									
white sturgeon (Columbia River)	<i>acipenser transmontanus</i> (pop 2)	G4T?		--	S4	S3B			
white sturgeon (Fraser River)	<i>acipenser transmontanus</i> (pop 4)	G4T2		S2	--	--	red		
Salish sucker	<i>Catostomus sp 4</i>	G1		S1	--	S1S2	red		
Vananda Creek limnetic stickleback	<i>Gasterosteus sp 16</i>	G1		S1	--	--	red		
Vananda Creek benthic stickleback	<i>Gasterosteus sp 17</i>	G1		S1	--	--	red		
Enos Lake limnetic stickleback	<i>Gasterosteus sp 2</i>	G1		S1	--	--	red		
Enos Lake benthic stickleback	<i>Gasterosteus sp 3</i>	G1		S1	--	--	red		
Paxton Lake limnetic stickleback	<i>Gasterosteus sp 4</i>	G1		S1	--	--	red		
Paxton Lake benthic stickleback	<i>Gasterosteus sp 5</i>	G1		S1	--	--	red		
Pacific lamprey	<i>Lampetra tridentata</i>	G5	SC	S4	S3	S4	yellow	Vu	
Olympic mudminnow	<i>Novumbra hubbsi</i>	G3		--	--	S2S3			S
Oregon chub	<i>Oregonichthys crameri</i>	G2	E	--	S2	--		Cr	
Nooksack dace	<i>Rhinichthys sp 4</i>	G3		S1	--	S?	red		
bull trout	<i>Salvelinus confluentus</i>	G3	T	S3	S3	S3	blue	Cr	C
Insects									
Fender's rhyacophilan caddisfly	<i>Rhyacophila fenderi</i>	G3?		S3?	--	--			
Vertree's ceracleon caddisfly	<i>Ceraclea vertreesi</i>	G3?		S3?	--	--			
river jewelwing	<i>Calopteryx aequabilis</i>	G5		S1	S?	S?	red		
Pacific clubtail	<i>Gomphus kurilis</i>	G4		--	S4	S?			
Molluscs									
California floater	<i>Anodonta californiensis</i>	G3	SC	--	S1?	S1S2			C
Willamette floater	<i>Anodonta wahlametensis</i>	G2?		--	S1	SH			
shortface lanx	<i>Fisherola nuttalli</i>	G2		SH	S2	S2?			

Common Name	Scientific Name	G rank	U.S.A. ESA status	S Rank			Status		
				BC	OR	WA	BC	OR	WA
Columbia pebblesnail	<i>Fluminicola columbiana</i>	G2?	SC	--	S3?	S1S2			
western ridgemussel	<i>Gonidea angulata</i>	G3		--	S3?	S2			
barren juga	<i>Juga hemphilli hemphilli</i>	G2T2		--	S2	S1			
Columbia dusksnail	<i>Lyogyrus sp. nov.</i>	G2		--	S2	--			
rotund physa	<i>Physella columbiana</i>	G2		SR	SH	S?			
nerite ramshorn	<i>Vorticifex neritoides</i>	G1		SH	--	S?			

Appendix 17. Information on Freshwater Animal Targets

Note: Freshwater animals are listed according to group.

This appendix shows species target selection criteria, means of spatial representation in the optimal site selection algorithm, number and rank of occurrences, and the maximum goal used in the analysis. Historic (H) and extirpated (X) element occurrences were not used in the analysis.

Common Name	Target Selection Criteria	Spatial Representation	Element Occurrences								Maximum Goal
			A	B	C	D	K	H	X	Total	
Fish											
white sturgeon (Columbia River)	S rank	no data	--	--	--	--	--	--	--	--	--
white sturgeon (Fraser River)	T rank, red list	EO	0	0	0	0	6	0	0	6	all EOs
Salish sucker	G rank, red list	EO	1	1	7	1	2	0	0	12	all EOs
stickleback sp.	G rank, red list	EO	0	4	0	0	3	0	0	7	all EOs
Pacific lamprey	S rank	EO	2	0	11	0	0	1	0	14	all EOs
Olympic mudminnow	G rank	EO	2	0	14	0	0	0	0	16	all EOs
Oregon chub	G rank	EO	6	0	13	16	4	3	0	42	all EOs
Nooksack dace	G rank, red list	EO	0	0	1	0	1	0	0	2	all EOs
bull trout	US list	no data*	--	--	--	--	--	--	--	--	--
Insects											
Fender's rhyacophilan caddisfly	G rank	EO	1	0	1	1	1	0	0	4	all EOs
Vertree's ceracleen caddisfly	G rank	EO	0	0	0	1	0	0	0	1	all EOs
river jewelwing	red list	no data	--	--	--	--	--	--	--	--	--
Pacific clubtail	declining	no data	--	--	--	--	--	--	--	--	--
Molluscs											
California floater	G rank	no data	--	--	--	--	--	--	--	--	--
Willamette floater	G rank	no data	--	--	--	--	--	--	--	--	--
shortface lanx	G rank	EO	0	0	0	1	0	0	0	1	all EOs
Columbia pebblesnail	G rank	no data	--	--	--	--	--	--	--	--	--
western ridgemussel	G rank	EO	0	0	3	0	0	0	0	3	all EOs
barren juga	G rank	no data	--	--	--	--	--	--	--	--	--
Columbia duskysnail	G rank	no data	--	--	--	--	--	--	--	--	--
rotund physa	G rank	no data	--	--	--	--	--	--	--	--	--
nerite ramshorn	G rank	no data	--	--	--	--	--	--	--	--	--

* Available data showing bull trout presence in rivers and streams lacked the precision needed for this analysis.

Appendix 18a. Washington Seabird Colonies Ranking and Aggregation

This Appendix shows how ranks were developed in the nearshore marine analysis for specific seabird colony sites in Washington.

WA SEABIRD COLONY NAME	WA SEABIRD NAME (RANK)									TOTAL (# of birds)	RANK	VALUE*
	Forktail storm petrel	Leach's storm petrel	Double crested cormorant	Pelagic cormorant	Common murre	Pigeon guillemot	Cassin's auklet	Rhino auklet	Tufted puffin			
Agate Bay	0	0	0	0	0	117 (C)	0	0	0	117	C	500
Bare Island	0	0	0	100 (C)	0	0	0	0	4	104	C	500
Bird Rks	0	0	190 (C)	30 (D)	0	15	0	0	0	235	C	500
Cactus Island E	0	0	0	0	0	30 (D)	0	0	0	30	D	50
Castle Island	0	0	0	190 (C)	0	130 (C)	0	0	0	320	C	500
Colville Island	0	0	62 (D)	230 (C)	0	22	0	0	0	314	C	500
Dungeness Spit	0	0	0	0	0	45 (D)	0	0	0	45	D	50
Dungeness Wharf	0	0	0	44 (D)	0	0	0	0	0	44	D	50
Flattop Island	0	0	0	0	0	40 (D)	0	0	0	40	D	50
Hammersley Inlet E. Third	0	0	0	0	0	49 (D)	0	0	0	49	D	50
Killisut Harbor N. Bluff	0	0	0	0	0	33 (D)	0	0	0	33	D	50
Penn Cove N. Shore	0	0	0	0	0	50 (D)	0	0	0	50	D	50
Port Angeles	0	0	0	58 (D)	0	0	0	0	0	58	D	50
Port Townsend Tower	0	0	0	130 (C)	0	0	0	0	0	130	C	500
Port Williams	0	0	0	0	0	34 (D)	0	0	0	34	D	50
Protection Island	0	0	0	860 (A)	0	1300 (A)	0	34000 (A)	45 (D)	36205	A	1000
Puffin Island	0	0	0	0	0	280 (C)	0	0	0	280	C	500
Skipjack Island	0	0	0	112 (C)	0	14	0	0	0	126	C	500
Smith & Minor Islands	0	0	0	440 (A)	0	102 (C)	0	2588 (C)	8	3138	A	1000
Sucia Island Complex	0	0	0	0	0	620 (A)	0	0	0	620	A	1000
Unnamed Rk (Colville Annex)	0	0	60 (D)	0	0	2	0	0	0	62	D	50
Williamson Rks	0	0	146 (C)	62 (D)	0	26	0	0	0	234	C	500

***Site value scores based upon the following rules:**

1. Ranking cut-off at sites with less than 4000 occurrences
2. At least 10% of site hexagon, or more than 185.3 acres in mudflats (WA) or site basic records (BC).

Data sources:

Tabular data only

WA: WDFW mudflat dataset, as explained in chapter 4

Also in BC: Brant's cormorant; Gull spp.

Also in WA: Caspian terns; Arctic terns

Appendix 18b. Washington Shorebird Colonies Ranking and Aggregation

This Appendix shows how ranks were developed in the nearshore marine analysis for specific shorebird colony sites in Washington.

SHOREBIRDS	Port Susan	Skagit Bay	Padilla Bay	Samish Bay	Drayton Harbor	Dungeness Bay	Snohomish Delta	Sequim Bay	Totten Inlet	Crockett's Lake	Lummi Bay	Fidalgo Bay	Birch Bay	Chuckanut Bay	Bellingham Bay	Nisqually Delta
Black-bellied plover	x	x	x	x	x	x	x	x	x		x				x	
Long-billed dowicher		x														
Short-billed dowicher	x			x	x	x		x	x	x						
Snipe																
Red-necked phalarope																
Semi-palmated plover	x				x	x	x			x						
Killdeer	x	x	x			x			x		x					
Greater yellowlegs	x			x	x			x	x	x			x			x
Lesser yellowlegs	x															
Whimbrel			x	x	x	x										
Ruddy turnstone						x										
Black turnstone						x						x			x	
Surfbird																
Sanderling		x				x	x	x			x					
Western sandpiper	x	x	x	x	x	x	x	x	x	x	x		x		x	
Least sandpiper		x	x		x					x		x				
Dunlin	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
# of species	8	7	6	6	8	10	5	6	6	6	5	3	3	1	4	2
Total (# of birds)	131233	63234	44588	44192	22384	11242	9640	9634	9510	8561	8154	7685	5253	4663	4511	4094
Rank	A	A	A	A	A	C	C	C	C	C	A	C	C	C	C	C
Value*	1000	1000	1000	1000	1000	500	500	500	500	500	1000	500	500	500	500	500

*Site value scores based upon the following rules:

1. Ranking cut-off at sites with less than 4000 occurrences
2. At least 10% of site hexagon, or more than 185.3 acres in mudflats (WA) or site basic records (BC).

Data sources:

Tabular data only

WA: WDFW mudflat dataset, as explained in chapter 4

Appendix 18c. British Columbia Seabird and Shorebird Colony Aggregations

This Appendix shows how ranks were developed in the nearshore marine analysis for specific seabird and shorebird colonies in B.C.

COLONY NAME	BC SEABIRD, SHOREBIRD NAME (VALUE / RANK)										TOTAL (# of birds)	SUM VALUE*
	Loons	Marbled murrelet	Western grebe	Red-necked grebe	Brant	American Wigeon	Scaups	Scoters	Shorebirds	Harlequin duck		
Active Pass	14,000 (1000 / A)	300 (1000 / A)	0	0	0	0	0	0	0	0	14,300	2000
Baynes Sound Comox Harbor	5079 (1000 / A)	104 (1000 / A)	30,530 (1000 / A)	357 (1000 / A)	5291 (1000 / A)	2254 (1000 / A)	2265 (1000 / A)	6283 (1000 / A)	11,286 (1000 / A)	886 (1000 / A)	50,795	10000
Campbell River Estuary	515 (1000 / A)	242 (1000 / A)	9045 (1000 / A)	156 (1000 / A)	0	200 (500 / C)	incompl. (500 / C)	6127 (1000 / A)	151 (500 / C)	150 (500 / C)	16,235	7000
Cowichan Bay Macrosite	175 (500 / C)	0	450 (1000 / A)	382 (1000 / A)	0	502 (1000 / A)	382 (1000 / A)	0	incompl. (500 / C)	0	1389	5000
Fraser River Delta Macrosite	2130 (1000 / A)	2485 (1000 / A)	4421 (1000 / A)	2500 (1000 / A)	9883 (1000 / A)	218,859 (1000 / A)	16,756 (1000 / A)	9380 (1000 / A)	1,261,694 (1000 / A)	1000 (500 / C)	49,013	9500
Lambert Channel Hornby Island	0	0	0	0	0	incompl. (500 / C)	incompl. (1000 / A)	725 (1000 / A)	1200 (50 / D)	5775 (1000 / A)	6500	3550
Little Qualicum Estuary Nanoos	486 (1000 / A)	214 (500 / C)	13,300 (1000 / A)	50 (500 / C)	19,679 (1000 / A)	0	20,550 (1000 / A)	10,600 (1000 / A)	250 (500 / C)	908 (1000 / A)	65,787	7500
Sidney Channel Marine	0	incompl. (500 / C)	0	100 (500 / C)	1545 (1000 / A)	0	300 (1000 / A)	69 (1000 / A)	650 (500 / C)	50 (500 / C)	2064	5000

*Sum values are based on numbers of A, B, C, and D occurrences. In British Columbia colonies were ranked, rather than specific sites.

Data sources:

Tabular data only

BC: site basic record data

To evaluate shorebirds in BC, two criteria used: expert workshop held June 2001 and report by Cannings generated from site basic records.

Appendix 18a. Washington Seabird Colonies Ranking and Aggregation

This Appendix shows how ranks were developed in the nearshore marine analysis for specific seabird colony sites in Washington.

WA SEABIRD COLONY NAME	WA SEABIRD NAME (RANK)									TOTAL (# of birds)	RANK	VALUE*
	Forktail storm petrel	Leach's storm petrel	Double crested cormorant	Pelagic cormorant	Common murre	Pigeon guillemot	Cassin's auklet	Rhino auklet	Tufted puffin			
Agate Bay	0	0	0	0	0	117 (C)	0	0	0	117	C	500
Bare Island	0	0	0	100 (C)	0	0	0	0	4	104	C	500
Bird Rks	0	0	190 (C)	30 (D)	0	15	0	0	0	235	C	500
Cactus Island E	0	0	0	0	0	30 (D)	0	0	0	30	D	50
Castle Island	0	0	0	190 (C)	0	130 (C)	0	0	0	320	C	500
Colville Island	0	0	62 (D)	230 (C)	0	22	0	0	0	314	C	500
Dungeness Spit	0	0	0	0	0	45 (D)	0	0	0	45	D	50
Dungeness Wharf	0	0	0	44 (D)	0	0	0	0	0	44	D	50
Flattop Island	0	0	0	0	0	40 (D)	0	0	0	40	D	50
Hammersley Inlet E. Third	0	0	0	0	0	49 (D)	0	0	0	49	D	50
Killisut Harbor N. Bluff	0	0	0	0	0	33 (D)	0	0	0	33	D	50
Penn Cove N. Shore	0	0	0	0	0	50 (D)	0	0	0	50	D	50
Port Angeles	0	0	0	58 (D)	0	0	0	0	0	58	D	50
Port Townsend Tower	0	0	0	130 (C)	0	0	0	0	0	130	C	500
Port Williams	0	0	0	0	0	34 (D)	0	0	0	34	D	50
Protection Island	0	0	0	860 (A)	0	1300 (A)	0	34000 (A)	45 (D)	36205	A	1000
Puffin Island	0	0	0	0	0	280 (C)	0	0	0	280	C	500
Skipjack Island	0	0	0	112 (C)	0	14	0	0	0	126	C	500
Smith & Minor Islands	0	0	0	440 (A)	0	102 (C)	0	2588 (C)	8	3138	A	1000
Sucia Island Complex	0	0	0	0	0	620 (A)	0	0	0	620	A	1000
Unnamed Rk (Colville Annex)	0	0	60 (D)	0	0	2	0	0	0	62	D	50
Williamson Rks	0	0	146 (C)	62 (D)	0	26	0	0	0	234	C	500

***Site value scores based upon the following rules:**

1. Ranking cut-off at sites with less than 4000 occurrences
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Data sources:

Tabular data only

WA: WDFW mudflat dataset, as explained in chapter 4

Also in BC: Brant's cormorant; Gull spp.

Also in WA: Caspian terns; Arctic terns

Appendix 18b. Washington Shorebird Colonies Ranking and Aggregation

This Appendix shows how ranks were developed in the nearshore marine analysis for specific shorebird colony sites in Washington.

SHOREBIRDS	Port Susan	Skagit Bay	Padilla Bay	Samish Bay	Drayton Harbor	Dungeness Bay	Snohomish Delta	Sequim Bay	Totten Inlet	Crockett's Lake	Lummi Bay	Fidalgo Bay	Birch Bay	Chuckanut Bay	Bellingham Bay	Nisqually Delta
Black-bellied plover	x	x	x	x	x	x	x	x	x		x				x	
Long-billed dowicher		x														
Short-billed dowicher	x			x	x	x		x	x	x						
Snipe																
Red-necked phalarope																
Semi-palmated plover	x				x	x	x			x						
Killdeer	x	x	x			x			x		x					
Greater yellowlegs	x			x	x			x	x	x			x			x
Lesser yellowlegs	x															
Whimbrel			x	x	x	x										
Ruddy turnstone						x										
Black turnstone						x						x			x	
Surfbird																
Sanderling		x				x	x	x			x					
Western sandpiper	x	x	x	x	x	x	x	x	x	x	x		x		x	
Least sandpiper		x	x		x					x		x				
Dunlin	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
# of species	8	7	6	6	8	10	5	6	6	6	5	3	3	1	4	2
Total (# of birds)	131233	63234	44588	44192	22384	11242	9640	9634	9510	8561	8154	7685	5253	4663	4511	4094
Rank	A	A	A	A	A	C	C	C	C	C	A	C	C	C	C	C
Value*	1000	1000	1000	1000	1000	500	500	500	500	500	1000	500	500	500	500	500

*Site value scores based upon the following rules:

1. Ranking cut-off at sites with less than 4000 occurrences
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Data sources:

Tabular data only

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Appendix 18c. British Columbia Seabird and Shorebird Colony Aggregations

This Appendix shows how ranks were developed in the nearshore marine analysis for specific seabird and shorebird colonies in B.C.

COLONY NAME	BC SEABIRD, SHOREBIRD NAME (VALUE / RANK)										TOTAL (# of birds)	SUM VALUE*
	Loons	Marbled murrelet	Western grebe	Red-necked grebe	Brant	American Wigeon	Scaups	Scoters	Shorebirds	Harlequin duck		
Active Pass	14,000 (1000 / A)	300 (1000 / A)	0	0	0	0	0	0	0	0	14,300	2000
Baynes Sound Comox Harbor	5079 (1000 / A)	104 (1000 / A)	30,530 (1000 / A)	357 (1000 / A)	5291 (1000 / A)	2254 (1000 / A)	2265 (1000 / A)	6283 (1000 / A)	11,286 (1000 / A)	886 (1000 / A)	50,795	10000
Campbell River Estuary	515 (1000 / A)	242 (1000 / A)	9045 (1000 / A)	156 (1000 / A)	0	200 (500 / C)	incompl. (500 / C)	6127 (1000 / A)	151 (500 / C)	150 (500 / C)	16,235	7000
Cowichan Bay Macrosite	175 (500 / C)	0	450 (1000 / A)	382 (1000 / A)	0	502 (1000 / A)	382 (1000 / A)	0	incompl. (500 / C)	0	1389	5000
Fraser River Delta Macrosite	2130 (1000 / A)	2485 (1000 / A)	4421 (1000 / A)	2500 (1000 / A)	9883 (1000 / A)	218,859 (1000 / A)	16,756 (1000 / A)	9380 (1000 / A)	1,261,694 (1000 / A)	1000 (500 / C)	49,013	9500
Lambert Channel Hornby Island	0	0	0	0	0	incompl. (500 / C)	incompl. (1000 / A)	725 (1000 / A)	1200 (50 / D)	5775 (1000 / A)	6500	3550
Little Qualicum Estuary Nanoos	486 (1000 / A)	214 (500 / C)	13,300 (1000 / A)	50 (500 / C)	19,679 (1000 / A)	0	20,550 (1000 / A)	10,600 (1000 / A)	250 (500 / C)	908 (1000 / A)	65,787	7500
Sidney Channel Marine	0	incompl. (500 / C)	0	100 (500 / C)	1545 (1000 / A)	0	300 (1000 / A)	69 (1000 / A)	650 (500 / C)	50 (500 / C)	2064	5000

*Sum values are based on numbers of A, B, C, and D occurrences. In British Columbia colonies were ranked, rather than specific sites.

Data sources:

Tabular data only

BC: site basic record data

To evaluate shorebirds in BC, two criteria used: expert workshop held June 2001 and report by Cannings generated from site basic records.

Appendix 19. Final Marine Shoreline Segments

Shoreline segments are nearshore marine elements of the integrated portfolio that are measured as linear features representing coarse filter targets.

Shoreline Segment Name	Shore Units	Length (km)
Active Pass	51	21,988
Anderson Beach	5	6,226
Bangor	9	4,969
Blake Island	7	4,712
Bowyer Island	6	4,050
Brisco Point, South Hartstene Island	19	13,496
Buccaneer Bay	35	14,995
Budd Inlet	13	12,645
Burrard Inlet	4	5,397
Butler Cove	5	3,654
Bywater Bay	1	1,683
Cape George	1	5,037
Capsante, Fidalgo Island	5	1,834
Carlyon Beach	6	3,117
Carr Inlet, Fox Island	2	2,349
Chemainus	26	34,706
Cherry Point	17	12,509
Coal Island	1	2,193
Comox Macrosite	185	158,977
Conawaga Beach	4	5,661
Cortes Island	140	41,367
Cowichan	16	24,272
Cypress-Sinclair Islands	66	32,684
Deception Pass	93	38,444
Desolation Sound	516	146,600
Dickenson Point	11	11,370
Discovery Bay	9	12,531
Discovery Island	169	36,681
Discovery Passage	15	3,973
Double Bluff	2	1,695
Drayton Passage-Filucy Bay	14	7,184
Dry Creek	1	1,808
Dugualla Bay	31	17,376
Duke Point	1	2,741
Dungeness	21	42,033
Dyes Inlet-Silverdale	9	3,663
East Beach	1	692
East Side Vashon	6	3,325
Ebey's Landing	20	15,020
Edmonds Point	4	1,238
Eld Inlet	36	20,515
Eliza Island	1	1,575
Esquimalt Harbor	1	2,825
Fidalgo Bay	21	11,663
Fidalgo Head, Burrows Island	16	7,978
Fisherman's Harbor	2	5,126
Flattop Island	4	2,546
Fort Flagler	5	4,443
Fraser Delta	15	50,430
Friday Harbor, San Juan Island	14	3,876
Gabriola Island	10	8,977
Gabriola Pass	43	30,280
Gardiner	6	5,733
Gedney Island	12	3,907
Green Point	1	2,244
Hale Passage, Fox Island	1	659

Appendix 19. Final Marine Shoreline Segments

Shoreline Segment Name	Shore Units	Length (km)
Harwood Island	12	7,825
Hat and Saddlebag Islands	12	4,673
Henry Island	33	13,124
Herando Island	5	5,790
Holmes Harbor, Whidbey Island	14	4,535
Horseshoe Bay	20	8,994
Howe Estuary	25	22,483
Hungerford Point	5	917
Hunter and Mud Bays, Lopez Island	19	7,726
Indian Island	26	20,884
Jackson Cove-Dabob Bay	14	8,348
Jedediah Island	17	12,476
Jervis Inlet	59	45,377
Johnson Point	11	7,989
Kayak Point	10	5,376
Ketron Island	1	1,842
Kilisut Harbor	14	10,771
Kinney Point	1	1,046
Ladysmith-Yellow Point	51	56,028
Lasqueti Island	8	6,419
Liberty Bay-Agate Pass-Port Orchard	111	48,310
Lower Qualicum	6	12,595
Lummi Flats	7	8,826
Lych Cove-Union River-Hood Canal	24	24,080
Lyre River	3	10,639
Malaspina - Copeland	56	35,098
Maple-Genoa Bay	6	16,682
McNeil Island	1	665
Mittlenatch Island	1	598
Monroe Landing	2	991
Moran	8	4,242
Mosquito Pass	7	1,759
Mountain View Beach, Camano Island	10	4,039
Mt. Maxwell	12	17,733
Nanaimo	22	36,988
Nanoose-Parksville	71	54,831
Nelson Island	149	86,682
Nisqually	7	16,257
Nooksack Delta	4	14,739
North Bay	23	11,355
North-South Pender Islands	29	16,508
Oak Bay	2	2,159
Oak Harbor, Whidbey Island	5	3,212
Old Fort Townsend	16	12,958
Ostrich Bay, Bremerton	21	8,237
Padilla Bay	61	48,723
Paradise Cove	1	1,284
Pender Harbor	84	47,746
Pickering Passage	56	31,067
Point Disney, Waldron Island	1	466
Point George, Shaw Island	4	2,678
Point Roberts-Boundary Bay	19	40,193
Point Wilson	1	1,295
Pole Pass, Crane Island	3	1,333
Pole Pass, Orcas Island	2	788
Porlier Pass	24	13,361
Port Gamble	32	19,659

Appendix 19. Final Marine Shoreline Segments

Shoreline Segment Name	Shore Units	Length (km)
Port Ludlow	4	4,073
Portage Inlet	7	5,388
Portage Island	24	11,647
Prevost Island	47	31,132
Protection Island	11	7,702
Quadra Island	80	33,403
Qualicum Bay	5	10,062
Qualicum-Columbia Beaches	3	5,411
Quartermaster Harbor	38	19,610
Quilcene	10	16,071
Race Rocks	12	1,703
Redondo	8	3,978
Reginald Hill	14	8,731
Rich Passage, Bainbridge Island	28	9,320
Rocky Point, WA	1	5,744
Rodena Beach, Whidbey Island	31	16,112
Rosenfeld Rocks	1	485
Royal Roads-Esquimalt	9	8,536
Samish	40	28,350
Samuel-Saturna	14	10,078
Sandy Point, Whidbey Island	4	2,823
Savary Island	7	8,395
Scatchet Head	3	3,215
Sea to Sea Greenbelt	134	70,390
Seabeck Bay	20	8,560
Seal Rock	2	218
Sechelt Inlet	3	2,169
Semiahmoo-Drayton Harbor	27	20,423
Seola Beach, Burien	4	1,303
Sequim Bay	16	20,859
Shoofly-Hood Canal	9	6,906
Sidney Island	20	22,541
Skagit	86	88,506
Skaiakos Point	1	1,939
Skokomish-Hood Canal	8	12,313
Skookumchuck Narrows	17	9,239
Skunk Bay	1	1,333
Spencer Spit	1	1,101
Spieden-Sentinel-Johns Islands	28	13,801
Squamish Harbor	12	8,706
Square Bay	1	1,611
Squaxin-Hope Islands	39	21,035
Stillaguamish River-Port Susan	25	19,928
Striped Peak	14	22,203
Stuart Island	13	6,884
Sucia-Matia-Patos Islands	105	40,872
Tarboo-Dabob Bay	9	15,535
The Narrows	24	22,951
Thetis-Kuper	90	57,860
Thormanby Island	63	28,872
Thorndyke	9	9,055
Toandos Peninsula	12	7,157
Totten-Skookum Inlets	51	44,348
Trial Island	1	1,130
Trincomali Channel	11	11,224
Tuam-Bruce	18	16,290
Turn Island	14	1,842

Appendix 19. Final Marine Shoreline Segments

Shoreline Segment Name	Shore Units	Length (km)
Turtleback-Deer Harbor	23	9,939
Tuwanek Point	5	10,840
Twanoh	2	676
Utsalady, Camano Island	12	7,353
Vancouver Harbour	3	4,890
Waldron-Skipjack Islands	12	6,160
Wasp-Yellow Islands	12	3,626
West Point	1	658
West San Juan-Southern Lopez Island	285	97,833
West Sound, Orcas-Broken Point,	25	6,766
Western Kitsap Peninsula	54	38,273
Winchelsea Island	15	5,456
Woodland Beach, Camano Island	8	4,573
Yellow Bluff	2	2,805
Zero Rocks	1	633
TOTALS	4,732	2,910,632

Note: Smith Island, WA, is an additional portfolio segment (reflected as a nearshore segment), though the shore-zone data set did not cover this area.

Appendix 20. Summary of Special Occurrences

Special occurrences are all target occurrences chosen in the integrated portfolio that were not contained within a delineated priority conservation area or marine shoreline segment. Special occurrences are listed north to south in the ecoregion.

Area Type: Special Occurrence

SO-0232

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Coastal spits, dunes, and strand	GU	
	Depressional wetland broadleaf forests	GU	
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	

SO-0268

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Mammals			
<i>Myotis keenii</i>	Keen's long-eared myotis	G2	

SO-0310

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Coastal spits, dunes, and strand	GU	
	Depressional wetland shrublands	GU	
Species			
Mammals			
<i>Sorex palustris brooksi</i>	Vancouver Island water shrew	G2	

SO-0390

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-0415

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Freshwater marshes	GU	
	Herbaceous balds and bluffs	GU	
Species			
Vascular Plants			
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	

SO-0487

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-0597

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
Species			
Vascular Plants			
<i>Botrychium simplex</i>	Least grape-fern	G5	

SO-0633

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Ascaphus truei</i>	Tailed frog	G4	

SO-0754

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3	

SO-0940

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
<u>Species</u>			
<u>Birds</u>			
<i>Accipiter gentilis</i>	Northern goshawk	G5	

SO-0948

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
<u>Plant Communities</u>			
<i>Thuja plicata - abies grandis / polystichum munitum forest</i>	Western redcedar - grand fir / swordfern	G2	

SO-1079

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Freshwater marshes	GU	
	Tidally-influenced freshwater wetlands	GU	

SO-1089

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland shrublands	GU	
	Freshwater marshes	GU	
<u>Species</u>			
<u>Vascular Plants</u>			
<i>Melampyrum lineare</i>	American cow-wheat	G5	

SO-1092

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Tidally-influenced freshwater wetlands	GU	

SO-1107

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater aquatic beds	GU	
	Sphagnum bogs and fens	GU	
Species			
Vascular Plants			
<i>Vaccinium myrtilloides</i>	Velvetleaf blueberry	G5	

SO-1113

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Sorex bendirii</i>	Pacific water shrew	G4	

SO-1121

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Depressional wetland shrublands	GU	
Species			
Mammals			
<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3	

SO-1135

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Riparian forests and shrublands	GU	
	Sphagnum bogs and fens	GU	
Plant Communities			
<i>Pseudotsuga menziesii</i> - <i>arbutus menziesii</i> / <i>lonicera hispidula</i> forest	Douglas-fir - pacific madrone / hairy honeysuckle	G2	
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2	

SO-1185

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
	Vernal pools	GU	
Plant Communities			
<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1	
<i>Plagiobothrys scouleri</i> - <i>plantago bigelovii</i> herbaceous vegetation	Scouler's popcornflower - annual coastal plantain	G2	
<i>Pseudotsuga menziesii</i> / <i>gaultheria shallon</i> - <i>holodiscus discolor</i> forest	Douglas-fir / salal - oceanspray	G2	
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos albus</i> - <i>holodiscus discolor</i> forest	Douglas-fir / common snowberry - oceanspray	G2	
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2	
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	

SO-1201

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Sorex bendirii</i>	Pacific water shrew	G4	

SO-1269

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-1274

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Sorex bendirii</i>	Pacific water shrew	G4	

SO-1275

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	
Species			
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	

SO-1288

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Mammals			
<i>Sorex palustris brooksi</i>	Vancouver Island water shrew	G2	

SO-1312

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-1349

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Lupinus rivularis</i>	Riverbank lupine	G4	

SO-1381

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Mitoura johnsoni</i>	Johnson's hairstreak	G3	
Mammals			
<i>Sorex bendirii</i>	Pacific water shrew	G4	

SO-1419

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-1425

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	
Species			
Vascular Plants			
<i>Cardamine parviflora</i>	Small-flower bitter-cress	G5	
<i>Polygonum punctatum</i>	Dotted smartweed	G5	

SO-1462

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Coniferous forested wetlands	GU	
	Freshwater marshes	GU	
	Sphagnum bogs and fens	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
Vascular Plants			
<i>Elodea nuttallii</i>	Nuttall's waterweed	G5	
<i>Myriophyllum ussuriense</i>	Ussurian water-milfoil	G3	
<i>Triglochin concinnum var concinnum triglochin concinna var concinna</i>	Dotted watermeal	G5	
<i>Wolffia borealis</i>	Dotted watermeal	G5	

SO-1464

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-1530

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	

SO-1532

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Caltha palustris var palustris</i>	Marsh marigold	G5	

SO-1536

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	
	Tidally-influenced freshwater wetlands	GU	
Species			
Vascular Plants			
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	

SO-1537

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	
Species			
Vascular Plants			
<i>Helianthus nuttallii ssp nuttallii</i>	Nuttall's sunflower	G5	

SO-1550

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater aquatic beds	GU	
	Freshwater marshes	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-1591

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Progne subis</i>	Purple martin	G5	

SO-1604

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	
Species			
Vascular Plants			
<i>Carex interrupta</i>	Green-fruited sedge	G3	

SO-1606

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Polygonum punctatum</i>	Dotted smartweed	G5	

SO-1643

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	G3	

SO-1674

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Triglochin concinnum var concinnum triglochin</i>	Dotted watermeal	G5	
<i>concinna var concinna</i>			
<i>Wolffia borealis</i>	Dotted watermeal	G5	

SO-1749

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Hypericum scouleri ssp nortoniae</i>	Western st. john's-wort	G5	
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	

SO-1765

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Freshwater marshes	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-1824

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
Fishes			
<i>Catostomus sp 4</i>	Salish sucker	G1	

SO-1833

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
Vascular Plants			
<i>Crassula connata</i>	Pygmy-weed	G5	

SO-1854

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Sorex bendirii</i>	Pacific water shrew	G4	

SO-1865

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
Species			
Vascular Plants			
<i>Uropappus (microseris) lindleyi</i>	Lindley's silver-puffs	G5	

SO-1893

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
Mammals			
<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3	

SO-1896

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Crassula connata</i>	Pygmy-weed	G5	

SO-1913

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C

SO-1919

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Dicamptodon tenebrosus</i>	Pacific giant salamander	G5	

SO-1994

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Sorex bendirii</i>	Pacific water shrew	G4	
Vascular Plants			
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	

SO-2028

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Scapanus townsendii</i>	Townsend's mole	G5	

SO-2043

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-2055

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Chaetura vauxi</i>	Vaux's swift	G5	
Non-Vascular - Moss			
<i>Neckera pennata</i>	Neckera pennata	G5	

SO-2076

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Cicuta bulbifera</i>	Bulb-bearing water-hemlock	G5	

SO-2080

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	

SO-2110

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
<u>Plant Communities</u>			
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2	
Species			
<u>Birds</u>			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
<u>Vascular Plants</u>			
<i>Lomatium grayi</i>	Mountain desert-parsley	G5	

SO-2132

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Intertidal salt marshes	GU	
Species			
<u>Birds</u>			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-2134

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Insects</u>			
<i>Coriomeris insularis</i>	Coreid bug	G2	

SO-2156

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE

SO-2173

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	
Vascular Plants			
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	

SO-2195

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Carex vulpinoidea</i>	Fox sedge	G5	

SO-2203

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Coastal spits, dunes, and strand	GU	
	Dry evergreen forests and woodlands	GU	
Species			
Vascular Plants			
<i>Melica smithii</i>	Smith melic grass	G4	

SO-2212

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Plant Communities			
<i>Betula papyrifera var. commutata - alnus rubra/ polystichum munitum forest</i>	Paper birch - red alder / swordfern	G1	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-2216

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Carex comosa</i>	Bristly sedge	G5	

SO-2217

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Betula pumila var glandulifera</i>	Dwarf birch	G5	
<i>Carex comosa</i>	Bristly sedge	G5	

SO-2223

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
<u>Herpetofauna</u>			
<i>Contia tenuis</i>	Sharptail snake	G5	
<u>Vascular Plants</u>			
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	

SO-2224

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Coastal spits, dunes, and strand	GU	
	Depressional wetland shrublands	GU	
	Dry evergreen forests and woodlands	GU	
	Intertidal salt marshes	GU	
	Riparian forests and shrublands	GU	

SO-2272

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
Species			
<u>Birds</u>			
<i>Ardea herodias</i>	Great blue heron	G5	
<u>Vascular Plants</u>			
<i>Allium geyeri var geyeri</i>	Geyer's onion		

SO-2284

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Carex comosa</i>	Bristly sedge	G5	

SO-2299

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Herbaceous balds and bluffs	GU	
Species			
<u>Vascular Plants</u>			
<i>Allium geyeri var tenerum</i>	Geyer onion		

SO-2325

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland shrublands	GU	
	Herbaceous balds and bluffs	GU	
Species			
<u>Vascular Plants</u>			
<i>Hutchinsia procumbens</i>	Prostrate hymenolobus	G5	

SO-2380

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
<u>Herpetofauna</u>			
<i>Contia tenuis</i>	Sharptail snake	G5	

SO-2405

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
Species			
<u>Vascular Plants</u>			
<i>Allium crenulatum</i>	Olympic onion	G4	

SO-2406

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	
Species			
Vascular Plants			
<i>Triglochin concinnum var concinnum triglochin</i>	Dotted watermeal	G5	
<i>concinna var concinna</i>			
<i>Wolffia borealis</i>	Dotted watermeal	G5	

SO-2455

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Crassula connata</i>	Pygmy-weed	G5	

SO-2474

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
Plant Communities			
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1	
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	

SO-2475

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Insects			
<i>Coriomeris insularis</i>	Coreid bug	G2	

SO-2497

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
Plant Communities			
<i>Arbutus menziesii / arctostaphylos columbiana</i> woodland	Pacific madrone / hairy manzanita	G2	
<i>Festuca roemerii - cerastium arvense - koeleria</i> <i>macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	
<i>Pseudotsuga menziesii / symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2	
<i>Quercus garryana / symphoricarpos albus / carex</i> <i>inops woodland</i>	Oregon white oak / common snowberry / long- stolon sedge	G2	
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
Vascular Plants			
<i>Crassula connata</i>	Pygmy-weed	G5	
<i>Uropappus (microseris) lindleyi</i>	Lindley's silver-puffs	G5	

SO-2498

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	
Vascular Plants			
<i>Marah oregonus</i>	Coast man-root	G4	

SO-2508

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Non-Vascular - Lichen			
<i>Cystocoleus ebeneus</i>	Cystocoleus ebeneus	G?	

SO-2516

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
Species			
Vascular Plants			
<i>Allium geyeri var geyeri</i>	Geyer's onion		

SO-2553

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Herpetofauna</u>			
<i>Ascaphus truei</i>	Tailed frog	G4	

SO-2565

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Non-Vascular - Moss</u>			
<i>Tortula papillosa</i>	Tortula papillosa	G5	
<u>Vascular Plants</u>			
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	

SO-2567

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland broadleaf forests	GU	
<u>Plant Communities</u>			
<i>Populus tremuloides / carex obnupta forest</i>	Quaking aspen / slough sedge	G2	

SO-2578

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
<u>Plant Communities</u>			
<i>Arbutus menziesii / arctostaphylos columbiana woodland</i>	Pacific madrone / hairy manzanita	G2	
<i>Pseudotsuga menziesii - arbutus menziesii / lonicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	G2	
<i>Pseudotsuga menziesii / rosa gymnocarpa - holodiscus discolor forest</i>	Douglas-fir / baldhip rose - oceanspray	G2	
<i>Pseudotsuga menziesii / symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	G2	
Species			
<u>Insects</u>			
<i>Euphyes vestris vestris</i>	Dun skipper	G3	

SO-2594

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
Vascular Plants			
<i>Poa howellii</i>	Howell's bluegrass	G4	

SO-2599

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Insects			
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	

SO-2602

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
Species			
Insects			
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	
Vascular Plants			
<i>Marah oregonus</i>	Coast man-root	G4	
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	

SO-2613

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
Plant Communities			
<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	

SO-2623

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Marah oregonus</i>	Coast man-root	G4	

SO-2649

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	
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SO-2664

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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Plant Communities

<i>Festuca roemeri - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	
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Species**Insects**

<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	
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SO-2685

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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Species**Vascular Plants**

<i>Castilleja tenuis</i>	Hairy owl's-clover	G5	
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SO-2686

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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	Freshwater aquatic beds	GU	
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Species**Insects**

<i>Euphyes vestris vestris</i>	Dun skipper	G3	
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SO-2688

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Dry evergreen forests and woodlands	GU	
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Species**Vascular Plants**

<i>Epilobium torreyi</i>	Brook spike-primrose	G5	
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SO-2692

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Non-Vascular - Lichen***Niebla cephalota*

Niebla cephalota

G?

SO-2715

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants***Sidalcea hendersonii*

Henderson mallow

G3

SO-2728

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rana aurora aurora*

Northern red-legged frog

G4

SO-2737

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Coastal spits, dunes, and strand

GU

SO-2745

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Herbaceous balds and bluffs

GU

Species**Birds***Falco peregrinus*

Peregrine falcon

G4

PS:LE

SO-2754

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Herbaceous balds and bluffs

GU

Species**Vascular Plants***Idahoia scapigera*

Scapose scalepod

G5

Senecio macounii

Siskiyou mountains butterweed

G5

SO-2763

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	
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SO-2779

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	

Species**Vascular Plants**

<i>Camissonia contorta</i> (= <i>Oenothera contorta</i>)	Dwarf contorted suncup	G5	
<i>Leymus triticoides</i>	Creeping wild rye	G4	

SO-2783

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Potamogeton obtusifolius</i>	Blunt-leaf pondweed	G5	
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SO-2786

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
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SO-2797

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Sphagnum bogs and fens	GU	

Species**Mammals**

<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3	
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SO-2806

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Senecio indecorus</i>	Plains ragwort	G5	
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SO-2813

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE

SO-2821

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Euphyes vestris vestris</i>	Dun skipper	G3	

SO-2828

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Non-Vascular - Moss			
<i>Drepanocladus crassicosatus</i>	Drepanocladus crassicosatus	G3	
<i>Funaria muhlenbergii</i>	Funaria muhlenbergii	G3	
<i>Pohlia sphagnicola</i>	Pohlia sphagnicola	G3	
<i>Polytrichum strictum</i>	Polytrichum strictum	G5	
<i>Trichostomopsis australasiae</i>	Trichostomopsis australasiae	G4	

SO-2835

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	

SO-2860

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-2861

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE

SO-2874

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
Plant Communities			
<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	G2	
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1	
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	
Species			
Vascular Plants			
<i>Idahoia scapigera</i>	Scapose scalepod	G5	
<i>Lupinus lepidus var lepidus</i>	Prairie lupine	G5	
<i>Meconella oregana</i>	White meconella	G2	

SO-2880

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
Vascular Plants			
<i>Ranunculus californicus</i>	California buttercup	G5	

SO-2888

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	

SO-2898

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Freshwater aquatic beds	GU	
	Oak woodlands	GU	

SO-2899

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	
Species			
<u>Insects</u>			
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	
<u>Vascular Plants</u>			
<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	G3	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	
<i>Wolffia columbiana</i>	Columbia water-meal	G5	

SO-2906

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	

SO-2923

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	
	Herbaceous balds and bluffs	GU	
Species			
<u>Vascular Plants</u>			
<i>Psilocarphus tenellus var tenellus</i>	Slender woolly-heads	G4	

SO-2924

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
	Sphagnum bogs and fens	GU	
Plant Communities			
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	
<i>Salix geyeriana</i> - <i>salix hookeriana</i> ssp <i>piperi</i> shrubland	Geyer willow - piper willow	G1	
Species			
Insects			
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	
Vascular Plants			
<i>Idahoia scapigera</i>	Scapose scalepod	G5	
<i>Lomatium dissectum</i> var <i>dissectum</i>	Fern-leaved desert-parsley	G4	
<i>Meconella oregana</i>	White meconella	G2	
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	
<i>Salix lemmonii</i>	Willow	G5	
<i>Viola praemorsa</i> ssp <i>praemorsa</i>	Canary violet	G5	

SO-2925

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Triphysaria versicolor</i> ssp <i>versicolor</i>	Yellow owl's clover	G5	

SO-2946

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Aster radulinus</i>	Rough-leaf aster	G4	
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	

SO-2969

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Vascular Plants			
<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	G3	
<i>Wolffia columbiana</i>	Columbia water-meal	G5	

SO-2974

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	G4	
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	

SO-2981

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	

SO-2986

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Ascaphus truei</i>	Tailed frog	G4	

SO-2989

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
Species			
Birds			
<i>Progne subis</i>	Purple martin	G5	
Vascular Plants			
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	

SO-2990

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Ardea herodias</i>	Great blue heron	G5	
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SO-2991

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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Species**Vascular Plants**

<i>Psilocarphus elatior</i>	Tall woolly-heads	G5	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-2992

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5	
<i>Triphysaria versicolor ssp versicolor</i>	Yellow owl's clover	G5	

SO-2998

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Artemisia campestris ssp caudata</i>	Beach wormwood	G5	
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SO-3007

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Carex comosa</i>	Bristly sedge	G5	
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SO-3010

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	G3	
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	

SO-3011

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
Species			
Vascular Plants			
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	

SO-3013

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
	Oak woodlands	GU	
	Vernal pools	GU	
Plant Communities			
<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	
<i>Plagiobothrys scouleri - plantago bigelovii herbaceous vegetation</i>	Scouler's popcornflower - annual coastal plantain	G2	
<i>Populus balsamifera ssp. trichocarpa - alnus rubra / carex obnupta forest</i>	Black cottonwood - red alder / slough sedge	G2	
<i>Populus tremuloides / carex obnupta forest</i>	Quaking aspen / slough sedge	G2	
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1	
<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	
Species			
Insects			
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4	
Vascular Plants			
<i>Allium geyeri var geyeri</i>	Geyer's onion		
<i>Allium geyeri var tenerum</i>	Geyer onion		
<i>Alopecurus carolinianus</i>	Tufted foxtail	G5	
<i>Callitriche marginata</i>	Winged water-starwort	G4	
<i>Castilleja tenuis</i>	Hairy owl's-clover	G5	
<i>Centaurium muehlenbergii</i>	Muhlenberg's centaury	G5	
<i>Juncus kelloggii</i>	Kellogg's rush	G3	
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	
<i>Microseris bigelovii</i>	Coast microseris	G4	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Psilocarphus elatior</i>	Tall woolly-heads	G5	
<i>Ranunculus alismaefolius var alismaefolius</i>	Plantain-leaved buttercup	G4	
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5	
<i>Triphysaria versicolor ssp versicolor</i>	Yellow owl's clover	G5	

SO-3028

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Fishes			
<i>Lampetra tridentata</i>	Pacific lamprey	G5	
Non-Vascular - Moss			
<i>Andreaea rothii</i>	Andreaea rothii	G5	
Vascular Plants			
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	

SO-3049

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Salix prolixa (rigida var macrogemma)</i>	Mackenzie willow	G5	

SO-3052

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Thelypteris nevadensis</i>	Sierra nevada marsh fern	G4	

SO-3056

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Lupinus densiflorus var densiflorus</i>	Whitewhorl lupine	G4	
<i>Microseris bigelovii</i>	Coast microseris	G4	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Sanicula arctopoides</i>	Bear's-foot sanicle	G5	

SO-3057

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
Vascular Plants			
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT
<i>Lupinus densiflorus var densiflorus</i>	Whitewhorl lupine	G4	
<i>Lupinus lepidus var lepidus</i>	Prairie lupine	G5	
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-3058

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	
<i>Triphysaria versicolor ssp versicolor</i>	Yellow owl's clover	G5	

SO-3078

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
Species			
Vascular Plants			
<i>Allium geyeri var geyeri</i>	Geyer's onion		
<i>Crassula connata</i>	Pygmy-weed	G5	
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	

SO-3080

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Sanicula arctopoides</i>	Bear's-foot sanicle	G5	
<i>Triphysaria versicolor ssp versicolor</i>	Yellow owl's clover	G5	

SO-3101

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Herbaceous balds and bluffs	GU	
Species			
Vascular Plants			
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Camissonia contorta</i> (= <i>Oenothera contorta</i>)	Dwarf contorted suncup	G5	
<i>Psilocarphus tenellus</i> var <i>tenellus</i>	Slender woolly-heads	G4	
<i>Triteleia (brodiaea) grandiflora</i> var <i>howellii</i>	Howell's triteleia	G5	

SO-3236

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Coastal spits, dunes, and strand	GU	
	Depressional wetland broadleaf forests	GU	
Plant Communities			
<i>Carex macrocephala herbaceous vegetation</i>	Bighead sedge	G1	

SO-3237

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-3248

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	

SO-3288

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Oak woodlands	GU	
Plant Communities			
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	
Species			
Vascular Plants			
<i>Erythronium oregonum</i> ssp <i>oregonum</i>	Giant white fawnlily	G5	

SO-3314

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT

SO-3320

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-3369

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5	
<i>Iris missouriensis</i>	Western blue iris	G5	

SO-3397

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5	

SO-3424

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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SO-3547

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	

SO-3577

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
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SO-3578

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Sphagnum bogs and fens	GU	
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SO-3614

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Poa howellii</i>	Howell's bluegrass	G4	
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SO-3621

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
	Freshwater aquatic beds	GU	
	Sphagnum bogs and fens	GU	

Plant Communities

<i>Carex cusickii</i> - (<i>menyanthes trifoliata</i>) herbaceous vegetation	Cusick's sedge - (buckbean)	G2	
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SO-3626

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Artemisia campestris</i> ssp <i>scouleriana</i>	Pacific sage	G5	
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SO-3658

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Freshwater marshes	GU	
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SO-3671

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
Plant Communities			
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos albus</i> - <i>holodiscus discolor</i> forest	Douglas-fir / common snowberry - oceanspray	G2	
Species			
Vascular Plants			
<i>Erythronium oregonum</i> ssp <i>oregonum</i>	Giant white fawnlily	G5	

SO-3683

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	
Species			
Vascular Plants			
<i>Erigeron speciosus</i> var <i>speciosus</i>	Aspen fleabane	G5	
<i>Geum triflorum</i> var <i>campanulatum</i>	Western red avens	G4	

SO-3729

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Artemisia campestris</i> ssp <i>scouleriana</i>	Pacific sage	G5	
<i>Delphinium nuttallii</i>	Upland larkspur	G4	

SO-3744

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Fishes			
<i>Catostomus</i> sp 4	Salish sucker	G1	

SO-3810

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	

SO-3827

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	

SO-3870

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Lilaea scilloides</i>	Flowering quillwort	G4	

SO-3954

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Bufo boreas</i>	Western toad	G4	PS
Vascular Plants			
<i>Potamogeton obtusifolius</i>	Blunt-leaf pondweed	G5	

SO-3982

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Plant Communities			
<i>Acer macrophyllum - alnus rubra / polystichum munitum - tellima grandiflora forest</i>	Bigleaf maple - red alder / swordfern - fringecup	G2	

SO-4069

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE

SO-4104

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	

SO-4108

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	

SO-4110

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	

SO-4204

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-4212

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
Plant Communities			
<i>Pseudotsuga menziesii - tsuga heterophylla / vaccinium ovatum forest</i>	Douglas-fir - western hemlock / evergreen huckleberry	G2	

SO-4218

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Non-Vascular - Lichen			
<i>Cladina portentosa</i>	Cladina portentosa	G?	

SO-4267

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-4325

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
Non-Vascular - Moss			
<i>Homalia trichomanioides</i>	Homalia trichomanioides	G5	

SO-4328

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Dryopteris carthusiana</i>	Spinulose shield fern	G5	

SO-4357

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU	

SO-4405

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	
Species			
Birds			
<i>Accipiter gentilis</i>	Northern goshawk	G5	

SO-4439

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Carex vulpinoidea</i>	Fox sedge	G5	
<i>Cyperus bipartitus</i>	Shining flatsedge	G5	

SO-4447

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Non-Vascular - Moss			
<i>Lycopodiella inundata</i>	Northern bog clubmoss	G5	

SO-4479

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Cyperus bipartitus</i>	Shining flatsedge	G5	
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SO-4488

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Non-Vascular - Lichen**

<i>Cladina portentosa</i>	Cladina portentosa	G?	
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SO-4527

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Chrysolepis chrysophylla</i>	Golden chinquapin	G5	
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SO-4546

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Non-Vascular Plants**

<i>Cassiope lycopodioides</i>	Clubmoss bell-heather	G4	
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SO-4547

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Rhyacotriton olympicus</i>	Olympic torrent salamander	G2	
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SO-4568

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
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SO-4569

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Non-Vascular - Moss**

<i>Myurella julacea</i>	Myurella julacea	G4	
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SO-4587

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Dry evergreen forests and woodlands	GU	
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SO-4589

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Fishes**

<i>Catostomus sp 4</i>	Salish sucker	G1	
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SO-4672

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE
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SO-4680

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Bufo boreas</i>	Western toad	G4	PS
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SO-4738

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Plethodon vandykei</i>	Van dyke's salamander	G2	
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SO-4748

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Ardea herodias</i>	Great blue heron	G5	
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SO-4851

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Non-Vascular - Fungi**

<i>Ramaria celerivirescens</i>	Ramaria celerivirescens	G2	
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SO-4896

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Freshwater aquatic beds		GU	
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Sphagnum bogs and fens		GU	
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SO-4900

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	
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SO-4941

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Fishes**

<i>Lampetra tridentata</i>	Pacific lamprey	G5	
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SO-4952

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Dry evergreen forests and woodlands		GU	
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SO-4957

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Ardea herodias</i>	Great blue heron	G5	
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SO-4974

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Freshwater aquatic beds		GU	
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Sphagnum bogs and fens		GU	
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SO-4982

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Progne subis</i>	Purple martin	G5	
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SO-4988

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Carex vulpinoidea</i>	Fox sedge	G5	

SO-4996

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
Mammals			
<i>Thomomys mazama couchi</i>	Western pocket gopher, ssp couchi	G2	

SO-4997

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Thomomys mazama couchi</i>	Western pocket gopher, ssp couchi	G2	

SO-5071

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Non-Vascular - Moss			
<i>Myurella julacea</i>	Myurella julacea	G4	

SO-5082

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Lathyrus torreyi</i>	Torrey's peavine	G5	

SO-5102

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Sceloporus occidentalis</i>	Western fence lizard	G5	

SO-5121

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sialia mexicana</i>	Western bluebird	G5	
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	
Vascular Plants			
<i>Potamogeton obtusifolius</i>	Blunt-leaf pondweed	G5	

SO-5126

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Sceloporus occidentalis</i>	Western fence lizard	G5	

SO-5154

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	

SO-5173

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	

SO-5190

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Potamogeton obtusifolius</i>	Blunt-leaf pondweed	G5	

SO-5212

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Fishes			
<i>Novumbra hubbsi</i>	Olympic mudminnow	G3	

SO-5222

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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SO-5223

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Ardea herodias</i>	Great blue heron	G5	
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SO-5224

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Lathyrus torreyi</i>	Torrey's peavine	G5	
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SO-5225

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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SO-5260

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	
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SO-5261

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Oak woodlands	GU	
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SO-5264

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Betula pumila var glandulifera</i>	Dwarf birch	G5	
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SO-5273

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Sphagnum bogs and fens	GU	
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SO-5276

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rana aurora aurora*

Northern red-legged frog

G4

SO-5288

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rana aurora aurora*

Northern red-legged frog

G4

SO-5289

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds***Progne subis*

Purple martin

G5

SO-5305

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds***Progne subis*

Purple martin

G5

Vascular Plants*Betula pumila var glandulifera*

Dwarf birch

G5

SO-5318

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland broadleaf forests

GU

Species**Birds***Ardea herodias*

Great blue heron

G5

Columba fasciata

Band-tailed pigeon - breeding habitat

G5

SO-5319

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds***Progne subis*

Purple martin

G5

SO-5322

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rana aurora aurora*

Northern red-legged frog

G4

SO-5341

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Coniferous forested wetlands

GU

Freshwater marshes

GU

SO-5343

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rana aurora aurora*

Northern red-legged frog

G4

SO-5372

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Mammals***Thomomys mazama pugetensis*

Western pocket gopher, ssp pugetensis

GU

SO-5373

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Fishes***Novumbra hubbsi*

Olympic mudminnow

G3

Mammals*Thomomys mazama pugetensis*

Western pocket gopher, ssp pugetensis

GU

SO-5385

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds***Poecetes gramineus affinis*

Oregon vesper sparrow

G3

SO-5388

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sialia mexicana</i>	Western bluebird	G5	
Mammals			
<i>Thomomys mazama pugetensis</i>	Western pocket gopher, ssp pugetensis	GU	

SO-5399

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-5411

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Thomomys mazama pugetensis</i>	Western pocket gopher, ssp pugetensis	GU	

SO-5416

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-5429

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Delphinium nuttallii</i>	Upland larkspur	G4	
<i>Sanicula crassicaulis var tripartita</i>	Cutleaf pacific sanicle	G5	

SO-5459

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Carex comosa</i>	Bristly sedge	G5	

SO-5472

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Non-Vascular - Lichen			
<i>Bryoria tortuosa</i>	Bryoria tortuosa	G2	

SO-5478

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	

SO-5483

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	

SO-5509

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-5515

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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SO-5523

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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SO-5529

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5	
Vascular Plants			
<i>Delphinium nuttallii</i>	Upland larkspur	G4	

SO-5540

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	

SO-5548

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Fishes			
<i>Novumbra hubbsi</i>	Olympic mudminnow	G3	

SO-5549

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Thomomys mazama yelmensis</i>	Western pocket gopher, ssp yelmensis	GU	

SO-5552

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Birds			
<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-5583

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Oak woodlands	GU	
Species			
Vascular Plants			
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	

SO-5584

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Mollusks**

<i>Gonidea angulata</i>	Western ridged mussel	G3	
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SO-5589

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Trillium parviflorum</i>	Small-flowered trillium	G2	
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SO-5634

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	
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SO-5676

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Plethodon vandykei</i>	Van dyke's salamander	G2	
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SO-5697

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland shrublands	GU	
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Species**Vascular Plants**

<i>Trillium parviflorum</i>	Small-flowered trillium	G2	
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SO-5702

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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	Depressional wetland shrublands	GU	
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Species**Non-Vascular - Moss**

<i>Bryum violaceum</i>	Bryum violaceum	G4	
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<i>Ditrichum schimperi</i>	Ditrichum schimperi	G4	
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SO-5731

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands	GU		
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Species**Vascular Plants**

<i>Sidalcea hirtipes</i>	Bristly-stemmed sidalcea	G2	
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SO-5737

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands	GU		
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Species**Vascular Plants**

<i>Sidalcea hirtipes</i>	Bristly-stemmed sidalcea	G2	
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SO-5745

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands	GU		
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Species**Vascular Plants**

<i>Trillium parviflorum</i>	Small-flowered trillium	G2	
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SO-5815

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Dicamptodon copei</i>	Cope's giant salamander	G3	
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SO-5882

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Dicamptodon copei</i>	Cope's giant salamander	G3	
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SO-5885

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands	GU		
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Species**Birds**

<i>Progne subis</i>	Purple martin	G5	
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SO-5891

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Birds			
<i>Progne subis</i>	Purple martin	G5	

SO-5900

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Dicamptodon copei</i>	Cope's giant salamander	G3	

SO-5913

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	
Herpetofauna			
<i>Rhyacotriton cascadae</i>	Cascade torrent salamander CV	G3	

SO-5919

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	

SO-5927

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-5955

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-5969

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Non-Vascular - Fungi**

<i>Amanita lanei</i>	Amanita lanei	G3	
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SO-5976

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland shrublands	GU	
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Species**Non-Vascular - Fungi**

<i>Amanita farinosa</i>	Amanita farinosa	G3	
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<i>Amanita lanei</i>	Amanita lanei	G3	
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	
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SO-5982

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Cimicifuga elata</i>	Tall bugbane	G2	
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<i>Trillium parviflorum</i>	Small-flowered trillium	G2	
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SO-5995

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Trillium parviflorum</i>	Small-flowered trillium	G2	
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SO-5997

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Sturnella neglecta</i>	Western meadowlark	G5	
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Mammals

<i>Sciurus griseus</i>	Western gray squirrel	G5	
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Vascular Plants

<i>Trillium parviflorum</i>	Small-flowered trillium	G2	
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SO-6004

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6005

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6013

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6023

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6024

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6034

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Depressional wetland shrublands	GU	
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6043

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Birds			
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	

SO-6045

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6046

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	

SO-6058

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Vascular Plants			
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	

SO-6075

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants***Trillium parviflorum*

Small-flowered trillium

G2

SO-6119

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Freshwater marshes

GU

SO-6140

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rhyacotriton cascadae*

Cascade torrent salamander CV

G3

SO-6141

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands

GU

Species**Herpetofauna***Clemmys marmorata marmorata*

Northwestern pond turtle

G3

SO-6154

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands

GU

Freshwater aquatic beds

GU

Herbaceous balds and bluffs

GU

Oak woodlands

GU

SO-6158

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland shrublands

GU

Plant Communities*Salix geyeriana* - *salix hookeriana* ssp *piperi*
shrubland

Geyer willow - piper willow

G1

SO-6175

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Bolandra oregana</i>	Oregon bolandra	G3	

SO-6185

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Birds</u>			
<i>Agelaius tricolor</i>	Tricolored blackbird	G3	
<u>Herpetofauna</u>			
<i>Chrysemys picta</i>	Painted turtle	G5	

SO-6189

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Non-Vascular - Fungi</u>			
<i>Amanita lanei</i>	Amanita lanei	G3	
<u>Vascular Plants</u>			
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	

SO-6194

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Herpetofauna</u>			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-6199

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Equisetum palustre</i>	Marsh horsetail	G5	

SO-6207

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland shrublands	GU	
Species			
<u>Birds</u>			
<i>Progne subis</i>	Purple martin	G5	
<u>Vascular Plants</u>			
<i>Rorippa columbiae</i>	Columbia yellow-cress	G3	
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	

SO-6219

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Vascular Plants			
<i>Carex comosa</i>	Bristly sedge	G5	
<i>Carex vulpinoidea</i>	Fox sedge	G5	

SO-6222

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Progne subis</i>	Purple martin	G5	

SO-6241

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
	Freshwater aquatic beds	GU	
Species			
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-6245

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Freshwater marshes	GU	

SO-6252

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	

SO-6279

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	
Insects			
<i>Buprestis gibbsi</i>	Wood-borer beetle	GU	
<i>Oistus edmonstoni</i>	Wood-borer beetle	GU	

SO-6284

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-6302

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-6309

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Riparian forests and shrublands	GU	

SO-6319

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Depressional wetland shrublands	GU	
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-6320

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C

SO-6327

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	
<i>Galium mexicanum ssp asperulum</i>	Rough bedstraw	G5	
<i>Juncus kelloggii</i>	Kellogg's rush	G3	
<i>Juncus torreyi</i>	Torrey's rush	G5	
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
<i>Yabea microcarpa</i>	California hedge-parsley	G5	

SO-6333

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	

SO-6334

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-6337

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-6344

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Freshwater aquatic beds	GU	

SO-6349

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-6350

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-6352

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Mollusks			
<i>Megomphix hemphilli</i>	Oregon megomphix (snail)	G2	

SO-6377

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	

SO-6384

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	

SO-6401

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	
<i>Howellia aquatilis</i>	Water howellia	G2	LT
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	

SO-6403

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Insects</u>			
<i>Catocala allusa</i>	Endemic moth	G4	
<u>Vascular Plants</u>			
<i>Carex vulpinoidea</i>	Fox sedge	G5	
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE

SO-6404

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Herpetofauna</u>			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-6406

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Birds</u>			
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	G5	PS

SO-6451

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland shrublands	GU	
Species			
<u>Mammals</u>			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	

SO-6454

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland shrublands	GU	
Species			
<u>Fishes</u>			
<i>Oregonichthys crameri</i>	Oregon chub	G2	
<u>Vascular Plants</u>			
<i>Carex vulpinoidea</i>	Fox sedge	G5	
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE

SO-6456

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	

SO-6461

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	

SO-6463

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Plant Communities			
<i>Salix hookeriana</i> ssp. <i>piperi</i> - (<i>salix sitchensis</i>) shrubland	Piper willow - (sitka willow)	G2	
Species			
Vascular Plants			
<i>Lupinus sulphureus</i> var <i>kincaidii</i>	Kincaid's lupine	G2	LT

SO-6471

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	
Fishes			
<i>Lampetra tridentata</i>	Pacific lamprey	G5	
Vascular Plants			
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	

SO-6474

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sturnella neglecta</i>	Western meadowlark	G5	

SO-6482

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	

SO-6491

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Fishes			
<i>Oregonichthys crameri</i>	Oregon chub	G2	

SO-6503

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Dry evergreen forests and woodlands	GU	

SO-6515

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-6524

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	
Vascular Plants			
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	

SO-6566

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-6584

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-6599

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	

SO-6651

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Other Invertebrates			
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-6652

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Oak woodlands	GU	

SO-6664

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Herpetofauna</u>			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-6665

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland broadleaf forests	GU	
Species			
<u>Vascular Plants</u>			
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	

SO-6668

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Birds</u>			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-6669

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland broadleaf forests	GU	
Species			
<u>Other Invertebrates</u>			
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	

SO-6673

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Other Invertebrates</u>			
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	

SO-6683

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa</i> - <i>danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2	
<i>Festuca roemeri</i> - <i>sidalcea malviflora ssp. virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	
Species			
Insects			
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	

SO-6706

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Chordeiles minor</i>	Common nighthawk	G5	
Other Invertebrates			
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	

SO-6739

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5	
<i>Trifolium eriocephalum ssp. arcuatum</i>	Trifolium eriocephalum ssp. Arcuatum	G3	
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	

SO-6770

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	G5	

SO-6772

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	
Herpetofauna			
<i>Batrachoseps wrighti</i>	Oregon slender salamander	G3	

SO-6792

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Riparian forests and shrublands	GU	
Species			
Vascular Plants			
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	
<i>Isopyrum stipitatum</i>	Siskiyou rue-anemone	G4	

SO-6795

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Colias occidentalis occidentalis</i>	Western sulphur	G3	
Other Invertebrates			
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-6814

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Riparian forests and shrublands	GU	

SO-6849

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-6863

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Epilobium torreyi</i>	Brook spike-primrose	G5	
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-6885

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-6888

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-6907

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	

SO-6913

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Delphinium oreganum</i>	Larkspur	G1	
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-6923

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Various</i>	Shorebird aggregations (non-marine)	GU	

SO-6943

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-6953

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland broadleaf forests	GU	
Species			
<u>Vascular Plants</u>			
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-6961

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Depressional wetland broadleaf forests	GU	
Species			
<u>Birds</u>			
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	
<u>Herpetofauna</u>			
<i>Chrysemys picta</i>	Painted turtle	G5	

SO-6983

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Autumnal freshwater mudflats	GU	
	Riparian forests and shrublands	GU	
Species			
<u>Insects</u>			
<i>Colias occidentalis occidentalis</i>	Western sulphur	G3	
<u>Other Invertebrates</u>			
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1	
<u>Vascular Plants</u>			
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE

SO-6990

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-6992

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Birds</u>			
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	
<u>Vascular Plants</u>			
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-7010

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Birds</u>			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<u>Vascular Plants</u>			
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-7013

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Insects</u>			
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	
<u>Vascular Plants</u>			
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT

SO-7020

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-7031

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
Vascular Plants			
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7035

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Chordeiles minor</i>	Common nighthawk	G5	

SO-7039

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2	

SO-7048

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4	

SO-7057

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Athene cunicularia</i>	Burrowing owl	G4	
<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sturnella neglecta</i>	Western meadowlark	G5	

SO-7058

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Athene cunicularia</i>	Burrowing owl	G4	
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<i>Sturnella neglecta</i>	Western meadowlark	G5	

SO-7064

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Chordeiles minor</i>	Common nighthawk	G5	
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	
Vascular Plants			
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-7068

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-7070

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Athene cunicularia</i>	Burrowing owl	G4	
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Vascular Plants			
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7071

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Aster hallii</i>	Hall's aster	G4	
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-7083

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Delphinium oreganum</i>	Larkspur	G1	
<i>Juncus kelloggii</i>	Kellogg's rush	G3	
<i>Linum (sclerolinon) digynum</i>	Northwestern yellow-flax	G5	

SO-7084

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-7095

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	
Plant Communities			
<i>Festuca roemeri - sidalcea malviflora ssp. virgata herbaceous vegetation</i>	Roemer's fescue - rose checker-mallow	G1	
Species			
Vascular Plants			
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-7096

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE

SO-7098

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-7101

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-7108

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Chordeiles minor</i>	Common nighthawk	G5	

SO-7109

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Chordeiles minor</i>	Common nighthawk	G5	

SO-7111

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Batrachoseps wrighti</i>	Oregon slender salamander	G3	

SO-7126

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	

SO-7127

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
Various	Wintering raptor concentrations	GU	

SO-7137

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	

SO-7140

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7155

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Insects			
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	

SO-7156

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-7173

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
Various	Wintering raptor concentrations	GU	

SO-7228

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-7230

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	

SO-7240

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-7246

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	

SO-7251

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa - danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2	
Species			
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	

SO-7300

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Vascular Plants			
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7312

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	

SO-7319

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Mammals			
<i>Various</i>	Bat roost sites	GU	

SO-7349

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7352

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa - danthonia californica</i> <i>herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2	
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7364

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB	
<i>Erigeron decumbens</i> var <i>decumbens</i>	Willamette valley daisy	G1	LE
<i>Horkelia congesta</i> ssp <i>congesta</i>	Shaggy horkelia	G2	
<i>Hydrocotyle verticillata</i>	Whorled pennywort	G5	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Lupinus sulphureus</i> var <i>kincaidii</i>	Kincaid's lupine	G2	LT
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7375

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	
Vascular Plants			
<i>Darmera peltata</i>	Umbrella plant	G4	

SO-7377

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Melanerpes formicivorus</i>	Acorn woodpecker	G5	
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	
Vascular Plants			
<i>Salix prolixa</i> (<i>rigida</i> var <i>macrogemma</i>)	Mackenzie willow	G5	
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7379

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	
Plant Communities			
<i>Festuca roemeri</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	
Species			
Herpetofauna			
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	

SO-7380

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-7399

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Riparian forests and shrublands	GU	
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	

SO-7400

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT

SO-7401

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	

SO-7413

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Sciurus griseus</i>	Western gray squirrel	G5	
Vascular Plants			
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	

SO-7418

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Asio flammeus</i>	Short-eared owl	G5	
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-7419

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	G5	PS
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	G5	
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Herpetofauna			
<i>Crotalus viridis</i>	Western rattlesnake	G5	

SO-7430

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-7431

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	G5	
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Herpetofauna			
<i>Crotalus viridis</i>	Western rattlesnake	G5	
Vascular Plants			
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	

SO-7441

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-7444

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	G5	
<i>Sturnella neglecta</i>	Western meadowlark	G5	
Herpetofauna			
<i>Crotalus viridis</i>	Western rattlesnake	G5	
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-7456

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Delphinium oreganum</i>	Larkspur	G1	

SO-7464

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
Vascular Plants			
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB	
<i>Geranium oreganum</i>	Oregon crane's-bill	G4	
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-7468

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
<i>Sitta carolinensis aculeata</i>	White-breasted nuthatch	G5	

SO-7484

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-7492

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C

SO-7502

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Wet prairies	GU	
Species			
Birds			
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	
Vascular Plants			
<i>Geranium oreganum</i>	Oregon crane's-bill	G4	
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-7505

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-7528

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Plant Communities			
<i>Fraxinus latifolia / carex obnupta forest</i>	Oregon ash / slough sedge	G3	

SO-7530

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	
Vascular Plants			
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE

SO-7534

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
Plant Communities			
<i>Acer macrophyllum - pseudotsuga menziesii / corylus cornuta / hydrophyllum tenuipes forest</i>	Bigleaf maple - douglas-fir / beaked hazel / slender-stem waterleaf	G3	
<i>Quercus garryana / symphoricarpos albus / polystichum munitum forest</i>	Oregon white oak / common snowberry / common snowberry	G2	
Species			
Birds			
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	G5	PS
Herpetofauna			
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C

SO-7550

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Birds			
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	

SO-7564

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-7570

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	

SO-7578

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	

Species**Birds**

<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C
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SO-7602

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	

Species**Fishes**

<i>Oregonichthys crameri</i>	Oregon chub	G2	
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Vascular Plants

<i>Delphinium oregonum</i>	Larkspur	G1	
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SO-7611

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds**

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
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Vascular Plants

<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT
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<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
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SO-7612

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Vernal pools	GU	
<u>Plant Communities</u>			
<i>Downingia elegans vernal pool herbaceous vegetation</i>	Common downingia vernal pool	G2	
<i>Eryngium petiolatum - lasthenia glaberrima herbaceous vegetation</i>	Coyote-thistle - smooth lasthenia	G1	
<i>Plagiobothrys figuratus vernal pool herbaceous vegetation</i>	Fragrant popcorn-flower	G1	
<u>Species</u>			
<u>Herpetofauna</u>			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
<u>Vascular Plants</u>			
<i>Agrostis microphylla</i>	Small-leaf bentgrass	G4	
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	G5	
<i>Epilobium torreyi</i>	Brook spike-primrose	G5	
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	
<i>Lasthenia glaberrima</i>	Smooth goldfields	G5	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Linum (sclerolinon) digynum</i>	Northwestern yellow-flax	G5	
<i>Mimulus tricolor</i>	Tricolor monkey-flower	G4	
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	
<i>Rotala ramosior</i>	Toothcup	G5	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
<i>Spiranthes porrifolia</i>	Western ladies-tresses	G4	
<i>Trichostema lanceolatum</i>	Vinegar weed	G5	
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5	
<i>Trifolium eriocephalum ssp. arcuatum</i>	Trifolium eriocephalum ssp. Arcuatum	G3	

SO-7626

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Oak woodlands	GU	

SO-7630

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Species</u>			
<u>Herpetofauna</u>			
<i>Batrachoseps wrighti</i>	Oregon slender salamander	G3	

SO-7633

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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Species**Herpetofauna**

<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
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SO-7639

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Ascaphus truei</i>	Tailed frog	G4	
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SO-7640

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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SO-7650

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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Species**Herpetofauna**

<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
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Mammals

<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	
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Vascular Plants

<i>Polygonum punctatum</i>	Dotted smartweed	G5	
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SO-7657

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Upland prairies and savannas	GU	
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SO-7664

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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Species**Birds**

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	
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SO-7665

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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Species**Birds***Various*

	Shorebird aggregations (non-marine)	GU	
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Herpetofauna*Clemmys marmorata marmorata*

	Northwestern pond turtle	G3	
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Contia tenuis

	Sharptail snake	G5	
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SO-7674

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Birds***Various*

	Shorebird aggregations (non-marine)	GU	
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SO-7676

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
	Freshwater marshes	GU	

SO-7684

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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Species**Birds***Various*

	Shorebird aggregations (non-marine)	GU	
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SO-7691

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Mollusks***Megomphix hemphilli*

	Oregon megomphix (snail)	G2	
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SO-7695

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	
Plant Communities			
<i>Quercus garryana / festuca roemeri wooded herbaceous vegetation</i>	Oregon white oak / roemer's fescue	G1	
Species			
Birds			
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C

SO-7701

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Progne subis</i>	Purple martin	G5	
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-7705

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Herbaceous balds and bluffs	GU	
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-7709

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	
Plant Communities			
<i>Pinus ponderosa - quercus garryana / festuca roemeri wooded herbaceous vegetation</i>	Ponderosa pine -oregon white oak / romer's fescue	G1	
Species			
Vascular Plants			
<i>Asclepias speciosa</i>	Showy milkweed	G5	
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-7723

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Insects			
<i>Mitoura johnsoni</i>	Johnson's hairstreak	G3	

SO-7734

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	

SO-7737

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Sphagnum bogs and fens	GU	
Species			
Herpetofauna			
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	G3	

SO-7741

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa - danthonia californica herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2	
Species			
Birds			
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	

SO-7742

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Plant Communities			
<i>Fraxinus latifolia / carex obnupta forest</i>	Oregon ash / slough sedge	G3	

SO-7743

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Birds			
<i>Ardea herodias</i>	Great blue heron	G5	

SO-7757

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Aster vialis</i>	Wayside aster	G2	
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-7761

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	G3	

SO-7765

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-7766

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Lupinus affinis</i>	Fleshy lupine	G5	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	

SO-7767

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-7769

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Rana aurora aurora*

Northern red-legged frog

G4

SO-7794

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Plant Communities*Deschampsia caespitosa - danthonia californica*
herbaceous vegetation

Tufted hairgrass - california oatgrass

G2

Species**Herpetofauna***Clemmys marmorata marmorata*

Northwestern pond turtle

G3

SO-7796

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Fishes***Oregonichthys crameri*

Oregon chub

G2

SO-7800

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Riparian forests and shrublands

GU

SO-7803

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Clemmys marmorata marmorata*

Northwestern pond turtle

G3

Mollusks*Megomphix hemphilli*

Oregon megomphix (snail)

G2

SO-7804

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna***Clemmys marmorata marmorata*

Northwestern pond turtle

G3

SO-7808

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Oak woodlands	GU	

SO-7809

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Riparian forests and shrublands	GU	

Plant Communities

<i>Acer macrophyllum</i> - <i>pseudotsuga menziesii</i> / <i>corylus cornuta</i> / <i>hydrophyllum tenuipes</i> forest	Bigleaf maple - douglas-fir / beaked hazel / slender-stem waterleaf	G3	
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> - <i>alnus rhombifolia</i> willamette forest	Black cottonwood - white alder	G1	

Species**Vascular Plants**

<i>Asclepias speciosa</i>	Showy milkweed	G5	
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	G5	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Trifolium dichotomum</i>	Branched Indian clover	G4?	

SO-7812

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Horkelia congesta</i> ssp. <i>congesta</i>	Shaggy horkelia	G2	

SO-7813

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Horkelia congesta</i> ssp. <i>congesta</i>	Shaggy horkelia	G2	
<i>Lupinus sulphureus</i> var. <i>kincaidii</i>	Kincaid's lupine	G2	LT

SO-7814

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa</i> - <i>danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2	

SO-7822

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	
<i>Contia tenuis</i>	Sharptail snake	G5	
Vascular Plants			
<i>Agrostis hallii</i>	Hall's bentgrass	G4	
<i>Aster vialis</i>	Wayside aster	G2	
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-7823

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Fishes			
<i>Oregonichthys crameri</i>	Oregon chub	G2	
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	

SO-7826

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Aster vialis</i>	Wayside aster	G2	
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-7834

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Asclepias speciosa</i>	Showy milkweed	G5	
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE

SO-7835

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	
Vascular Plants			
<i>Asclepias speciosa</i>	Showy milkweed	G5	
<i>Aster hallii</i>	Hall's aster	G4	
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	
<i>Blepharipappus scaber</i>	Rough eyelash-weed	G5	
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-7838

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Aster vialis</i>	Wayside aster	G2	
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE

SO-7840

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Plant Communities			
<i>Fraxinus latifolia / juncus patens forest</i>	Oregon ash / spreading rush	G2	

SO-7841

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa - danthonia californica herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2	

SO-7845

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Oak woodlands	GU	
	Wet prairies	GU	
Plant Communities			
<i>Deschampsia caespitosa - danthonia californica</i> <i>herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2	
Species			
Herpetofauna			
<i>Aneides ferreus</i>	Clouded salamander	G3	
Vascular Plants			
<i>Aster hallii</i>	Hall's aster	G4	
<i>Aster vialis</i>	Wayside aster	G2	
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	
<i>Cicendia quadrangularis</i>	Oregon microcala	G4	
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Geranium oreganum</i>	Oregon crane's-bill	G4	
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
<i>Sisyrinchium hitchcockii</i>	Hitchcock's blue-eye-grass	G1	

SO-7846

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	
<i>Lagophylla ramosissima</i>	Slender hareleaf	G5	
<i>Lupinus affinis</i>	Fleshy lupine	G5	

SO-7849

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Aster vialis</i>	Wayside aster	G2	

SO-7853

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Dry evergreen forests and woodlands	GU	
	Riparian forests and shrublands	GU	

SO-7856

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Vascular Plants			
<i>Asclepias speciosa</i>	Showy milkweed	G5	
<i>Aster hallii</i>	Hall's aster	G4	
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Polygonum punctatum</i>	Dotted smartweed	G5	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-7860

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	

SO-7899

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	

SO-7905

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Upland prairies and savannas	GU	

SO-7906

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	

SO-7909

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
	Herbaceous balds and bluffs	GU	

SO-7920

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland shrublands	GU	
Species			
<u>Vascular Plants</u>			
<i>Cypripedium montanum</i>	Mountain lady's-slipper	G4	
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT

SO-7921

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Aster vialis</i>	Wayside aster	G2	

SO-7926

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Eremocarpus setigerus</i>	Fishpoison	G5	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
<i>Viola hallii</i>	Hall's violet	G4	

SO-7928

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Herpetofauna</u>			
<i>Chrysemys picta</i>	Painted turtle	G5	
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
<u>Vascular Plants</u>			
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	

SO-7930

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
<u>Vascular Plants</u>			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-7931

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
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SO-7934

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	
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Dry evergreen forests and woodlands	GU	
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Species**Fishes**

<i>Oregonichthys crameri</i>	Oregon chub	G2	
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Vascular Plants

<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE
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SO-7935

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	
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Species**Birds**

<i>Ardea herodias</i>	Great blue heron	G5	
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SO-7936

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	
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SO-7938

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Fishes**

<i>Oregonichthys crameri</i>	Oregon chub	G2	
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SO-7941

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

Dry evergreen forests and woodlands	GU	
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SO-7945

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Depressional wetland broadleaf forests	GU	
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Species**Herpetofauna**

<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
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SO-7949

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Fishes**

<i>Oregonichthys crameri</i>	Oregon chub	G2	
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Vascular Plants

<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
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SO-7956

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Cypripedium montanum</i>	Mountain lady's-slipper	G4	
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SO-7959

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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<i>Cimicifuga elata</i>	Tall bugbane	G2	
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SO-7964

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Dry evergreen forests and woodlands	GU	
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SO-7976

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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<i>Cimicifuga elata</i>	Tall bugbane	G2	
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<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
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SO-7977

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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SO-7981

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Geranium oreganum</i>	Oregon crane's-bill	G4	
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<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
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<i>Prunus subcordata</i>	Klamath plum	G5	
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<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
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<i>Sisyrinchium hitchcockii</i>	Hitchcock's blue-eye-grass	G1	
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SO-7982

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Rana aurora aurora</i>	Northern red-legged frog	G4	
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SO-7985

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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<i>Cimicifuga elata</i>	Tall bugbane	G2	
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SO-7989

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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SO-7990

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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Species**Vascular Plants**

<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU	
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SO-8002

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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SO-8004

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Aster vialis</i>	Wayside aster	G2	
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SO-8015

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Vascular Plants**

<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	
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SO-8023

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Species**Herpetofauna**

<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
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SO-8024

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Herbaceous balds and bluffs	GU	
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SO-8031

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
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Terrestrial Ecological Systems

	Upland prairies and savannas	GU	
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Plant Communities

<i>Festuca roemerii</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	
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Species**Mammals**

<i>Odocoileus virginianus leucurus</i>	Columbian white-tailed deer	G2	
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SO-8032

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Aster vialis</i>	Wayside aster	G2	

SO-8033

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	

SO-8042

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Wet prairies	GU	
Species			
<u>Herpetofauna</u>			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
<u>Vascular Plants</u>			
<i>Aster hallii</i>	Hall's aster	G4	
<i>Aster vialis</i>	Wayside aster	G2	
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	

SO-8044

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
<u>Terrestrial Ecological Systems</u>			
	Douglas fir - western hemlock - western redcedar forests	GU	

SO-8050

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
<u>Vascular Plants</u>			
<i>Aster vialis</i>	Wayside aster	G2	

SO-8059

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Herpetofauna			
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	G3	
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	

SO-8072

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Fishes			
<i>Oregonichthys crameri</i>	Oregon chub	G2	

SO-8085

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Depressional wetland broadleaf forests	GU	
Species			
Fishes			
<i>Oregonichthys crameri</i>	Oregon chub	G2	
Vascular Plants			
<i>Marsilea vestita</i>	Hairy water-fern	G5	

SO-8086

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Terrestrial Ecological Systems			
	Herbaceous balds and bluffs	GU	
Species			
Vascular Plants			
<i>Linaria canadensis var texana</i>	Texas toadflax	G4	

SO-8107

Targets found in this Assessment Unit

<u>Scientific Name</u>	<u>Common Name</u>	<u>Rank</u>	<u>Listing</u>
Species			
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	
Vascular Plants			
<i>Aster vialis</i>	Wayside aster	G2	

Notes:

All data, including ranks and listed status, were current as of September 2001.

Legend::

Global Rank:

The relative rarity or endangerment of the target world-wide.

G1 = Critically imperiled globally.

G2 = Imperiled globally.

G3 = Either very rare and local throughout its range or found locally in a restricted range.

n/a = Not available (ranks have not been developed for ecological systems targets).

Two codes (e.g. G1G2) represent an intermediate rank.

Listing:

Listed federal status of the taxon under the U.S. Endangered Species Act (USES A).

LE = Listed Endangered

LT = Listed Threatened

C = Candidate

Appendix 21a. Summaries of Terrestrial and Marine Priority Conservation Areas in the Willamette Valley - Puget Trough - Georgia Basin Ecoregion

Active Pass

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	3,180 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	7,855 ac	22.0 km	Agriculture	0 %	1	1 %	4	61 %
			Developed	14 %	2	0 %	5	38 %
			Undeveloped	47 %	3	0 %		
			Marine/Freshwater	39 %				
Ownership / Management	% of Area							
BC Parks	<5 %							
Regional District Nature Appreciation Trust	<5 %							

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Herbaceous balds and bluffs	GU	B
Oak woodlands (ranked occurrences)	GU	B

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Rock cliff / Vegetated	n/a	
Rock platform / Unvegetated	n/a	
Rock platform / Vegetated	n/a	
Rock with sand and/or gravel beach / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
Sand beach / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Plant Communities

<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1	B
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2	C
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	B

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Gavia spp</i>	Loons	GU	

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	K
Mammals			
<i>Orcinus orca</i>	Killer whale	G4	
Vascular Plants			
<i>Crassula connata</i>	Pygmy-weed	G5	K
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	K
<i>Meconella oregana</i>	White meconella	G2	K
<i>Potamogeton oakesianus</i>	Oakes pondweed	G4	K

Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Residential development		High (present or likely within 4 years)	High
Invasive species		High (present or likely within 4 years)	High
Forestry practices		High (present or likely within 4 years)	High
Grazing practices		Medium (likely within 5 to 10 years)	High
Fire management		Medium (likely within 5 to 10 years)	High
<u>Marine</u>			
Roads and/or utilities		High (present or likely within 4 years)	Medium
Recreational use		High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting		High (present or likely within 4 years)	High

Airlie Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
1,464 ha	km	Agriculture 63 %	1	0 %	4 100 %
3,616 ac		Developed 1 %	2	0 %	5 0 %
Ownership / Management	% of Area	Undeveloped 36 %	3	0 %	
		Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	

Species

Birds

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
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Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Amity Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area: 949 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
2,344 ac	km	Agriculture 31 %	1 0 % 4 100 %
		Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 69 %	3 0 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU

Freshwater Ecological Systems

Coast Range medium river - sedimentary, low elevation	n/a
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Species

Birds

Eremophila alpestris strigata Streaked horned lark G2 C K

Herpetofauna

Contia tenuis Sharptail snake G5 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Anderson Beach

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	105 ha	<u>Marine Shoreline</u>
	259 ac	6.2 km
<u>Ownership / Management</u>	<u>% of Area</u>	
BC Parks	<5 %	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>			
Agriculture	0 %	1	0 %	4	3 %
Developed	0 %	2	0 %	5	96 %
Undeveloped	0 %	3	0 %		
Marine/Freshwater	100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated n/a

Rock with sand and/or gravel beach / Unvegetated n/a

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation n/a

Species

Fishes

Clupea pallasii Pacific herring spawning G?

Sebastes caurinus Copper rockfish G?

Sebastes maliger Quillback rockfish G?

Sebastes nigrocinctus Tiger rockfish G?

Mammals

Orcinus orca Killer whale G4

Phocoena phocoena Pacific harbor porpoise G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Recreational use Low (not likely within 10 years) Low

Bald Hill

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	3,404 ha	<u>Marine Shoreline</u>
	8,408 ac	km
<u>Ownership / Management</u>	<u>% of Area</u>	
Department of Natural Resources	<5 %	
Washington Parks and Recreation Co	<5 %	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>			
Agriculture	0 %	1	4 %	4	93 %
Developed	10 %	2	4 %	5	0 %
Undeveloped	89 %	3	0 %		
Marine/Freshwater	1 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands GU B

Douglas fir - western hemlock - western redcedar forests GU

Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater aquatic beds	GU	B
Freshwater marshes	GU	A
Herbaceous balds and bluffs	GU	A
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a	
Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a	
South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a	

Plant Communities

<i>Carex cusickii</i> - (<i>menyanthes trifoliata</i>) herbaceous vegetation	Cusick's sedge - (buckbean)	G2	A
<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1	A
<i>Pseudotsuga menziesii</i> / <i>gaultheria shallon</i> - <i>holodiscus discolor</i> forest	Douglas-fir / salal - oceanspray	G2	B
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	B

Species

Insects

<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	C
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5	C
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4	C

Vascular Plants

<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	B
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Carex comosa</i>	Bristly sedge	G5	K
<i>Delphinium nuttallii</i>	Upland larkspur	G4	K
<i>Epilobium torreyi</i>	Brook spike-primrose	G5	C
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	B
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	C
<i>Poa howellii</i>	Howell's bluegrass	G4	D
<i>Polystichum californicum</i>	California sword-fern	G4	K
<i>Sanicula crassicaulis var tripartita</i>	Cutleaf pacific sanicle	G5	C
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5	D
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Recreational vehicles	High (present or likely within 4 years)	Medium

Recreational use	High (present or likely within 4 years)	Medium
Parasites/pathogens	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Bangor

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,616 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,992 ac	5.0 km	Agriculture 0 %	1 0 % 4 5%
			Developed 12 %	2 0 % 5 10%
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 78 %	3 85 %
US Dept. of Defense		85 %	Marine/Freshwater 10 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Sphagnum bogs and fens	GU	C

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

	Dabbling ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Herpetofauna

<i>Rana aurora aurora</i>	Northern red-legged frog	G4	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Commercial/industrial development	High (present or likely within 4 years)	High

<u>Marine</u>	Invasive species	Medium (likely within 5 to 10 years)	Medium
	Shoreline stabilization	High (present or likely within 4 years)	High
	Poaching or commercial collecting	High (present or likely within 4 years)	Medium
	Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
	Military activities	High (present or likely within 4 years)	Medium
	Management of/for certain species	High (present or likely within 4 years)	Medium
	Forestry practices	High (present or likely within 4 years)	Medium
	Collateral damage from fishing	High (present or likely within 4 years)	Low
	Aquaculture	High (present or likely within 4 years)	Low
	Unknown source of water pollution	Low (not likely within 10 years)	High
	Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
	Residential development	Medium (likely within 5 to 10 years)	Medium

Banks Swamp

Section: Lower ColumbiaArea Type: Terrestrial

Area:	231 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	571 ac	km	Agriculture 70 %	1	0 %	4 100 %
			Developed 1 %	2	0 %	5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 21 %	3	0 %	
			Marine/Freshwater 6 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

Freshwater Ecological Systems

Coast Range small river - basalt, low elevation	n/a
Foothills tributaries - basalt, low to mid elevation	n/a

Plant Communities

<i>Salix geyeriana</i> - <i>salix hookeriana</i> ssp <i>piperi</i> shrubland	Geyer willow - piper willow	G1	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	Low (not likely within 10 years)	Medium

Basket Butte

Section: Willamette ValleyArea Type: Terrestrial

Basket Butte

continued from previous page

Area:	5,618 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	13,876 ac	km	Agriculture	81 %	1	0 %	4	81 %
			Developed	0 %	2	19 %	5	0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped	18 %	3	0 %		
US Fish and Wildlife Service		17 %	Marine/Freshwater	1 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient n/a

Plant Communities

<i>Festuca roemerii</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	C
<i>Quercus garryana</i> / <i>festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	C
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>polystichum munitum</i> forest	Oregon white oak / common snowberry / common snowberry	G2	C

Species**Birds**

<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	A
<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2	C
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	K
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C K
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	H
Various	Shorebird aggregations (non-marine)	GU	K

Herpetofauna

Contia tenuis Sharptail snake G5 C

Insects

Icaricia icarioides fenderi Fender's blue G1 A

Vascular Plants

<i>Asclepias speciosa</i>	Showy milkweed	G5	K
<i>Aster hallii</i>	Hall's aster	G4	B
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	C
<i>Camassia quamash</i> ssp. <i>maxima</i>	Common Camas	G5	K
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	K
<i>Clarkia purpurea</i> ssp. <i>viminea</i>	Large clarkia	G3	K
<i>Erigeron decumbens</i> var. <i>decumbens</i>	Willamette valley daisy	G1	LE B
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	B
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	K

Basket Butte

continued from previous page

<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4		K
<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	G5		C
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	C
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		K
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		K
<i>Trifolium dichotomum</i>	Branched Indian clover	G4?		K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	Low (not likely within 10 years)	Medium

Black Diamond Lake

Section: Puget Trough

Area Type: Terrestrial

Area: 749 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
1,850 ac	km	Agriculture 0 %	1	0 %	4 100 %
		Developed 3 %	2	0 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 94 %	3	0 %	
		Marine/Freshwater 2 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Sphagnum bogs and fens	GU	B

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a	
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Plant Communities

<i>Tsuga heterophylla / sphagnum spp. forest</i>	Western hemlock - (western redcedar) / peat moss	G1		B
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High

Channelization of rivers or streams	Low (not likely within 10 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	High

Black River - Mima Prairie

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	7,049 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	17,411 ac	km	Agriculture 14 %	1 3 % 4 78 %
			Developed 2 %	2 8 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 75 %	3 12 %
Department of Natural Resources		14 %	Marine/Freshwater 8 %	
Preserve		<5 %		
Washington Department of Fish and		<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	C
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	K
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Upland prairies and savannas	GU	B

Freshwater Ecological Systems

Chehalis headwater small rivers - outwash, low elevation, low gradient	n/a	
Chehalis River medium river - sandstone, low elevation, low gradient	n/a	
Puget lowlands - outwash, low elevation, moderate gradients	n/a	
Puget lowlands - glacial till, low elevation, moderate gradients	n/a	
Willapa headwaters - mid elevations, high gradients	n/a	

Plant Communities

<i>Festuca roemerii</i> - aster curtus herbaceous vegetation	Roemer's fescue - white-topped aster	G1	B
<i>Quercus garryana</i> - (<i>fraxinus latifolia</i>) / <i>symphoricarpos albus</i> forest	Oregon white oak - (oregon ash) / common snowberry	G2	C

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	D

Fishes

<i>Lampetra tridentata</i>	Pacific lamprey	G5	C
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Herpetofauna

<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A
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Black River - Mima Prairie

continued from previous page

<i>Rana pretiosa</i>	Oregon spotted frog	G2	C	A
<u>Insects</u>				
<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1		D
<i>Euphyes vestris vestris</i>	Dun skipper	G3		C
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5		B
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4		B
<u>Vascular Plants</u>				
<i>Aster curtus</i>	White-topped aster	G3		K
<i>Carex comosa</i>	Bristly sedge	G5		K
<i>Delphinium nuttallii</i>	Upland larkspur	G4		K
<i>Trillium parviflorum</i>	Small-flowered trillium	G2		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Grazing practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Low
Small population size and distribution	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High
Groundwater manipulation	Medium (likely within 5 to 10 years)	Low

Blackjack-Harewood

Section: Georgia Basin

Area Type: Terrestrial

Area: 8,996 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
22,220 ac	km	Agriculture 1 %	1 0 % 4 89 %
		Developed 5 %	2 0 % 5 0 %
Ownership / Management	% of Area	Undeveloped 93 %	3 11 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B

Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	B
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	K
Vernal pools	GU	B

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a
Coastal rivers - calcareous to granite transition, low to high elevation, mixed gradient	n/a
Mountain headwaters - granitic, mid to high elevation, steep gradients	n/a

Plant Communities

<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1	C
<i>Plagiobothrys scouleri</i> - <i>plantago bigelovii</i> herbaceous vegetation	Scouler's popcornflower - annual coastal plantain	G2	B

Species

Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3	D
<i>Botrychium simplex</i>	Least grape-fern	G5	D
<i>Lotus pinnatus</i>	Bog bird's-foot-trefoil	G5	A
<i>Malaxis brachypoda</i>	White adder's-mouth	G4	K
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Recreational vehicles	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium
Operation of dams or reservoirs	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium
Channelization of rivers or streams	Medium (likely within 5 to 10 years)	Medium

Blake Island

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area: 183 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
452 ac	4.7 km	Agriculture 0 %	1 0 % 4 0 %
		Developed 0 %	2 100 % 5 0 %
Ownership / Management	% of Area	Undeveloped 93 %	3 0 %
Washington Parks and Recreation Co	99 %	Marine/Freshwater 6 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass n/a
Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel flat / Kelp and seagrass n/a
Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Kelp and seagrass n/a
Phyllospadix/Zostera Sand beach / Seagrass n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Saltmarsh and subtidal vegetation n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Parasites/pathogens High (present or likely within 4 years) Low
 Fire management Low (not likely within 10 years) Medium
 Recreational infrastructure development Low (not likely within 10 years) Medium

Marine

Recreational use High (present or likely within 4 years) Low
 Channelization of rivers or streams High (present or likely within 4 years) High
 Collateral damage from fishing High (present or likely within 4 years) Low
 Industrial discharge High (present or likely within 4 years) Medium
 Invasive species High (present or likely within 4 years) Low
 Management of/for certain species High (present or likely within 4 years) Medium
 Overfishing, overhunting, over collecting High (present or likely within 4 years) High
 Aquaculture High (present or likely within 4 years) Low
 Point source water pollution High (present or likely within 4 years) Medium
 Residential development High (present or likely within 4 years) High
 Unknown source of water pollution High (present or likely within 4 years) Medium
 Wastewater treatment High (present or likely within 4 years) Medium
 Poaching or commercial collecting High (present or likely within 4 years) Medium
 Shoreline stabilization Medium (likely within 5 to 10 years) High

Blakely Island

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	1,684 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,159 ac	km	Agriculture 0 %	1 0 % 4 95 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 4 %	2 0 % 5 0 %
Department of Natural Resources	<5 %		Undeveloped 89 %	3 5 %
			Marine/Freshwater 7 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Blakely Island

continued from previous page

Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	K

Freshwater Ecological Systems

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a	
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Plant Communities

Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest

Douglas-fir / salal - oceanspray	G2	B
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Blaney Bog

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 764 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
1,887 ac	km	Agriculture 78 %	1 0 % 4 100 %
		Developed 9 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 14 %	3 0 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	B
Sphagnum bogs and fens	GU	B

Freshwater Ecological Systems

Lower Fraser River tributaries headwaters - granitic, low elevation, low to moderate gradient	n/a	
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	High

Bowyer Island

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	165 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	408 ac	4.1 km	Agriculture	0 %	1	0 %	4	10 %
			Developed	0 %	2	0 %	5	89 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	0 %	3	0 %		
			Marine/Freshwater	100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Fishes

<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
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Brisco Point, South Hartstene Island

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	446 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	1,102 ac	km	Agriculture	0 %	1	0 %	4	16 %
			Developed	0 %	2	0 %	5	70 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	0 %	3	14 %		
			Marine/Freshwater	100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Species

Brisco Point, South Hartstene Island continued from previous page

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Other Invertebrates

<i>Tritonia diomedea</i>	Rosy tritonia	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Buccaneer Bay

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 1,519 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
3,752 ac	15.0 km	Agriculture 0 %	1 12 % 4 79 %
Ownership / Management	% of Area	Developed 11 %	2 0 % 5 9 %
BC Parks	12 %	Undeveloped 75 %	3 0 %
		Marine/Freshwater 13 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation
	n/a

Species

<u>Birds</u>			
<i>Ardea herodias</i>	Great blue heron	G5	K
<u>Fishes</u>			
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<u>Mammals</u>			
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Forestry practices	High (present or likely within 4 years)	Medium	
Recreational infrastructure development	Low (not likely within 10 years)	Low	
Operation of dams or reservoirs	Low (not likely within 10 years)	Low	
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Low	
Channelization of rivers or streams	Low (not likely within 10 years)	Low	
Invasive species	Medium (likely within 5 to 10 years)	Medium	
<u>Marine</u>			
Marina development	Low (not likely within 10 years)	Medium	
Residential development	Medium (likely within 5 to 10 years)	Medium	
Recreational use	Medium (likely within 5 to 10 years)	Low	

Buckley Hills

Section: <u>Puget Trough</u>		Area Type: <u>Terrestrial</u>		
Area:	4,426 ha	Marine Shoreline	Land Use/Land Cover	
	10,932 ac	km	Agriculture	0 %
Ownership / Management	% of Area		Developed	16 %
Other	6 %		Undeveloped	82 %
			Marine/Freshwater	1 %
			GAP Management Status	
			1	0 %
			2	0 %
			3	8 %
			4	92 %
			5	0 %

Targets known in this Conservation Area:		(Common Name)	(GRank)	(Listing)	(EORank)
<u>Terrestrial Ecological Systems</u>					
		Coniferous forested wetlands	GU		C
		Depressional wetland shrublands	GU		B
		Douglas fir - western hemlock - western redcedar forests	GU		
		Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU		C
		Dry evergreen forests and woodlands	GU		
		Freshwater marshes	GU		B
		Riparian forests and shrublands	GU		
<u>Freshwater Ecological Systems</u>					
		Cascades headwaters - basalt and volcanics, high elevation, moderate to high gradient, glacier influence	n/a		
		Cascades headwaters - mafic, mid elevation, mixed gradient	n/a		

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium
Ditches, dikes, drainages and diversions	Medium (likely within 5 to 10 years)	Medium

Budd Inlet

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>			
254 ha	12.6 km	Agriculture 0 %	1	0 %	4	21 %
627 ac		Developed 0 %	2	0 %	5	78 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 0 %	3	1 %		
County Government	<5 %	Marine/Freshwater 100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Budd Inlet

continued from previous page

<i>Sebastes caurinus</i>	Copper rockfish	G?
<u>Molluscs</u>		
<i>Crassedoma giganteum</i>	Rock scallop	G?
<i>Ostrea lurida</i>	Olympia oyster	G?
<u>Other Invertebrates</u>		
<i>Cancer magister</i>	Dungeness crab	G?
<i>Tritonia diomedea</i>	Rosy tritonia	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Buell

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	160 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	395 ac	km	Agriculture 81 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %	2 0 % 5 0 %
			Undeveloped 17 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU
Riparian forests and shrublands	GU

Species

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5	K
<i>Contia tenuis</i>	Sharptail snake	G5	n/a

Insects

<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	C
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Vascular Plants

<i>Isopyrum stipitatum</i>	Siskiyou rue-anemone	G4	C
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	K

<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	C
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Burn's Bog

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	3,324 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	8,210 ac	km	Agriculture 25 %	1 0 % 4 100 %
			Developed 33 %	2 0 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 42 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	C
Sphagnum bogs and fens	GU	A

Freshwater Ecological Systems

Fraser River mainstem - predominantly granite watershed, low elevation, low gradient	n/a
Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	High
Landfill construction or operation	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium

Invasive species Medium (likely within 5 to 10 years) Medium

Camano Head

<u>Section:</u> Puget Trough		<u>Area Type:</u> Terrestrial		
<u>Area:</u>	44 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	109 ac	km	Agriculture 0 %	1 0 % 4 100 %
			Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 59 %	3 0 %
			Marine/Freshwater 41 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Plant Communities

Acer macrophyllum - alnus rubra / polystichum munitum - tellima grandiflora forest

Bigleaf maple - red alder / swordfern - fringecup G2 B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Shoreline stabilization	Medium (likely within 5 to 10 years)	Low
Operation of drainage or diversion systems	Medium (likely within 5 to 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Medium

Camas Swale BLM RNA

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial		
<u>Area:</u>	81 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	200 ac	km	Agriculture 0 %	1 0 % 4 81 %
			Developed 0 %	2 6 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 100 %	3 11 %
US Bureau of Land Management	86 %		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Dry evergreen forests and woodlands (ranked occurrences) GU B
 Herbaceous balds and bluffs GU D
 Riparian forests and shrublands GU

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation n/a

Valley/foothill tributaries - volcanics, mid elevation n/a

Species

Vascular Plants

<i>Agrostis hallii</i>	Hall's bentgrass	G4	K
<i>Aster vialis</i>	Wayside aster	G2	D
<i>Calycadenia truncata</i>	Oregon western rosin-weed	G4	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Camas Swale Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area: 1,863 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
4,602 ac	km	Agriculture 55 %	1	0 %	4 100 %
		Developed 0 %	2	0 %	5 0 %
Ownership / Management	% of Area	Undeveloped 44 %	3	0 %	
		Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Species

Birds

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
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Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High

Parasites/pathogens Medium (likely within 5 to 10 years) High

Camas Swale Wetlands

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	878 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	2,169 ac	km	Agriculture 96 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %
			Undeveloped 3 %
			Marine/Freshwater 0 %

GAP Management Status

1	0 %	4	100 %
2	0 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Species

Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Vascular Plants

Aster curtus White-topped aster G3 D
Erigeron decumbens var decumbens Willamette valley daisy G1 LE D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Landfill construction or operation	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	Medium

Camassia

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	18 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	44 ac	km	Agriculture 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 58 %
Preserve		68 %	Undeveloped 39 %
			Marine/Freshwater 0 %

GAP Management Status

1	0 %	4	99 %
2	0 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Lower Willamette River mainstem	n/a	
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Species

Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3	D
<i>Aster hallii</i>	Hall's aster	G4	K
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	A
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	K
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	C
<i>Epilobium torreyi</i>	Brook spike-primrose	G5	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	K
<i>Galium mexicanum ssp asperulum</i>	Rough bedstraw	G5	K
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	K
<i>Linaria canadensis var texana</i>	Texas toadflax	G4	K
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	K
<i>Minuartia pusilla</i>	Dwarf stitchwort	G5	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium

Camp Creek Ridge

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	578 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,428 ac	km	Agriculture 4 %	1 0 % 4 100 %
			Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 96 %	3 0 %
US Bureau of Land Management	<5 %		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU

	Riparian forests and shrublands	GU	
	Upland prairies and savannas	GU	C
Freshwater Ecological Systems			
	Cascade medium river - volcanic, low to mid elevation	n/a	
	Cascade/foothill small river - volcanic, low to mid elevation	n/a	
Plant Communities			
<i>Pinus ponderosa - quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Ponderosa pine -oregon white oak / romer's fescue	G1	C
Species			
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	n/a
Vascular Plants			
<i>Cimicifuga elata</i>	Tall bugbane	G2	D
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial			
Residential development	High (present or likely within 4 years)	Medium	
Invasive species	High (present or likely within 4 years)	High	
Grazing practices	High (present or likely within 4 years)	Low	
Forestry practices	High (present or likely within 4 years)	High	
Fire management	High (present or likely within 4 years)	Medium	
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High	
Parasites/pathogens	Medium (likely within 5 to 10 years)	High	

Camp Wesley Harris

Section: Puget Trough		Area Type: Terrestrial			
Area:	843 ha 2,082 ac	Marine Shoreline	km	Land Use/Land Cover	GAP Management Status
Ownership / Management	% of Area	Undeveloped	88 %	3	61 %
Department of Natural Resources	47 %	Developed	9 %	2	0 %
US Dept. of Defense	15 %	Agriculture	0 %	1	0 %
		Marine/Freshwater	2 %	4	38 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	D
	Dry evergreen forests and woodlands	GU	
	Sphagnum bogs and fens	GU	C
Freshwater Ecological Systems			
	Hood Canal coastal streams	n/a	
	Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a	

Camp Wesley Harris

continued from previous page

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Parasites/pathogens	High (present or likely within 4 years)	Low
Military activities	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Medium

Campbell Creek

Section: Puget Trough

Area Type: Terrestrial

Area: 639 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
1,578 ac	km	Agriculture 0 %	1 0 %	4 100 %
		Developed 2 %	2 0 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 96 %	3 0 %	
		Marine/Freshwater 2 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Fishes

Novumbra hubbsi

Olympic mudminnow	G3	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	Low (not likely within 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Capsante, Fidalgo Island

Section: Georgia Basin

Area Type: Nearshore Marine

Capsante, Fidalgo Island *continued from previous page*

<u>Area:</u>	67 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	165 ac	1.8 km	Agriculture	0 %	1 0 %	4 29 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	0 %	2 0 %	5 71 %
			Undeveloped	0 %	3 0 %	
			Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated n/a

Rock platform / Unvegetated n/a

Sand and gravel beach / Unvegetated n/a

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation n/a

Species

Birds

Diving ducks/bay ducks G5

Brachyramphus marmoratus Marbled murrelet - marine G3

Gavia spp Loons GU

Melanitta spp Scoters GU

Fishes

Clupea pallasii Pacific herring spawning G?

Hypomesus pretiosus Surf smelt spawning G?

Mammals

Orcinus orca Killer whale G4

Other Invertebrates

Cancer magister Dungeness crab G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Point source water pollution	Medium (likely within 5 to 10 years)	High

Carbon River Plateau

Section: Puget Trough

Area Type: Terrestrial

Area:	2,987 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	7,378 ac	km	Agriculture	0 %	1 0 %	4 100 %
Ownership / Management	% of Area		Developed	9 %	2 0 %	5 0 %
			Undeveloped	89 %	3 0 %	
			Marine/Freshwater	1 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High

Cedar Creek

Section: Lower Columbia

Area Type: Terrestrial

Area:	3,271 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	8,079 ac	km	Agriculture	13 %	1 0 %	4 96 %
Ownership / Management	% of Area		Developed	0 %	2 0 %	5 0 %
US Bureau of Land Management	<5 %		Undeveloped	87 %	3 4 %	
			Marine/Freshwater	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Species

Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	D
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

Cedar River

Section: Puget Trough

Area Type: Terrestrial

Area:	4,785 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	11,819 ac	km	Agriculture 0 %	1 0 % 4 10 %
Ownership / Management	% of Area		Developed 3 %	2 0 % 5 0 %
City	<5 %		Undeveloped 97 %	3 90 %
City	89 %		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a
Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a

Species

Herpetofauna

<i>Ascaphus truei</i>	Tailed frog	G4	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

Central Texada Island

Section: Georgia Basin

Area Type: Terrestrial

Central Texada Island

continued from previous page

<u>Area:</u>	12,589 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	31,095 ac	km	Agriculture 0 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
			Undeveloped 99 %	3 0 %
			Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Species

Other Invertebrates

<i>Oeneis nevadensis gigas</i>	Greater arctic	G5	K
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Vascular Plants

<i>Botrychium ascendens</i>	Upward-lobed moonwort	G2	A
<i>Botrychium simplex</i>	Least grape-fern	G5	A
<i>Hypericum scouleri ssp nortoniae</i>	Western st. john's-wort	G5	B
<i>Malaxis brachypoda</i>	White adder's-mouth	G4	D
<i>Ophioglossum pusillum</i>	Adder's tongue	G5	A
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	Medium (likely within 5 to 10 years)	High
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Champoeg State Park

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	114 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	282 ac	km	Agriculture 59 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
Oregon State	99 %		Undeveloped 34 %	3 0 %
			Marine/Freshwater 7 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Oak woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Willamette River mainstem	n/a
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Species

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5	K
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Vascular Plants

<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	A
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<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB	C
Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Recreational use	High (present or likely within 4 years)	Low	
Recreational infrastructure development	High (present or likely within 4 years)	Medium	
Invasive species	High (present or likely within 4 years)	Medium	
Fire management	High (present or likely within 4 years)	Medium	
Crop production practices	High (present or likely within 4 years)	Low	

Chemainus

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,683 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,157 ac	34.7 km	Agriculture 32 %	1 0 % 4 47 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 5 %	2 0 % 5 1 %
Parks Canada	<5 %		Undeveloped 56 %	3 51 %
Trust	13 %		Marine/Freshwater 7 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Freshwater marshes	GU	K
Intertidal salt marshes	GU	C
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

Mud flat / Unvegetated	n/a
Rock cliff / Vegetated	n/a
Rock platform / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a
Coastal rivers - sedimentary to granite, low to mid elevation, mixed gradient	n/a

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	K
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Chemainus

continued from previous page

Seabird nesting colonies	Seabird nesting colonies	GU
Fishes		
<i>Clupea pallasii</i>	Pacific herring spawning	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium
Livestock production practices	Medium (likely within 5 to 10 years)	Medium

Marine

Roads and/or utilities	High (present or likely within 4 years)	Low
Point source water pollution	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	Medium

Cherry Point

Section: Puget Trough

Area Type: Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
3,248 ha		Agriculture 0 %	1	0 %	4	1 %
8,023 ac	12.5 km	Developed 0 %	2	32 %	5	65 %
Ownership / Management	% of Area	Undeveloped 0 %	3	2 %		
Tribal	<5 %	Marine/Freshwater 100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU

<i>Haematopus bachmani</i> , <i>Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<u>Fishes</u>		
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<u>Mammals</u>		
<i>Orcinus orca</i>	Killer whale	G4
<u>Other Invertebrates</u>		
<i>Cancer magister</i>	Dungeness crab	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine		
Wastewater treatment	High (present or likely within 4 years)	Medium
Small population size and distribution	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Low
Grazing practices	High (present or likely within 4 years)	Low
Commercial/industrial development	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium

Chimacum Forest

Section: Puget Trough

Area Type: Terrestrial

Area: 2,538 ha Marine Shoreline
6,269 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management % of Area

Department of Natural Resources 7 %
Washington Parks and Recreation Co <5 %

Agriculture 1 %
Developed 6 %
Undeveloped 92 %
Marine/Freshwater 1 %

1 0 % 4 88 %
2 4 % 5 0 %
3 7 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient n/a

Chimacum Forest

continued from previous page

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Chuckanut Mountain

Section: Puget Trough

Area Type: Terrestrial

Area: 3,694 ha Marine Shoreline
9,124 ac km

Land Use/Land Cover

GAP Management Status

<u>Ownership / Management</u>	<u>% of Area</u>
City	<5 %
County Government	12 %
Department of Natural Resources	41 %
Washington Department of Fish and	<5 %
Washington Parks and Recreation Co	27 %

Agriculture	0 %	1	0 %	4	22 %
Developed	2 %	2	37 %	5	0 %
Undeveloped	98 %	3	41 %		
Marine/Freshwater	0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	K

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a	
Northern Cascades headwaters - sandstone, moderate to high elevation, moderate to high gradient	n/a	
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a	

Species

Mammals

Corynorhinus townsendii townsendii Townsend's western big-eared bat G4 C

Non-Vascular - Lichen

Cystocoleus ebeneus Cystocoleus ebeneus G? K

Vascular Plants

Erythronium oregonum ssp oregonum Giant white fawnlily G5 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	Medium (likely within 5 to 10 years)	Low
Roads and/or utilities	Medium (likely within 5 to 10 years)	Low

Residential development	Medium (likely within 5 to 10 years)	Low
Recreational use	Medium (likely within 5 to 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	High
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Clackamas

Section: Lower Columbia

Area Type: Terrestrial

<u>Area:</u> 8,330 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
20,575 ac	km	Agriculture 20 %	1 0 % 4 96 %
		Developed 5 %	2 2 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 73 %	3 2 %
Oregon Parks and Recreation	<5 %	Marine/Freshwater 2 %	
Oregon State	<5 %		
US Bureau of Land Management	5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Cascade small rivers - volcanic, transitional elevation, transitional gradient	n/a	
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Species

Birds

<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	K
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Mammals

<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4		A
Various	Bat roost sites	GU		A

Vascular Plants

<i>Delphinium leucophaeum</i>	White-rock larkspur	G2		D
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High

Forestry practices

Medium (likely within 5 to 10 years)

Medium

Clear Creek

Section: Lower Columbia

Area Type: Terrestrial

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
7,148 ha		Agriculture 20 %	1	0 %	4	91 %
17,656 ac	km	Developed 3 %	2	0 %	5	0 %
Ownership / Management	% of Area	Undeveloped 77 %	3	9 %		
US Bureau of Land Management	10 %	Marine/Freshwater 0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	C
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Cascade small rivers - volcanic, transitional elevation, transitional gradient	n/a	
Cascade tributaries - volcanics, high/mid elevation, low gradient	n/a	
Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient	n/a	

Species

Birds

<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	D
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	C
<i>Senecio hydrophilus</i>	Great swamp ragwort	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Cloquallum

Cloquallum

continued from previous page

Section: Puget Trough

Area Type: Terrestrial

Area: 3,618 ha Marine Shoreline
8,936 ac km
Ownership / Management % of Area

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>		
Agriculture	0 %	1	0 %	4 100 %
Developed	11 %	2	0 %	5 0 %
Undeveloped	87 %	3	0 %	
Marine/Freshwater	2 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	C
Freshwater marshes	GU	C
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Coastal upland - glacial till, low elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Low (not likely within 10 years)	Medium
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Medium

Coal Creek Forest

Section: Lower Columbia

Area Type: Terrestrial

Area: 942 ha Marine Shoreline
2,327 ac km
Ownership / Management % of Area
Department of Natural Resources <5 %

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>		
Agriculture	0 %	1	0 %	4 99 %
Developed	4 %	2	0 %	5 0 %
Undeveloped	96 %	3	1 %	
Marine/Freshwater	0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
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Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low

Coast Fork/Middle Fork Willamette Riparian

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	5,437 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	13,429 ac	km	Agriculture 54 %	1 0 % 4 94 %
			Developed 2 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 35 %	3 6 %
Corps of Engineers	<5 %		Marine/Freshwater 9 %	
County Government	<5 %			
Oregon State	6 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Herbaceous balds and bluffs	GU	B
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation	n/a
Valley/foothill tributaries - volcanics, mid elevation	n/a

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	K
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Fishes

<i>Oregonichthys crameri</i>	Oregon chub	G2	A
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Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5	K
<i>Contia tenuis</i>	Sharptail snake	G5	n/a

Vascular Plants

<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	C
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE C
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4	C
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	D

Coast Fork/Middle Fork Willamette continued from previous page

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<u>Terrestrial</u>		
Shoreline stabilization	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Coburg Ridge

Section: <u>Willamette Valley</u>		Area Type: <u>Terrestrial</u>	
<u>Area:</u>	2,018 ha	<u>Marine Shoreline</u>	
	4,984 ac		km
<u>Ownership / Management</u>		<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	% of Area	Agriculture	26 %
Oregon Parks and Recreation	<5 %	Developed	2 %
US Bureau of Land Management	7 %	Undeveloped	72 %
		Marine/Freshwater	0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	D
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation	n/a
Cascade/foothill small river - volcanic, low to mid elevation	n/a
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a

Species

Birds

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
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Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Insects

<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	A
<i>Proserpinus clarkiae</i>	Clark's sphinx moth	G4	C

Vascular Plants

<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE	D
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2		C
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	D
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		K

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Comox Macrosite

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 25,581 ha Marine Shoreline
63,185 ac 159.0 km

Land Use/Land Cover

GAP Management Status

Agriculture	6 %	1	6 %	4	51 %
Developed	13 %	2	0 %	5	37 %
Undeveloped	41 %	3	7 %		
Marine/Freshwater	40 %				

Ownership / Management % of Area

BC Parks	6 %
Fisheries and Oceans Canada	<5 %
Nature Appreciation Area	<5 %
Nature Appreciation Area	<5 %
Trust	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	C
Intertidal salt marshes	GU	B
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Sphagnum bogs and fens	GU	C
Vernal pools	GU	C

Nearshore Marine Ecological Systems

Mud flat / Unvegetated	n/a	
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	Rock cliff / Unvegetated	n/a	
	Rock with sand and/or gravel beach / Unvegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
	Sand and gravel flat / Unvegetated	n/a	
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	
Freshwater Ecological Systems			
	Coastal headwaters - granitic, low elevation, low gradient	n/a	
	Coastal headwaters - granitic, low to mid elevation, low to steep gradient	n/a	
Plant Communities			
<i>Artemisia campestris - grindelia stricta herbaceous vegetation</i>	Northern wormwood - gumweed	G1	B
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	C
<i>Festuca rubra - (argentina egedii) herbaceous vegetation</i>	Red fescue - (pacific silverweed)	G1	C
<i>Plagiobothrys scouleri - plantago bigelovii herbaceous vegetation</i>	Scouler's popcornflower - annual coastal plantain	G2	C
<i>Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest</i>	Douglas-fir - western redcedar / salal	G2	B
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1	C
<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	C
<i>Stipa lemmonii / racomitrium canescens herbaceous vegetation</i>	Lemmon needlegrass / rock moss	G1	C
<i>Thuja plicata - abies grandis / polystichum munitum forest</i>	Western redcedar - grand fir / swordfern	G2	B
Species			
Birds			
	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Ardea herodias</i>	Great blue heron	G5	B
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Branta bernicla</i>	Brant	G5	
<i>Gavia spp</i>	Loons	GU	
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	
Fishes			
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
Insects			

Comox Macrosite

continued from previous page

<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	K
Mammals			
<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3	K
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	
Vascular Plants			
<i>Alopecurus carolinianus</i>	Tufted foxtail	G5	K
<i>Aster curtus</i>	White-topped aster	G3	A
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	C
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	A
<i>Plagiobothrys figuratus</i>	Rough popcorn-flower	G4	K
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium

Marine

Non point source water pollution	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	High

Conawaga Beach

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	743 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,835 ac	5.7 km	Agriculture 0 %	1 0 % 4 2 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 99 %
			Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated n/a
Sand and gravel flat / Unvegetated n/a

Conawaga Beach

continued from previous page

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation n/a

Species

Fishes

Clupea pallasii Pacific herring spawning G?

Mammals

Orcinus orca Killer whale G4

Phocoena phocoena Pacific harbor porpoise G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Cooper Mountain

Section: Lower Columbia

Area Type: Terrestrial

Area:	434 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	1,072 ac	km	Agriculture 39 %	1	0 %	4 100 %
			Developed 7 %	2	0 %	5 0 %
Ownership / Management		% of Area	Undeveloped 54 %	3	0 %	
			Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Coast Range medium river - volcanic, low elevation n/a
 Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient n/a

Species

Vascular Plants

<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	B
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	K
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium

Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Cortes Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	12,130 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	29,961 ac	41.4 km	Agriculture 1 %	1 6 % 4 82 %
			Developed 2 %	2 0 % 5 10 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 84 %	3 2 %
BC Parks		6 %	Marine/Freshwater 13 %	
Trust		<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
Rock platform / Unvegetated	n/a
Sand and gravel beach / Unvegetated	n/a
Sand and gravel flat / Unvegetated	n/a
Sand beach / Unvegetated	n/a
Sand flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation n/a

Freshwater Ecological Systems

Georgia Strait coastal streams - granitic, low elevation, low to moderate gradient	n/a
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Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
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Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
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Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Corvallis Watershed

Section: Willamette Valley

Area Type: Terrestrial

Area:	3,948 ha	<u>Marine Shoreline</u>
	9,752 ac	km
Ownership / Management	% of Area	
Oregon State	<5 %	
US Bureau of Land Management	<5 %	
US Forest Service	71 %	

Land Use/Land Cover		GAP Management Status		
Agriculture	0 %	1	0 %	4 100 %
Developed	0 %	2	0 %	5 0 %
Undeveloped	100 %	3	0 %	
Marine/Freshwater	0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Coast Range headwaters - sedimentary, mid elevation	n/a
Coast Range headwaters - volcanics, mid elevation	n/a
Valley/foothill tributaries - volcanics, mid elevation	n/a

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3		n/a
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5		n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Low
Forestry practices	Medium (likely within 5 to 10 years)	Low

Corvallis-Philomath Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area:	4,652 ha	<u>Marine Shoreline</u>
	11,490 ac	km
Ownership / Management	% of Area	
County Government	<5 %	

Land Use/Land Cover		GAP Management Status		
Agriculture	48 %	1	0 %	4 98 %
Developed	2 %	2	0 %	5 0 %
Undeveloped	49 %	3	2 %	
Marine/Freshwater	0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

	Oak woodlands	GU	
	Oak woodlands (ranked occurrences)	GU	B
	Riparian forests and shrublands	GU	
	Upland prairies and savannas	GU	C
	Wet prairies	GU	C
Freshwater Ecological Systems			
	Coast Range small rivers - sedimentary, low to mid elevation	n/a	
	Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	
	Valley/foothill tributaries - volcanics, mid elevation	n/a	
Plant Communities			
	<i>Deschampsia caespitosa</i> - <i>danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2 C
	<i>Festuca roemerii</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1 C
	<i>Quercus garryana</i> / <i>festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1 D
Species			
Herpetofauna			
	<i>Contia tenuis</i>	Sharptail snake	G5 A
Insects			
	<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1 C
	<i>Icaricia icarioides fenderi</i>	Fender's blue	G1 A
	<i>Rhyacophila fenderi</i>	Fender's rhyacophilan caddisfly	G3 C
Non-Vascular - Lichen			
	<i>Sulcaria badia</i>	Sulcaria badia	G1 K
Vascular Plants			
	<i>Agrostis hallii</i>	Hall's bentgrass	G4 B
	<i>Asclepias speciosa</i>	Showy milkweed	G5 D
	<i>Aster hallii</i>	Hall's aster	G4 C
	<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5 D
	<i>Camassia quamash</i> ssp. <i>maxima</i>	Common Camas	G5 C
	<i>Darmera peltata</i>	Umbrella plant	G4 B
	<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB H
	<i>Erigeron decumbens</i> var. <i>decumbens</i>	Willamette valley daisy	G1 LE D
	<i>Geranium oregonum</i>	Oregon crane's-bill	G4 C
	<i>Grindelia integrifolia</i>	Willamette gumweed	G5 C
	<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4 D
	<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	G5 C
	<i>Lupinus sulphureus</i> var. <i>kincaidii</i>	Kincaid's lupine	G2 LT B
	<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4 D
	<i>Sidalcea campestris</i>	Meadow checker-mallow	G4 D
	<i>Sidalcea malviflora</i> ssp. <i>virgata</i>	Rose checker-mallow	G4 B
	<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2 LT B
	<i>Sisyrinchium hitchcockii</i>	Hitchcock's blue-eye-grass	G1 D
	<i>Triteleia (brodiaea) grandiflora</i> var. <i>howellii</i>	Howell's triteleia	G5 D
	<i>Verbena hastata</i>	Blue vervain	G5 D
	<i>Viola praemorsa</i> ssp. <i>praemorsa</i>	Canary violet	G5 C

Corvallis-Philomath Oaks *continued from previous page*

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Cougar Mountain

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	1,604 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,962 ac	km	Agriculture 0 %	1 0 % 4 32 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %	2 68 % 5 0 %
County Government	68 %		Undeveloped 99 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium

Coulter Creek

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	3,848 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	9,505 ac	km	Agriculture 0 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 10 %	2 0 % 5 0 %
City	<5 %		Undeveloped 88 %	3 0 %
Department of Natural Resources	<5 %		Marine/Freshwater 2 %	
Washington Department of Fish and	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
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Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

Covington Creek

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 2,587 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
6,390 ac	km	Agriculture 0 %	1 0 % 4 86 %
		Developed 13 %	2 1 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 86 %	3 14 %
City	14 %	Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient n/a

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	High

Cowichan

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 13,749 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
33,960 ac	24.3 km	Agriculture 26 %	1 5 % 4 86 %
		Developed 21 %	2 0 % 5 0 %
Ownership / Management	% of Area	Undeveloped 52 %	3 9 %
BC Parks	<5 %	Marine/Freshwater 1 %	
Nature Appreciation Area	<5 %		
Parks Canada	<5 %		
Trust	15 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	C
Intertidal salt marshes	GU	A
Oak woodlands (ranked occurrences)	GU	A
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	K

Nearshore Marine Ecological Systems

Mud flat / Unvegetated	n/a	
Sand beach / Unvegetated	n/a	
Sand flat / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i> Rock with sand and/or gravel beach / Kelp	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a	

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a	
Coastal rivers - calcareous to granite transition, low to high elevation, mixed gradient	n/a	
Mountain headwaters - calcareous, high elevation, steep	n/a	
Mountain headwaters - granitic, mid to high elevation, steep gradients	n/a	

Plant Communities

<i>Deschampsia caespitosa - sidalcea hendersonii</i> herbaceous vegetation	Tufted hairgrass - henderson's checkermallow	G1	A
<i>Pseudotsuga menziesii - abies grandis / symphoricarpos albus / melica subulata forest</i>	Douglas-fir - grand fir / common snowberry / alaska oniongrass	G1	C
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1	A
<i>Quercus garryana / symphoricarpos albus / polystichum munitum forest</i>	Oregon white oak / common snowberry / common snowberry	G2	C

Species

Birds

	Dabbling ducks	G5		
	Diving ducks/bay ducks	G5		
<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	B
<i>Gavia spp</i>	Loons	GU		
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5		
<i>Progne subis</i>	Purple martin	G5		K

Insects

<i>Euphyes vestris vestris</i>	Dun skipper	G3		K
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Mammals

<i>Mustela erminea anguinae</i>	Vancouver Island ermine	G3		K
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Vascular Plants

<i>Carex interrupta</i>	Green-fruited sedge	G3		K
<i>Lupinus lepidus var lepidus</i>	Prairie lupine	G5		X
<i>Myriophyllum quitense</i>	Andean milfoil	G4		A
<i>Psilocarphus elatior</i>	Tall woolly-heads	G5		A
<i>Psilocarphus tenellus var tenellus</i>	Slender woolly-heads	G4		D
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5		K
<i>Sidalcea hendersonii</i>	Henderson mallow	G3		A
<i>Trifolium cyathiferum</i>	Bowl clover	G4		K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5		D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Landfill construction or operation	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Wastewater treatment	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	Medium
Recreational vehicles	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	High
Livestock production practices	Medium (likely within 5 to 10 years)	Medium
Livestock feedlot	Medium (likely within 5 to 10 years)	High
Management of/for certain species	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	Medium
Roads and/or utilities	Medium (likely within 5 to 10 years)	High

Marine

Forestry practices	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Medium

Cowlitz Forest Corridor

Cowlitz Forest Corridor

continued from previous page

Section: Lower Columbia

Area Type: Terrestrial

Area:	19,498 ha	<u>Marine Shoreline</u>
	48,160 ac	km
Ownership / Management	% of Area	
Department of Natural Resources	11 %	

Land Use/Land Cover		GAP Management Status		
Agriculture	2 %	1	0 %	4 89 %
Developed	3 %	2	0 %	5 0 %
Undeveloped	94 %	3	11 %	
Marine/Freshwater	0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascade small rivers - volcanic, transitional elevation, transitional gradient	n/a
Cowlitz tributary small rivers - sedimentary	n/a
Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	n/a
Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	D
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Low (not likely within 10 years)	Medium
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Cowlitz Riparian

Section: Lower Columbia

Area Type: Terrestrial

Area:	1,386 ha	<u>Marine Shoreline</u>
	3,423 ac	km
Ownership / Management	% of Area	
Department of Natural Resources	<5 %	

Land Use/Land Cover		GAP Management Status		
Agriculture	3 %	1	0 %	4 99 %
Developed	5 %	2	0 %	5 0 %
Undeveloped	78 %	3	1 %	
Marine/Freshwater	14 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Operation of drainage or diversion systems	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High

Cranberry Creek

Section: Puget Trough

Area Type: Terrestrial

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
2,405 ha	km	Agriculture 0 %	1	0 %	4 100 %
5,940 ac		Developed 14 %	2	0 %	5 0 %
Ownership / Management	% of Area	Undeveloped 76 %	3	0 %	
		Marine/Freshwater 10 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	B

Plant Communities

<i>Alnus (incana, viridis ssp. sinuata) / lysichiton americanus - oenanthe sarmentosa shrubland</i>	Alder (mountain, sitka) / skunk-cabbage - water-parsley	G1	B
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Species

Non-Vascular - Fungi

<i>Ramaria maculatipes</i>	Ramaria maculatipes	G1	K
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Vascular Plants

<i>Myriophyllum quitense</i>	Andean milfoil	G4	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
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Residential development	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Crescent Harbor Forest

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	234 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	578 ac	km	Agriculture 0 %	1 0 % 4 20 %
			Developed 8 %	2 0 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 92 %	3 80 %
US Dept. of Defense		82 %	Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Military activities	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Cypress-Sinclair Islands

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	3,120 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	7,706 ac	32.7 km	Agriculture 0 %	1 13 % 4 11 %
			Developed 2 %	2 70 % 5 3 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 69 %	3 2 %
A Washington State University		<5 %	Marine/Freshwater 29 %	
Department of Natural Resources		62 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	A
Dry evergreen forests and woodlands	GU	

	Dry evergreen forests and woodlands (ranked occurrences)	GU		B
	Freshwater aquatic beds	GU		B
	Freshwater marshes	GU		B
	Herbaceous balds and bluffs	GU		B
	Sphagnum bogs and fens	GU		B
<u>Nearshore Marine Ecological Systems</u>				
	Rock cliff / Unvegetated	n/a		
	Rock cliff / Vegetated	n/a		
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a		
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a		
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a		
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a		
<u>Freshwater Ecological Systems</u>				
	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a		
<u>Plant Communities</u>				
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1		B
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2		B
<i>Pseudotsuga menziesii / rosa gymnocarpa - holodiscus discolor forest</i>	Douglas-fir / baldhip rose - oceanspray	G2		A
<u>Species</u>				
<u>Birds</u>				
<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Branta bernicla</i>	Brant	G5		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
<i>Gavia spp</i>	Loons	GU		
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4		C
<i>Histrionicus histrionicus</i>	Harlequin duck	G4		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5		
<u>Fishes</u>				
<i>Ophiodon elongatus</i>	Lingcod	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<u>Herpetofauna</u>				

Cypress-Sinclair Islands

continued from previous page

<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A
<u>Mammals</u>			
<i>Orcinus orca</i>	Killer whale	G4	
<u>Molluscs</u>			
<i>Crassidoma giganteum</i>	Rock scallop	G?	
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	
<u>Non-Vascular - Lichen</u>			
<i>Bryoria tortuosa</i>	Bryoria tortuosa	G2	K
<u>Vascular Plants</u>			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU	K
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Medium

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Fire management	Low (not likely within 10 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Dayton Creek

Section: Puget Trough

Area Type: Terrestrial

Area: 2,910 ha Marine Shoreline
7,188 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management % of Area

Agriculture	1 %	1	0 %	4	100 %
Developed	9 %	2	0 %	5	0 %
Undeveloped	87 %	3	0 %		
Marine/Freshwater	3 %				

Department of Natural Resources <5 %

Washington State Department of Corr <5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	C
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<u>Terrestrial</u>		
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Roads and/or utilities	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High

Deception Pass

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
3,913 ha	38.4 km	Agriculture 1 %	1 0 %	4 20 %
9,665 ac		Developed 2 %	2 35 %	5 43 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 49 %	3 2 %	
County Government	<5 %	Marine/Freshwater 47 %		
Tribal	<5 %			
US Dept. of Defense	<5 %			
Washington Parks and Recreation Co	34 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	C
Depressional wetland broadleaf forests	GU	B
Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater aquatic beds	GU	C
Freshwater marshes	GU	C
Herbaceous balds and bluffs	GU	B
Sphagnum bogs and fens	GU	B

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
Rock cliff / Vegetated	n/a
Rock platform / Vegetated	n/a
Rock with sand and/or gravel beach / Unvegetated	n/a
Sand and gravel beach / Unvegetated	n/a
Sand and gravel flat / Unvegetated	n/a
Sand beach / Unvegetated	n/a
Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i> Rock with sand and/or gravel beach / Kelp	n/a

<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Plant Communities

<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1		B
<i>Pseudotsuga menziesii - arbutus menziesii / lonicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	G2		B
<i>Pseudotsuga menziesii - tsuga heterophylla / mahonia nervosa var. nervosa forest</i>	Douglas-fir - western hemlock / dwarf oregonrape	G2		C
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2		B
<i>Pseudotsuga menziesii / symphoricarpos albus - holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	G2		C

Species

Birds

	Dabbling ducks	G5		
	Diving ducks/bay ducks	G5		
<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
<i>Gavia spp</i>	Loons	GU		
<i>Melanitta spp</i>	Scoters	GU		

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?		
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?		
<i>Ophiodon elongatus</i>	Lingcod	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<i>Sebastes melanops</i>	Black rockfish	G?		

Mammals

<i>Orcinus orca</i>	Killer whale	G4		
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Molluscs

<i>Crassedoma giganteum</i>	Rock scallop	G?		
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?		

Non-Vascular - Lichen

<i>Bryoria tortuosa</i>	Bryoria tortuosa	G2		K
<i>Cladina portentosa</i>	Cladina portentosa	G?		K

Deception Pass

continued from previous page

<i>Niebla cephalota</i>	Niebla cephalota	G?		K
<i>Thelomma mammosum</i>	Thelomma mammosum	G?		K
<i>Trapeliopsis wallrothii</i>	Trapeliopsis wallrothii	G?		K
<u>Vascular Plants</u>				
<i>Artemisia campestris ssp caudata</i>	Beach wormwood	G5		C
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5		K
<i>Grindelia integrifolia</i>	Willamette gumweed	G5		K
<i>Meconella oregana</i>	White meconella	G2		K
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Shoreline stabilization	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Medium
Parasites/pathogens	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	Medium
Trails	High (present or likely within 4 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Marine

Channelization of rivers or streams	High (present or likely within 4 years)	High
Crop production practices	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Management of/for certain species	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Roads and/or utilities	Low (not likely within 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Deer Creek

Section: Puget Trough

Area Type: Terrestrial

Area: 3,574 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
8,828 ac	km	Agriculture 0 %	1 0 % 4 100 %
		Developed 7 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 90 %	3 0 %
		Marine/Freshwater 3 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
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Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Non point source water pollution	Low (not likely within 10 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Medium
Ditches, dikes, drainages and diversions	Medium (likely within 5 to 10 years)	Medium

Deschutes Riparian

Section: Puget Trough

Area Type: Terrestrial

Area: 3,226 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
7,968 ac	km	Agriculture 2 %	1 0 % 4 100 %
Ownership / Management	% of Area	Developed 7 %	2 0 % 5 0 %
		Undeveloped 91 %	3 0 %
		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a
Puget lowlands - outwash, low elevation, moderate gradients	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Low

Desolation Sound

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	10,700 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	26,429 ac	146.6 km	Agriculture	0 %	1 62 %	4 28 %
Ownership / Management	% of Area		Developed	0 %	2 0 %	5 7 %
BC Parks	63 %		Undeveloped	73 %	3 2 %	
Trust	<5 %		Marine/Freshwater	27 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	A
Herbaceous balds and bluffs	GU	A
Intertidal salt marshes	GU	C
Riparian forests and shrublands (ranked occurrences)	GU	C

Nearshore Marine Ecological Systems

Mud flat / Unvegetated	n/a	
Rock cliff / Unvegetated	n/a	
Rock platform / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
Sand beach / Unvegetated	n/a	
Sand flat / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Freshwater Ecological Systems

Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	n/a	
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Species

Birds		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
Fishes		
<i>Clupea pallasii</i>	Pacific herring spawning	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Climate Change	Low (not likely within 10 years)	Low
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Marine

Recreational use	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Low

Residential development	Medium (likely within 5 to 10 years)	Medium
Private aircraft	Medium (likely within 5 to 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	High
Aquaculture	Medium (likely within 5 to 10 years)	Low

Dickenson Point

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	236 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	583 ac	11.4 km	Agriculture 0 %	1 0 % 4 27 %
			Developed 0 %	2 8 % 5 63 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 0 %	3 3 %
Department of Natural Resources		5 %	Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Mud flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High

Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Dillenbaugh

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,127 ha	<u>Marine Shoreline</u>	
	2,784 ac	km	
<u>Ownership / Management</u>		<u>% of Area</u>	
Department of Natural Resources		<5 %	
	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
	Agriculture 0 %	1	0 % 4 88 %
	Developed 6 %	2	0 % 5 0 %
	Undeveloped 93 %	3	12 %
	Marine/Freshwater 0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Discovery Bay

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Terrestrial/Nearshore Marine	
<u>Area:</u>	902 ha	<u>Marine Shoreline</u>	
	2,228 ac	12.5 km	
<u>Ownership / Management</u>		<u>% of Area</u>	
	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
	Agriculture 0 %	1	0 % 4 14 %
	Developed 1 %	2	0 % 5 86 %
	Undeveloped 13 %	3	0 %
	Marine/Freshwater 85 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Herbaceous balds and bluffs	GU	D

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a

Plant Communities

<i>Pseudotsuga menziesii / symphoricarpos albus - holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	G2	C
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes melanops</i>	Black rockfish	G?

Other Invertebrates

<i>Virgularia spp</i>	Seawhips; virgularia spp	G?
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Vascular Plants

<i>Phacelia linearis</i>	Linearleaf phacelia	G4	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Low

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low

Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Industrial discharge	Low (not likely within 10 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Discovery Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	856 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,114 ac	36.7 km	Agriculture 0 %	1 25 % 4 15 %
			Developed 0 %	2 1 % 5 59 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 21 %	3 0 %
BC Parks		8 %	Marine/Freshwater 79 %	
Provincial Park Ecological Reserve		18 %		
Trust		12 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Depressional wetland broadleaf forests	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Herbaceous balds and bluffs	GU	A

Nearshore Marine Ecological Systems

	Rock cliff / Vegetated	n/a	
	Rock platform / Vegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a	

Plant Communities

<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	A
<i>Populus tremuloides / carex obnupta forest</i>	Quaking aspen / slough sedge	G2	B

Species

Birds

<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU

<i>Podiceps grisegena</i>	Red-necked grebe	G5		
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU		
<u>Vascular Plants</u>				
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT	A
<i>Centaurium muehlenbergii</i>	Muhlenberg's centaury	G5		K
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3		D
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4		K
<i>Montia howellii</i>	Howell's miner's-lettuce	G3		K
<i>Ranunculus californicus</i>	California buttercup	G5		A
<i>Sanicula arctopoides</i>	Bear's-foot sanicle	G5		K
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5		B
<i>Triglochin concinnum var concinnum triglochin concinna var concinna</i>	Dotted watermeal	G5		K
<i>Wolffia borealis</i>	Dotted watermeal	G5		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Small population size and distribution	Medium (likely within 5 to 10 years)	Low
Grazing practices	Medium (likely within 5 to 10 years)	Medium

Marine

Recreational use	Low (not likely within 10 years)	Low
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Discovery Passage

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	8,559 ha	Marine Shoreline
	21,141 ac	4.0 km
Ownership / Management	% of Area	
BC Parks	11 %	
Trust	<5 %	

Land Use/Land Cover		GAP Management Status			
Agriculture	0 %	1	11 %	4	85 %
Developed	13 %	2	0 %	5	4 %
Undeveloped	82 %	3	0 %		
Marine/Freshwater	5 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	K
Intertidal salt marshes	GU	B
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a	
	Rock platform / Unvegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	
Freshwater Ecological Systems			
	Coastal headwaters - granitic, low elevation, low gradient	n/a	
	Coastal headwaters - granitic, low to mid elevation, low to steep gradient	n/a	
	Coastal rivers - granitic, long inland reach	n/a	
	Coastal rivers - granitic, low to high elevation, mixed gradient	n/a	
Plant Communities			
<i>Deschampsia caespitosa - sidalcea hendersonii herbaceous vegetation</i>	Tufted hairgrass - henderson's checkermallow	G1	B
<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	G1	B
Species			
Birds			
	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Gavia spp</i>	Loons	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps griseigena</i>	Red-necked grebe	G5	
Fishes			
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
Mammals			
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Megaptera novaeangliae</i>	Humpback whale	G3	LE
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	
Vascular Plants			
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	A
<i>Eleocharis rostellata</i>	Beaked spikerush	G5	B
<i>Melica smithii</i>	Smith melic grass	G4	K
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Industrial discharge	High (present or likely within 4 years)	High
Wastewater treatment	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	Medium
Recreational vehicles	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Livestock production practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	Medium
Roads and/or utilities	Medium (likely within 5 to 10 years)	High
Shoreline stabilization	Medium (likely within 5 to 10 years)	Medium

Marine

Non point source water pollution	Low (not likely within 10 years)	Medium
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Drayton Passage-Filucy Bay

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	373 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	921 ac	7.2 km	Agriculture 0 %	1 0 % 4 20 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 78 %
			Undeveloped 0 %	3 2 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Drayton Passage-Filucy Bay *continued from previous page*

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Other Invertebrates

<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Drews Prairie

Section: Lower Columbia

Area Type: Terrestrial

Area:	109 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	269 ac	km	Agriculture 12 %	1 0 % 4 100 %
Ownership / Management	% of Area		Developed 5 %	2 0 % 5 0 %
			Undeveloped 75 %	3 0 %
			Marine/Freshwater 7 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	D
Oak woodlands	GU	

Freshwater Ecological Systems

Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a	
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Plant Communities

<i>Fraxinus latifolia / carex deweyana - urtica dioica ssp gracilis forest</i>	Oregon ash / dewey sedge - stinging nettle	G2	C
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Species

Vascular Plants

<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K
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Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	Low (not likely within 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Dugualla Bay

Section: Georgia Basin		Area Type: Terrestrial/Nearshore Marine	
Area:	774 ha	Marine Shoreline	
	1,912 ac	17.4 km	
Ownership / Management	% of Area		Land Use/Land Cover
Department of Natural Resources	<5 %		Agriculture 0 %
Washington Parks and Recreation Co	30 %		Developed 2 %
			Undeveloped 30 %
			Marine/Freshwater 68 %
			GAP Management Status
			1 0 % 4 19 %
			2 31 % 5 30 %
			3 21 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Sphagnum bogs and fens	GU	D

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
	Sand and gravel flat / Seagrass	n/a

Species

Birds

	Dabbling ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Medium

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Dundee Oaks

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	722 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,783 ac	km	Agriculture 60 %	1 0 % 4 100 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 1 %	2 0 % 5 0 %
			Undeveloped 39 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Coast Range tributaries - sedimentary, low to mid elevation	n/a
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Species

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Dungeness

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 4,734 ha Marine Shoreline
11,693 ac 42.0 km

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>			
Agriculture	4 %	1	0 %	4	35 %
Developed	11 %	2	1 %	5	5 %
Undeveloped	67 %	3	58 %		
Marine/Freshwater	18 %				

<u>Ownership / Management</u>	<u>% of Area</u>
Department of Natural Resources	19 %
US Dept. of Defense	<5 %
US Fish and Wildlife Service	<5 %
US Forest Service	29 %
Washington Department of Fish and	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	D
Dry evergreen forests and woodlands	GU	
Intertidal salt marshes	GU	A
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Freshwater Ecological Systems

Northern Olympics rivers - sandstone, mid to low elevation, mixed gradient n/a
 Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient n/a

Plant Communities

<i>Carex macrocephala herbaceous vegetation</i>	Bighead sedge	G1		B
<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	G1		B
<i>Pseudotsuga menziesii - tsuga heterophylla / mahonia nervosa var. nervosa forest</i>	Douglas-fir - western hemlock / dwarf oregongrape	G2		D

Species

Birds

	Dabbling ducks	G5		
	Diving ducks/bay ducks	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3		n/a
<i>Branta bernicla</i>	Brant	G5		
<i>Gavia spp</i>	Loons	GU		
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU		
<i>Histrionicus histrionicus</i>	Harlequin duck	G4		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5		
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU		
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?		
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?		
<i>Ophiodon elongatus</i>	Lingcod	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes melanops</i>	Black rockfish	G?		

Herpetofauna

<i>Rana aurora aurora</i>	Northern red-legged frog	G4		K
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Mammals

<i>Phoca vitulina</i>	Harbor seal pupping sites	G5		
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Vascular Plants

<i>Artemisia campestris ssp caudata</i>	Beach wormwood	G5		A
<i>Descurainia pinnata ssp filipes</i>	Western tansy mustard	G5		D
<i>Hutchinsia procumbens</i>	Prostrate hymenolobus	G5		D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Groundwater manipulation	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Fire management	Low (not likely within 10 years)	Low
Conversion to agriculture or silviculture	Low (not likely within 10 years)	High

Trails	Medium (likely within 5 to 10 years)	Low
Marine		
Roads and/or utilities	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Dunn Forest

Section: Willamette Valley

Area Type: Terrestrial

Area:	4,273 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	10,554 ac	km	Agriculture	57 %	1	0 %	4	100 %
			Developed	1 %	2	0 %	5	0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	42 %	3	0 %		
Oregon State University	41 %		Marine/Freshwater	0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	B
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Plant Communities

<i>Pinus ponderosa - quercus garryana / festuca roemerii</i> wooded herbaceous vegetation	Ponderosa pine -oregon white oak / romer's fescue	G1		C
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Species

Birds

<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	K
<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	G3		H

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5		D
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Insects

<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1		C
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2		C
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	K

Dunn Forest

continued from previous page

<i>Montia howellii</i>	Howell's miner's-lettuce	G3	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	D
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	C

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Forestry practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Medium

Dyes Inlet-Silverdale

Section: <u>Puget Trough</u>	Area Type: <u>Nearshore Marine</u>		
Area: 131 ha 324 ac	Marine Shoreline 3.7 km	Land Use/Land Cover	GAP Management Status
Ownership / Management	% of Area	Agriculture 0 %	1 0 % 4 33 %
		Developed 0 %	2 0 % 5 61 %
		Undeveloped 0 %	3 5 %
		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Other Invertebrates

<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

East Fork Issaquah Creek

Section: Puget Trough

Area Type: Terrestrial

Area:	2,109 ha	<u>Marine Shoreline</u>
	5,209 ac	km
<u>Ownership / Management</u>		<u>% of Area</u>
City		9 %
County Government		<5 %
Department of Natural Resources		51 %

Land Use/Land Cover

Agriculture	0 %
Developed	1 %
Undeveloped	98 %
Marine/Freshwater	0 %

GAP Management Status

1	0 %	4	50 %
2	18 %	5	0 %
3	32 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a

Species

Non-Vascular - Moss

<i>Platyhypnidium riparioides</i>	Platyhypnidium riparioides	G4	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High

East Fork Issaquah Creek *continued from previous page*

Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

East Fork Lewis Riparian

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	888 ha 2,193 ac	<u>Marine Shoreline</u>	km
<u>Ownership / Management</u>		<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
County Government	% of Area 12 %	Agriculture 6 %	1 0 % 4 88 %
		Developed 6 %	2 10 % 5 0 %
		Undeveloped 80 %	3 2 %
		Marine/Freshwater 8 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Species

Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low

East Side Vashon

<u>Section:</u> Puget Trough		<u>Area Type:</u> Nearshore Marine	
<u>Area:</u>	125 ha 309 ac	<u>Marine Shoreline</u>	3.3 km
<u>Ownership / Management</u>		<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	% of Area	Agriculture 0 %	1 0 % 4 19 %
		Developed 0 %	2 0 % 5 75 %
		Undeveloped 0 %	3 6 %
		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

	Douglas fir - western hemlock - western redcedar forests	GU
	Dry evergreen forests and woodlands	GU
<u>Nearshore Marine Ecological Systems</u>		
	<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp n/a
	<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass n/a
	<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass n/a
	<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass n/a
<u>Species</u>		
<u>Birds</u>		
	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
	<i>Aechmophorus occidentalis</i>	Western grebe G5
	<i>Gavia spp</i>	Loons GU
	<i>Melanitta spp</i>	Scoters GU
<u>Fishes</u>		
	<i>Clupea pallasii</i>	Pacific herring spawning G?
	<i>Hypomesus pretiosus</i>	Surf smelt spawning G?
	<i>Sebastes caurinus</i>	Copper rockfish G?
	<i>Sebastes maliger</i>	Quillback rockfish G?
<u>Mammals</u>		
	<i>Orcinus orca</i>	Killer whale G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Known source of water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

East Sooke

Section: Georgia Basin

Area Type: Terrestrial

Area:	2,578 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	6,368 ac	km	Agriculture 3 %	1 52 % 4 47 %
			Developed 9 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 88 %	3 0 %
Regional District Nature Appreciation Trust	53 %		Marine/Freshwater 1 %	
	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	K
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	K

Species

Mammals

<i>Myotis keenii</i>	Keen's long-eared myotis	G2	K
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Vascular Plants

<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Recreational use	Low (not likely within 10 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Ebey's Landing

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	1,028 ha	Marine Shoreline		Land Use/Land Cover		GAP Management Status	
	2,539 ac	15.0 km		Agriculture	6 %	1 0 %	4 67 %
Ownership / Management	% of Area			Developed	4 %	2 33 %	5 0 %
County Government	<5 %			Undeveloped	72 %	3 0 %	
Preserve	16 %			Marine/Freshwater	18 %		
Washington Parks and Recreation Co	34 %						

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	B
Intertidal salt marshes	GU	B

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a

Plant Communities

<i>Festuca rubra</i> - <i>ambrosia chamissonis</i> herbaceous vegetation	Red fescue - silver burweed	G1		B
<i>Festuca rubra</i> - <i>camassia leichtlinii</i> - <i>grindelia stricta</i> herbaceous vegetation	Red fescue - great camas - oregon gumweed	G1		B

Species

Insects

<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4		B
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Non-Vascular - Lichen

<i>Bryoria tortuosa</i>	Bryoria tortuosa	G2		K
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Vascular Plants

<i>Artemisia campestris</i> ssp <i>scouleriana</i>	Pacific sage	G5		B
<i>Camassia quamash</i> ssp <i>maxima</i>	Common Camas	G5		D
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT	K
<i>Erigeron speciosus</i> var <i>speciosus</i>	Aspen fleabane	G5		C
<i>Heterotheca villosa</i> var <i>villosa</i>	Hairy golden-aster	G5		B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	High

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Edmonds Point

Section: Puget Trough

Area Type: Nearshore Marine

Area: 84 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
207 ac	1.2 km	Agriculture 0 %	1 0 % 4 38 %
		Developed 0 %	2 15 % 5 48 %
Ownership / Management	% of Area	Undeveloped 0 %	3 0 %
		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
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Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
Species		
Birds		
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
Fishes		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes melanops</i>	Black rockfish	G?
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Wastewater treatment	High (present or likely within 4 years)	Medium
Point source water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Low
Shoreline stabilization	High (present or likely within 4 years)	High
Small population size and distribution	High (present or likely within 4 years)	High
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Marina development	High (present or likely within 4 years)	Low
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

EE Wilson

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	1,010 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,495 ac	km	Agriculture 30 %	1 0 % 4 54 %
			Developed 20 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 49 %	3 46 %
Oregon Department of Fish and Wildli	65 %		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU		K
Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Oak woodlands	GU		
Riparian forests and shrublands	GU		

Freshwater Ecological Systems

Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a		
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Species

Birds

<i>Chordeiles minor</i>	Common nighthawk	G5		K
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	K
<i>Progne subis</i>	Purple martin	G5		C
Various	Shorebird aggregations (non-marine)	GU		K

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5		A
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Vascular Plants

<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Landfill construction or operation	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium

Eells Hill

Section: Puget Trough

Area Type: Terrestrial

Area: 6,312 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
15,591 ac	km	Agriculture 0 %	1 0 % 4 100 %
		Developed 11 %	2 0 % 5 0 %
Ownership / Management	% of Area	Undeveloped 87 %	3 0 %
Department of Natural Resources	<5 %	Marine/Freshwater 2 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Sphagnum bogs and fens	GU		

Freshwater Ecological Systems

East Olympics small rivers - predominantly mafic, low to mid elevation, low to moderate gradient n/a
 Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Non point source water pollution	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Low
Fire management	Medium (likely within 5 to 10 years)	Medium

Eld Inlet

Section: Puget Trough

Area Type: Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
522 ha	20.5 km	Agriculture 0 %	1	0 %	4	22 %
1,289 ac		Developed 0 %	2	0 %	5	63 %
<u>Ownership / Management</u>		Undeveloped 0 %	3	15 %		
A Washington State University	<5 %	Marine/Freshwater 100 %				
County Government	<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Nearshore Marine Ecological Systems

Mud flat / Unvegetated n/a
 Sand beach / Unvegetated n/a
 Sand flat / Unvegetated n/a
Nereocystis/Macrocystis Sand beach / Kelp n/a
Nereocystis/Macrocystis/Phyllospadix/Zostera Mud flat / Subtidal vegetation n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand and gravel beach / Saltmarsh n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand beach / Saltmarsh n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand and gravel beach / Saltmarsh and subtidal vegetation n/a
Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Saltmarsh and subtidal vegetation n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand beach / Saltmarsh and subtidal vegetation n/a
Nereocystis/Macrocystis/Phyllospadix/Zostera

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Species

Birds

Diving ducks/bay ducks G5
Aechmophorus occidentalis Western grebe G5

Eld Inlet

continued from previous page

<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5
Fishes		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
Molluscs		
<i>Ostrea lurida</i>	Olympia oyster	G?
Other Invertebrates		
<i>Polyorchis penicillatus</i>	Polyorchis jellyfish	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Elk Creek

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 1,472 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
3,636 ac	km	Agriculture 0 %	1 0 %	4 83 %
		Developed 0 %	2 7 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 99 %	3 10 %	
US Bureau of Land Management	22 %	Marine/Freshwater 0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Species

Birds

<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Medium

Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Eola Hills

<u>Section: Willamette Valley</u>		<u>Area Type: Terrestrial</u>	
<u>Area:</u>	9,293 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	22,954 ac	km	Agriculture 55 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %
			Undeveloped 45 %
			Marine/Freshwater 0 %

<u>GAP Management Status</u>		
1	0 %	4 100 %
2	0 %	5 0 %
3	0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Foothills tributaries - basalt, low to mid elevation	n/a
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a
Willamette River mainstem	n/a

Species

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	C
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	C
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Fern Ridge Reservoir

Section: Willamette Valley

Area Type: Terrestrial

Area:	3,713 ha	Marine Shoreline
	9,171 ac	km
Ownership / Management	% of Area	
Corps of Engineers	90 %	
Oregon Department of Fish and Wildli	<5 %	

Land Use/Land Cover		GAP Management Status		
Agriculture	7 %	1	0 %	4 25 %
Developed	1 %	2	0 %	5 0 %
Undeveloped	11 %	3	75 %	
Marine/Freshwater	81 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Wet prairies	GU	C

Freshwater Ecological Systems

Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient n/a

Plant Communities

Deschampsia caespitosa - danthonia californica herbaceous vegetation

Tufted hairgrass - california oatgrass G2 C

Species

Birds

<i>Progne subis</i>	Purple martin	G5	C
Various	Shorebird aggregations (non-marine)	GU	K

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5	K
<i>Contia tenuis</i>	Sharptail snake	G5	n/a
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A

Non-Vascular - Moss

<i>Bruchia flexuosa</i>	Bruchia flexuosa	G4	K
<i>Ephemerum crassinervium</i>	Ephemerum crassinervium	G5	K
<i>Ephemerum serratum</i>	Ephemerum serratum	G5	K

Vascular Plants

<i>Aristida oligantha</i>	Prairie three-awn grass	G5	K
<i>Aster curtus</i>	White-topped aster	G3	C
<i>Aster hallii</i>	Hall's aster	G4	A
<i>Calochortus uniflorus</i>	Shortstem mariposa lily	G4	K
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	B
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	K
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	K
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	K
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE B

Fern Ridge Reservoir

continued from previous page

<i>Lupinus affinis</i>	Fleshy lupine	G5	K
<i>Polygonum polygaloides var confertiflorum</i>	Dense-flower knotweed	G5	K
<i>Pyrrocoma (haplopappus) racemosa var r</i>	Slender goldenweed	G5	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	K
<i>Trichostema lanceolatum</i>	Vinegar weed	G5	K
<i>Viola hallii</i>	Hall's violet	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Marina development	Medium (likely within 5 to 10 years)	Low

Fidalgo Bay

Section: Georgia Basin

Area Type: Nearshore Marine

Area:	375 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
	926 ac	11.7 km	Agriculture 0 %	1 0 %	4 37 %
			Developed 0 %	2 57 %	5 5 %
Ownership / Management	% of Area		Undeveloped 0 %	3 1 %	
			Marine/Freshwater 100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5

Fidalgo Bay

continued from previous page

<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
Fishes		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Groundwater manipulation	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Point source water pollution	Medium (likely within 5 to 10 years)	High

Fidalgo Head, Burrows Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	346 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	855 ac	8.0 km	Agriculture 0 %	1 0 % 4 54 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 15 %	2 43 % 5 0 %
County Government	25 %		Undeveloped 78 %	3 3 %
US Dept. of Defense	<5 %		Marine/Freshwater 7 %	
Washington Parks and Recreation Co	21 %			
Western Washington University	11 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater aquatic beds	GU	B
Herbaceous balds and bluffs	GU	A
Sphagnum bogs and fens	GU	C

Nearshore Marine Ecological Systems

	Rock cliff / Vegetated	n/a		
	Sand and gravel beach / Unvegetated	n/a		
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a		
Plant Communities				
<i>Carex cusickii</i> - (<i>menyanthes trifoliata</i>) herbaceous vegetation	Cusick's sedge - (buckbean)	G2		C
<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1		A
<i>Pseudotsuga menziesii</i> - <i>thuja plicata</i> / <i>gaultheria shallon</i> forest	Douglas-fir - western redcedar / salal	G2		C
<i>Pseudotsuga menziesii</i> / <i>gaultheria shallon</i> - <i>holodiscus discolor</i> forest	Douglas-fir / salal - oceanspray	G2		B
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2		B
Species				
Birds				
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
Non-Vascular - Lichen				
<i>Cladina portentosa</i>	Cladina portentosa	G?		K
<i>Kaernefeltia californica</i>	Kaernefeltia californica	G2		K
<i>Leptogium rivale</i>	Leptogium rivale	G?		K
<i>Niebla cephalota</i>	Niebla cephalota	G?		K
<i>Ramalina thrausta</i>	Ramalina thrausta	G?		K
Vascular Plants				
<i>Agrostis microphylla</i>	Small-leaf bentgrass	G4		K
<i>Camassia quamash</i> ssp <i>maxima</i>	Common Camas	G5		C
<i>Erythronium oregonum</i> ssp <i>oregonum</i>	Giant white fawnlily	G5		K
<i>Minuartia stricta</i> var <i>puberulenta</i>	Michaux's stichwort	GU		K
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5		A
<i>Triteleia (brodiaea) grandiflora</i> var <i>howellii</i>	Howell's triteleia	G5		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low
Fire management	Medium (likely within 5 to 10 years)	Medium

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Fidalgo Island

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,745 ha	<u>Marine Shoreline</u>	
	4,310 ac		km
<u>Ownership / Management</u>		<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	% of Area	Agriculture	0 %
City	63 %	Developed	3 %
		Undeveloped	95 %
		Marine/Freshwater	2 %
			1 0 % 4 37 %
			2 63 % 5 0 %
			3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	B

Plant Communities

<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	B
<i>Pseudotsuga menziesii - arbutus menziesii / lonicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	G2	B
<i>Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest</i>	Douglas-fir - western redcedar / salal	G2	C
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2	B

Species

Non-Vascular - Lichen

<i>Cystocoleus ebeneus</i>	Cystocoleus ebeneus	G?	K
<i>Umbilicaria polyrrhiza</i>	Umbilicaria polyrrhiza	G1	K

Non-Vascular - Moss

<i>Funaria muhlenbergii</i>	Funaria muhlenbergii	G3	K
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Vascular Plants

<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	B
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Fire management

Medium (likely within 5 to 10 years)

Medium

Fishtrap Creek

Section: Puget Trough

Area Type: Terrestrial

Area: 299 ha Marine Shoreline
 739 ac km
 Ownership / Management % of Area

Land Use/Land Cover
 Agriculture 42 %
 Developed 50 %
 Undeveloped 7 %
 Marine/Freshwater 0 %

GAP Management Status
 1 0 % 4 100 %
 2 0 % 5 0 %
 3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Species

Fishes

Catostomus sp 4

Salish sucker G1 K

Rhinichthys sp 4

Nooksack dace G3 K

Mammals

Sorex bendirii

Pacific water shrew G4 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development

High (present or likely within 4 years)

High

Flattop Island

Section: Georgia Basin

Area Type: Nearshore Marine

Area: 43 ha Marine Shoreline
 106 ac 2.5 km
 Ownership / Management % of Area
 US Fish and Wildlife Service 10 %

Land Use/Land Cover
 Agriculture 0 %
 Developed 0 %
 Undeveloped 0 %
 Marine/Freshwater 100 %

GAP Management Status
 1 0 % 4 1 %
 2 36 % 5 59 %
 3 2 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Dry evergreen forests and woodlands GU

Nearshore Marine Ecological Systems

Rock cliff / Vegetated n/a

Species

Birds

Seabird nesting colonies

Seabird nesting colonies GU

Fishes

Clupea pallasii

Pacific herring spawning G?

<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes melanops</i>	Black rockfish	G?
<u>Mammals</u>		
<i>Balaenoptera acutorostrata</i>	Minke whale	G5
<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4
<u>Molluscs</u>		
<i>Crassedoma giganteum</i>	Rock scallop	G?
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Forest Park-Coast Range

Section: Lower Columbia

Area Type: Terrestrial

Area: 30,838 ha	Marine Shoreline
76,170 ac	km
Ownership / Management	% of Area
City	6 %
Oregon State	<5 %
US Bureau of Land Management	10 %
US Forest Service	<5 %

Land Use/Land Cover		GAP Management Status
Agriculture	5 %	1 0 % 4 98 %
Developed	5 %	2 0 % 5 0 %
Undeveloped	90 %	3 2 %
Marine/Freshwater	0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Freshwater Ecological Systems

Coast Range headwaters - sedimentary, mid elevation	n/a
Coast Range small river - basalt, low elevation	n/a

Forest Park-Coast Range *continued from previous page*

Foothills tributaries - basalt, low to mid elevation	n/a
Lower Columbia tributaries - volcanics, mid elevation, moderate gradient	n/a
Lower Columbia tributary small rivers - volcanics	n/a
Lower Willamette River mainstem	n/a

Species

Birds

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	C
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Mining practices	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium

Fort Flagler

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 521 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
1,287 ac	4.4 km	Agriculture 0 %	1 0 % 4 16 %
		Developed 2 %	2 51 % 5 27 %
Ownership / Management % of Area		Undeveloped 61 %	3 6 %
Washington Parks and Recreation Co 51 %		Marine/Freshwater 36 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a

Species

Birds

<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5

<i>Gavia spp</i>	Loons	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	
Seabird nesting colonies	Seabird nesting colonies	GU	
<u>Fishes</u>			
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes melanops</i>	Black rockfish	G?	
<u>Mammals</u>			
<i>Orcinus orca</i>	Killer whale	G4	
<u>Molluscs</u>			
<i>Crassedoma giganteum</i>	Rock scallop	G?	
<u>Other Invertebrates</u>			
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?	
<u>Vascular Plants</u>			
<i>Phacelia linearis</i>	Linearleaf phacelia	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Fort Lewis - McChord

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 24,382 ha	<u>Marine Shoreline</u>
60,224 ac	km
<u>Ownership / Management</u>	<u>% of Area</u>
US Dept. of Defense	93 %

<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
Agriculture 1 %	1 0 % 4 7 %
Developed 13 %	2 0 % 5 0 %
Undeveloped 84 %	3 93 %
Marine/Freshwater 2 %	

Targets known in this Conservation Area:	(Common Name)	(GRank)	(Listing)	(EORank)	
Terrestrial Ecological Systems					
	Depressional wetland broadleaf forests	GU		C	
	Depressional wetland shrublands	GU		B	
	Douglas fir - western hemlock - western redcedar forests	GU			
	Dry evergreen forests and woodlands	GU			
	Dry evergreen forests and woodlands (ranked occurrences)	GU		B	
	Freshwater marshes	GU		D	
	Oak woodlands	GU			
	Oak woodlands (ranked occurrences)	GU		C	
	Riparian forests and shrublands	GU			
	Riparian forests and shrublands (ranked occurrences)	GU		C	
	Upland prairies and savannas	GU		B	
Freshwater Ecological Systems					
	Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a			
	South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a			
	South Sound rivers and tributaries - glacial drift, low elevation, low gradient	n/a			
Plant Communities					
	<i>Festuca roemerii</i> - aster curtus herbaceous vegetation	Roemer's fescue - white-topped aster	G1	A	
	<i>Pinus ponderosa</i> / <i>Carex inops</i> - <i>Festuca roemerii</i> woodland	Ponderosa pine / long-stolon sedge - roemer's fescue	G1	C	
	<i>Pseudotsuga menziesii</i> / <i>Corylus cornuta</i> / <i>Polystichum munitum</i> forest	Douglas-fir / beaked hazel / swordfern	G3	B	
	<i>Quercus garryana</i> - (<i>Fraxinus latifolia</i>) / <i>Symphoricarpos albus</i> forest	Oregon white oak - (oregon ash) / common snowberry	G2	C	
	<i>Quercus garryana</i> / <i>Carex inops</i> - <i>Camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	C	
	<i>Quercus garryana</i> / <i>Festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	C	
	<i>Quercus garryana</i> / <i>Symphoricarpos albus</i> / <i>Carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	C	
Species					
Birds					
	<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	C
	<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3		A
	<i>Progne subis</i>	Purple martin	G5		D
	<i>Sialia mexicana</i>	Western bluebird	G5		C
	<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a
Herpetofauna					
	<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A
Insects					
	<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1		C

<i>Hesperia comma oregonia</i>	Oregon branded skipper	G5		C
<i>Icaricia icarioides blackmorei</i>	Blackmore's blue	G3		C
<i>Polites mardon</i>	Mardon skipper	G2		C
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4		C
<u>Mammals</u>				
<i>Sciurus griseus</i>	Western gray squirrel	G5		H
<i>Thomomys mazama glacialis</i>	Western pocket gopher, ssp glacialis	G1	C	C
<u>Vascular Plants</u>				
<i>Aster curtus</i>	White-topped aster	G3		K
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5		C
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT	K
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5		C
<i>Gaillardia aristata</i>	Great blanket-flower	G5		D
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3		K
<i>Howellia aquatilis</i>	Water howellia	G2	LT	K
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU		D
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5		D
<i>Trillium parviflorum</i>	Small-flowered trillium	G2		K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5		D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational vehicles	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Low
Mining practices	High (present or likely within 4 years)	Low
Military activities	High (present or likely within 4 years)	Medium
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Commercial/industrial development	High (present or likely within 4 years)	Low

Fox Hollow BLM RNA

Section: Willamette Valley

Area Type: Terrestrial

Area:	183 ha	Marine Shoreline
	452 ac	km
Ownership / Management	% of Area	
US Bureau of Land Management	46 %	

Land Use/Land Cover		GAP Management Status			
Agriculture	0 %	1	0 %	4	71 %
Developed	0 %	2	3 %	5	0 %
Undeveloped	99 %	3	26 %		
Marine/Freshwater	0 %				

Fox Hollow BLM RNA *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	D

Freshwater Ecological Systems

Coast Range headwaters - sedimentary, mid elevation	n/a	
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Species

Vascular Plants

<i>Agrostis hallii</i>	Hall's bentgrass	G4	K
<i>Aster vialis</i>	Wayside aster	G2	C
<i>Calycadenia truncata</i>	Oregon western rosin-weed	G4	C
<i>Cimicifuga elata</i>	Tall bugbane	G2	D
<i>Cyperus bipartitus</i>	Shining flatsedge	G5	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Fraser Delta

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area: 28,618 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
70,686 ac	50.4 km	Agriculture 11 %	1 1 % 4 38 %
Ownership / Management	% of Area	Developed 17 %	2 1 % 5 2 %
Fisheries and Oceans Canada	<5 %	Undeveloped 19 %	3 58 %
Nature Appreciation Area	<5 %	Marine/Freshwater 54 %	
Regional District Nature Appreciation	<5 %		
Regional District Nature Appreciation	<5 %		
Regional District Park	<5 %		
Trust	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Intertidal salt marshes	GU	B
Sphagnum bogs and fens	GU	K

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
	Sand and gravel flat / Unvegetated	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a	
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a	
Freshwater Ecological Systems			
	Fraser River mainstem - predominantly granite watershed, low elevation, low gradient	n/a	
	Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a	
Plant Communities			
<i>Carex macrocephala herbaceous vegetation</i>	Bighead sedge	G1	C
<i>Deschampsia caespitosa - sidalcea hendersonii herbaceous vegetation</i>	Tufted hairgrass - henderson's checkermallow	G1	B
Species			
Birds			
	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Branta bernicla</i>	Brant	G5	
<i>Chen caerulescens</i>	Snow goose	G5	K
<i>Gavia spp</i>	Loons	GU	
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	
Fishes			
<i>Acipenser transmontanus pop4</i>	White sturgeon (Fraser river)	G2	K
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
Mammals			
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Orcinus orca</i>	Killer whale	G4	
Other Invertebrates			
<i>Cancer magister</i>	Dungeness crab	G?	
Vascular Plants			
<i>Caltha palustris var palustris</i>	Marsh marigold	G5	A
<i>Elatine rubella</i>	Southwestern waterwort	G5	K
<i>Eleocharis parvula</i>	Small spikerush	G5	K
<i>Lilaea scilloides</i>	Flowering quillwort	G4	B
<i>Lupinus rivularis</i>	Riverbank lupine	G4	K

<i>Myriophyllum ussuriense</i>	Ussurian water-milfoil	G3	K
<i>Sidalcea hendersonii</i>	Henderson mallow	G3	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Point source water pollution High (present or likely within 4 years) High

Marine

Poaching or commercial collecting High (present or likely within 4 years) Medium
 Collateral damage from fishing High (present or likely within 4 years) High
 Commercial/industrial development High (present or likely within 4 years) High
 Ditches, dikes, drainages and diversions High (present or likely within 4 years) High
 Grazing practices High (present or likely within 4 years) Low
 Industrial discharge High (present or likely within 4 years) Medium
 Invasive species High (present or likely within 4 years) High
 Management off/for certain species High (present or likely within 4 years) High
 Aquaculture High (present or likely within 4 years) Low
 Overfishing, overhunting, over collecting High (present or likely within 4 years) High
 Recreational use High (present or likely within 4 years) Medium
 Roads and/or utilities High (present or likely within 4 years) High
 Small population size and distribution High (present or likely within 4 years) High
 Non point source water pollution High (present or likely within 4 years) High
 Shoreline stabilization Low (not likely within 10 years) Low
 Trails Low (not likely within 10 years) Low
 Residential development Medium (likely within 5 to 10 years) Medium
 Unknown source of water pollution Medium (likely within 5 to 10 years) Medium

Friday Harbor, San Juan Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	178 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
	440 ac	3.9 km	Agriculture 0 %	1	0 %	4	10 %
			Developed 6 %	2	89 %	5	0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 82 %	3	0 %		
University of Washington		85 %	Marine/Freshwater 11 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Nearshore Marine Ecological Systems

Rock cliff / Vegetated n/a
Nereocystis/Macrocyctis Rock with sand and/or gravel beach / Kelp n/a
Nereocystis/Macrocyctis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass n/a

Species

Vascular Plants

Aster eatonii Eaton aster G5 K

Friday Harbor, San Juan Island *continued from previous page*

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Marine		
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Gabriola Island

Section: Georgia Basin		Area Type: Terrestrial/Nearshore Marine		
Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
1,362 ha 3,364 ac	9.0 km	Agriculture 2 %	1 0 %	4 79 %
		Developed 54 %	2 0 %	5 21 %
Ownership / Management	% of Area	Undeveloped 22 %	3 0 %	
BC Parks	<5 %	Marine/Freshwater 22 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Sphagnum bogs and fens	GU	K

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Rock platform / Unvegetated	n/a	
Rock platform / Vegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> Sand flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a	
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Species

Birds

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	B
Seabird nesting colonies	Seabird nesting colonies	GU		

Fishes

<i>Ophiodon elongatus</i>	Lingcod	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?		

Gabriola Island

continued from previous page

<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	
<u>Mammals</u>			
<i>Eumetopias jubatus</i>	Steller sea lion rafting sites	G3	LE, LT
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	
<u>Other Invertebrates</u>			
<i>Cucumaria miniata</i>	Burrowing sea cucumber	GU	
<i>Lopholithodes (Various)</i>	Box crabs	G?	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Groundwater manipulation	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Marine

Recreational use	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	Low
Roads and/or utilities	Medium (likely within 5 to 10 years)	Medium

Gabriola Pass

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 1,873 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
4,626 ac	30.3 km	Agriculture 4 %	1 1 % 4 66 %
		Developed 13 %	2 0 % 5 33 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 45 %	3 0 %
BC Parks	<5 %	Marine/Freshwater 38 %	
Trust	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Herbaceous balds and bluffs	GU	K

Nearshore Marine Ecological Systems

Mud flat / Unvegetated	n/a
Rock cliff / Unvegetated	n/a
Rock platform / Unvegetated	n/a
Rock platform / Vegetated	n/a
Rock with sand and/or gravel beach / Unvegetated	n/a
Sand and gravel beach / Unvegetated	n/a
Sand and gravel flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass

Gabriola Pass

continued from previous page

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation n/a

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient n/a

Species

Fishes

Clupea pallasii Pacific herring spawning G?

Vascular Plants

Limnanthes macounii Macoun's meadow-foam G3 A

Lotus pinnatus Bog bird's-foot-trefoil G5 K

Montia howellii Howell's miner's-lettuce G3 A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development Medium (likely within 5 to 10 years) Medium
Forestry practices Medium (likely within 5 to 10 years) Medium

Marine

Recreational infrastructure development High (present or likely within 4 years) Medium
Overfishing, overhunting, over collecting High (present or likely within 4 years) High
Commercial/industrial development High (present or likely within 4 years) Medium
Recreational use Medium (likely within 5 to 10 years) Medium
Non point source water pollution Medium (likely within 5 to 10 years) Medium
Marina development Medium (likely within 5 to 10 years) Medium

Gales Creek

Section: Lower Columbia

Area Type: Terrestrial

Area: 28 ha Marine Shoreline
69 ac km

Land Use/Land Cover

Agriculture 67 %
Developed 0 %
Undeveloped 34 %
Marine/Freshwater 0 %

GAP Management Status

1 0 % 4 100 %
2 0 % 5 0 %
3 0 %

Ownership / Management % of Area

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Coast Range headwaters - volcanics, mid elevation n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species High (present or likely within 4 years) High
Shoreline stabilization Low (not likely within 10 years) Medium
Residential development Low (not likely within 10 years) Medium

Operation of dams or reservoirs	Medium (likely within 5 to 10 years)	Medium
Non point source water pollution	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	High

Gardiner

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	197 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	487 ac	5.7 km	Agriculture 0 %	1 0 % 4 18 %
			Developed 0 %	2 0 % 5 80 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 0 %	3 1 %
Washington Department of Fish and		<5 %	Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

	Dabbling ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Other Invertebrates

<i>Virgularia spp</i>	Seawhips; virgularia spp	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Gedney Island

Section: Puget TroughArea Type: Nearshore Marine

<u>Area:</u>	212 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	524 ac	3.9 km	Agriculture 0 %	1 0 % 4 26 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 0 %	2 0 % 5 74 %
			Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a

Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low

Management of/for certain species	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Government Island

Section: <u>Lower Columbia</u>		Area Type: <u>Terrestrial</u>				
Area:	1,214 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	2,999 ac			km	Agriculture	1 %
Ownership / Management	% of Area		Developed	1 %	2 0 %	5 0 %
			Undeveloped	73 %	3 0 %	
			Marine/Freshwater	26 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Freshwater Ecological Systems

Lower Columbia mainstem n/a

Species

Birds

Ardea herodias Great blue heron G5 A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Operation of dams or reservoirs	Medium (likely within 5 to 10 years)	Low

Grays Marsh

Section: <u>Georgia Basin</u>		Area Type: <u>Terrestrial</u>				
Area:	324 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	800 ac			km	Agriculture	8 %
Ownership / Management	% of Area		Developed	7 %	2 0 %	5 0 %
			Undeveloped	77 %	3 0 %	
			Marine/Freshwater	9 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Grays Marsh

continued from previous page

Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C

Plant Communities

<i>Pseudotsuga menziesii</i> - <i>abies grandis</i> / <i>symphoricarpos albus</i> / <i>melica subulata</i> forest	Douglas-fir - grand fir / common snowberry / alaska oniongrass	G1	C
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos albus</i> - <i>holodiscus discolor</i> forest	Douglas-fir / common snowberry - oceanspray	G2	C

Species

Vascular Plants

<i>Artemisia campestris ssp caudata</i>	Beach wormwood	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Low (not likely within 10 years)	High
Forestry practices	Low (not likely within 10 years)	Medium

Green River

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 3,936 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
9,722 ac	km	Agriculture 1 %	1 0 % 4 66 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 11 %	2 32 % 5 0 %
Department of Natural Resources	12 %	Undeveloped 85 %	3 2 %
Washington Department of Fish and	<5 %	Marine/Freshwater 4 %	
Washington Parks and Recreation Co	18 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Cascades headwaters - mafic, mid elevation, mixed gradient	n/a
Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a

Species

Fishes

<i>Catostomus sp 4</i>	Salish sucker	G1	C
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	K
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Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Trails	High (present or likely within 4 years)	Low
Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Habeck Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
7,139 ha		Agriculture 45 %	1	0 %	4	98 %
17,633 ac	km	Developed 0 %	2	0 %	5	0 %
Ownership / Management	% of Area	Undeveloped 54 %	3	2 %		
US Forest Service	<5 %	Marine/Freshwater 0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Coast Range tributaries - sedimentary, low to mid elevation	n/a	
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	

Species

Birds

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3		K
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Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5		n/a
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Insects

<i>Icaricia icarioides fenderi</i>	Fender's blue	G1		C
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Vascular Plants

<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		D
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	E
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		D

Habeck Oaks

continued from previous page

<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT	B
Impacts assessed in this Conservation Area:		(Urgency)	(Severity)	
<u>Terrestrial</u>				
Residential development	High (present or likely within 4 years)	High		
Invasive species	High (present or likely within 4 years)	High		
Grazing practices	High (present or likely within 4 years)	Medium		
Forestry practices	High (present or likely within 4 years)	High		
Fire management	High (present or likely within 4 years)	Medium		
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High		
Parasites/pathogens	Medium (likely within 5 to 10 years)	High		

Hamilton Marsh

Section: <u>Georgia Basin</u>		Area Type: <u>Terrestrial</u>		
Area:	553 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,366 ac	km	Agriculture 2 %	1 0 % 4 100 %
			Developed 8 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 90 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	C
Freshwater marshes	GU	K
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	C
Tidally-influenced freshwater wetlands	GU	C

Plant Communities

<i>Ledum groenlandicum</i> - <i>myrica gale</i> / <i>sphagnum spp.</i> shrubland	Bog labrador-tea - sweetgale / peat moss	G2	C
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Species

Birds			
<i>Ardea herodias</i>	Great blue heron	G5	K
Mammals			
<i>Sorex palustris brooksi</i>	Vancouver Island water shrew	G2	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	High

Hamma Hamma Delta

Section: Puget Trough

Area Type: Terrestrial

<p>Area: 21 ha <u>Marine Shoreline</u> 52 ac km</p> <p>Ownership / Management % of Area</p>	<p>Land Use/Land Cover</p> <p>Agriculture 0 % Developed 1 % Undeveloped 77 % Marine/Freshwater 20 %</p>	<p>GAP Management Status</p> <p>1 0 % 4 99 % 2 0 % 5 0 % 3 2 %</p>
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Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Tidally-influenced freshwater wetlands GU B

Freshwater Ecological Systems

East Olympics small rivers - predominantly mafic, low to mid elevation, low to moderate gradient n/a

Species

Birds

Haliaeetus leucocephalus Bald eagle wintering/feeding areas G4 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Harrison

Section: Puget Trough

Area Type: Terrestrial

<p>Area: 646 ha <u>Marine Shoreline</u> 1,596 ac km</p> <p>Ownership / Management % of Area</p> <p>Fisheries and Oceans Canada 38 % Trust <5 %</p>	<p>Land Use/Land Cover</p> <p>Agriculture 3 % Developed 0 % Undeveloped 63 % Marine/Freshwater 34 %</p>	<p>GAP Management Status</p> <p>1 38 % 4 62 % 2 0 % 5 0 % 3 0 %</p>
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Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Freshwater aquatic beds GU A
 Freshwater marshes GU K
 Riparian forests and shrublands (ranked occurrences) GU B

Plant Communities

Populus balsamifera ssp. trichocarpa - acer macrophyllum / equisetum hyemale forest Black cottonwood - bigleaf maple / scouring-rush G3 B

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	K
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational vehicles	Low (not likely within 10 years)	High
Recreational use	Low (not likely within 10 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium

Harwood Island

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	299 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	739 ac	7.8 km	Agriculture 0 %	1 0 % 4 3%
			Developed 0 %	2 0 % 5 97%
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 0 %	3 0 %
Trust	<5 %		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Hat and Saddlebag Islands

Hat and Saddlebag Islands *continued from previous page*

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	54 ha	<u>Marine Shoreline</u>
	133 ac	4.7 km
<u>Ownership / Management</u>	<u>% of Area</u>	
Department of Natural Resources	79 %	
US Fish and Wildlife Service	<5 %	
Washington Parks and Recreation Co	14 %	

<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>			
Agriculture	0 %	1	0 %	4 4 %
Developed	1 %	2	93 %	5 0 %
Undeveloped	72 %	3	4 %	
Marine/Freshwater	27 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Dry evergreen forests and woodlands (ranked occurrences)	GU		C
Herbaceous balds and bluffs	GU		B

Nearshore Marine Ecological Systems

	Rock cliff / Vegetated	n/a		
	Rock with sand and/or gravel beach / Unvegetated	n/a		
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a		
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a		

Plant Communities

<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1		B
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Species

Birds

	Dabbling ducks	G5		
<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Branta bernicla</i>	Brant	G5		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
<i>Gavia spp</i>	Loons	GU		
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5		

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Ophiodon elongatus</i>	Lingcod	G?		

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?		
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
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Hat and Saddlebag Islands *continued from previous page*

Fire management	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low
Marine		
Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Henry Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	620 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,531 ac	13.1 km	Agriculture 2 %	1 0 % 4 37 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 0 %	2 5 % 5 55 %
US Bureau of Land Management		<5 %	Undeveloped 42 %	3 2 %
			Marine/Freshwater 56 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Intertidal salt marshes	GU	B

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Rock cliff / Vegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Plant Communities

<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	G1	C
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Species

Birds

	Diving ducks/bay ducks	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
<i>Gavia spp</i>	Loons	GU		
<i>Histrionicus histrionicus</i>	Harlequin duck	G4		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5		

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Molluscs

<i>Crassidoma giganteum</i>	Rock scallop	G?
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Recreational infrastructure development	High (present or likely within 4 years)	Low

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Herando Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	999 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,468 ac	5.8 km	Agriculture 0 %	1 0 % 4 99 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
			Undeveloped 99 %	3 0 %
			Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	A
Depressional wetland broadleaf forests	GU	B

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	B

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	Low (not likely within 10 years)	High
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Hidden Oaks

Section: Lower Columbia

Area Type: Terrestrial

Area: 463 ha 1,144 ac	Marine Shoreline km	Land Use/Land Cover	GAP Management Status		
		Agriculture 96 %	1	0 %	4 100 %
		Developed 0 %	2	0 %	5 0 %
Ownership / Management % of Area		Undeveloped 4 %	3	0 %	
		Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Foothills tributaries - basalt, low to mid elevation	n/a	
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Species

Birds

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
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Vascular Plants

<i>Agrostis microphylla</i>	Small-leaf bentgrass	G4	C
<i>Aster curtus</i>	White-topped aster	G3	D
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	C
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	B
<i>Delphinium oreganum</i>	Larkspur	G1	B
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	C
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	C
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	B

Hidden Oaks

continued from previous page

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

High Pass

Section: Willamette Valley

Area Type: Terrestrial

Area: 4,083 ha Marine Shoreline
10,085 ac km

Land Use/Land Cover

Agriculture	20 %
Developed	0 %
Undeveloped	80 %
Marine/Freshwater	0 %

GAP Management Status

1	0 %	4	81 %
2	6 %	5	0 %
3	12 %		

Ownership / Management % of Area
US Bureau of Land Management 23 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Species

Birds

Brachyramphus marmoratus

Marbled murrelet G3 n/a

Herpetofauna

Aneides ferreus

Clouded salamander G3 C

Contia tenuis

Sharptail snake G5 C

Vascular Plants

Cimicifuga elata

Tall bugbane G2 D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium

Holmes Harbor, Whidbey Island

Section: Puget Trough

Area Type: Nearshore Marine

Holmes Harbor, Whidbey Island *continued from previous page*

<u>Area:</u>	283 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>			
	699 ac	4.5 km	Agriculture	0 %	1	0 %	4 7 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	0 %	2	0 %	5 90 %
			Undeveloped	0 %	3	3 %	
			Marine/Freshwater	100 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?

Mammals

<i>Eschrichtius robustus</i>	Grey whale	G4	PS:LE
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Horn Creek

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	1,004 ha	<u>Marine Shoreline</u>	
	2,480 ac		km
<u>Ownership / Management</u>		<u>% of Area</u>	
Department of Natural Resources		<5 %	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>	
Agriculture	0 %	1 0 %	4 97 %
Developed	7 %	2 0 %	5 0 %
Undeveloped	91 %	3 3 %	
Marine/Freshwater	2 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a
South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Horseshoe Bay

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	178 ha	<u>Marine Shoreline</u>	
	440 ac		9.0 km
<u>Ownership / Management</u>		<u>% of Area</u>	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>	
Agriculture	0 %	1 0 %	4 16 %
Developed	0 %	2 0 %	5 83 %
Undeveloped	0 %	3 0 %	
Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
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Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
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	Rock platform / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
Species		
Birds		
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU
Fishes		
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Marine</u>			
	Residential development	High (present or likely within 4 years)	Medium
	Poaching or commercial collecting	High (present or likely within 4 years)	Medium

Howe Estuary

<u>Section: Georgia Basin</u>		<u>Area Type: Nearshore Marine</u>		
<u>Area:</u>	362 ha 894 ac	<u>Marine Shoreline</u>	22.5 km	
<u>Ownership / Management</u>	% of Area	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
Trust	<5 %	Agriculture	0 %	1 0 % 4 100 %
		Developed	0 %	2 0 % 5 0 %
		Undeveloped	0 %	3 0 %
		Marine/Freshwater	100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

	Georgia Strait headwaters streams - volcanic, mid elevation, high gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Marine</u>			
	Shoreline stabilization	High (present or likely within 4 years)	High
	Roads and/or utilities	High (present or likely within 4 years)	High
	Point source water pollution	High (present or likely within 4 years)	High

Commercial/industrial development	High (present or likely within 4 years)	High
Non point source water pollution	Low (not likely within 10 years)	Low

Hunter and Mud Bays, Lopez Island

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	192 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	474 ac	km	Agriculture 0 %	1 0 % 4 7%
			Developed 0 %	2 12 % 5 77%
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 0 %	3 3 %
US Fish and Wildlife Service		<5 %	Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Species

Birds

<i>Brachyramphus marmoratus</i>	Dabbling ducks	G5
<i>Gavia spp</i>	Marbled murrelet - marine	G3
<i>Melanitta spp</i>	Loons	GU
<i>Podiceps grisegena</i>	Scoters	GU
	Red-necked grebe	G5

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Indian Head/Horse Rock Ridge

Section: Willamette Valley

Area Type: Terrestrial

Indian Head/Horse Rock Ridge *continued from previous page*

Area:	12,457 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	30,769 ac	km	Agriculture	33 %	1	0 %	4	92 %
			Developed	0 %	2	0 %	5	0 %
			Undeveloped	66 %	3	8 %		
			Marine/Freshwater	1 %				
Ownership / Management	% of Area							
Oregon State	<5 %							
US Bureau of Land Management	15 %							

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU		K
Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Dry evergreen forests and woodlands (ranked occurrences)	GU		C
Herbaceous balds and bluffs	GU		C
Oak woodlands	GU		
Oak woodlands (ranked occurrences)	GU		B
Riparian forests and shrublands	GU		
Upland prairies and savannas	GU		C
Wet prairies	GU		C

Freshwater Ecological Systems

Cascade headwaters - volcanics, mid elevation, moderate gradient n/a

Plant Communities

<i>Festuca roemerii</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1		C
<i>Pinus ponderosa</i> - <i>quercus garryana</i> / <i>festuca roemerii</i> wooded herbaceous vegetation	Ponderosa pine -oregon white oak / romer's fescue	G1		C
<i>Quercus garryana</i> / <i>festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1		C

Species

Birds

<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5		K
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	K
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4		C
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3		K

Herpetofauna

Contia tenuis Sharptail snake G5 C

Vascular Plants

<i>Agrostis howellii</i>	Howell's bentgrass	G2		C
<i>Aster hallii</i>	Hall's aster	G4		B
<i>Aster vialis</i>	Wayside aster	G2		C
<i>Cicendia quadrangularis</i>	Oregon microcala	G4		E
<i>Cimicifuga elata</i>	Tall bugbane	G2		C
<i>Delphinium oregonum</i>	Larkspur	G1		C
<i>Erigeron decumbens</i> var <i>decumbens</i>	Willamette valley daisy	G1	LE	C
<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	G5		D
<i>Lupinus sulphureus</i> var <i>kincaidii</i>	Kincaid's lupine	G2	LT	D

Indian Head/Horse Rock Ridge *continued from previous page*

<i>Plagiobothrys nothofulvus</i>	Rusty popcorn-flower	G4	C
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5	C
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	Medium
Grazing practices	Medium (likely within 5 to 10 years)	Low
Crop production practices	Medium (likely within 5 to 10 years)	Medium

Indian Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
1,087 ha	20.9 km	Agriculture 0 %	1 0 %	4 9 %
2,685 ac		Developed 1 %	2 0 %	5 39 %
Ownership / Management	% of Area	Undeveloped 49 %	3 52 %	
US Dept. of Defense	49 %	Marine/Freshwater 50 %		
Washington Parks and Recreation Co	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Rock with sand and/or gravel beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

Dabbling ducks	G5
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	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
Seabird nesting colonies	Seabird nesting colonies	GU
<u>Fishes</u>		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<u>Mammals</u>		
<i>Orcinus orca</i>	Killer whale	G4
<u>Other Invertebrates</u>		
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

<u>Impacts assessed in this Conservation Area:</u>		<u>(Urgency)</u>	<u>(Severity)</u>
<u>Terrestrial</u>			
	Invasive species	High (present or likely within 4 years)	Medium
	Commercial/industrial development	High (present or likely within 4 years)	High
<u>Marine</u>			
	Small population size and distribution	High (present or likely within 4 years)	High
	Poaching or commercial collecting	High (present or likely within 4 years)	Medium
	Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
	Management off/for certain species	High (present or likely within 4 years)	Medium
	Forestry practices	High (present or likely within 4 years)	Low
	Aquaculture	High (present or likely within 4 years)	Low
	Roads and/or utilities	Low (not likely within 10 years)	High
	Military activities	Low (not likely within 10 years)	Medium
	Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
	Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Indianola Forest

<u>Section: Puget Trough</u>		<u>Area Type: Terrestrial</u>		
<u>Area:</u>	640 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,581 ac	km	Agriculture 0 %	1 0 % 4 100 %
			Developed 6 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 94 %	3 0 %
Tribal	9 %		Marine/Freshwater 0 %	

<u>Targets known in this Conservation Area:</u>		<u>(Common Name)</u>	<u>(GRank)(Listing)(EORank)</u>
<u>Terrestrial Ecological Systems</u>			
	Douglas fir - western hemlock - western redcedar forests		GU

Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

Issaquah Creek Riparian

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	132 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	326 ac	km	Agriculture 4 %	1 0 % 4 87 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 5 %	2 0 % 5 0 %
Department of Natural Resources	11 %		Undeveloped 91 %	3 13 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Low

Jackson Cove-Dabob Bay

Section: Puget Trough

Area Type: Nearshore Marine

Jackson Cove-Dabob Bay *continued from previous page*

Area:	323 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
	798 ac	8.3 km	Agriculture	0 %	1	0 %	4 16 %
			Developed	0 %	2	0 %	5 78 %
			Undeveloped	0 %	3	6 %	
<u>Ownership / Management</u>	<u>% of Area</u>		Marine/Freshwater	100 %			
Washington Parks and Recreation Co	<5 %						

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated n/a

Rock with sand and/or gravel beach / Unvegetated n/a

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Kelp and seagrass n/a

Phyllospadix/Zostera Sand beach / Seagrass n/a

Phyllospadix/Zostera Sand flat / Seagrass n/a

Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation n/a

/Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Saltmarsh and subtidal vegetation n/a

Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia Sand beach / Saltmarsh and subtidal vegetation n/a

/Nereocystis/Macrocystis/Phyllospadix/Zostera

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Species

Birds

Dabbling ducks G5

Aechmophorus occidentalis Western grebe G5

Brachyramphus marmoratus Marbled murrelet - marine G3

Gavia spp Loons GU

Melanitta spp Scoters GU

Podiceps grisegena Red-necked grebe G5

Fishes

Ammodytes hexapterus Pacific sandlance G?

Clupea pallasii Pacific herring spawning G?

Hypomesus pretiosus Surf smelt spawning G?

Ophiodon elongatus Lingcod G?

Sebastes caurinus Copper rockfish G?

Sebastes maliger Quillback rockfish G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Shoreline stabilization	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low

Jackson Cove-Dabob Bay *continued from previous page*

Unknown source of water pollution	Low (not likely within 10 years)	High
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Jackson Fraiser Wetlands

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	380 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	939 ac	km	Agriculture 70 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 3 %
			Undeveloped 24 %
			Marine/Freshwater 2 %

GAP Management Status

1	0 %	4	100 %
2	0 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Willamette River mainstem n/a

Plant Communities

<i>Eleocharis palustris</i> - <i>carex unilateralis herbaceous</i> vegetation	Creeping spikerush - one-sided sedge	G2	C
<i>Salix hookeriana</i> ssp. <i>piperi</i> - (<i>salix sitchensis</i>) shrubland	Piper willow - (sitka willow)	G2	C

Species

Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Vascular Plants

<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	G5	D
<i>Aster hallii</i>	Hall's aster	G4	K
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	K
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	K
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE C
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4	K
<i>Salix prolixa</i> (<i>rigida</i> var <i>macrogemma</i>)	Mackenzie willow	G5	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	X
<i>Viola praemorsa</i> ssp <i>praemorsa</i>	Canary violet	G5	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High

Non point source water pollution Medium (likely within 5 to 10 years) Medium

James Island

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	47 ha <u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	116 ac km	Agriculture 0 %	1 0 % 4 3%
		Developed 5 %	2 96 % 5 0%
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 70 %	3 1 %
Washington Parks and Recreation Co	91 %	Marine/Freshwater 24 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	C

Plant Communities

<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	C
<i>Pseudotsuga menziesii / rosa gymnocarpa - holodiscus discolor forest</i>	Douglas-fir / baldhip rose - oceanspray	G2	B

Species

<u>Birds</u>			
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Jasper Prairie

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	299 ha <u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	739 ac km	Agriculture 41 %	1 0 % 4 1%
		Developed 0 %	2 0 % 5 0%
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 60 %	3 0 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Upland prairies and savannas	GU	C
Wet prairies	GU	C

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation	n/a
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Species

Herpetofauna

Contia tenuis

Sharptail snake	G5	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Low
Residential development	Low (not likely within 10 years)	Medium
Grazing practices	Low (not likely within 10 years)	Medium
Forestry practices	Low (not likely within 10 years)	Medium
Conversion to agriculture or silviculture	Low (not likely within 10 years)	Medium

Jedediah Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 690 ha 1,704 ac	Marine Shoreline 12.5 km	Land Use/Land Cover	GAP Management Status
		Agriculture 3 %	1 26 % 4 31 %
		Developed 0 %	2 0 % 5 43 %
Ownership / Management	% of Area	Undeveloped 46 %	3 0 %
BC Parks	27 %	Marine/Freshwater 51 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	K
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	K

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Fishes

Clupea pallasii

Pacific herring spawning	G?
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Ophiodon elongatus

Lingcod	G?
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Sebastes caurinus

Copper rockfish	G?
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Jedediah Island

continued from previous page

<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: _____ (Urgency) _____ (Severity)

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Recreational use	Low (not likely within 10 years)	Low

Jervis Inlet

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
3,353 ha	45.4 km	Agriculture 0 %	1	1 %
8,282 ac		Developed 5 %	2	0 %
		Undeveloped 54 %	3	0 %
		Marine/Freshwater 42 %		
<u>Ownership / Management % of Area</u>				
BC Parks	<5 %			
Trust	<5 %			

Targets known in this Conservation Area: _____ (Common Name) _____ (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

Mud flat / Unvegetated	n/a
Rock cliff / Unvegetated	n/a
Rock platform / Unvegetated	n/a
Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation
	n/a

Freshwater Ecological Systems

Coastal small rivers - granitic, low elevation, mixed gradient	n/a
Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	n/a

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Jervis Inlet

continued from previous page

Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
	Forestry practices	High (present or likely within 4 years)	High
<u>Marine</u>			
	Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
	Residential development	Medium (likely within 5 to 10 years)	High

Jimmycomelately

Section: Georgia Basin		Area Type: Terrestrial	
<u>Area:</u>	1,186 ha	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,929 ac	Agriculture	1 0 % 4 22 %
	<u>Marine Shoreline</u>	Developed	2 0 % 5 0 %
	km	Undeveloped	3 78 %
<u>Ownership / Management</u>	<u>% of Area</u>	Marine/Freshwater	0 %
Department of Natural Resources	78 %		
US Forest Service	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Freshwater Ecological Systems

Olympics rainshadow coastal headwaters	n/a	
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Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Terrestrial</u>			
	Roads and/or utilities	High (present or likely within 4 years)	Medium
	Residential development	High (present or likely within 4 years)	Medium
	Forestry practices	High (present or likely within 4 years)	Medium
	Invasive species	Low (not likely within 10 years)	Medium

Johns Creek - McEwen Prairie

Section: Puget Trough		Area Type: Terrestrial	
<u>Area:</u>	1,709 ha	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,221 ac	Agriculture	1 0 % 4 100 %
	<u>Marine Shoreline</u>	Developed	2 0 % 5 0 %
	km	Undeveloped	3 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Marine/Freshwater	8 %

Johns Creek - McEwen Prairie continued from previous page

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Riparian forests and shrublands GU

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Species

Mammals

Thomomys mazama couchi Western pocket gopher, ssp couchi G2 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

Johnson Hill

Section: Willamette Valley

Area Type: Terrestrial

Area: 298 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
736 ac	km	Agriculture 67 %	1 0 % 4 1 %
		Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 32 %	3 0 %
		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Oak woodlands GU

Freshwater Ecological Systems

Willamette River mainstem n/a

Species

Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Vascular Plants

Delphinium pavonaceum Peacock larkspur HYB D
Sidalcea campestris Meadow checker-mallow G4 D

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Johnson Point

Section: <u>Puget Trough</u>		Area Type: <u>Nearshore Marine</u>			
Area:	205 ha 506 ac	<u>Marine Shoreline</u>	8.0 km		
Ownership / Management	% of Area	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
		Agriculture	0 %	1 0 %	4 23 %
		Developed	0 %	2 0 %	5 75 %
		Undeveloped	0 %	3 3 %	
		Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Other Invertebrates

<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
<i>Tritonia diomedea</i>	Rosy tritonia	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Jones Island

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	78 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	193 ac	km	Agriculture 0 %	1 0 % 4 4 %
			Developed 0 %	2 95 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 79 %	3 1 %
Washington Parks and Recreation Co	96 %		Marine/Freshwater 21 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B

Plant Communities

<i>Pseudotsuga menziesii</i> - <i>arbutus menziesii</i> / <i>lonicera hispidula</i> forest	Douglas-fir - pacific madrone / hairy honeysuckle	G2	B
<i>Pseudotsuga menziesii</i> - <i>thuja plicata</i> / <i>gaultheria shallon</i> forest	Douglas-fir - western redcedar / salal	G2	C
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2	B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low

Parasites/pathogens	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Fire management	Low (not likely within 10 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Kilisut Harbor

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	246 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	608 ac	10.8 km	Agriculture 0 %	1 0 % 4 31 %
			Developed 0 %	2 0 % 5 66 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 0 %	3 2 %
Washington Parks and Recreation Co		<5 %	Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Rock with sand and/or gravel beach / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<u>Marine</u>		
Small population size and distribution	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Kingston Prairie

<u>Section: Willamette Valley</u>		<u>Area Type: Terrestrial</u>	
<u>Area:</u>	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
398 ha	km	Agriculture 91 %	1 5 % 4 95 %
983 ac		Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	<u>Undeveloped</u>	
Preserve	13 %	Undeveloped 9 %	3 0 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Upland prairies and savannas	GU	B

Plant Communities

<i>Quercus garryana</i> / <i>festuca roemeri</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	B
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Species

Birds

<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	K
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C K
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K

Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3	C
<i>Aster hallii</i>	Hall's aster	G4	A
<i>Delphinium oregonum</i>	Larkspur	G1	B
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE B
<i>Linaria canadensis var texana</i>	Texas toadflax	G4	D
<i>Linum (sclerolinon) digynum</i>	Northwestern yellow-flax	G5	B
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE A
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	B
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Low
Crop production practices	High (present or likely within 4 years)	Low

Lacamas Meadows

Section: Lower Columbia

Area Type: Terrestrial

Area: 1,021 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
2,522 ac	km	Agriculture 52 %	1 0 % 4 100 %
Ownership / Management	% of Area	Developed 2 %	2 0 % 5 0 %
		Undeveloped 43 %	3 0 %
		Marine/Freshwater 3 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Wet prairies	GU	C

Freshwater Ecological Systems

Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient	n/a	
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Plant Communities

<i>Deschampsia caespitosa - danthonia californica herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2	C
<i>Quercus garryana - (fraxinus latifolia) / symphoricarpos albus forest</i>	Oregon white oak - (oregon ash) / common snowberry	G2	C

Species

Vascular Plants

<i>Aster hallii</i>	Hall's aster	G4	C
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	A
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE K
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High

Recreational infrastructure development	High (present or likely within 4 years)	Medium
Operation of drainage or diversion systems	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Groundwater manipulation	Medium (likely within 5 to 10 years)	High

Lacamas Riparian

Section: Lower Columbia

Area Type: Terrestrial

Area:	349 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	862 ac	km	Agriculture	9 %	1	0 %	4	100 %
			Developed	0 %	2	0 %	5	0 %
Ownership / Management	% of Area		Undeveloped	85 %	3	0 %		
			Marine/Freshwater	5 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	K
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a	
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Plant Communities

<i>Quercus garryana</i> - (<i>fraxinus latifolia</i>) / <i>symphoricarpos albus</i> forest	Oregon white oak - (oregon ash) / common snowberry	G2	C
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Species

Vascular Plants

<i>Camassia quamash</i> ssp <i>maxima</i>	Common Camas	G5	K
<i>Viola praemorsa</i> ssp <i>praemorsa</i>	Canary violet	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Recreational infrastructure development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low

Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Low

Ladysmith-Yellow Point

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	4,947 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
	12,219 ac	56.0 km	Agriculture 3 %	1 5 %	4 55 %
			Developed 15 %	2 0 %	5 36 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 43 %	3 3 %	
BC Parks	<5 %		Marine/Freshwater 39 %		
Provincial Park Ecological Reserve	<5 %				
Trust	24 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	A
Freshwater aquatic beds	GU	K
Herbaceous balds and bluffs	GU	K
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	K
Vernal pools	GU	B

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Rock cliff / Unvegetated	n/a
	Rock platform / Unvegetated	n/a
	Rock platform / Vegetated	n/a
	Rock with sand and/or gravel beach / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Ladysmith-Yellow Point *continued from previous page*

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel flat / Saltmarsh and subtidal vegetation n/a

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient n/a

Plant Communities

<i>Plagiobothrys scouleri - plantago bigelovii herbaceous vegetation</i>	Scouler's popcornflower - annual coastal plantain	G2	B
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2	B
<i>Pseudotsuga menziesii / symphoricarpos albus - holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	G2	B
<i>Pseudotsuga menziesii / symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	G2	B

Species

Birds

Progne subis Purple martin G5 K

Fishes

Clupea pallasii Pacific herring spawning G?

Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3	B
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	B
<i>Lotus pinnatus</i>	Bog bird's-foot-trefoil	G5	D
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium
Livestock production practices	Medium (likely within 5 to 10 years)	Medium

Marine

Residential development	Low (not likely within 10 years)	Low
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Lake Hancock

Section: Georgia Basin

Area Type: Terrestrial

Area: 36 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
89 ac	km	Agriculture 0 %	1 0 % 4 41 %
		Developed 4 %	2 0 % 5 0 %
Ownership / Management	% of Area	Undeveloped 84 %	3 58 %
Preserve	17 %	Marine/Freshwater 13 %	
US Dept. of Defense	48 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Intertidal salt marshes	GU	B
Sphagnum bogs and fens	GU	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Military activities	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low

Lake Whatcom

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 6,931 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
17,120 ac	km	Agriculture 0 %	1 0 % 4 32 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 2 %	2 0 % 5 0 %
County Government	<5 %	Undeveloped 97 %	3 68 %
Department of Natural Resources	68 %	Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a
Cascades headwaters, sedimentary, mid elevation	n/a
Cascades tributary headwaters - granitic, low to mid elevation	n/a
Fraser/Nooksack coastal plain - sedimentary, low elevation, low gradient	n/a
Northern Cascades headwaters - sandstone, moderate to high elevation, moderate to high gradient	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Invasive species	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High

Lane Community College Basin

Section: Willamette Valley

Area Type: Terrestrial

Area: 546 ha Marine Shoreline
 1,349 ac km
 Ownership / Management % of Area

Land Use/Land Cover		GAP Management Status		
Agriculture	18 %	1	0 %	4 100 %
Developed	2 %	2	0 %	5 0 %
Undeveloped	79 %	3	0 %	
Marine/Freshwater	0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU

Freshwater Ecological Systems

Cascade headwaters - volcanics, mid elevation, moderate gradient	n/a
Valley/foothill tributaries - volcanics, mid elevation	n/a

Species

Birds

Progne subis

Purple martin	G5	C
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Herpetofauna

Contia tenuis

Sharptail snake	G5	n/a
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Vascular Plants

Aster hallii

Hall's aster	G4	K
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Aster vialis

Wayside aster	G2	C
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Cicendia quadrangularis

Oregon microcala	G4	B
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Cimicifuga elata

Tall bugbane	G2	K
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Grindelia integrifolia

Willamette gumweed	G5	K
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Sidalcea campestris

Meadow checker-mallow	G4	K
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Sidalcea malviflora ssp virgata

Rose checker-mallow	G4	K
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Viola praemorsa ssp praemorsa

Canary violet	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	High

Lasqueti Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	6,997 ha 17,283 ac	Marine Shoreline	6.4 km	Land Use/Land Cover		GAP Management Status	
				Agriculture	0 %	1 3 %	4 95 %
				Developed	0 %	2 0 %	5 2 %
Ownership / Management		% of Area		Undeveloped	95 %	3 0 %	
BC Parks		<5 %		Marine/Freshwater	6 %		
Provincial Park Ecological Reserve		<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	K
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	B
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	K

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Georgia Strait coastal streams - granitic, low elevation, low to moderate gradient	n/a
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Plant Communities

<i>Pinus contorta var. contorta - pseudotsuga menziesii / cladina spp. forest</i>	Shore pine - douglas-fir / reindeer lichen	G2	B
<i>Pinus contorta var. contorta - pseudotsuga menziesii / gaultheria shallon forest</i>	Shore pine - douglas-fir / salal	G2	C
<i>Stipa lemmonii / racomitrium canescens herbaceous vegetation</i>	Lemmon needlegrass / rock moss	G1	B

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Forestry practices		High (present or likely within 4 years)	Medium
Crop production practices		Low (not likely within 10 years)	Low
Residential development		Medium (likely within 5 to 10 years)	Medium
<u>Marine</u>			
Recreational infrastructure development		Low (not likely within 10 years)	Medium

Lewis and Clark State Park

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	661 ha	<u>Marine Shoreline</u>	
	1,633 ac		km
<u>Ownership / Management</u>		<u>% of Area</u>	
Washington Parks and Recreation Co		29%	
		<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
		Agriculture	0 %
		Developed	4 %
		Undeveloped	94 %
		Marine/Freshwater	1 %
		1	0 %
		2	30 %
		3	0 %
		4	70 %
		5	0 %

Targets known in this Conservation Area:		(Common Name)	(GRank)	(Listing)	(EORank)
<u>Terrestrial Ecological Systems</u>					
		Coniferous forested wetlands	GU		B
		Depressional wetland broadleaf forests	GU		K
		Depressional wetland shrublands	GU		K
		Douglas fir - western hemlock - western redcedar forests	GU		
		Dry evergreen forests and woodlands	GU		
<u>Freshwater Ecological Systems</u>					
		Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a		
<u>Species</u>					
<u>Vascular Plants</u>					
		<i>Cimicifuga elata</i>	Tall bugbane	G2	K
		<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	K

Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Trails		High (present or likely within 4 years)	Low
Roads and/or utilities		High (present or likely within 4 years)	Medium
Residential development		High (present or likely within 4 years)	Medium
Recreational use		High (present or likely within 4 years)	Low
Recreational infrastructure development		High (present or likely within 4 years)	Low
Invasive species		High (present or likely within 4 years)	Medium
Forestry practices		High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions		High (present or likely within 4 years)	Medium

Liberty Bay-Agate Pass-Port Orchard

<u>Section:</u> Puget Trough	<u>Area Type:</u> Nearshore Marine
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Liberty Bay-Agate Pass-Port Orchar continued from previous page

Area:	1,229 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	3,036 ac	km	Agriculture	0 %	1 0 %	4 18 %
Ownership / Management	% of Area		Developed	0 %	2 0 %	5 71 %
Tribal	<5 %		Undeveloped	0 %	3 11 %	
US Dept. of Defense	<5 %		Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

Dabbling ducks	G5	
Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
<i>Tritonia diomedea</i>	Rosy tritonia	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Wastewater treatment	High (present or likely within 4 years)	Low

Liberty Bay-Agate Pass-Port Orchar continued from previous page

Point source water pollution	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Small population size and distribution	High (present or likely within 4 years)	High
Unknown source of water pollution	High (present or likely within 4 years)	High
Military activities	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

Lilliwaup

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	8,648 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	21,361 ac	km	Agriculture 0 %	1 0 % 4 31 %
			Developed 2 %	2 1 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 96 %	3 68 %
Department of Natural Resources		64 %	Marine/Freshwater 2 %	
US Forest Service		<5 %		
Washington Parks and Recreation Co		<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

East Olympics small rivers - predominantly mafic, low to mid elevation, low to moderate gradient	n/a
Hood Canal coastal streams	n/a
Olympics rainshadow coastal headwaters - mafic, mid elevation, moderate to high gradient	n/a
Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	K
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT n/a

Vascular Plants

<i>Chrysolepis chrysophylla</i>	Golden chinquapin	G5	K
<i>Sisyrinchium idahoense var segetum</i>	Idaho blue-eyed grass	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Recreational vehicles	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Residential development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Little Sink RNA

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	21 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	52 ac	km	Agriculture 0 %
			Developed 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 100 %
US Bureau of Land Management	90 %		Marine/Freshwater 0 %
		<u>GAP Management Status</u>	
		1	0 % 4 0 %
		2	0 % 5 0 %
		3	1 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Species

Birds

Brachyramphus marmoratus

Marbled murrelet	G3	n/a
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Non-Vascular - Lichen

Lobaria linita

Lobaria linita	G4	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Logsdan Ridge

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	454 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	1,121 ac	km	Agriculture 58 %
			Developed 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 42 %
			Marine/Freshwater 0 %
		<u>GAP Management Status</u>	
		1	0 % 4 1 %
		2	0 % 5 0 %
		3	0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU

Species

Herpetofauna

Contia tenuis

Sharptail snake	G5	n/a
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Logsdan Ridge

continued from previous page

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Lopez Hill

Section: Georgia Basin

Area Type: Terrestrial

Area: 454 ha Marine Shoreline
1,121 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management % of Area
Department of Natural Resources 31 %

Agriculture	0 %	1	0 %	4	67 %
Developed	0 %	2	0 %	5	0 %
Undeveloped	95 %	3	33 %		
Marine/Freshwater	5 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	K

Freshwater Ecological Systems

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a	
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Plant Communities

Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest

Douglas-fir - western redcedar / salal	G2	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Lord Hill

Section: Puget Trough

Area Type: Terrestrial

Lord Hill

continued from previous page

Area:	1,699 ha	Marine Shoreline		Land Use/Land Cover		GAP Management Status	
	4,197 ac		km	Agriculture	10 %	1	0 % 4 94 %
Ownership / Management		% of Area		Developed	4 %	2	5 % 5 0 %
County Government		34 %		Undeveloped	75 %	3	1 %
Washington Department of Fish and		5 %		Marine/Freshwater	11 %		
Washington State Department of Corr		<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	K
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a	
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Species

Birds

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C
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Vascular Plants

<i>Berula erecta var incisa</i>	Wild parsnip	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Lower Calapooia River Riparian

Section: Willamette Valley

Area Type: Terrestrial

Area:	5,915 ha	Marine Shoreline		Land Use/Land Cover		GAP Management Status	
	14,610 ac		km	Agriculture	84 %	1	0 % 4 100 %
Ownership / Management		% of Area		Developed	2 %	2	0 % 5 0 %
Oregon Parks and Recreation		<5 %		Undeveloped	12 %	3	0 %
				Marine/Freshwater	2 %		

Lower Calapooya River Riparian *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Autumnal freshwater mudflats	GU	C
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Species

Birds

Eremophila alpestris strigata Streaked horned lark G2 C K

Other Invertebrates

Driloleirus macelfreshi Oregon giant earthworm G1 A

Vascular Plants

Lathyrus holochlorus Thin-leaved peavine G4 H

Sidalcea campestris Meadow checker-mallow G4 D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Shoreline stabilization	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Low

Lower Coweeman

Section: Lower Columbia

Area Type: Terrestrial

Area:	1,682 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	4,155 ac	km	Agriculture 0 %	1 0 % 4 95 %
			Developed 3 %	2 0 % 5 0 %
Ownership / Management	% of Area		Undeveloped 96 %	3 5 %
			Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands GU K

Lower Coweeman

continued from previous page

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low

Lower Elwha Riparian

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u> 360 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
889 ac	km	Agriculture 4 %	1 0 % 4 83 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 1 %	2 11 % 5 0 %
City	5 %	Undeveloped 69 %	3 6 %
Department of Natural Resources	<5 %	Marine/Freshwater 26 %	
Tribal	28 %		
Washington Department of Fish and	11 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Northern Olympics rivers - sandstone, mid to low elevation, mixed gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low

Lower Englishman

Section: Georgia Basin

Area Type: Terrestrial

Lower Englishman

continued from previous page

<u>Area:</u>	2,979 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	7,358 ac	km	Agriculture 1 %	1 3 % 4 96 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 12 %	2 0 % 5 0 %
BC Parks		<5 %	Undeveloped 86 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a
Coastal rivers - granitic, low to high elevation, mixed gradient	n/a
Mountain headwaters - granitic, mid to high elevation, steep gradients	n/a

Species

Mammals

<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	D
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Vascular Plants

<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Recreational vehicles	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium
Operation of dams or reservoirs	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium
Channelization of rivers or streams	Medium (likely within 5 to 10 years)	Medium

Lower Kalama

Section: Lower Columbia

Area Type: Terrestrial

<u>Area:</u>	5,524 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	13,644 ac	km	Agriculture 2 %	1 0 % 4 95 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 4 %	2 0 % 5 0 %
Department of Natural Resources		6 %	Undeveloped 93 %	3 5 %
			Marine/Freshwater 2 %	

Lower Kalama

continued from previous page

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	C
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Lower Columbia mainstem	n/a	
Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	n/a	

Plant Communities

<i>Quercus garryana / viburnum ellipticum - toxicodendron diversiloba forest</i>	Oregon white oak / oval-leaf viburnum - poison-oak	G1	D
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Species

Vascular Plants

<i>Delphinium nuttallii</i>	Upland larkspur	G4	K
<i>Poa nervosa</i>	Hooker's bluegrass	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Low

Lower Mckenzie Riparian

Section: Willamette Valley

Area Type: Terrestrial

Area: 3,877 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
9,576 ac	km	Agriculture 60 %	1 0 % 4 99 %
		Developed 1 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 30 %	3 1 %
US Bureau of Land Management	<5 %	Marine/Freshwater 8 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	

	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
	Riparian forests and shrublands	GU	
	Wet prairies	GU	B
Freshwater Ecological Systems			
	Cascade medium river - volcanic, low to mid elevation	n/a	
	Cascade/foothill small river - volcanic, low to mid elevation	n/a	
	Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	
Plant Communities			
	<i>Deschampsia caespitosa - danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2 D
Species			
Birds			
	<i>Ardea herodias</i>	Great blue heron	G5 K
Fishes			
	<i>Oregonichthys crameri</i>	Oregon chub	G2 D
Herpetofauna			
	<i>Contia tenuis</i>	Sharptail snake	G5 n/a
Insects			
	<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1 D
Vascular Plants			
	<i>Cimicifuga elata</i>	Tall bugbane	G2 D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Lower Qualicum

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	3,908 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	9,653 ac	12.6 km	Agriculture 0 %	1 3 % 4 51 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 15 %	2 1 % 5 19 %
BC Parks	<5 %		Undeveloped 69 %	3 25 %
Fisheries and Oceans Canada	<5 %		Marine/Freshwater 16 %	

Lower Qualicum

continued from previous page

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	K

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Rock cliff / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Coastal rivers - calcareous to granite transition, low to high elevation, mixed gradient	n/a
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Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
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Mammals

<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	C
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Operation of drainage or diversion systems	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Management of/for certain species	Medium (likely within 5 to 10 years)	Medium

Marine

Recreational infrastructure development	Low (not likely within 10 years)	Low
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Lower Skookumchuck

Lower Skookumchuck *continued from previous page*

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	14,642 ha	<u>Marine Shoreline</u>	
	36,166 ac		km
<u>Ownership / Management</u>		<u>% of Area</u>	
Department of Natural Resources		6 %	
	<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>
	Agriculture	3 %	1 0 % 4 94 %
	Developed	4 %	2 0 % 5 0 %
	Undeveloped	93 %	3 6 %
	Marine/Freshwater	1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Chehalis headwater small rivers - volcanic, low to mid elevation, low to moderate gradient	n/a
Chehalis River medium river - sandstone, low elevation, low gradient	n/a
Puget lowlands - outwash, low elevation, moderate gradients	n/a
Puget lowlands - sandstone, low elevation, moderate gradient	n/a
Willapa headwaters - mid elevations, high gradients	n/a

Species

Fishes

<i>Novumbra hubbsi</i>	Olympic mudminnow	G3	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Medium

Lower Washougal

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,090 ha	<u>Marine Shoreline</u>	
	2,692 ac		km
<u>Ownership / Management</u>		<u>% of Area</u>	
Department of Natural Resources		10 %	
US Bureau of Land Management		<5 %	
Washington Department of Fish and		<5 %	
	<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>
	Agriculture	4 %	1 0 % 4 90 %
	Developed	1 %	2 0 % 5 0 %
	Undeveloped	92 %	3 10 %
	Marine/Freshwater	3 %	

Lower Washougal *continued from previous page*

Washington Parks and Recreation Co 6 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Riparian forests and shrublands GU

Species

Herpetofauna

Rhyacotriton cascadae Cascade torrent salamander G3 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational infrastructure development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium

Luckiamute River Riparian

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 4,508 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
11,135 ac	km	Agriculture 86 %	1 0 % 4 100 %
		Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 13 %	3 0 %
Oregon State	<5 %	Marine/Freshwater 1 %	
US Forest Service	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests GU K
 Depressional wetland shrublands GU K
 Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Oak woodlands GU
 Riparian forests and shrublands GU
 Riparian forests and shrublands (ranked occurrences) GU B

Freshwater Ecological Systems

Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient n/a
 Willamette River mainstem n/a

Species

Birds

Luckiamute River Riparian *continued from previous page*

<i>Branta canadensis leucopareia</i>	Aleutian Canada goose	G2		C
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	K
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3		K
<u>Fishes</u>				
<i>Oregonichthys crameri</i>	Oregon chub	G2		D
<u>Other Invertebrates</u>				
<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1		C
<u>Vascular Plants</u>				
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB		D
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		D
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Lummi Flats

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area: 4,259 ha Marine Shoreline
10,520 ac 8.8 km

Land Use/Land Cover

GAP Management Status

Agriculture	50 %	1	0 %	4	95 %
Developed	1 %	2	2 %	5	1 %
Undeveloped	20 %	3	1 %		
Marine/Freshwater	29 %				

Ownership / Management % of Area

County Government	<5 %
Department of Natural Resources	<5 %
Tribal	37 %
Washington Department of Fish and	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Freshwater Ecological Systems

Nooksack coastal plain headwaters - glacial drift and outwash, low elevation, low to moderate gradient n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
Various	Wintering raptor concentrations	GU

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Crop production practices	High (present or likely within 4 years)	Low
Commercial/industrial development	Low (not likely within 10 years)	High

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Lych Cove-Union River-Hood Canal

Section: Puget Trough

Area Type: Nearshore Marine

Area: 620 ha Marine Shoreline
1,531 ac 24.1 km

Land Use/Land Cover

Agriculture	0 %
Developed	0 %
Undeveloped	0 %
Marine/Freshwater	100 %

GAP Management Status

1	0 %	4	55 %
2	8 %	5	29 %
3	9 %		

Ownership / Management % of Area

Washington Department of Fish and	<5 %
Washington Parks and Recreation Co	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Lych Cove-Union River-Hood Canal continued from previous page

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	Low (not likely within 10 years)	Medium

Marine

Unknown source of water pollution	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low

Lych Cove-Union River-Hood Canal continued from previous page

Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Lyre River

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,211 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,991 ac	10.6 km	Agriculture 1 %	1 0 % 4 37 %
			Developed 2 %	2 0 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 96 %	3 62 %
Department of Natural Resources		62 %	Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a

Freshwater Ecological Systems

Straight of Juan de Fuca small rivers - predominantly sandstone, low elevation, variable gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational infrastructure development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	High

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Main Stem Willamette, Corvallis to Albany

Section: Willamette Valley

Area Type: Terrestrial

Main Stem Willamette, Corvallis to A continued from previous page

Area:	2,876 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	7,104 ac	km	Agriculture	74 %	1	0 %	4	100 %
Ownership / Management	% of Area		Developed	4 %	2	0 %	5	0 %
Oregon State	6 %		Undeveloped	15 %	3	0 %		
			Marine/Freshwater	8 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Willamette River mainstem n/a

Species

Vascular Plants

Mimulus tricolor

Tricolor monkey-flower G4 D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Main Stem Willamette, Harrisburg to Corvallis

Section: Willamette Valley

Area Type: Terrestrial

Area:	9,693 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	23,942 ac	km	Agriculture	82 %	1	0 %	4	100 %
Ownership / Management	% of Area		Developed	1 %	2	0 %	5	0 %
			Undeveloped	10 %	3	0 %		
			Marine/Freshwater	7 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K

Main Stem Willamette, Harrisburg t *continued from previous page*

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	D
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation	n/a	
Coast Range small rivers - sedimentary, low to mid elevation	n/a	
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	
Willamette River mainstem	n/a	

Plant Communities

<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>polystichum munitum</i> forest	Oregon white oak / common snowberry / common snowberry	G2	D
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Species

Herpetofauna

<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A
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Mammals

<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	D
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Vascular Plants

<i>Geranium oreganum</i>	Oregon crane's-bill	G4	D
<i>Hydrocotyle verticillata</i>	Whorled pennywort	G5	H
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	C
<i>Psilocarphus tenellus var tenellus</i>	Slender woolly-heads	G4	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	H
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5	D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	D
<i>Woffia columbiana</i>	Columbia water-meal	G5	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Main Stem Willamette, Luckiamute-Santiam confluence area

Section: Willamette Valley

Area Type: Terrestrial

Main Stem Willamette, Luckiamute- continued from previous page

Area:	5,502 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	13,590 ac	km	Agriculture	67 %	1	0 %	4	100 %
Ownership / Management	% of Area		Developed	2 %	2	0 %	5	0 %
			Undeveloped	17 %	3	0 %		
			Marine/Freshwater	14 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU		K
Depressional wetland shrublands	GU		K
Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Oak woodlands	GU		
Riparian forests and shrublands	GU		
Riparian forests and shrublands (ranked occurrences)	GU		D

Freshwater Ecological Systems

Foothills tributaries - basalt, low to mid elevation	n/a		
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a		
Willamette River mainstem	n/a		

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5		K
<i>Chordeiles minor</i>	Common nighthawk	G5		K
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3		K

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5		n/a
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2		H
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE	H
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT	X

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Main Stem Willamette, McKenzie confluence to Harrisburg

Section: Willamette Valley Area Type: Terrestrial

Main Stem Willamette, McKenzie co continued from previous page

Area:	4,767 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	11,774 ac	km	Agriculture	67 %	1	0 %	4	100 %
Ownership / Management	% of Area		Developed	2 %	2	0 %	5	0 %
			Undeveloped	21 %	3	0 %		
			Marine/Freshwater	10 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation	n/a	
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	K
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Fishes

<i>Oregonichthys crameri</i>	Oregon chub	G2	D
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Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Vascular Plants

<i>Cimicifuga elata</i>	Tall bugbane	G2	D
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Main Stem Willamette, Mission Bottom area

Section: Willamette Valley Area Type: Terrestrial

Main Stem Willamette, Mission Bott continued from previous page

Area: 11,898 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
29,388 ac	km	Agriculture 76 %	1 0 %	4 94 %
		Developed 1 %	2 6 %	5 0 %
Ownership / Management	% of Area	Undeveloped 14 %	3 0 %	
Oregon Parks and Recreation	<5 %	Marine/Freshwater 9 %		
Oregon Parks and Recreation	<5 %			
Oregon State	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Freshwater aquatic beds	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Coast Range medium river - sedimentary, low elevation	n/a	
Coast Range tributaries - sedimentary, low to mid elevation	n/a	
Foothills tributaries - basalt, low to mid elevation	n/a	
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	
Willamette River mainstem	n/a	

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5		K
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2		K

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5		K
<i>Contia tenuis</i>	Sharptail snake	G5		n/a

Other Invertebrates

<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1		D
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Vascular Plants

<i>Epilobium torreyi</i>	Brook spike-primrose	G5		K
<i>Howellia aquatilis</i>	Water howellia	G2	LT	X

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Low
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium

Main Stem Willamette, Mission Bott continued from previous page

Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High

Malaspina - Copeland

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Terrestrial/Nearshore Marine	
<u>Area:</u>	4,685 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	11,572 ac	35.1 km	Agriculture 0 %
			Developed 1 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 69 %
BC Parks		10 %	Marine/Freshwater 30 %
			<u>GAP Management Status</u>
			1 10 % 4 72 %
			2 0 % 5 19 %
			3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	n/a
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Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
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Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
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Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	Medium
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Marine

Recreational use	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Low

Residential development	Medium (likely within 5 to 10 years)	Medium
Private aircraft	Medium (likely within 5 to 10 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	High

Maple Mt.-Mt. Richards

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	3,334 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	8,235 ac	km	Agriculture 28 %	1 0 % 4 99 %
			Developed 7 %	2 0 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 64 %	3 0 %
Provincial Park Ecological Reserve		<5 %	Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	K
Oak woodlands (ranked occurrences)	GU	C
Sphagnum bogs and fens	GU	K

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient n/a

Species

Birds

Ardea herodias Great blue heron G5 K

Insects

Euphyes vestris vestris Dun skipper G3 D

Proserpinus clarkiae Clark's sphinx moth G4 K

Vascular Plants

Aster curtus White-topped aster G3 B

Balsamorhiza deltoidea Deltoid balsam-root G5 A

Erythronium oregonum ssp oregonum Giant white fawnlily G5 B

Meconella oregana White meconella G2 K

Viola praemorsa ssp praemorsa Canary violet G5 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Medium

Maple Mt.-Mt. Richards *continued from previous page*

Point source water pollution	Medium (likely within 5 to 10 years)	Medium
Non point source water pollution	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium

Maple-Genoa Bay

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,228 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,033 ac	16.7 km	Agriculture 4 %	1 0 % 4 84 %
			Developed 5 %	2 0 % 5 16 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 76 %	3 0 %
Trust		22 %	Marine/Freshwater 16 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Freshwater aquatic beds	GU	K
Herbaceous balds and bluffs	GU	K
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Nereocystis/Macrocyctis</i>	Rock with sand and/or gravel beach / Kelp	n/a

Freshwater Ecological Systems

	Coastal headwaters - granitic, low elevation, low gradient	n/a
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Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	High
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Marine

Recreational use	High (present or likely within 4 years)	Low
Marina development	Medium (likely within 5 to 10 years)	Medium

Maria

Section: Puget Trough

Area Type: Terrestrial

Area: 887 ha Marine Shoreline
2,191 ac km

Land Use/Land Cover
Agriculture 47 %
Developed 0 %
Undeveloped 48 %
Marine/Freshwater 5 %

GAP Management Status
1 0 % 4 100 %
2 0 % 5 0 %
3 0 %

Ownership / Management % of Area
Trust 38 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
Dry evergreen forests and woodlands GU
Freshwater aquatic beds GU B
Freshwater marshes GU K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices High (present or likely within 4 years) High

Marina Island

Section: Georgia Basin

Area Type: Terrestrial

Area: 868 ha Marine Shoreline
2,144 ac km

Land Use/Land Cover
Agriculture 0 %
Developed 0 %
Undeveloped 100 %
Marine/Freshwater 0 %

GAP Management Status
1 0 % 4 96 %
2 0 % 5 4 %
3 0 %

Ownership / Management % of Area

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand GU C
Coniferous forested wetlands GU A
Depressional wetland broadleaf forests GU B
Freshwater marshes GU B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use High (present or likely within 4 years) High
Forestry practices Low (not likely within 10 years) High

Maxfield Creek BLM

Section: Willamette Valley

Area Type: Terrestrial

Maxfield Creek BLM

continued from previous page

Area:	666 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	1,645 ac	km	Agriculture	0 %	1 0 %	4 100 %
			Developed	0 %	2 0 %	5 0 %
Ownership / Management	% of Area		Undeveloped	100 %	3 0 %	
US Bureau of Land Management	23 %		Marine/Freshwater	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Oak woodlands	GU	

Species

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Vascular Plants

<i>Clarkia purpurea ssp viminea</i>	Large clarkia	G3	C
<i>Poa howellii</i>	Howell's bluegrass	G4	K
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	C
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Low
Forestry practices	Medium (likely within 5 to 10 years)	Medium

McCully Mtn BLM

Section: Willamette Valley

Area Type: Terrestrial

Area:	192 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	474 ac	km	Agriculture	15 %	1 0 %	4 100 %
			Developed	0 %	2 0 %	5 0 %
Ownership / Management	% of Area		Undeveloped	85 %	3 0 %	
US Bureau of Land Management	<5 %		Marine/Freshwater	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
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Fire management	High (present or likely within 4 years)	Medium
Grazing practices	Medium (likely within 5 to 10 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium

McDonald Forest/Soap Creek Forest and Balds

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	4,976 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	12,291 ac	km	Agriculture	3 %	1	0 %	4	100 %
			Developed	0 %	2	0 %	5	0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	97 %	3	0 %		
Oregon State University	55 %		Marine/Freshwater	0 %				
US Bureau of Land Management	<5 %							

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Herbaceous balds and bluffs	GU	B
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	B
Wet prairies	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Plant Communities

<i>Festuca roemerii</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	B
<i>Stipa lemmonii</i> / <i>racomitrium canescens</i> herbaceous vegetation	Lemmon needlegrass / rock moss	G1	B

Species

Birds

Brachyramphus marmoratus Marbled murrelet G3 n/a

Herpetofauna

Contia tenuis Sharptail snake G5 D

Insects

<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	C
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	A
<i>Proserpinus clarkiae</i>	Clark's sphinx moth	G4	C
<i>Rhyacophila fenderi</i>	Fender's rhyacophilan caddisfly	G3	A
<i>Speyeria callippe</i> ssp 1	Willamette callippe fritillary	G1	X
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4	D

Vascular Plants

<i>Agrostis hallii</i>	Hall's bentgrass	G4	C
<i>Aster hallii</i>	Hall's aster	G4	B

McDonald Forest/Soap Creek Forest continued from previous page

<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	B
<i>Cimicifuga elata</i>	Tall bugbane	G2	B
<i>Clarkia purpurea ssp viminea</i>	Large clarkia	G3	C
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5	C
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	B
<i>Lagophylla ramosissima</i>	Slender hareleaf	G5	C
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	D
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT B
<i>Sanicula crassicaulis var tripartita</i>	Cutleaf pacific sanicle	G5	C
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	D
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	B
<i>Trifolium dichotomum</i>	Branched Indian clover	G4?	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High

McNeil Island

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status
1,384 ha		Agriculture 10 %	1 0 % 4 27 %
3,418 ac	0.7 km	Developed 1 %	2 73 % 5 0 %
		Undeveloped 83 %	3 0 %
		Marine/Freshwater 6 %	
Ownership / Management	% of Area		
Washington Department of Fish and	89 %		
Washington State Department of Corr	19 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
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Species

Birds

<i>Progne subis</i>	Purple martin	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	Low

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Middle Chehalis

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	3,550 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	8,769 ac	km	Agriculture 38 %	1 0 % 4 95 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 4 %	2 0 % 5 0 %
Department of Natural Resources		<5 %	Undeveloped 53 %	3 5 %
Tribal		42 %	Marine/Freshwater 6 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	K
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Chehalis River medium river - sandstone, low elevation, low gradient	n/a
Coastal upland - sandstones, low elevation, moderate gradient	n/a
Puget lowlands - outwash, low elevation, moderate gradients	n/a
Willapa headwaters - sandstones, low to mid elevation, moderate/low gradient	n/a

Species

Molluscs

<i>Gonidea angulata</i>	Western ridged mussel	G3	C
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Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3	K
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational vehicles	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium

Middle Fork Newaukum

Section: Lower Columbia

Area Type: Terrestrial

Area: 2,366 ha Marine Shoreline
5,844 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management % of Area

Agriculture	0 %	1	0 %	4	98 %
Developed	3 %	2	0 %	5	0 %
Undeveloped	96 %	3	2 %		
Marine/Freshwater	1 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Chehalis headwater small rivers - volcanic/outwash rivers, mid elevation	n/a	
Puget lowlands - sandstone, low elevation, moderate gradient	n/a	

Species

Vascular Plants

Trillium parviflorum

Small-flowered trillium	G2	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Mill Creek

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,158 ha <u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,860 ac km	Agriculture 4 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 14 %	2 0 % 5 0 %
		Undeveloped 82 %	3 0 %
		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a
Puget lowlands - glacial till, low elevation, moderate gradients	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	High

Minto Island

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,008 ha <u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,490 ac km	Agriculture 52 %	1 0 % 4 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 17 %	2 0 % 5 0 %
Oregon Department of Fish and Wildli	86 %	Undeveloped 19 %	3 1 %
Oregon Department of Fish and Wildli	10 %	Marine/Freshwater 11 %	
Oregon State	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Autumnal freshwater mudflats	GU	C
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	

	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
	Riparian forests and shrublands	GU	
Freshwater Ecological Systems			
	Willamette River mainstem	n/a	
Plant Communities			
	<i>Eragrostis hypnoides</i> - <i>gnaphalium palustre</i> herbaceous vegetation	Creeping lovegrass - lowland cudweed	G2 C
Species			
Birds			
	<i>Ardea herodias</i>	Great blue heron	G5 K
<hr/>			
Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
Terrestrial			
	Shoreline stabilization	High (present or likely within 4 years)	Medium
	Recreational use	High (present or likely within 4 years)	Low
	Invasive species	High (present or likely within 4 years)	High

Mission-Fraser

Section: Puget Trough		Area Type: Terrestrial		
Area:	12,759 ha	Marine Shoreline	Land Use/Land Cover	
	31,515 ac	km	Agriculture	51 %
Ownership / Management	% of Area		Developed	8 %
Regional District Park	<5 %		Undeveloped	22 %
Regional District Park	<5 %		Marine/Freshwater	19 %
Trust	<5 %		GAP Management Status	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems			
	Douglas fir - western hemlock - western redcedar forests	GU	
	Dry evergreen forests and woodlands	GU	
	Freshwater aquatic beds	GU	K
	Freshwater marshes	GU	K
	Sphagnum bogs and fens	GU	K
Freshwater Ecological Systems			
	Fraser River mainstem - predominantly granite watershed, low elevation, low gradient	n/a	
	Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a	
	Lower Fraser River tributaries headwaters - granitic, low elevation, low to moderate gradient	n/a	
Species			
Fishes			
	<i>Acipenser transmontanus pop4</i>	White sturgeon (Fraser river)	G2 K
Herpetofauna			

<i>Ascaphus truei</i>	Tailed frog	G4	K
<u>Vascular Plants</u>			
<i>Galium mexicanum ssp asperulum</i>	Rough bedstraw	G5	K
<i>Myriophyllum ussuriense</i>	Ussurian water-milfoil	G3	K
<i>Triglochin concinnum var concinnum triglochin concinna var concinna</i>	Dotted watermeal	G5	D
<i>Veronica anagallis-aquatica</i>	Brook-pimpernell	G5	K
<i>Wolffia borealis</i>	Dotted watermeal	G5	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Medium
Livestock production practices	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Low
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	High

Missouri Ridge

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 2,994 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
7,395 ac	km	Agriculture 17 %	1 1 % 4 90 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 0 %	2 1 % 5 0 %
US Bureau of Land Management	18 %	Undeveloped 83 %	3 9 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascade/foothill small river - volcanic, low to mid elevation	n/a
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Species

Vascular Plants

<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	D
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Missouri Ridge

continued from previous page

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Mittlenatch Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	37 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	91 ac	0.6 km	Agriculture 0 %	1 96 % 4 6 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
BC Parks	101 %		Undeveloped 75 %	3 0 %
			Marine/Freshwater 25 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
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Species

Vascular Plants

<i>Alopecurus carolinianus</i>	Tufted foxtail	G5	K
<i>Callitriche marginata</i>	Winged water-starwort	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	High
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Moran

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	4,626 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	11,426 ac	4.2 km	Agriculture 0 %	1 0 % 4 48 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %	2 49 % 5 1 %
Department of Natural Resources	<5 %		Undeveloped 92 %	3 2 %
Washington Parks and Recreation Co	47 %		Marine/Freshwater 7 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	

	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU		A
	Dry evergreen forests and woodlands	GU		
	Dry evergreen forests and woodlands (ranked occurrences)	GU		A
	Freshwater aquatic beds	GU		B
	Herbaceous balds and bluffs	GU		A
	Sphagnum bogs and fens	GU		B
<u>Nearshore Marine Ecological Systems</u>				
	Rock cliff / Vegetated	n/a		
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a		
<u>Freshwater Ecological Systems</u>				
	Hood Canal coastal streams	n/a		
	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a		
<u>Plant Communities</u>				
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1		A
<i>Pinus contorta var. contorta - pseudotsuga menziesii / gaultheria shallon forest</i>	Shore pine - douglas-fir / salal	G2		A
<i>Pseudotsuga menziesii - tsuga heterophylla / mahonia nervosa var. nervosa forest</i>	Douglas-fir - western hemlock / dwarf oregongrape	G2		A
<i>Pseudotsuga menziesii / rosa gymnocarpa - holodiscus discolor forest</i>	Douglas-fir / baldhip rose - oceanspray	G2		A
<i>Pseudotsuga menziesii / symphoricarpos albus - holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	G2		C
<u>Species</u>				
<u>Birds</u>				
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
<i>Gavia spp</i>	Loons	GU		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps griseigena</i>	Red-necked grebe	G5		
<u>Fishes</u>				
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Ophiodon elongatus</i>	Lingcod	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<i>Sebastes melanops</i>	Black rockfish	G?		
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?		
<u>Insects</u>				
<i>Hesperia comma oregonia</i>	Oregon branded skipper	G5		C
<u>Mammals</u>				
<i>Orcinus orca</i>	Killer whale	G4		
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5		
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4		
<u>Molluscs</u>				
<i>Crassedoma giganteum</i>	Rock scallop	G?		

<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	
Non-Vascular - Moss			
<i>Fissidens grandifrons</i>	Fissidens grandifrons	G4	K
<i>Platyhypnidium riparioides</i>	Platyhypnidium riparioides	G4	K
Other Invertebrates			
<i>Oeneis nevadensis gigas</i>	Greater arctic	G5	C
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Eleocharis parvula</i>	Small spikerush	G5	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	K
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU	K
<i>Senecio indecorus</i>	Plains ragwort	G5	K
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	B
<i>Sisyrinchium idahoense var segetum</i>	Idaho blue-eyed grass	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Fire management	Low (not likely within 10 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Mount Angel

Section: Willamette Valley

Area Type: Terrestrial

Area:	118 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	291 ac			km	Agriculture	75 %	1	0 %
Ownership / Management	% of Area		Developed	2 %	2	0 %	5	0 %
			Undeveloped	23 %	3	0 %		
			Marine/Freshwater	0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	

Dry evergreen forests and woodlands GU
Oak woodlands GU

Freshwater Ecological Systems

Valley plain tributaries - alluvium and lakeplain, n/a
low elevation, low gradient

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Mount Woolard

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	1,972 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,871 ac	km	Agriculture 0 %	1 0 % 4 98 %
			Developed 1 %	2 1 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 96 %	3 1 %
Department of Natural Resources	<5 %		Marine/Freshwater 3 %	
Washington Department of Fish and	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	B
Herbaceous balds and bluffs	GU	C
Sphagnum bogs and fens	GU	B

Freshwater Ecological Systems

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient n/a

Plant Communities

<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	C
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Species

Non-Vascular - Moss

<i>Andreaea megistospora</i>	Andreaea megistospora	G4	K
<i>Crumia latifolia</i>	Crumia latifolia	G3	K
<i>Fissidens grandifrons</i>	Fissidens grandifrons	G4	K
<i>Orthotrichum hallii</i>	Orthotrichum hallii	G4	K
<i>Platyhypnidium riparioides</i>	Platyhypnidium riparioides	G4	K

Vascular Plants

<i>Aster borealis</i>	Boreal aster	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Fire management	Medium (likely within 5 to 10 years)	Medium

Mountain View Beach, Camano Island

Section: Puget Trough

Area Type: Nearshore Marine

Area: 217 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
536 ac	km	Agriculture 0 %	1 0 % 4 20 %
Ownership / Management	% of Area	Developed 0 %	2 0 % 5 71 %
		Undeveloped 0 %	3 8 %
		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Species

Birds

Dabbling ducks	G5
Diving ducks/bay ducks	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine G3
<i>Gavia spp</i>	Loons GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated GU
<i>Melanitta spp</i>	Scoters GU
<i>Podiceps grisegena</i>	Red-necked grebe G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance G?
<i>Clupea pallasii</i>	Pacific herring spawning G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning G?
<i>Sebastes maliger</i>	Quillback rockfish G?

Mammals

<i>Eschrichtius robustus</i>	Grey whale G4	PS:LE
<i>Orcinus orca</i>	Killer whale G4	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High

Mountain View Beach, Camano Isla continued from previous page

Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Mt Pisgah

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	1,118 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,761 ac	km	Agriculture 42 %	1 0 % 4 47 %
			Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 57 %	3 53 %
County Government	67 %		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Upland prairies and savannas	GU	B
Wet prairies	GU	C

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation n/a

Plant Communities

<i>Deschampsia caespitosa - danthonia californica herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2	C
<i>Festuca roemerii - sidalcea malviflora ssp. virgata herbaceous vegetation</i>	Roemer's fescue - rose checker-mallow	G1	C
<i>Quercus garryana / ceanothus cuneatus / festuca roemerii woodland</i>	Oregon white oak / wedgeleaf ceanothus / roemer's fescue	G2	B
<i>Quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Oregon white oak / roemer's fescue	G1	B

Species

Birds

Poocetes gramineus affinis Oregon vesper sparrow G3 K

Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Vascular Plants

Asclepias fascicularis Narrow-leaf milkweed G5 B

Mt Pisgah

continued from previous page

<i>Aster hallii</i>	Hall's aster	G4		A
<i>Aster vialis</i>	Wayside aster	G2		D
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5		B
<i>Camassia quamash ssp maxima</i>	Common Camas	G5		B
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4		B
<i>Cimicifuga elata</i>	Tall bugbane	G2		D
<i>Clarkia purpurea ssp viminea</i>	Large clarkia	G3		C
<i>Epilobium torreyi</i>	Brook spike-primrose	G5		D
<i>Eremocarpus setigerus</i>	Fishpoison	G5		D
<i>Geranium oregonum</i>	Oregon crane's-bill	G4		C
<i>Grindelia integrifolia</i>	Willamette gumweed	G5		B
<i>Lagophylla ramosissima</i>	Slender hareleaf	G5		D
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		D
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE	B
<i>Lomatium macrocarpum</i>	Large-fruit desert-parsley	G5		D
<i>Mimulus cardinalis</i>	Scarlet monkey-flower	G5		D
<i>Plagiobothrys nothofulvus</i>	Rusty popcorn-flower	G4		B
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		C
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		B
<i>Trichostema lanceolatum</i>	Vinegar weed	G5		D
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5		D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Mt. Maxwell

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	2,610 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	6,447 ac	17.7 km	Agriculture 9 %	1 10 % 4 89 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 3 %	2 0 % 5 0 %
BC Parks	8 %		Undeveloped 86 %	3 0 %
Provincial Park Ecological Reserve	<5 %		Marine/Freshwater 2 %	
Provincial Park Ecological Reserve	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	A
Herbaceous balds and bluffs	GU	A
Oak woodlands (ranked occurrences)	GU	A
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a	
	Rock platform / Vegetated	n/a	
	Rock with sand and/or gravel beach / Unvegetated	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a	

Plant Communities

<i>Arbutus menziesii / arctostaphylos columbiana woodland</i>	Pacific madrone / hairy manzanita	G2	B
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	B
<i>Pseudotsuga menziesii / symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	G2	B
<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	B
<i>Stipa lemmonii / racomitrium canescens herbaceous vegetation</i>	Lemmon needlegrass / rock moss	G1	B

Species

Vascular Plants

<i>Idahoia scapigera</i>	Scapose scalepod	G5	K
<i>Lomatium grayi</i>	Mountain desert-parsley	G5	B
<i>Tonella tenella</i>	Small-flower tonella	G5	K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	K
<i>Yabea microcarpa</i>	California hedge-parsley	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Muddy Creek/Finley

Section: Willamette Valley

Area Type: Terrestrial

Area:	6,136 ha	Marine Shoreline
	15,156 ac	km
Ownership / Management	% of Area	
US Fish and Wildlife Service	21 %	

Land Use/Land Cover		GAP Management Status	
Agriculture	70 %	1	1 % 4 82 %
Developed	2 %	2	17 % 5 0 %
Undeveloped	22 %	3	0 %
Marine/Freshwater	5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Upland prairies and savannas	GU	C
Wet prairies	GU	C

Freshwater Ecological Systems

Coast Range small rivers - sedimentary, low to mid elevation	n/a	
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a	
Valley/foothill tributaries - volcanics, mid elevation	n/a	
Willamette River mainstem	n/a	

Plant Communities

<i>Deschampsia caespitosa - danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2	C
<i>Festuca roemerii - sidalcea malviflora ssp. virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	D
<i>Quercus garryana - (fraxinus latifolia) / symphoricarpos albus</i> forest	Oregon white oak - (oregon ash) / common snowberry	G2	B
<i>Quercus garryana / festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	C

Species

Birds

<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2	C
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	K
<i>Chordeiles minor</i>	Common nighthawk	G5	K
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C K
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
Various	Shorebird aggregations (non-marine)	GU	K

Fishes

<i>Oregonichthys crameri</i>	Oregon chub	G2	A
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Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5		K
<i>Contia tenuis</i>	Sharptail snake	G5		C
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A
<i>Rana pretiosa</i>	Oregon spotted frog	G2	C	H
<u>Insects</u>				
<i>Acetropis americana</i>	Grass bug	G1		D
<u>Mammals</u>				
<i>Sciurus griseus</i>	Western gray squirrel	G5		C
<u>Non-Vascular Plants</u>				
<i>Herbertus aduncus</i>	Liverwort	G4		K
<i>Sphaerocarpos hians</i>	Liverwort	G1		K
<u>Vascular Plants</u>				
<i>Agrostis microphylla</i>	Small-leaf bentgrass	G4		K
<i>Alopecurus carolinianus</i>	Tufted foxtail	G5		K
<i>Aster hallii</i>	Hall's aster	G4		B
<i>Camassia quamash ssp maxima</i>	Common Camas	G5		A
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4		A
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB		A
<i>Eremocarpus setigerus</i>	Fishpoison	G5		K
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE	D
<i>Geranium oregonum</i>	Oregon crane's-bill	G4		A
<i>Lasthenia glaberrima</i>	Smooth goldfields	G5		K
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		B
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE	C
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4		C
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	C
<i>Mimulus tricolor</i>	Tricolor monkey-flower	G4		B
<i>Montia howellii</i>	Howell's miner's-lettuce	G3		B
<i>Plagiobothrys nothofulvus</i>	Rusty popcorn-flower	G4		C
<i>Polygonum polygaloides var confertiflorum</i>	Dense-flower knotweed	G5		K
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4		K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		A
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		A
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT	B
<i>Trifolium eriocephalum ssp eriocephalum</i>	Woolly-head clover	G5		K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Medium

Nanaimo

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	2,713 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	6,701 ac	37.0 km	Agriculture	7 %	1	11 %	4	47 %
			Developed	30 %	2	0 %	5	12 %
			Undeveloped	48 %	3	29 %		
			Marine/Freshwater	15 %				
Ownership / Management	% of Area							
BC Parks	12 %							
Trust	6 %							

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	K
Intertidal salt marshes	GU	C
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a	
	Rock cliff / Vegetated	n/a	
	Sand and gravel flat / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a	
<i>Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Freshwater Ecological Systems

	Coastal headwaters - granitic, low elevation, low gradient	n/a	
	Coastal rivers - calcareous to granite transition, low to high elevation, mixed gradient	n/a	

Species

Birds

<i>Progne subis</i>	Purple martin	G5	K
Seabird nesting colonies	Seabird nesting colonies	GU	

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	

Mammals

<i>Eumetopias jubatus</i>	Steller sea lion rafting sites	G3	LE, LT
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?	
Various	Spiny vermilion star	G?	
<u>Vascular Plants</u>			
<i>Lotus pinnatus</i>	Bog bird's-foot-trefoil	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Industrial discharge	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Wastewater treatment	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	Medium
Recreational vehicles	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Livestock production practices	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	Medium
Shoreline stabilization	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium

Marine

Commercial/industrial development	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium

Nanoose-Parksville

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
7,896 ha	54.8 km	Agriculture 3 %	1	3 %	4 78 %
19,503 ac		Developed 41 %	2	0 %	5 13 %
Ownership / Management	% of Area	Undeveloped 43 %	3	6 %	
BC Parks	<5 %	Marine/Freshwater 12 %			
Canadian Wildlife Service	<5 %				
Trust	<5 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	K
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	K
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B

Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	B
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Rock cliff / Unvegetated	n/a
	Rock cliff / Vegetated	n/a
	Rock platform / Vegetated	n/a
	Rock with sand and/or gravel beach / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a
Coastal headwaters - granitic, low to mid elevation, low to steep gradient	n/a
Coastal rivers - granitic, low to high elevation, mixed gradient	n/a

Plant Communities

<i>Arbutus menziesii / arctostaphylos columbiana</i> woodland	Pacific madrone / hairy manzanita	G2	B
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	B
<i>Pseudotsuga menziesii - quercus garryana / melica subulata forest</i>	Douglas-fir - oregon white oak / alaska oniongrass	G1	B
<i>Pseudotsuga menziesii / symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	G2	B
<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	B

<i>Stipa lemmonii / racomitrium canescens herbaceous vegetation</i>	Lemmon needlegrass / rock moss	G1	B
Species			
Birds			
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Branta bernicla</i>	Brant	G5	
<i>Gavia spp</i>	Loons	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps griseigena</i>	Red-necked grebe	G5	
Fishes			
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Gasterosteus sp</i>	Vananda Creek Benthic Stickleback	G1	B
<i>Gasterosteus sp</i>	Vananda Creek Limnetic Stickleback	G1	B
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	
Mammals			
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	
Other Invertebrates			
<i>Gorgonocephalus eucnemis</i>	Basket star	G?	
<i>Lopholithodes (Various)</i>	Box crabs	G?	
<i>Various</i>	Spiny vermilion star	G?	
Vascular Plants			
<i>Allium geyeri var tenerum</i>	Geyer onion		K
<i>Meconella oregana</i>	White meconella	G2	K
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Recreational infrastructure development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Recreational vehicles	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium
Marina development	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

Marine

Military activities	High (present or likely within 4 years)	High
Residential development	Low (not likely within 10 years)	Low
Aquaculture	Low (not likely within 10 years)	Low

Nelson Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	12,531 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	30,952 ac	86.7 km	Agriculture 0 %	1 0 % 4 87 %
			Developed 0 %	2 0 % 5 13 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 80 %	3 0 %
BC Parks		<5 %	Marine/Freshwater 20 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater aquatic beds	GU	A

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Rock platform / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Freshwater Ecological Systems

Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	n/a	
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Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	

Mammals

<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Other Invertebrates

<i>Calcigorgia spiculifera</i>	Gorgonian coral	GU	
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	High
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<u>Marine</u>	Aquaculture	Low (not likely within 10 years)	High
	Residential development	High (present or likely within 4 years)	Medium
	Recreational use	High (present or likely within 4 years)	Medium
	Marina development	Medium (likely within 5 to 10 years)	High
	Invasive species	Medium (likely within 5 to 10 years)	High

Nisqually

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>			
7,789 ha		Agriculture 5 %	1	0 %	4	66 %
19,239 ac	16.3 km	Developed 7 %	2	17 %	5	0 %
<u>Ownership / Management</u>		Undeveloped 77 %	3	17 %		
<u>% of Area</u>		Marine/Freshwater 11 %				
Department of Natural Resources	<5 %					
Tribal	<5 %					
University of Washington	<5 %					
US Dept. of Defense	15 %					
US Fish and Wildlife Service	8 %					
Washington Department of Fish and	<5 %					
Washington Parks and Recreation Co	<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C
Tidally-influenced freshwater wetlands	GU	C

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a
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	Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a		
	South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a		
	South Sound rivers and tributaries - glacial drift, low elevation, low gradient	n/a		
Plant Communities				
	<i>Festuca rubra</i> - (<i>argentina egedii</i>) herbaceous vegetation	Red fescue - (pacific silverweed)	G1	B
	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> - <i>acer macrophyllum</i> / <i>equisetum hyemale</i> forest	Black cottonwood - bigleaf maple / scouring-rush	G3	C
Species				
Birds				
		Dabbling ducks	G5	
		Diving ducks/bay ducks	G5	
	<i>Aechmophorus occidentalis</i>	Western grebe	G5	
	<i>Ardea herodias</i>	Great blue heron	G5	A
	<i>Branta bernicla</i>	Brant	G5	
	<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	K
	<i>Gavia</i> spp	Loons	GU	
	<i>Haematopus bachmani</i> , <i>Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	
	<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
	<i>Melanitta</i> spp	Scoters	GU	
	<i>Podiceps grisegena</i>	Red-necked grebe	G5	
	<i>Progne subis</i>	Purple martin	G5	D
	<i>Sialia mexicana</i>	Western bluebird	G5	C
	<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT n/a
Fishes				
	<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	
	<i>Clupea pallasii</i>	Pacific herring spawning	G?	
	<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
Herpetofauna				
	<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A
Insects				
	<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	D
	<i>Euphyes vestris vestris</i>	Dun skipper	G3	C
Mammals				
	<i>Orcinus orca</i>	Killer whale	G4	
	<i>Sciurus griseus</i>	Western gray squirrel	G5	H
Molluscs				
	<i>Ostrea lurida</i>	Olympia oyster	G?	
Other Invertebrates				
	<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?	
Vascular Plants				
	<i>Aster eatonii</i>	Eaton aster	G5	C
	<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	B
	<i>Eleocharis parvula</i>	Small spikerush	G5	C
	<i>Erigeron speciosus</i> var <i>speciosus</i>	Aspen fleabane	G5	B

<i>Linaria canadensis var texana</i>	Texas toadflax	G4	D
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	B

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Low
Military activities	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low
Marine		
Invasive species	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Parasites/pathogens	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High

Nooksack Delta

Section: <u>Puget Trough</u>		Area Type: <u>Terrestrial/Nearshore Marine</u>		
Area:	440 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	
	1,087 ac	14.7 km	Agriculture	2 %
			Developed	1 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	82 %
Tribal	77 %		Marine/Freshwater	15 %
			<u>GAP Management Status</u>	
			1	0 %
			2	0 %
			3	6 %
			4	94 %
			5	0 %

Targets known in this Conservation Area:	(Common Name)	(GRank)(Listing)(EORank)
Terrestrial Ecological Systems		
	Douglas fir - western hemlock - western redcedar forests	GU
	Intertidal salt marshes	GU B
	Tidally-influenced freshwater wetlands	GU C
Nearshore Marine Ecological Systems		
	Mud flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Crop production practices	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Low
Commercial/industrial development	Low (not likely within 10 years)	High

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Nooksack Riparian

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	1,097 ha	<u>Marine Shoreline</u>
	2,710 ac	km
<u>Ownership / Management</u>		<u>% of Area</u>

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>
Agriculture	22 %	1 0 % 4 100 %
Developed	3 %	2 0 % 5 0 %
Undeveloped	55 %	3 0 %
Marine/Freshwater	20 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Species

Birds

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low

Conversion to agriculture or silviculture High (present or likely within 4 years) High

North Bay

<u>Section:</u> Puget Trough		<u>Area Type:</u> Nearshore Marine		
<u>Area:</u>	519 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,282 ac	11.4 km	Agriculture 0 %	1 0 % 4 45 %
			Developed 0 %	2 0 % 5 44 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 0 %	3 11 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Nearshore Marine Ecological Systems

Sand and gravel beach / Unvegetated n/a
 Sand beach / Unvegetated n/a
 Sand flat / Unvegetated n/a
Phyllospadix/Zostera Sand beach / Seagrass n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Mud flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Sand and gravel flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Sand beach / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Sand flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Saltmarsh and subtidal vegetation n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment High (present or likely within 4 years) Medium
 Unknown source of water pollution High (present or likely within 4 years) Medium
 Poaching or commercial collecting High (present or likely within 4 years) Low
 Parasites/pathogens High (present or likely within 4 years) Low
 Overfishing, overhunting, over collecting High (present or likely within 4 years) High
 Management of/for certain species High (present or likely within 4 years) Medium
 Invasive species High (present or likely within 4 years) Low
 Aquaculture High (present or likely within 4 years) Low
 Shoreline stabilization Medium (likely within 5 to 10 years) High
 Residential development Medium (likely within 5 to 10 years) High
 Collateral damage from fishing Medium (likely within 5 to 10 years) Low

North Fork Newaukum

Section: Lower Columbia Area Type: Terrestrial

North Fork Newaukum *continued from previous page*

<u>Area:</u>	4,630 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	11,436 ac	km	Agriculture	3 %	1 0 %	4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	1 %	2 0 %	5 0 %
			Undeveloped	96 %	3 0 %	
			Marine/Freshwater	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Chehalis headwater small rivers - volcanic/outwash rivers, mid elevation	n/a
Puget lowlands - sandstone, low elevation, moderate gradient	n/a
Willapa headwaters - mid elevations, high gradients	n/a

Species

Fishes

<i>Lampetra tridentata</i>	Pacific lamprey	G5	A
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Residential development	Low (not likely within 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

North Santiam River Riparian

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	7,984 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	19,720 ac	km	Agriculture	44 %	1 1 %	4 96 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	2 %	2 0 %	5 0 %
Oregon Department of Fish and Wildli	<5 %		Undeveloped	43 %	3 3 %	
Oregon Department of Fish and Wildli	<5 %		Marine/Freshwater	11 %		
Oregon Parks and Recreation	<5 %					
Oregon Parks and Recreation	<5 %					
Oregon State	<5 %					
US Bureau of Land Management	<5 %					
US Fish and Wildlife Service	<5 %					

North Santiam River Riparian *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Upland prairies and savannas	GU	C

Plant Communities

<i>Festuca roemeri</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	C
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Species

Fishes

<i>Oregonichthys crameri</i>	Oregon chub	G2	C
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Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A

Non-Vascular - Lichen

<i>Pannaria rubiginosa</i>	Pannaria rubiginosa	G4	K
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Vascular Plants

<i>Camassia quamash</i> ssp. <i>maxima</i>	Common Camas	G5	A
<i>Delphinium oreganum</i>	Larkspur	G1	C
<i>Heterotheca oregona</i>	Oregon golden-aster	G4	K
<i>Lactuca pulchella</i>	Blue lettuce	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Medium

North Texada Island

Section: Georgia Basin

Area Type: Terrestrial

North Texada Island

continued from previous page

Area:	2,518 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	6,219 ac	km	Agriculture 0 %	1 0 % 4 100 %
			Developed 9 %	2 0 % 5 0 %
Ownership / Management		% of Area	Undeveloped 89 %	3 0 %
			Marine/Freshwater 3 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Georgia Strait coastal streams - granitic, low elevation, low to moderate gradient	n/a
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Species

Fishes

<i>Gasterosteus sp</i>	Vananda Creek Benthic Stickleback	G1	B
<i>Gasterosteus sp</i>	Vananda Creek Limnetic Stickleback	G1	B

Vascular Plants

<i>Polystichum californicum</i>	California sword-fern	G4	K
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	High
Groundwater manipulation	Medium (likely within 5 to 10 years)	High

North-South Pender Islands

Section: Georgia Basin

Area Type: Nearshore Marine

Area:	293 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	724 ac	16.5 km	Agriculture 0 %	1 0 % 4 6 %
			Developed 0 %	2 0 % 5 95 %
Ownership / Management		% of Area	Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Dry evergreen forests and woodlands (ranked occurrences)	GU K

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
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	Rock platform / Unvegetated	n/a
	Rock platform / Vegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Other Invertebrates

<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
<i>Serripes groenlandicus</i>	Greenland cockle	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Residential development	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium

Oak Creek USFWS

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	148 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	366 ac	km	Agriculture 82 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
US Fish and Wildlife Service	48 %		Undeveloped 16 %	3 0 %
			Marine/Freshwater 2 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	

	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
	Riparian forests and shrublands	GU	
	Wet prairies	GU	C
Freshwater Ecological Systems			
	Valley/foothill tributaries - volcanics, mid elevation	n/a	
Plant Communities			
	<i>Deschampsia caespitosa - danthonia californica</i> herbaceous vegetation	Tufted hairgrass - california oatgrass	G2 C
	<i>Fraxinus latifolia / juncus patens</i> forest	Oregon ash / spreading rush	G2 C
Species			
Birds			
	<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5 K
	<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3 K
Vascular Plants			
	<i>Aster hallii</i>	Hall's aster	G4 A
	<i>Camassia quamash ssp maxima</i>	Common Camas	G5 C
	<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4 K
	<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2 LE A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Low

Oak Creek/Freeway Lakes Park

Section: Willamette Valley

Area Type: Terrestrial

Area:	55 ha	Marine Shoreline	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	136 ac	km	Agriculture 67 %	1 0 % 4 100 %
Ownership / Management	% of Area		Developed 4 %	2 0 % 5 0 %
			Undeveloped 22 %	3 0 %
			Marine/Freshwater 8 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Species

Vascular Plants

Oak Creek/Freeway Lakes Park *continued from previous page*

<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	B
Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Invasive species	High (present or likely within 4 years)	High	
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium	
Crop production practices	Low (not likely within 10 years)	Low	
Residential development	Medium (likely within 5 to 10 years)	Low	

Oak Harbor, Whidbey Island

Section: <u>Georgia Basin</u>		Area Type: <u>Nearshore Marine</u>	
Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status
79 ha		Agriculture 0 %	1 0 % 4 15 %
195 ac	3.2 km	Developed 0 %	2 0 % 5 5 %
Ownership / Management	% of Area	Undeveloped 0 %	3 80 %
		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Sand and gravel flat / Unvegetated n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Marine</u>			
Unknown source of water pollution	High (present or likely within 4 years)	Medium	
Small population size and distribution	High (present or likely within 4 years)	High	
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High	
Management of/for certain species	High (present or likely within 4 years)	Medium	
Industrial discharge	High (present or likely within 4 years)	Medium	
Crop production practices	High (present or likely within 4 years)	Low	
Channelization of rivers or streams	High (present or likely within 4 years)	High	
Aquaculture	High (present or likely within 4 years)	Low	
Roads and/or utilities	Low (not likely within 10 years)	Medium	
Residential development	Medium (likely within 5 to 10 years)	Medium	
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium	
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low	

Oak Ridge/Moore's Valley

Section: Willamette Valley **Area Type:** Terrestrial

Oak Ridge/Moore's Valley *continued from previous page*

<u>Area:</u>	1,456 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,596 ac	km	Agriculture 15 %	1 0 % 4 1%
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %	2 0 % 5 0%
US Bureau of Land Management	<5 %		Undeveloped 84 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Species

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5	K
<i>Contia tenuis</i>	Sharptail snake	G5	n/a
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	C

Insects

<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	A
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Vascular Plants

<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Old Fort Townsend

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	623 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,539 ac	13.0 km	Agriculture 0 %	1 0 % 4 41%
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 2 %	2 27 % 5 29%
Washington Parks and Recreation Co	26 %		Undeveloped 48 %	3 3 %
			Marine/Freshwater 50 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Industrial discharge	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Olympia Airport

<u>Section:</u> Puget Trough		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	379 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	936 ac	km	Agriculture 1 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 83 %
			Undeveloped 15 %
			Marine/Freshwater 0 %

<u>GAP Management Status</u>			
1	0 %	4	100 %
2	0 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Puget lowlands - outwash, low elevation, moderate gradients	n/a
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Species

Birds

<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	D
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	G3		C

Mammals

<i>Thomomys mazama pugetensis</i>	Western pocket gopher, ssp pugetensis	GU		A
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Private aircraft	High (present or likely within 4 years)	Low
Commercial/industrial development	High (present or likely within 4 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	High

Orchard Heights

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	923 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	2,280 ac	km	Agriculture 29 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %
Preserve	<5 %		Undeveloped 71 %
			Marine/Freshwater 0 %

<u>GAP Management Status</u>			
1	0 %	4	1 %
2	0 %	5	0 %
3	0 %		

Orchard Heights

continued from previous page

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	B

Plant Communities

<i>Pinus ponderosa - quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Ponderosa pine -oregon white oak / romer's fescue	G1	C
<i>Quercus garryana / festuca roemerii wooded herbaceous vegetation</i>	Oregon white oak / roemer's fescue	G1	B
<i>Stipa lemmonii / racomitrium canescens herbaceous vegetation</i>	Lemmon needlegrass / rock moss	G1	C

Species

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Vascular Plants

<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	C
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Recreational infrastructure development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High

Oregon Country Fair

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	439 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,084 ac	km	Agriculture 53 %	1 0 % 4 78 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 3 %	2 0 % 5 0 %
US Bureau of Land Management	<5 %		Undeveloped 43 %	3 22 %
			Marine/Freshwater 2 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	

	Dry evergreen forests and woodlands	GU	
	Oak woodlands	GU	
	Riparian forests and shrublands	GU	
Species			
Birds			
<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
Herpetofauna			
<i>Contia tenuis</i>	Sharptail snake	G5	n/a
Vascular Plants			
<i>Aster hallii</i>	Hall's aster	G4	K
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	K
<i>Grindelia integrifolia</i>	Willamette gumweed	G5	K
<i>Lasthenia glaberrima</i>	Smooth goldfields	G5	B
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	K
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	Low
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Low
Wastewater treatment	Medium (likely within 5 to 10 years)	Low
Recreational use	Medium (likely within 5 to 10 years)	Low

Ostrander Forest Block

Section: Lower Columbia

Area Type: Terrestrial

Area: 6,201 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
15,316 ac	km	Agriculture 1 %	1 0 % 4 100 %
		Developed 3 %	2 0 % 5 0 %
Ownership / Management % of Area		Undeveloped 96 %	3 0 %
Department of Natural Resources <5 %		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	n/a
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Species

Birds

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C
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Herpetofauna

Ostrander Forest Block *continued from previous page*

<i>Dicamptodon copei</i>	Cope's giant salamander	G3	C
<u>Vascular Plants</u>			
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	K

Impacts assessed in this Conservation Area: _____ (Urgency) _____ (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Ostrich Bay, Bremerton

Section: Puget Trough

Area Type: Nearshore Marine

Area:	272 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	672 ac	8.2 km	Agriculture 0 %	1 0 % 4 21 %
			Developed 0 %	2 0 % 5 64 %
Ownership / Management	% of Area		Undeveloped 0 %	3 15 %
US Dept. of Defense	<5 %		Marine/Freshwater 100 %	

Targets known in this Conservation Area: _____ (Common Name) _____ (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Molluscs

<i>Ostrea lurida</i>	Olympia oyster	G?
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Other Invertebrates

<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

Otter Lake-Desire Lake

Section: Puget Trough

Area Type: Terrestrial

Area:	205 ha	<u>Marine Shoreline</u>
	506 ac	km
Ownership / Management	% of Area	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>			
Agriculture	0 %	1	0 %	4	45 %
Developed	4 %	2	53 %	5	0 %
Undeveloped	89 %	3	2 %		
Marine/Freshwater	7 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	B
Sphagnum bogs and fens	GU	C

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient	n/a	
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Otter Lake-Desire Lake *continued from previous page*

Plant Communities

<i>Tsuga heterophylla</i> / <i>sphagnum</i> spp. forest	Western hemlock - (western redcedar) / peat moss	G1	C
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Species

Vascular Plants

<i>Erythronium oregonum</i> ssp <i>oregonum</i>	Giant white fawnlily	G5	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Operation of drainage or diversion systems	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Groundwater manipulation	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	High
Fire management	Medium (likely within 5 to 10 years)	Medium

Padilla Bay

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u> 5,071 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
12,525 ac	48.7 km	Agriculture 2 %	1 0 % 4 4 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 0 %	2 22 % 5 5 %
Department of Natural Resources	<5 %	Undeveloped 7 %	3 69 %
Other	<5 %	Marine/Freshwater 90 %	
Tribal	<5 %		
US Fish and Wildlife Service	<5 %		
Washington Department of Fish and	<5 %		
Washington Parks and Recreation Co	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a

Padilla Bay

continued from previous page

<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Operation of drainage or diversion systems	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Pender Harbor

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Pender Harbor

continued from previous page

Area:	1,753 ha 4,330 ac	Marine Shoreline	47.7 km	Land Use/Land Cover		GAP Management Status	
				Agriculture	0 %	1 3 %	4 61 %
				Developed	25 %	2 0 %	5 36 %
Ownership / Management		% of Area		Undeveloped	31 %	3 0 %	
BC Parks		<5 %		Marine/Freshwater	44 %		
Trust		<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Freshwater Ecological Systems

Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient	n/a	
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Plant Communities

<i>Pinus contorta</i> var. <i>contorta</i> - <i>pseudotsuga menziesii</i> / <i>cladina</i> spp. forest	Shore pine - douglas-fir / reindeer lichen	G2	B
<i>Pseudotsuga menziesii</i> - <i>tsuga heterophylla</i> / <i>mahonia nervosa</i> var. <i>nervosa</i> forest	Douglas-fir - western hemlock / dwarf oregongrape	G2	B

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	

Mammals

<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	High
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Marine

Recreational use	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Medium
Marina development	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	High

Pepin Creek

Section: Puget Trough

Area Type: Terrestrial

Area:	811 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	2,003 ac	km	Agriculture	36 %	1	34 %	4	66 %
			Developed	25 %	2	0 %	5	0 %
			Undeveloped	39 %	3	0 %		
			Marine/Freshwater	0 %				

Ownership / Management	% of Area
Regional District Park	34 %
Trust	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	K
Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K

Freshwater Ecological Systems

Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient n/a

Species

Fishes

<i>Catostomus sp 4</i>	Salish sucker	G1	B
<i>Rhinichthys sp 4</i>	Nooksack dace	G3	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Crop production practices	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	High

Peterson Butte

Section: Willamette Valley

Area Type: Terrestrial

Area:	564 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	1,393 ac	km	Agriculture	22 %	1	0 %	4	100 %
			Developed	0 %	2	0 %	5	0 %
			Undeveloped	78 %	3	0 %		
			Marine/Freshwater	0 %				

Ownership / Management	% of Area

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation	n/a	
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Plant Communities

<i>Festuca roemerii</i> - <i>sidalcea malviflora</i> ssp. <i>virgata</i> herbaceous vegetation	Roemer's fescue - rose checker-mallow	G1	C
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Species

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Vascular Plants

<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Low
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Pickering Passage

Section: Puget Trough

Area Type: Nearshore Marine

Area: 978 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
2,416 ac	31.1 km	Agriculture 0 %	1 0 % 4 20 %
		Developed 0 %	2 0 % 5 71 %
Ownership / Management	% of Area	Undeveloped 0 %	3 9 %
Washington Parks and Recreation Co	<5 %	Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

Sand and gravel beach / Unvegetated	n/a	
Sand beach / Unvegetated	n/a	

	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Molluscs

<i>Ostrea lurida</i>	Olympia oyster	G?
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Other Invertebrates

<i>Tritonia diomedea</i>	Rosy tritonia	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Pilchuck Riparian

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	1,236 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	3,053 ac	km	Agriculture	3 %	1 0 %	4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	4 %	2 0 %	5 0 %
			Undeveloped	92 %	3 0 %	
			Marine/Freshwater	1 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

Pitt Macrosite

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	5,337 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	13,182 ac	km	Agriculture	36 %	1 15 %	4 85 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	4 %	2 0 %	5 0 %
BC Parks	<5 %		Undeveloped	30 %	3 0 %	
Nature Appreciation Area	<5 %		Marine/Freshwater	31 %		
Provincial Park Ecological Reserve	<5 %					
Regional District Nature Appreciation	9 %					
Regional District Park	<5 %					
Trust	<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	B
Freshwater marshes	GU	K
Sphagnum bogs and fens	GU	B

	Tidally-influenced freshwater wetlands	GU	A
Freshwater Ecological Systems			
	Cascades tributary headwaters - granitic, low to mid elevation	n/a	
	Fraser River mainstem - predominantly granite watershed, low elevation, low gradient	n/a	
	Lower Fraser River tributaries headwaters - granitic, low elevation, low to moderate gradient	n/a	
Species			
<u>Vascular Plants</u>			
	<i>Bidens amplissima</i>	Vancouver Island beggar-ticks	G3 K
	<i>Elatine rubella</i>	Southwestern waterwort	G5 B
	<i>Eleocharis parvula</i>	Small spikerush	G5 K
	<i>Eleocharis rostellata</i>	Beaked spikerush	G5 B
	<i>Elodea nuttallii</i>	Nuttall's waterweed	G5 K
	<i>Lilaea scilloides</i>	Flowering quillwort	G4 B
	<i>Lupinus rivularis</i>	Riverbank lupine	G4 C
	<i>Myriophyllum pinnatum</i>	Cutleaf water-milfoil	G5 B/C
	<i>Myriophyllum ussuriense</i>	Ussurian water-milfoil	G3 A
	<i>Verbena hastata</i>	Blue vervain	G5 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Trails	Medium (likely within 5 to 10 years)	Medium
Recreational vehicles	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Operation of dams or reservoirs	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

Point Disney, Waldron Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	408 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	1,008 ac	km	Agriculture 0 %	1 0 % 4 92 %
Ownership / Management	% of Area		Developed 2 %	2 0 % 5 7 %
Preserve	20 %		Undeveloped 85 %	3 0 %
			Marine/Freshwater 13 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Point Disney, Waldron Island *continued from previous page*

	Herbaceous balds and bluffs	GU		C
	Oak woodlands (ranked occurrences)	GU		C
Nearshore Marine Ecological Systems				
	<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a	
Plant Communities				
	<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	C
Species				
Birds				
	<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
	<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE C
	<i>Gavia spp</i>	Loons	GU	
	<i>Melanitta spp</i>	Scoters	GU	
	<i>Progne subis</i>	Purple martin	G5	D
Fishes				
	<i>Sebastes caurinus</i>	Copper rockfish	G?	
	<i>Sebastes maliger</i>	Quillback rockfish	G?	
Mammals				
	<i>Orcinus orca</i>	Killer whale	G4	
Molluscs				
	<i>Crassedoma giganteum</i>	Rock scallop	G?	
	<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	
Vascular Plants				
	<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	High

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Point George, Shaw Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	192 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	474 ac	2.7 km	Agriculture 0 %	1 1 % 4 25 %
			Developed 1 %	2 74 % 5 0 %
Ownership / Management	% of Area		Undeveloped 95 %	3 0 %
University of Washington	76 %		Marine/Freshwater 5 %	

Point George, Shaw Island *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock cliff / Vegetated	n/a
	Sand beach / Kelp and seagrass	n/a

Plant Communities

<i>Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest</i>	Douglas-fir - western redcedar / salal	G2	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational infrastructure development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Point Julia Forest

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 878 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
2,169 ac	km	Agriculture 0 %	1	0 %	4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 11 %	2	0 %	5 0 %
Tribal	26 %	Undeveloped 89 %	3	0 %	
		Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High

Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low

Point Roberts-Boundary Bay

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	9,416 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	23,258 ac	40.2 km	Agriculture 15 %	1 1 % 4 29 %
			Developed 11 %	2 0 % 5 1 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 15 %	3 68 %
Nature Appreciation Area		<5 %	Marine/Freshwater 59 %	
Regional District Park		<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	K
Intertidal salt marshes	GU	B
Sphagnum bogs and fens	GU	K

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a

Freshwater Ecological Systems

Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a
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Plant Communities

<i>Acer macrophyllum - alnus rubra / polystichum munitum - tellima grandiflora forest</i>	Bigleaf maple - red alder / swordfern - fringe cup	G2	C
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Species

Birds

	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Ardea herodias</i>	Great blue heron	G5	K
<i>Branta bernicla</i>	Brant	G5	
<i>Gavia spp</i>	Loons	GU	
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	

Fishes

Point Roberts-Boundary Bay *continued from previous page*

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<u>Mammals</u>		
<i>Balaenoptera acutorostrata</i>	Minke whale	G5
<i>Orcinus orca</i>	Killer whale	G4
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5
<u>Other Invertebrates</u>		
<i>Cancer magister</i>	Dungeness crab	G?
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Trails	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	Medium
Groundwater manipulation	Medium (likely within 5 to 10 years)	Medium
Livestock production practices	Medium (likely within 5 to 10 years)	Medium
Point source water pollution	Medium (likely within 5 to 10 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Management off for certain species	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	High
Non point source water pollution	Medium (likely within 5 to 10 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Medium
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Point Robinson, Maury Island

Section: Puget Trough

Area Type: Terrestrial

Area: 175 ha Marine Shoreline
432 ac km

Land Use/Land Cover

GAP Management Status

Agriculture	0 %	1	0 %	4	53 %
Developed	7 %	2	46 %	5	0 %
Undeveloped	88 %	3	0 %		
Marine/Freshwater	6 %				

Ownership / Management % of Area

Point Robinson, Maury Island *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a	
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Species

Birds

<i>Progne subis</i>	Purple martin	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational infrastructure development	High (present or likely within 4 years)	Medium
Parasites/pathogens	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Fire management	Low (not likely within 10 years)	Medium
Mining practices	Medium (likely within 5 to 10 years)	High

Porlier Pass

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	1,857 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	4,587 ac	13.4 km	Agriculture 0 %	1 8 % 4 52 %
			Developed 0 %	2 0 % 5 39 %
Ownership / Management	% of Area		Undeveloped 60 %	3 0 %
BC Parks	8 %		Marine/Freshwater 40 %	
Provincial Park Ecological Reserve	<5 %			
Trust	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	K

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock cliff / Vegetated	n/a
	Rock platform / Unvegetated	n/a
	Rock platform / Vegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Birds

<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU
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Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Insects

<i>Coriomeris insularis</i>	Coreid bug	G2	K
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Mammals

<i>Eumetopias jubatus</i>	Steller sea lion rafting sites	G3	LE, LT
<i>Orcinus orca</i>	Killer whale	G4	

Other Invertebrates

<i>Serripes groenlandicus</i>	Greenland cockle	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	High
Recreational use	Low (not likely within 10 years)	Low

Port Discovery Forest

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	990 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,445 ac	km	Agriculture 0 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 2 %	2 0 % 5 0 %
			Undeveloped 98 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Invasive species	Medium (likely within 5 to 10 years)	Medium

Port Gamble

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u> 2,582 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
6,378 ac	19.7 km	Agriculture 0 %	1 0 % 4 70 %
		Developed 12 %	2 0 % 5 28 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 55 %	3 2 %
Tribal	<5 %	Marine/Freshwater 32 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Molluscs

<i>Crassedoma giganteum</i>	Rock scallop	G?
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Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium

Marine

Unknown source of water pollution	High (present or likely within 4 years)	High
Small population size and distribution	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Port Ludlow

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	128 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	316 ac	4.1 km	Agriculture 0 %	1 0 % 4 16 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 85 %
			Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

Dabbling ducks	G5
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	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5
<u>Fishes</u>		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<u>Other Invertebrates</u>		
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Recreational infrastructure development	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Medium
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Portage Inlet

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	98 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	242 ac	5.4 km	Agriculture 0 %	1 0 % 4 17 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 1 % 5 83 %
Municipal District Park	<5 %		Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Rock cliff / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Species

Fishes

Portage Inlet

continued from previous page

<i>Clupea pallasii</i>	Pacific herring spawning	G?
Impacts assessed in this Conservation Area:		(Severity)
<u>Marine</u>		
Residential development	Low (not likely within 10 years)	Medium
Non point source water pollution	Medium (likely within 5 to 10 years)	Medium

Portage Island

Section: <u>Puget Trough</u>		Area Type: <u>Nearshore Marine</u>	
<u>Area:</u>	363 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	897 ac	11.6 km	Agriculture 0 %
			Developed 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 0 %
Tribal	6 %		Marine/Freshwater 100 %
			<u>GAP Management Status</u>
			1 0 % 4 61 %
			2 0 % 5 39 %
			3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
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Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Marine		
Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Prevost Island

Section: <u>Georgia Basin</u>		Area Type: <u>Terrestrial/Nearshore Marine</u>	
Area:	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	
1,676 ha	31.1 km	Agriculture	6 %
4,140 ac		Developed	0 %
		Undeveloped	34 %
		Marine/Freshwater	60 %
Ownership / Management	<u>% of Area</u>	<u>GAP Management Status</u>	
BC Parks	6 %	1	5 %
		2	0 %
		3	0 %
		4	37 %
		5	57 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	K
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Herbaceous balds and bluffs	GU	K

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock cliff / Vegetated	n/a
	Rock platform / Vegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Triglochlin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?

Prevost Island

continued from previous page

<i>Sebastes caurinus</i>	Copper rockfish	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
Impacts assessed in this Conservation Area:		
	(Urgency)	(Severity)
Terrestrial		
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Conversion to agriculture or silviculture	Low (not likely within 10 years)	High
Fire management	Medium (likely within 5 to 10 years)	High
Marine		
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Recreational use	Low (not likely within 10 years)	Low

Protection Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	2,548 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	6,294 ac	7.7 km	Agriculture 0 %	1 0 % 4 2 %
Ownership / Management	% of Area		Developed 1 %	2 6 % 5 92 %
US Fish and Wildlife Service	5 %		Undeveloped 5 %	3 0 %
Washington Department of Fish and	<5 %		Marine/Freshwater 94 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a

Species

Birds

<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU

Fishes

Protection Island

continued from previous page

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
Mammals			
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Pudding River Riparian

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 3,183 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
7,862 ac	km	Agriculture 76 %	1 0 % 4 97 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 1 %	2 0 % 5 0 %
Oregon State	7 %	Undeveloped 20 %	3 3 %
		Marine/Freshwater 3 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	A

Freshwater Ecological Systems

Cascade/foothill small river - volcanic, low to mid elevation	n/a
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a
Valley small river - volcanic, low elevation	n/a
Valley/foothill medium river - volcanic, low elevation	n/a
Willamette River mainstem	n/a

Species

Birds

Pudding River Riparian *continued from previous page*

<i>Ardea herodias</i>	Great blue heron	G5	A
Herpetofauna			
<i>Chrysemys picta</i>	Painted turtle	G5	B

Impacts assessed in this Conservation Area: _____ (Urgency) _____ (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Medium

Puyallup River Riparian

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	471 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,163 ac	km	Agriculture 0 %	1 0 % 4 100 %
			Developed 14 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 77 %	3 0 %
			Marine/Freshwater 9 %	

Targets known in this Conservation Area: _____ (Common Name) _____ (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Impacts assessed in this Conservation Area: _____ (Urgency) _____ (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Operation of dams or reservoirs	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High

Quadra Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	7,557 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	18,666 ac	33.4 km	Agriculture 1 %	1 1 % 4 88 %
			Developed 15 %	2 0 % 5 11 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 71 %	3 0 %
BC Parks	<5 %		Marine/Freshwater 13 %	

Quadra Island

continued from previous page

Trust <5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
Sand flat / Unvegetated	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
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Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	

Mammals

<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Megaptera novaeangliae</i>	Humpback whale	G3	LE
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium

Marine

Aquaculture	Low (not likely within 10 years)	Medium
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Qualicum Bay

Section: Georgia Basin

Area Type: Nearshore Marine

Area:	892 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	2,203 ac	10.1 km	Agriculture 0 %	1 0 % 4 2 %
			Developed 0 %	2 0 % 5 98 %
Ownership / Management	% of Area		Undeveloped 0 %	3 0 %
Trust	<5 %		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

Qualicum Bay

continued from previous page

	Rock cliff / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
<hr/>		
Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<hr/>		
<u>Marine</u>	Recreational infrastructure development	Low (not likely within 10 years) Low

Qualicum-Columbia Beaches

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Nearshore Marine			
<u>Area:</u>	550 ha 1,359 ac	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>
		5.4 km	Agriculture	0 %	1 0 % 4 2 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	0 %	2 0 % 5 98 %
			Undeveloped	0 %	3 0 %
			Marine/Freshwater	100 %	
<hr/>					
Targets known in this Conservation Area:		(Common Name)		(GRank)(Listing)(EORank)	

Nearshore Marine Ecological Systems

<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
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Species

Birds		
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
Fishes		
<i>Clupea pallasii</i>	Pacific herring spawning	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

<hr/>		
Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<hr/>		
<u>Marine</u>	Recreational infrastructure development	Low (not likely within 10 years) Low

Quartermaster Harbor

<u>Section:</u> Puget Trough	<u>Area Type:</u> Nearshore Marine
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Quartermaster Harbor

continued from previous page

Area:	535 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	1,321 ac	19.6 km	Agriculture	0 %	1	0 %	4	29 %
			Developed	0 %	2	67 %	5	2 %
Ownership / Management	% of Area		Undeveloped	0 %	3	3 %		
			Marine/Freshwater	100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Commercial/industrial development	High (present or likely within 4 years)	Low

Industrial discharge	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Medium
Wastewater treatment	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Point source water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Small population size and distribution	High (present or likely within 4 years)	High
Unknown source of water pollution	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

Quilcene

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	7,837 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	19,357 ac	16.1 km	Agriculture 0 %	1 0 % 4 61 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 4 %	2 1 % 5 5 %
Department of Natural Resources	26 %		Undeveloped 86 %	3 33 %
US Forest Service	6 %		Marine/Freshwater 10 %	
Washington Department of Fish and	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	D
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	B

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Olympics rainshadow coastal headwaters	n/a
Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a
Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a

Species

Birds

	Dabbling ducks	G5		
	Diving ducks/bay ducks	G5		
<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3		n/a
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Branta bernicla</i>	Brant	G5		
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5		K
<i>Gavia spp</i>	Loons	GU		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps grisegena</i>	Red-necked grebe	G5		
<i>Progne subis</i>	Purple martin	G5		C
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a
Fishes				
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?		
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?		
Herpetofauna				
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		K
Molluscs				
<i>Ostrea lurida</i>	Olympia oyster	G?		

Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Terrestrial</u>			
Roads and/or utilities	High (present or likely within 4 years)	Medium	
Recreational use	High (present or likely within 4 years)	Low	
Ditches, dikes, drainages and diversions	Low (not likely within 10 years)	Medium	
Invasive species	Medium (likely within 5 to 10 years)	Medium	
<u>Marine</u>			
Shoreline stabilization	High (present or likely within 4 years)	High	
Poaching or commercial collecting	High (present or likely within 4 years)	Medium	
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High	
Management off/for certain species	High (present or likely within 4 years)	Medium	
Forestry practices	High (present or likely within 4 years)	Medium	
Collateral damage from fishing	High (present or likely within 4 years)	Low	
Aquaculture	High (present or likely within 4 years)	Low	
Unknown source of water pollution	Low (not likely within 10 years)	High	
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium	
Residential development	Medium (likely within 5 to 10 years)	Medium	

Race Rocks

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	124 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	306 ac	1.7 km	Agriculture	0 %	1	86 %	4	0 %
			Developed	0 %	2	1 %	5	13 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	0 %	3	0 %		
Provincial Park Ecological Reserve	87 %		Marine/Freshwater	100 %				

Race Rocks

continued from previous page

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

Rock platform / Vegetated n/a

Species

Birds

Gavia spp Loons GU
Seabird nesting colonies Seabird nesting colonies GU

Mammals

Eumetopias jubatus Steller sea lion haul out sites G3 LE, LT

Other Invertebrates

Ceramaster arcticus Arctic cookie star G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use High (present or likely within 4 years) High

Marine

Military activities High (present or likely within 4 years) Medium
 Poaching or commercial collecting Medium (likely within 5 to 10 years) Medium

Raging River Forest

Section: Puget Trough

Area Type: Terrestrial

Area:	922 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	2,277 ac	km	Agriculture 0 %	1	0 %	4 29 %
			Developed 9 %	2	0 %	5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 91 %	3	71 %	
Department of Natural Resources		72 %	Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Riparian forests and shrublands GU

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient n/a
 Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities High (present or likely within 4 years) Medium
 Residential development High (present or likely within 4 years) High
 Invasive species High (present or likely within 4 years) Medium
 Forestry practices High (present or likely within 4 years) Low
 Commercial/industrial development Medium (likely within 5 to 10 years) Medium

Rattlesnake Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area: 724 ha Marine Shoreline
 1,788 ac km
 Ownership / Management % of Area

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>	
Agriculture	45 %	1 0 %	4 100 %
Developed	0 %	2 0 %	5 0 %
Undeveloped	55 %	3 0 %	
Marine/Freshwater	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Cascade medium river - volcanic, low to mid elevation	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Redondo

Section: Puget Trough

Area Type: Nearshore Marine

Area: 164 ha Marine Shoreline
 405 ac 4.0 km
 Ownership / Management % of Area

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>	
Agriculture	0 %	1 0 %	4 22 %
Developed	0 %	2 0 %	5 77 %
Undeveloped	0 %	3 2 %	
Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Unvegetated	n/a
	Sand and gravel beach / Seagrass	n/a

Redondo

continued from previous page

<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
Species		
Birds		
	Dabbling ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
Fishes		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes melanops</i>	Black rockfish	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
Other Invertebrates		
Various	Spiny vermillion star	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Known source of water pollution	High (present or likely within 4 years)	Medium
Shoreline stabilization	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low

Reed Island

Section: Lower Columbia

Area Type: Terrestrial

<u>Area:</u>	132 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	326 ac	km	Agriculture 0 %	1 0 % 4 16 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 85 % 5 0 %
Washington Parks and Recreation Co	82 %		Undeveloped 91 %	3 0 %
			Marine/Freshwater 10 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Riparian forests and shrublands GU

Freshwater Ecological Systems

Lower Columbia mainstem n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Low (not likely within 10 years)	Medium

Reginald Hill

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,774 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,382 ac	8.7 km	Agriculture 6 %	1 28 % 4 70 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 2 %	2 0 % 5 2 %
BC Parks	27 %		Undeveloped 89 %	3 0 %
Parks Canada	<5 %		Marine/Freshwater 3 %	
Trust	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	B
Intertidal salt marshes	GU	C
Oak woodlands (ranked occurrences)	GU	B

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock platform / Vegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Coastal headwaters - granitic, very small watersheds	n/a
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Plant Communities

<i>Arbutus menziesii / arctostaphylos columbiana</i> woodland	Pacific madrone / hairy manzanita	G2	B
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	B
<i>Pseudotsuga menziesii - quercus garryana / melica subulata forest</i>	Douglas-fir - oregon white oak / alaska oniongrass	G1	B

Reginald Hill

continued from previous page

<i>Pseudotsuga menziesii</i> / <i>symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2	B
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	B
<i>Stipa lemmonii</i> / <i>racomitrium canescens</i> herbaceous vegetation	Lemmon needlegrass / rock moss	G1	B
Species			
Vascular Plants			
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	C
<i>Marah oreganus</i>	Coast man-root	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	High
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Rich Passage, Bainbridge Island

Section: Puget Trough

Area Type: Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
415 ha 1,025 ac	9.3 km	Agriculture 0 %	1	0 %	4	13 %
		Developed 0 %	2	2 %	5	76 %
		Undeveloped 0 %	3	9 %		
		Marine/Freshwater 100 %				

Ownership / Management	% of Area
US Dept. of Defense	<5 %
Washington Parks and Recreation Co	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Sand and gravel beach / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Birds

Dabbling ducks	G5
Diving ducks/bay ducks	G5

Rich Passage, Bainbridge Island *continued from previous page*

<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5
<u>Fishes</u>		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<u>Mammals</u>		
<i>Orcinus orca</i>	Killer whale	G4
<u>Molluscs</u>		
<i>Crassostrea giganteum</i>	Rock scallop	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Low
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Military activities	High (present or likely within 4 years)	Medium
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Medium
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

Richardson Gap/Crabtree Wetlands

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 4,936 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
12,192 ac	km	Agriculture 76 %	1 0 % 4 1 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 0 %	2 0 % 5 0 %
		Undeveloped 17 %	3 0 %
		Marine/Freshwater 7 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

Richardson Gap/Crabtree Wetlands *continued from previous page*

Oak woodlands	GU
Riparian forests and shrublands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Medium

Rock Hill

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	677 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,672 ac	km	Agriculture 48 %	1 0 % 4 1 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
US Bureau of Land Management	<5 %		Undeveloped 52 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	

Species

Herpetofauna

Contia tenuis

Sharptail snake	G5	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	Low
Mining practices	Medium (likely within 5 to 10 years)	Low
Fire management	Medium (likely within 5 to 10 years)	Medium

Rocky Point, BC

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u>	2,180 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	5,385 ac	km	Agriculture 6 %	1 0 % 4 99 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 19 %	2 0 % 5 1 %
Trust	8 %		Undeveloped 72 %	3 0 %
			Marine/Freshwater 3 %	

Targets known in this Conservation Area:	(Common Name)	(GRank)	(Listing)	(EORank)
<u>Terrestrial Ecological Systems</u>				
	Douglas fir - western hemlock - western redcedar forests	GU		
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU		B
	Dry evergreen forests and woodlands	GU		
	Dry evergreen forests and woodlands (ranked occurrences)	GU		A
	Herbaceous balds and bluffs	GU		B
	Oak woodlands (ranked occurrences)	GU		A
	Riparian forests and shrublands	GU		
	Vernal pools	GU		B
<u>Freshwater Ecological Systems</u>				
	Coastal headwaters - granitic, low elevation, low gradient	n/a		
<u>Plant Communities</u>				
<i>Pinus contorta</i> var. <i>contorta</i> - <i>pseudotsuga menziesii</i> / <i>gaultheria shallon</i> forest	Shore pine - douglas-fir / salal	G2		B
<i>Plagiobothrys scouleri</i> - <i>plantago bigelovii</i> herbaceous vegetation	Scouler's popcornflower - annual coastal plantain	G2		C
<i>Pseudotsuga menziesii</i> - <i>abies grandis</i> / <i>symphoricarpos albus</i> / <i>melica subulata</i> forest	Douglas-fir - grand fir / common snowberry / alaska oniongrass	G1		A
<i>Pseudotsuga menziesii</i> - <i>tsuga heterophylla</i> / <i>mahonia nervosa</i> var. <i>nervosa</i> forest	Douglas-fir - western hemlock / dwarf oregongrape	G2		B
<i>Pseudotsuga menziesii</i> / <i>gaultheria shallon</i> - <i>holodiscus discolor</i> forest	Douglas-fir / salal - oceanspray	G2		B
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2		B
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos albus</i> - <i>holodiscus discolor</i> forest	Douglas-fir / common snowberry - oceanspray	G2		B
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2		B
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1		B
<i>Quercus garryana</i> / <i>festuca roemeri</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1		B
<i>Thuja plicata</i> - <i>abies grandis</i> / <i>polystichum munitum</i> forest	Western redcedar - grand fir / swordfern	G2		B
<u>Species</u>				
<u>Herpetofauna</u>				
<i>Contia tenuis</i>	Sharptail snake	G5		K
<u>Vascular Plants</u>				
<i>Alopecurus carolinianus</i>	Tufted foxtail	G5		K
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3		B
<i>Lotus formosissimus</i>	Seaside trefoil	G5		D
<i>Montia howellii</i>	Howell's miner's-lettuce	G3		K
<i>Psilocarphus tenellus</i> var. <i>tenellus</i>	Slender woolly-heads	G4		B
<i>Trifolium cyathiferum</i>	Bowl clover	G4		C

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<u>Terrestrial</u>		
Invasive species	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Military activities	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Rocky Point, WA

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
1,924 ha		Agriculture	1	0 %
4,752 ac	5.7 km	Developed	2	60 %
		Undeveloped	3	13 %
		Marine/Freshwater		1 %
<u>Ownership / Management</u>				
	% of Area			
Department of Natural Resources	13 %			
Washington Parks and Recreation Co	60 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass n/a

Plant Communities

Pseudotsuga menziesii - arbutus menziesii / Ionicera hispidula forest Douglas-fir - pacific madrone / hairy honeysuckle G2 C

Species

Birds

Haliaeetus leucocephalus Bald eagle wintering/feeding areas G4 C

Vascular Plants

Silene scouleri ssp grandis Scouler's large campion G5 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Terrestrial</u>		
Trails	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Fire management	Low (not likely within 10 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium
<u>Marine</u>		
Roads and/or utilities	High (present or likely within 4 years)	High

Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Rocky Prairie - Beaver Creek

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	1,909 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,715 ac	km	Agriculture 3 %	1 1 % 4 86 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 4 %	2 13 % 5 0 %
Department of Natural Resources	<5 %		Undeveloped 89 %	3 0 %
Washington Parks and Recreation Co	13 %		Marine/Freshwater 5 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	K
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Puget lowlands - outwash, low elevation, moderate gradients	n/a	
Puget lowlands - glacial till, low elevation, moderate gradients	n/a	

Plant Communities

<i>Festuca roemerii</i> - aster curtus herbaceous vegetation	Roemer's fescue - white-topped aster	G1	C
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Species

Birds

<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	G3	C
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Fishes

<i>Novumbra hubbsi</i>	Olympic mudminnow	G3	C
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Herpetofauna

<i>Rana pretiosa</i>	Oregon spotted frog	G2	C	A
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Insects

<i>Euphydryas editha taylori</i>	Taylor's checkerspot	G1	D
<i>Euphyes vestris vestris</i>	Dun skipper	G3	C
<i>Icaricia icarioides blackmorei</i>	Blackmore's blue	G3	B

Rocky Prairie - Beaver Creek *continued from previous page*

<i>Polites sonora siris</i>	Dog star skipper	G4		C
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5		C
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4		C
<u>Vascular Plants</u>				
<i>Aster curtus</i>	White-topped aster	G3		K
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5		C
<i>Castilleja levisecta</i>	Golden paintbrush	G1	LT	K
<i>Delphinium nuttallii</i>	Upland larkspur	G4		C
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5		B
<i>Howellia aquatilis</i>	Water howellia	G2	LT	K
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU		C
<i>Trillium parviflorum</i>	Small-flowered trillium	G2		K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5		D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Mining practices	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Management off/for certain species	High (present or likely within 4 years)	Medium
Trails	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Medium
Small population size and distribution	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Low (not likely within 10 years)	Low
Groundwater manipulation	Low (not likely within 10 years)	High

Rodena Beach, Whidbey Island

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	389 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	961 ac	16.1 km	Agriculture 0 %	1 0 % 4 15 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 1 % 5 76 %
			Undeveloped 0 %	3 8 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand and gravel beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Eschrichtius robustus</i>	Grey whale	G4	PS:LE
<i>Orcinus orca</i>	Killer whale	G4	

Other Invertebrates

<i>Tritonia diomedea</i>	Rosy tritonia	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Small population size and distribution	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Rooster Rock/Mirror Lake State Park

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	335 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	827 ac	km	Agriculture 0 %
			Developed 8 %
			Undeveloped 82 %
			Marine/Freshwater 10 %
<u>Ownership / Management</u>	<u>% of Area</u>	<u>GAP Management Status</u>	
Oregon Parks and Recreation	89 %	1	0 % 4 1 %
Oregon Parks and Recreation	<5 %	2	0 % 5 0 %
Oregon State	<5 %	3	0 %
US Bureau of Land Management	<5 %		
US Forest Service	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Cascade tributaries - volcanics, high/mid elevation, low gradient	n/a
Lower Columbia mainstem	n/a

Species

Non-Vascular - Moss

<i>Huperzia occidentalis</i>	Fir club-moss	G5	K
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Vascular Plants

<i>Carex vulpinoidea</i>	Fox sedge	G5	K
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	H
<i>Lysimachia (Steironema) ciliata</i>	Fringed loosestrife	G5	K
<i>Physostegia parviflora</i>	Purple dragon-head	G4	K
<i>Poa nervosa</i>	Hooker's bluegrass	G5	K
<i>Sullivantia oregana</i>	Oregon sullivantia	G2	H
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Low (not likely within 10 years)	Medium

Royal Roads-Esquimalt

Section: Georgia Basin Area Type: Terrestrial/Nearshore Marine

Royal Roads-Esquimalt

continued from previous page

<u>Area:</u>	341 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	842 ac	8.5 km	Agriculture	0 %	1	0 %	4	99 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	42 %	2	0 %	5	1 %
			Undeveloped	54 %	3	0 %		
			Marine/Freshwater	4 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Herbaceous balds and bluffs	GU	K
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Sand flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a

Plant Communities

<i>Thuja plicata - abies grandis / polystichum munitum forest</i>	Western redcedar - grand fir / swordfern	G2	B
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Species

Vascular Plants

<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	K
<i>Limnanthes macounii</i>	Macoun's meadow-foam	G3	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	High
Mining practices	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High

Ryder Mt.

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	2,513 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	6,207 ac	km	Agriculture	35 %	1	0 %	4	100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	8 %	2	0 %	5	0 %
BC Parks	<5 %		Undeveloped	57 %	3	0 %		
Nature Appreciation Area	<5 %		Marine/Freshwater	0 %				
Trust	7 %							

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	C
Riparian forests and shrublands (ranked occurrences)	GU	C

Species

Herpetofauna

<i>Ascaphus truei</i>	Tailed frog	G4	K
<i>Dicamptodon tenebrosus</i>	Pacific giant salamander	G5	B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Commercial/industrial development	High (present or likely within 4 years)	High
Recreational use	Medium (likely within 5 to 10 years)	Medium
Livestock production practices	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Salem Hills/Ankeny NWR

Section: Willamette Valley

Area Type: Terrestrial

Area: 10,483 ha Marine Shoreline
25,893 ac km

Land Use/Land Cover

Agriculture	61 %
Developed	1 %
Undeveloped	38 %
Marine/Freshwater	1 %

GAP Management Status

1	0 %	4	88 %
2	11 %	5	0 %
3	0 %		

Ownership / Management % of Area
US Fish and Wildlife Service 11 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Wet prairies	GU	C

Freshwater Ecological Systems

Foothills tributaries - basalt, low to mid elevation	n/a
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a
Willamette River mainstem	n/a

Species

Birds

<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2	C
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2	K
Various	Shorebird aggregations (non-marine)	GU	K

Herpetofauna

<i>Chrysemys picta</i>	Painted turtle	G5	K
<i>Contia tenuis</i>	Sharptail snake	G5	n/a

Vascular Plants

<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	K
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	K
<i>Delphinium pavonaceum</i>	Peacock larkspur	HYB	D
<i>Geranium oreganum</i>	Oregon crane's-bill	G4	D
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2	H
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4	D
<i>Mimulus tricolor</i>	Tricolor monkey-flower	G4	D
<i>Montia howellii</i>	Howell's miner's-lettuce	G3	D
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Salmon Creek Riparian

Section: Lower Columbia

Area Type: Terrestrial

Area:	218 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	538 ac	km	Agriculture 5 %	1 0 % 4 99 %
Ownership / Management	% of Area		Developed 14 %	2 0 % 5 0 %
Department of Natural Resources	<5 %		Undeveloped 80 %	3 1 %
			Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient n/a
 Lower Columbia tributary small rivers - outwash n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium

Samish

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status	
17,836 ha	28.4 km	Agriculture 42 %	1	0 %
44,055 ac		Developed 3 %	2	1 %
		Undeveloped 43 %	3	13 %
		Marine/Freshwater 11 %		
Ownership / Management	% of Area			
County Government	<5 %			
Department of Natural Resources	10 %			
Other	<5 %			
Washington Department of Fish and	<5 %			
Washington Parks and Recreation Co	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a
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	Cascades tributary headwaters - granitic, low to mid elevation	n/a	
	Fraser/Nooksack coastal plain - sedimentary, low elevation, low gradient	n/a	
	Nooksack coastal plain headwaters - glacial drift and outwash, low elevation, low to moderate gradient	n/a	
	Northern Cascades headwaters - sandstone, moderate to high elevation, moderate to high gradient	n/a	
Species			
Birds			
	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Ardea herodias</i>	Great blue heron	G5	A
<i>Branta bernicla</i>	Brant	G5	
<i>Gavia spp</i>	Loons	GU	
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	
<i>Melanitta spp</i>	Scoters	GU	
Various	Wintering raptor concentrations	GU	
Fishes			
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	Low
Crop production practices	Medium (likely within 5 to 10 years)	Low

Marine

Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	High
Operation of dams or reservoirs	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Small population size and distribution	High (present or likely within 4 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Samuel-Saturna

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	391 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	966 ac	10.1 km	Agriculture 0 %	1 0 % 4 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 99 %
			Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock platform / Unvegetated	n/a
	Rock platform / Vegetated	n/a
<i>Nereocystis/Macrocyctis</i>	Rock with sand and/or gravel beach / Kelp	n/a

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
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Mammals

<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Residential development	High (present or likely within 4 years)	Medium
Recreational vehicles	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Medium

Sandy Point, Whidbey Island

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	109 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	269 ac	2.8 km	Agriculture 0 %	1 0 % 4 3 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 63 %
			Undeveloped 0 %	3 34 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
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Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
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Sandy Point, Whidbey Island *continued from previous page*

<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
Species		
Birds		
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
Fishes		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Sandy River

Section: Lower Columbia

Area Type: Terrestrial

Area: 5,054 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
12,483 ac	km	Agriculture 22 %	1 1 % 4 96 %
		Developed 5 %	2 0 % 5 0 %
Ownership / Management	% of Area	Undeveloped 63 %	3 3 %
Oregon Parks and Recreation	<5 %	Marine/Freshwater 9 %	
Preserve	<5 %		
State Scenic Waterway	<5 %		
US Bureau of Land Management	<5 %		
US Forest Service	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	

	Riparian forests and shrublands	GU		
Freshwater Ecological Systems				
	Cascade headwaters - mostly granitic, high/mid elevation, steep	n/a		
	Cascade small rivers - volcanic, high elevation	n/a		
	Cascade tributaries - volcanics, high/mid elevation, low gradient	n/a		
	Lower Columbia mainstem	n/a		
	Lower Columbia tributary medium rivers - not volcanic	n/a		
Species				
Birds				
	<i>Coccyzus americanus</i>	Yellow-billed cuckoo	G5	PS X
Herpetofauna				
	<i>Batrachoseps wrighti</i>	Oregon slender salamander	G3	A
Vascular Plants				
	<i>Carex vulpinoidea</i>	Fox sedge	G5	K
	<i>Cimicifuga elata</i>	Tall bugbane	G2	B
	<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	H
	<i>Delphinium nuttallii</i>	Upland larkspur	G4	D
	<i>Elodea nuttallii</i>	Nuttall's waterweed	G5	K
	<i>Heterotheca oregona</i>	Oregon golden-aster	G4	K
	<i>Marsilea vestita</i>	Hairy water-fern	G5	C
	<i>Poa nervosa</i>	Hooker's bluegrass	G5	K
	<i>Rorippa columbiae</i>	Columbia yellow-cress	G3	C
	<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	K
	<i>Sullivantia oregana</i>	Oregon sullivantia	G2	C
	<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Low
Recreational infrastructure development	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low

Satsop Watershed

Section: Puget Trough

Area Type: Terrestrial

Area:	33,431 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	82,575 ac	km	Agriculture 1 %	1 0 % 4 100 %
Ownership / Management	% of Area		Developed 7 %	2 0 % 5 0 %
Washington Parks and Recreation Co	<5 %		Undeveloped 90 %	3 0 %
			Marine/Freshwater 2 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	B
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	B
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C
Sphagnum bogs and fens	GU	B

Freshwater Ecological Systems

Chehalis tributary small rivers - volcanic/outwash, low to mid elevation	n/a	
Coastal upland - glacial till, low elevation, low to moderate gradient	n/a	
Coastal upland - sandstones, low elevation, moderate gradient	n/a	
Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a	

Plant Communities

Ledum groenlandicum - kalmia microphylla / xerophyllum tenax shrubland

Bog labrador-tea - bog-laurel / beargrass	G1	B
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Species

Fishes

Novumbra hubbsi

Olympic mudminnow	G3	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium

Saturna Island

Section: Georgia Basin

Area Type: Terrestrial

Saturna Island

continued from previous page

Area:	1,388 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	3,428 ac	km	Agriculture	5 %	1	9 %	4	91 %
Ownership / Management	% of Area		Developed	3 %	2	0 %	5	0 %
Provincial Park Ecological Reserve	9 %		Undeveloped	91 %	3	0 %		
			Marine/Freshwater	1 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Dry evergreen forests and woodlands (ranked occurrences)	GU		C
Herbaceous balds and bluffs	GU		C
Oak woodlands (ranked occurrences)	GU		B
Riparian forests and shrublands	GU		

Freshwater Ecological Systems

Coastal headwaters - granitic, low elevation, low gradient	n/a		
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Plant Communities

<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1		C
<i>Pseudotsuga menziesii</i> / <i>gaultheria shallon</i> - <i>holodiscus discolor</i> forest	Douglas-fir / salal - oceanspray	G2		C
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2		C
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1		B

Species

Birds

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	B
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Vascular Plants

<i>Idahoia scapigera</i>	Scapose scalepod	G5		K
<i>Meconella oregana</i>	White meconella	G2		K
<i>Ophioglossum pusillum</i>	Adder's tongue	G5		A
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	G4		A
<i>Ranunculus californicus</i>	California buttercup	G5		K
<i>Uropappus (microseris) lindleyi</i>	Lindley's silver-puffs	G5		K
<i>Yabea microcarpa</i>	California hedge-parsley	G5		A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational infrastructure development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	High
Residential development	Low (not likely within 10 years)	High

Sauvie Island

Section: Lower Columbia

Area Type: Terrestrial

Area: 36,064 ha **Marine Shoreline**
89,078 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management	% of Area
County Government	<5 %
Department of Natural Resources	<5 %
Oregon Department of Fish and Wildli	13 %
Oregon Department of Fish and Wildli	<5 %
Oregon Department of Fish and Wildli	<5 %
Oregon State	<5 %
US Bureau of Land Management	<5 %
US Fish and Wildlife Service	<5 %
Washington Department of Fish and	<5 %

Agriculture	38 %
Developed	4 %
Undeveloped	26 %
Marine/Freshwater	32 %

1	0 %	4	79 %
2	20 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Autumnal freshwater mudflats	GU	A
Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C
Tidally-influenced freshwater wetlands	GU	A

Freshwater Ecological Systems

Lower Columbia headwater - coarse outwash, low elevation, low gradient	n/a
Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient	n/a
Lower Columbia mainstem	n/a
Lower Columbia tributaries - volcanics, mid elevation, moderate gradient	n/a
Lower Columbia tributaries -alluvium/colluvium streams, low elevation, low gradient	n/a
Lower Columbia tributaries- sedimentary, moderate elevation, moderate gradient	n/a
Lower Columbia tributary medium rivers - volcanic	n/a
Lower Columbia tributary small rivers - outwash	n/a
Lower Columbia tributary small rivers - volcanics	n/a
Lower Willamette River mainstem	n/a

Plant Communities

Sauvie Island

continued from previous page

<i>Quercus garryana / viburnum ellipticum - toxicodendron diversiloba forest</i>	Oregon white oak / oval-leaf viburnum - poison-oak	G1		B
Species				
Birds				
<i>Agelaius tricolor</i>	Tricolored blackbird	G3		C
<i>Ardea herodias</i>	Great blue heron	G5		A
<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2		D
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	G5	PS	H
<i>Melanerpes lewis</i>	Lewis's woodpecker	G5		H
<i>Progne subis</i>	Purple martin	G5		A
<i>Various</i>	Shorebird aggregations (non-marine)	GU		K
Herpetofauna				
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A
Mammals				
<i>Odocoileus virginianus leucurus</i>	Columbian white-tailed deer	G2		A
<i>Various</i>	Bat roost sites	GU		A
Vascular Plants				
<i>Camassia quamash ssp maxima</i>	Common Camas	G5		K
<i>Carex comosa</i>	Bristly sedge	G5		H
<i>Cimicifuga elata</i>	Tall bugbane	G2		H
<i>Claytonia washingtoniana</i>	Washington springbeauty	G2		K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5		K
<i>Howellia aquatilis</i>	Water howellia	G2	LT	H
<i>Montia howellii</i>	Howell's miner's-lettuce	G3		B
<i>Physostegia parviflora</i>	Purple dragon-head	G4		K
<i>Poa nervosa</i>	Hooker's bluegrass	G5		K
<i>Polygonum punctatum</i>	Dotted smartweed	G5		K
<i>Rorippa columbiae</i>	Columbia yellow-cress	G3		H
<i>Sullivantia oregana</i>	Oregon sullivantia	G2		H
<i>Trillium parviflorum</i>	Small-flowered trillium	G2		K
<i>Wolffia columbiana</i>	Columbia water-meal	G5		E
<i>Yabea microcarpa</i>	California hedge-parsley	G5		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Marina development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Low

Savary Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Savary Island

continued from previous page

<u>Area:</u>	486 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,200 ac	8.4 km	Agriculture 0 %	1 0 % 4 98 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 3 %	2 0 % 5 1 %
			Undeveloped 97 %	3 1 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
Sand and gravel beach / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i> Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Plant Communities

<i>Artemisia campestris - grindelia stricta herbaceous vegetation</i>	Northern wormwood - gumweed	G1	B
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	Low (not likely within 10 years)	Low
Recreational use	Medium (likely within 5 to 10 years)	Low
Non point source water pollution	Medium (likely within 5 to 10 years)	High
Fire management	Medium (likely within 5 to 10 years)	High

Scatchet Head

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,339 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,307 ac	3.2 km	Agriculture 0 %	1 0 % 4 7 %
<u>Ownership / Management</u>		<u>% of Area</u>	Developed 0 %	2 0 % 5 88 %
			Undeveloped 4 %	3 5 %
			Marine/Freshwater 96 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a

Scatchet Head

continued from previous page

Plant Communities

<i>Acer macrophyllum</i> - <i>alnus rubra</i> / <i>polystichum munitum</i> - <i>tellima grandiflora</i> forest	Bigleaf maple - red alder / swordfern - fringecup	G2	C
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Operation of drainage or diversion systems	Medium (likely within 5 to 10 years)	Low
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Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

Scatter Creek

Section: Puget Trough

Area Type: Terrestrial

Area: 9,417 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
23,260 ac	km	Agriculture 28 %	1 0 % 4 85 %
		Developed 4 %	2 5 % 5 0 %
Ownership / Management	% of Area	Undeveloped 68 %	3 10 %
Department of Natural Resources	9 %	Marine/Freshwater 1 %	

Washington Department of Fish and <5 %

Targets known in this Conservation Area:	(Common Name)	(GRank)	(Listing)	(EORank)
Terrestrial Ecological Systems				
	Depressional wetland broadleaf forests	GU		K
	Depressional wetland shrublands	GU		K
	Douglas fir - western hemlock - western redcedar forests	GU		
	Dry evergreen forests and woodlands	GU		
	Freshwater aquatic beds	GU		K
	Oak woodlands	GU		
	Riparian forests and shrublands	GU		
	Riparian forests and shrublands (ranked occurrences)	GU		B
	Upland prairies and savannas	GU		B
Freshwater Ecological Systems				
	Chehalis headwater small rivers - outwash, low elevation, low gradient	n/a		
	Chehalis headwater small rivers - volcanic, low to mid elevation, low to moderate gradient	n/a		
	Chehalis River medium river - sandstone, low elevation, low gradient	n/a		
	Puget lowlands - outwash, low elevation, moderate gradients	n/a		
	Puget lowlands - glacial till, low elevation, moderate gradients	n/a		
Plant Communities				
	<i>Festuca roemerii</i> - aster curtus herbaceous vegetation	Roemer's fescue - white-topped aster	G1	B
	<i>Quercus garryana</i> - (<i>fraxinus latifolia</i>) / <i>symphoricarpos albus</i> forest	Oregon white oak - (oregon ash) / common snowberry	G2	B
Species				
Birds				
	<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	D
Fishes				
	<i>Novumbra hubbsi</i>	Olympic mudminnow	G3	A
Insects				
	<i>Polites mardon</i>	Mardon skipper	G2	B
Mammals				
	<i>Thomomys mazama yelmensis</i>	Western pocket gopher, ssp yelmensis	GU	C
Vascular Plants				
	<i>Aster curtus</i>	White-topped aster	G3	K
	<i>Aster hallii</i>	Hall's aster	G4	B
	<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	A
	<i>Cimicifuga elata</i>	Tall bugbane	G2	K
	<i>Delphinium nuttallii</i>	Upland larkspur	G4	B
	<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5	B
	<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K
	<i>Linaria canadensis var texana</i>	Texas toadflax	G4	K
	<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K

<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	B
Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Trails	High (present or likely within 4 years)	Low	
Shoreline stabilization	High (present or likely within 4 years)	Low	
Roads and/or utilities	High (present or likely within 4 years)	Medium	
Residential development	High (present or likely within 4 years)	High	
Recreational use	High (present or likely within 4 years)	Medium	
Invasive species	High (present or likely within 4 years)	High	
Grazing practices	High (present or likely within 4 years)	Medium	
Forestry practices	High (present or likely within 4 years)	Low	
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low	
Channelization of rivers or streams	High (present or likely within 4 years)	Low	
Groundwater manipulation	Low (not likely within 10 years)	Medium	
Fire management	Medium (likely within 5 to 10 years)	High	

Scio Oak Pine Savanna

<u>Section: Willamette Valley</u>		<u>Area Type: Terrestrial</u>	
<u>Area:</u>	760 ha 1,877 ac	<u>Marine Shoreline</u>	km
<u>Ownership / Management</u>	% of Area	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
		Agriculture	58 %
		Developed	1 %
		Undeveloped	39 %
		Marine/Freshwater	2 %
		1	0 %
		2	0 %
		3	0 %
		4	1 %
		5	0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Species

Vascular Plants

<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	B
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Terrestrial</u>			
Residential development	High (present or likely within 4 years)	High	
Invasive species	High (present or likely within 4 years)	High	
Grazing practices	High (present or likely within 4 years)	Medium	
Forestry practices	High (present or likely within 4 years)	High	
Fire management	High (present or likely within 4 years)	Medium	
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High	

Parasites/pathogens

Medium (likely within 5 to 10 years)

High

Sea to Sea Greenbelt

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 18,543 ha Marine Shoreline
45,801 ac 70.4 km

Land Use/Land Cover

GAP Management Status

Agriculture	1 %	1	27 %	4	49 %
Developed	2 %	2	0 %	5	23 %
Undeveloped	71 %	3	1 %		
Marine/Freshwater	25 %				

Ownership / Management % of Area

BC Parks	8 %
Provincial Park Ecological Reserve	<5 %
Regional District Nature Appreciation	<5 %
Regional District Nature Appreciation	10 %
Regional District Park	<5 %
Regional District Park	6 %
Trust	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	K
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater aquatic beds	GU	K
Herbaceous balds and bluffs	GU	B
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock platform / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a

<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a	
Freshwater Ecological Systems			
	Coastal headwaters - granitic, low elevation, low gradient	n/a	
	Coastal headwaters - granitic, low to mid elevation, low to steep gradient	n/a	
Plant Communities			
<i>Arbutus menziesii / arctostaphylos columbiana</i> woodland	Pacific madrone / hairy manzanita	G2	B
<i>Festuca roemerii - cerastium arvense - koeleria</i> <i>macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	B
<i>Pseudotsuga menziesii / gaultheria shallon -</i> <i>holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2	B
<i>Pseudotsuga menziesii / rosa gymnocarpa -</i> <i>holodiscus discolor forest</i>	Douglas-fir / baldhip rose - oceanspray	G2	B
<i>Pseudotsuga menziesii / symphoricarpos albus -</i> <i>holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	G2	B
<i>Pseudotsuga menziesii / symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2	B
<i>Quercus garryana / carex inops - camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	B
Species			
Birds			
<i>Brachyramphus marmoratus</i>	Marbled murrelet - nesting	G3	D
Fishes			
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
Insects			
<i>Coenonympha californiana insulana</i>	Vancouver Island ringlet	G4	K
<i>Proserpinus clarkiae</i>	Clark's sphinx moth	G4	K
Mammals			
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Sorex palustris brooksi</i>	Vancouver Island water shrew	G2	K
Other Invertebrates			
<i>Halichondria species aff fibrosa</i>	White halichondrid sponge	G?	
<i>Oeneis nevadensis gigas</i>	Greater arctic	G5	K
<i>Synhalcurias species</i>	Tall, deep sea anemone	GU	
Vascular Plants			
<i>Aster curtus</i>	White-topped aster	G3	C
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	K
<i>Idahoia scapigera</i>	Scapose scalepod	G5	A
<i>Meconella oregana</i>	White meconella	G2	K
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	G4	K
<i>Psilocarphus tenellus var tenellus</i>	Slender woolly-heads	G4	C
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	K
<i>Yabea microcarpa</i>	California hedge-parsley	G5	K

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Recreational vehicles	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Small population size and distribution	Low (not likely within 10 years)	Low
Operation of dams or reservoirs	Low (not likely within 10 years)	High
Marine		
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	High
Roads and/or utilities	Medium (likely within 5 to 10 years)	Medium
Marina development	Medium (likely within 5 to 10 years)	Medium

Seabeck Bay

Section: <u>Puget Trough</u>		Area Type: <u>Nearshore Marine</u>	
<u>Area:</u>	448 ha 1,107 ac	<u>Marine Shoreline</u>	8.6 km
<u>Ownership / Management</u>	<u>% of Area</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
Washington Department of Fish and	<5 %	Agriculture	0 %
Washington Parks and Recreation Co	<5 %	Developed	0 %
		Undeveloped	0 %
		Marine/Freshwater	100 %
			1 0 % 4 16 %
			2 0 % 5 81 %
			3 2 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Shoreline stabilization	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management off for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Low (not likely within 10 years)	High
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Sechelt Inlet

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	132 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	326 ac	2.2 km	Agriculture 0 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
			Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a
Sand and gravel beach / Unvegetated	n/a

Species

Fishes

<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?

Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Parasites/pathogens	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High

Aquaculture	High (present or likely within 4 years)	High
Residential development	Low (not likely within 10 years)	Medium
Recreational use	Low (not likely within 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Overfishing, overhunting, over collecting	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Semiahmoo-Drayton Harbor

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	796 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,966 ac	20.4 km	Agriculture 0 %	1 0 % 4 59 %
			Developed 0 %	2 1 % 5 8 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 0 %	3 31 %
County Government		<5 %	Marine/Freshwater 100 %	
Department of Natural Resources		<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Freshwater Ecological Systems

Nooksack coastal plain headwaters - glacial drift and outwash, low elevation, low to moderate gradient	n/a
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU

Semiahmoo-Drayton Harbor *continued from previous page*

<i>Podiceps griseigena</i>	Red-necked grebe	G5
<u>Fishes</u>		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<u>Mammals</u>		
<i>Orcinus orca</i>	Killer whale	G4
<u>Other Invertebrates</u>		
<i>Cancer magister</i>	Dungeness crab	G?
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational infrastructure development	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Shoreline stabilization	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Seola Beach, Burien

Section: Puget Trough

Area Type: Nearshore Marine

Area:	48 ha	<u>Marine Shoreline</u>
	119 ac	1.3 km
Ownership / Management	<u>% of Area</u>	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>			
Agriculture	0 %	1	0 %	4	23 %
Developed	0 %	2	0 %	5	65 %
Undeveloped	0 %	3	13 %		
Marine/Freshwater	100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a

Species

Birds

Dabbling ducks	G5
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<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5
<u>Fishes</u>		
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?
<u>Mammals</u>		
<i>Orcinus orca</i>	Killer whale	G4
<u>Other Invertebrates</u>		
Various	Spiny vermilion star	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Uknown source of water pollution	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Point source water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High

Sequalitchew Marshes

Section: Puget Trough

Area Type: Terrestrial

Area:	395 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	976 ac	km	Agriculture 0 %	1 0 % 4 36 %
			Developed 15 %	2 0 % 5 0 %
Ownership / Management	% of Area		Undeveloped 50 %	3 64 %
US Dept. of Defense	64 %		Marine/Freshwater 35 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU
Riparian forests and shrublands	GU

Species

Sequalitchew Marshes

continued from previous page

Herpetofauna

Rana aurora aurora Northern red-legged frog G4 C

Vascular Plants

Aster curtus White-topped aster G3 K

Carex comosa Bristly sedge G5 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Medium
Military activities	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Commercial/industrial development	High (present or likely within 4 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Sequim Bay

Section: Georgia Basin

Area Type: Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
661 ha	20.9 km	Agriculture 0 %	1	0 %	4	21 %
1,633 ac		Developed 0 %	2	1 %	5	72 %
Ownership / Management	% of Area	Undeveloped 0 %	3	6 %		
Washington Parks and Recreation Co	<5 %	Marine/Freshwater 100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Olympics rainshadow coastal headwaters n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?

Molluscs

<i>Crassidoma giganteum</i>	Rock scallop	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Marina development	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Seymour Narrows

Section: Puget Trough

Area Type: Terrestrial

Area: 4,431 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
10,945 ac	km	Agriculture 0 %	1 18 % 4 81 %
		Developed 4 %	2 0 % 5 0 %
Ownership / Management	% of Area	Undeveloped 96 %	3 0 %
BC Parks	11 %	Marine/Freshwater 0 %	
Regional District Park	8 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Georgia Strait coastal streams - granitic, low elevation, high gradient, coastal connection n/a
 Georgia Strait coastal streams - granitic, low elevation, low to moderate gradient n/a
 Georgia Strait headwaters streams - volcanic, mid elevation, high gradient n/a

Species

Herpetofauna

Ascaphus truei Tailed frog G4 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Recreational infrastructure development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Trails	Medium (likely within 5 to 10 years)	Medium
Roads and/or utilities	Medium (likely within 5 to 10 years)	Medium
Recreational vehicles	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Sherwood Forest

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 2,566 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
6,338 ac	km	Agriculture 0 %	1 0 % 4 57 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 3 %	2 0 % 5 0 %
Department of Natural Resources	43 %	Undeveloped 96 %	3 43 %
		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Riparian forests and shrublands GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Shoofly-Hood Canal

Section: Puget Trough

Area Type: Nearshore Marine

Area:	149 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	368 ac	6.9 km	Agriculture	0 %	1 0 %	4 26 %
Ownership / Management	% of Area		Developed	0 %	2 0 %	5 74 %
			Undeveloped	0 %	3 1 %	
			Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
<i>Tritonia diomedea</i>	Rosy tritonia	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium

Residential development

Medium (likely within 5 to 10 years)

Medium

Shumocher Creek

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	2,990 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	7,385 ac	km	Agriculture 0 %	1 0 % 4 100 %
			Developed 26 %	2 0 % 5 0 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 72 %	3 0 %
Department of Natural Resources		6 %	Marine/Freshwater 2 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	D
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	D
Freshwater marshes	GU	C
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	B
Sphagnum bogs and fens	GU	B

Plant Communities

<i>Alnus (incana, viridis ssp. sinuata) / lysichiton americanus - oenanthe sarmentosa shrubland</i>	Alder (mountain, sitka) / skunk-cabbage - water-parsley	G1	B
<i>Pseudotsuga menziesii - tsuga heterophylla / vaccinium ovatum forest</i>	Douglas-fir - western hemlock / evergreen huckleberry	G2	D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Groundwater manipulation	Low (not likely within 10 years)	High

Sidney Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,594 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,937 ac	22.5 km	Agriculture 6 %	1 23 % 4 54 %
			Developed 0 %	2 0 % 5 22 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 64 %	3 1 %
BC Parks		23 %	Marine/Freshwater 30 %	

Trust <5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	K
Oak woodlands (ranked occurrences)	GU	K

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated	n/a	
Sand and gravel flat / Unvegetated	n/a	
Sand beach / Unvegetated	n/a	
<i>Phyllospadix/Zostera</i> Sand beach / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> Sand flat / Saltmarsh	n/a	

Species

Birds

Diving ducks/bay ducks	G5	
<i>Brachyramphus marmoratus</i> Marbled murrelet - marine	G3	
<i>Branta bernicla</i> Brant	G5	
<i>Gavia spp</i> Loons	GU	
<i>Haematopus bachmani, Arenaria melanocephala</i> Shorebirds-mud/aggregated	GU	
<i>Histrionicus histrionicus</i> Harlequin duck	G4	
<i>Melanitta spp</i> Scoters	GU	
<i>Podiceps grisegena</i> Red-necked grebe	G5	
Seabird nesting colonies Seabird nesting colonies	GU	

Mammals

<i>Orcinus orca</i> Killer whale	G4	
<i>Phoca vitulina</i> Harbor seal pupping sites	G5	
<i>Phocoena phocoena</i> Pacific harbor porpoise	G4	

Vascular Plants

<i>Crassula connata</i> Pygmy-weed	G5	K
<i>Montia howellii</i> Howell's miner's-lettuce	G3	K
<i>Triglochin concinnum var concinnum triglochin concinna var concinna</i> Dotted watermeal	G5	K
<i>Wolffia borealis</i> Dotted watermeal	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low
Grazing practices	Medium (likely within 5 to 10 years)	High

Marine

Recreational vehicles	High (present or likely within 4 years)	High
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Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Low (not likely within 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium

Siebert and McDonald Creeks

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u> 7,257 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
17,925 ac	km	Agriculture 1 %	1 4 %	4 31 %
		Developed 9 %	2 0 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 89 %	3 65 %	
City	<5 %	Marine/Freshwater 1 %		
Department of Natural Resources	53 %			
National Park Service	<5 %			
US Forest Service	11 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Northern Olympics rivers - sandstone, mid to low elevation, mixed gradient	n/a
Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3		n/a
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium

Silver Creek

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 1,430 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
3,532 ac	km	Agriculture 49 %	1 0 %	4 100 %
		Developed 0 %	2 0 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 49 %	3 0 %	
		Marine/Freshwater 2 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium

Silver Lake Watershed

Section: Lower Columbia

Area Type: Terrestrial

Area: 9,004 ha Marine Shoreline
22,240 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management % of Area

US Bureau of Land Management	<5%
Washington Parks and Recreation Co	<5%

Agriculture	4 %	1	0 %	4	99 %
Developed	11 %	2	1 %	5	0 %
Undeveloped	74 %	3	1 %		
Marine/Freshwater	11 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	D
Freshwater aquatic beds	GU	K
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascade tributaries - volcanics, high/mid elevation, low gradient	n/a
Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	n/a

Plant Communities

<i>Pseudotsuga menziesii / corylus comuta / polystichum munitum forest</i>	Douglas-fir / beaked hazel / swordfern	G3	D
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Species

Birds			
<i>Progne subis</i>	Purple martin	G5	D
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	K

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Operation of drainage or diversion systems	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

Skagit

Section: <u>Puget Trough</u>		Area Type: <u>Terrestrial/Nearshore Marine</u>			
<u>Area:</u>	34,292 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>		
	84,701 ac	88.5 km	Agriculture	42 %	1 0 % 4 80 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed	3 %	2 9 % 5 3 %
County Government	<5 %		Undeveloped	35 %	3 8 %
Department of Natural Resources	<5 %		Marine/Freshwater	20 %	
Other	<5 %				
Tribal	<5 %				
US Bureau of Land Management	<5 %				
Washington Department of Fish and	5 %				
Washington Parks and Recreation Co	<5 %				

Targets known in this Conservation Area:	(Common Name)	(GRank)(Listing)(EORank)
Terrestrial Ecological Systems		
	Douglas fir - western hemlock - western redcedar forests	GU
	Dry evergreen forests and woodlands	GU
	Dry evergreen forests and woodlands (ranked occurrences)	GU C
	Freshwater marshes	GU C
	Herbaceous balds and bluffs	GU C
	Intertidal salt marshes	GU C
	Riparian forests and shrublands	GU
	Riparian forests and shrublands (ranked occurrences)	GU C
	Sphagnum bogs and fens	GU B
	Tidally-influenced freshwater wetlands	GU C
Nearshore Marine Ecological Systems		
	Mud flat / Unvegetated	n/a
	Rock cliff / Unvegetated	n/a

	Rock with sand and/or gravel beach / Unvegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
	Sand and gravel flat / Unvegetated	n/a	
	Sand beach / Unvegetated	n/a	
	Sand flat / Unvegetated	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a	
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a	
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>			
Freshwater Ecological Systems			
	Cascade foothills headwaters - glacial drift and alluvium , low to mid elevation, mixed gradient	n/a	
	Cascades headwaters, sedimentary, mid elevation	n/a	
	Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a	
	Northern Cascades medium rivers - predominantly granite watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a	
	Puget Sound tributary rivers - glacial drift, low elevation, low gradient	n/a	
	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a	
	Skagit River Mouth and Sloughs	n/a	
Plant Communities			
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	C
<i>Populus balsamifera ssp. trichocarpa - alnus rubra / rubus spectabilis forest</i>	Black cottonwood - red alder / salmonberry	G2	D
Species			
Birds			
	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Branta bernicla</i>	Brant	G5	
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE C
<i>Gavia spp</i>	Loons	GU	
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	A
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	

Various	Wintering raptor concentrations	GU	
Fishes			
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	
<i>Catostomus sp 4</i>	Salish sucker	G1	C
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
Herpetofauna			
<i>Ascaphus truei</i>	Tailed frog	G4	K
Other Invertebrates			
<i>Cancer magister</i>	Dungeness crab	G?	
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?	
Vascular Plants			
<i>Carex comosa</i>	Bristly sedge	G5	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Operation of dams or reservoirs	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Shoreline stabilization	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	Low (not likely within 10 years)	Medium
Commercial/industrial development	Low (not likely within 10 years)	High
Fire management	Medium (likely within 5 to 10 years)	Medium

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Crop production practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Operation of drainage or diversion systems	High (present or likely within 4 years)	High
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium

Skaiakos Point

Section: Georgia Basin

Area Type: Nearshore Marine

Area: 52 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
128 ac	1.9 km	Agriculture 0 %	1	0 %	4	1 %
		Developed 0 %	2	0 %	5	99 %
Ownership / Management	% of Area	Undeveloped 0 %	3	0 %		
		Marine/Freshwater 100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Sand flat / Unvegetated n/a

Species

Fishes

Sebastes caurinus Copper rockfish G?

Sebastes ruberrimus Yelloweye rockfish G?

Mammals

Orcinus orca Killer whale G4

Phocoena phocoena Pacific harbor porpoise G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Residential development	Low (not likely within 10 years)	Medium
Recreational use	Low (not likely within 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Low

Skokomish-Hood Canal

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area: 13,147 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
32,473 ac	12.3 km	Agriculture 5 %	1 0 % 4 87 %
Ownership / Management	% of Area	Developed 5 %	2 1 % 5 1 %
Department of Natural Resources	<5 %	Undeveloped 81 %	3 11 %
Tribal	15 %	Marine/Freshwater 10 %	
US Forest Service	9 %		
Washington Department of Fish and	<5 %		
Washington Parks and Recreation Co	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests GU K
 Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Intertidal salt marshes GU K
 Riparian forests and shrublands GU

Nearshore Marine Ecological Systems

Sand beach / Unvegetated n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Mud flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand beach / Saltmarsh n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand beach / Saltmarsh and subtidal vegetation n/a
/Nereocystis/Macrocystis/Phyllospadix/Zostera

Skokomish-Hood Canal *continued from previous page*

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera Sand flat / Saltmarsh and subtidal vegetation n/a

Freshwater Ecological Systems

East Olympics small rivers - predominantly mafic, low to mid elevation, low to moderate gradient n/a
 Hood Canal coastal streams n/a
 Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient n/a

Species

Birds

	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Branta bernicla</i>	Brant	G5	
<i>Columba fasciata</i>	Band-tailed pigeon - breeding habitat	G5	K
<i>Gavia spp</i>	Loons	GU	
<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	A
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
<i>Lampetra tridentata</i>	Pacific lamprey	G5	C
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	

Herpetofauna

<i>Dicamptodon copei</i>	Cope's giant salamander	G3	H
<i>Rhyacotriton olympicus</i>	Olympic torrent salamander	G2	H

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?	
Various	Spiny vermilion star	G?	

Vascular Plants

<i>Carex vulpinoidea</i>	Fox sedge	G5	K
<i>Eleocharis parvula</i>	Small spikerush	G5	A
<i>Glyceria leptostachya</i>	Slim-head manna grass	G3	K
<i>Heterotheca oregona</i>	Oregon golden-aster	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Operation of dams or reservoirs	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium

Marine

Unknown source of water pollution	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Management of/for certain species	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium

Skookumchuck Narrows

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	209 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	516 ac	9.2 km	Agriculture 0 %	1 0 % 4 100 %
			Developed 0 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 0 %	3 0 %
Trust	<5 %		Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock platform / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Fishes

Clupea pallasii Pacific herring spawning G?

Mammals

Orcinus orca Killer whale G4

Phocoena phocoena Pacific harbor porpoise G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Mining practices	Medium (likely within 5 to 10 years)	Medium

Skykomish Riparian

Section: Puget Trough

Area Type: Terrestrial

Skykomish Riparian

continued from previous page

Area:	3,307 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	8,168 ac	km	Agriculture	8 %	1 0 %	4 100 %
Ownership / Management	% of Area		Developed	10 %	2 0 %	5 0 %
Department of Natural Resources	<5 %		Undeveloped	69 %	3 0 %	
			Marine/Freshwater	12 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a
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Species

Non-Vascular - Moss

<i>Homalia trichomanioides</i>	Homalia trichomanioides	G5	K
<i>Thamnobryum neckeroides</i>	Thamnobryum neckeroides	G3	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

Smith Island

Section: Georgia Basin

Area Type: Nearshore Marine

Area:	3,879 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status		
	9,581 ac	km	Agriculture	0 %	1 0 %	4 0 %
Ownership / Management	% of Area		Developed	0 %	2 0 %	5 100 %
US Fish and Wildlife Service	<5 %		Undeveloped	0 %	3 0 %	
			Marine/Freshwater	100 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Species

Birds

<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
Seabird nesting colonies	Seabird nesting colonies	GU

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Balaenoptera acutorostrata</i>	Minke whale	G5
<i>Orcinus orca</i>	Killer whale	G4
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5

Molluscs

<i>Crassedoma giganteum</i>	Rock scallop	G?
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Snoqualmie Foothill Forest

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 26,131 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
64,544 ac	km	Agriculture 0 %	1 0 % 4 79 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 17 %	2 0 % 5 0 %
Department of Natural Resources	25 %	Undeveloped 82 %	3 21 %
		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	C
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Depressional wetland broadleaf forests	GU	D
Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	B
Freshwater marshes	GU	B
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	B

Freshwater Ecological Systems

Cascade foothills headwaters - glacial drift, mid elevations, mixed gradient	n/a	
Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a	
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a	

Plant Communities

<i>Carex cusickii</i> - (<i>menyanthes trifoliata</i>) herbaceous vegetation	Cusick's sedge - (buckbean)	G2	B
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Species

Birds

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	A
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Herpetofauna

<i>Ascaphus truei</i>	Tailed frog	G4	K
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	K

Insects

<i>Agonum belleri</i>	Beller's ground beetle	GU	C
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Vascular Plants

<i>Carex comosa</i>	Bristly sedge	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	High
Ditches, dikes, drainages and diversions	Medium (likely within 5 to 10 years)	Low

Snoqualmie Riparian

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 1,319 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
3,258 ac	km	Agriculture 7 %	1 0 % 4 82 %
<u>Ownership / Management</u>	<u>% of Area</u>	Developed 6 %	2 9 % 5 0 %
County Government	<5 %	Undeveloped 76 %	3 9 %
Department of Natural Resources	<5 %	Marine/Freshwater 12 %	
Washington Department of Fish and	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	D
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater marshes	GU	D
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a	
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Species

Vascular Plants

<i>Carex comosa</i>	Bristly sedge	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

Snow and Salmon Creeks

Section: Puget Trough

Area Type: Terrestrial

Area:	10,807 ha	<u>Marine Shoreline</u>
	26,693 ac	km
<u>Ownership / Management</u>		<u>% of Area</u>
Department of Natural Resources		26 %
US Forest Service		38 %
Washington Parks and Recreation Co		<5 %

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>
Agriculture	0 %	1 0 % 4 37 %
Developed	8 %	2 0 % 5 0 %
Undeveloped	91 %	3 63 %
Marine/Freshwater	0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Olympics rainshadow coastal headwaters n/a
 Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient n/a

Species

Birds

<i>Accipiter gentilis</i>	Northern goshawk	G5		C
<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3		n/a
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium

Solo Point - Farrell Marsh

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u> 921 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
2,275 ac	km	Agriculture 0 %	1 0 % 4 5%
		Developed 2 %	2 0 % 5 0%
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 97 %	3 95 %
US Dept. of Defense	93 %	Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coniferous forested wetlands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Oak woodlands	GU	

Species

Birds

<i>Progne subis</i>	Purple martin	G5		D
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Herpetofauna

<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A
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Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3		K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
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Solo Point - Farrell Marsh *continued from previous page*

Roads and/or utilities	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Military activities	High (present or likely within 4 years)	Low
Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Fire management	Medium (likely within 5 to 10 years)	High
Commercial/industrial development	Medium (likely within 5 to 10 years)	Medium

South Fork Newaukum

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,909 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	4,715 ac	km	Agriculture 3 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 4 %
			Undeveloped 93 %
			Marine/Freshwater 1 %
		<u>GAP Management Status</u>	
		1	0 % 4 100 %
		2	0 % 5 0 %
		3	0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Chehalis headwater small rivers - volcanic/outwash rivers, mid elevation	n/a
Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a
Puget lowlands - glacial till, low elevation, moderate gradients	n/a
Puget lowlands - sandstone, low elevation, moderate gradient	n/a

Species

Fishes

Lampetra tridentata

Pacific lamprey	G5	C
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Herpetofauna

Rana aurora aurora

Northern red-legged frog	G4	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

South Fork Yamhill River

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	4,949 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	12,224 ac	km	Agriculture 80 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 5 %
			Undeveloped 13 %
			Marine/Freshwater 2 %

<u>GAP Management Status</u>			
1	0 %	4	1 %
2	0 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Coast Range medium river - sedimentary, low elevation	n/a
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Species

Birds

<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2		K
<i>Eremophila alpestris strigata</i>	Streaked horned lark	G2	C	K

Insects

<i>Acetropis americana</i>	Grass bug	G1		D
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Other Invertebrates

<i>Driloleirus macelfreshi</i>	Oregon giant earthworm	G1		C
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Vascular Plants

<i>Camassia quamash ssp maxima</i>	Common Camas	G5		K
<i>Delphinium nuttallii</i>	Upland larkspur	G4		D
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		D
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		D
<i>Trillium parviflorum</i>	Small-flowered trillium	G2		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Medium
Marina development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium

South Fork Yamhill River *continued from previous page*

Crop production practices	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	Low

South Lummi-Lummi Mountain

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,143 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	2,823 ac	km	Agriculture 0 %
			Developed 0 %
			Undeveloped 95 %
			Marine/Freshwater 5 %
<u>Ownership / Management</u>	<u>% of Area</u>	<u>GAP Management Status</u>	
Department of Natural Resources	24 %	1	17 % 4 53 %
US Bureau of Land Management	<5 %	2	25 % 5 0 %
Washington Department of Fish and	22 %	3	5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	A

Plant Communities

<i>Pseudotsuga menziesii</i> - <i>arbutus menziesii</i> / <i>Ionicera hispidula</i> forest	Douglas-fir - pacific madrone / hairy honeysuckle	G2	B
<i>Pseudotsuga menziesii</i> / <i>rosa gymnocarpa</i> - <i>holodiscus discolor</i> forest	Douglas-fir / baldhip rose - oceanspray	G2	A

Species

Birds

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium

South Prairie Riparian

<u>Section:</u> Puget Trough		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	208 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	514 ac	km	Agriculture 1 %
			Developed 4 %
			Undeveloped 95 %
			Marine/Freshwater 1 %
<u>Ownership / Management</u>	<u>% of Area</u>	<u>GAP Management Status</u>	
Department of Natural Resources	<5 %	1	0 % 4 100 %
		2	0 % 5 0 %
		3	0 %

South Prairie Riparian *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Riparian forests and shrublands GU

Freshwater Ecological Systems

Cascades upper river systems - predominantly volcanic watershed traversing glacial drift, low to mid elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

South Sunshine

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u> 11,340 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
28,010 ac	km	Agriculture 0 %	1 0 % 4 100 %
		Developed 11 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 88 %	3 0 %
BC Parks	<5 %	Marine/Freshwater 0 %	
Trust	<5 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Georgia Strait coastal streams - granitic, low elevation, high gradient, coastal connection n/a
 Georgia Strait island coastal streams - granitic, low elevation, low to moderate gradient n/a
 Georgia Strait island coastal streams - sandstone, low elevation, low to moderate gradient n/a

Species

Herpetofauna

Ascaphus truei Tailed frog G4 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Recreational vehicles	Medium (likely within 5 to 10 years)	Medium
Recreational use	Medium (likely within 5 to 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High
Commercial/industrial development	Medium (likely within 5 to 10 years)	High

South Whidbey Forest

Section: Georgia Basin

Area Type: Terrestrial

Area: 932 ha Marine Shoreline
2,302 ac km

Land Use/Land Cover

GAP Management Status

Ownership / Management % of Area
Department of Natural Resources <5 %
Washington Parks and Recreation Co 15 %

Agriculture	0 %	1	0 %	4	86 %
Developed	2 %	2	14 %	5	0 %
Undeveloped	98 %	3	0 %		
Marine/Freshwater	1 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	

Freshwater Ecological Systems

Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient n/a

Plant Communities

Acer macrophyllum - alnus rubra / polystichum munitum - tellima grandiflora forest

Bigleaf maple - red alder / swordfern - fringecup G2 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Recreational infrastructure development	Low (not likely within 10 years)	Medium

Spieden-Sentinel-Johns Islands

Section: Georgia Basin

Area Type: Nearshore Marine

Spieden-Sentinel-Johns Islands *continued from previous page*

Area:	611 ha 1,509 ac	Marine Shoreline	13.8 km	Land Use/Land Cover		GAP Management Status	
				Agriculture	0 %	1	0 % 4 1 %
				Developed	0 %	2	0 % 5 95 %
Ownership / Management		% of Area		Undeveloped	0 %	3	4 %
Preserve		<5 %		Marine/Freshwater	100 %		
US Bureau of Land Management		<5 %					
US Fish and Wildlife Service		<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Rock cliff / Vegetated	n/a
	Rock platform / Unvegetated	n/a
	Rock with sand and/or gravel beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a

Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU

Fishes

<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Balaenoptera acutorostrata</i>	Minke whale	G5
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3 LE, LT
<i>Orcinus orca</i>	Killer whale	G4
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Molluscs

<i>Crassedoma giganteum</i>	Rock scallop	G?
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?

Other Invertebrates

<i>Polyorchis penicillatus</i>	Polyorchis jellyfish	G?
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Spieden-Sentinel-Johns Islands *continued from previous page*

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Squamish Harbor

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	796 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,966 ac	8.7 km	Agriculture 0 %	1 0 % 4 11 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 88 %
Department of Natural Resources	<5 %		Undeveloped 0 %	3 0 %
			Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

Squamish Harbor

continued from previous page

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
<u>Molluscs</u>		
<i>Crassedoma giganteum</i>	Rock scallop	G?
<u>Other Invertebrates</u>		
<i>Cancer magister</i>	Dungeness crab	G?
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?
<i>Tritonia diomedea</i>	Rosy tritonia	G?
Various	Spiny vermilion star	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

<u>Marine</u>		
Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Squaxin-Hope Islands

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	1,233 ha	Marine Shoreline
	3,046 ac	21.0 km
Ownership / Management	% of Area	
Department of Natural Resources	9 %	
Tribal	37 %	
Washington Parks and Recreation Co	<5 %	

Land Use/Land Cover		GAP Management Status		
Agriculture	0 %	1	0 %	4 59 %
Developed	0 %	2	4 %	5 37 %
Undeveloped	50 %	3	0 %	
Marine/Freshwater	49 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	D

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a

<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		
<i>Triglochlin/Salicornia/Deschampsis/Distichlis/Salicornia</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>		

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps griseigena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Molluscs

<i>Ostrea lurida</i>	Olympia oyster	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium

Marine

Wastewater treatment	High (present or likely within 4 years)	Medium
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Medium (likely within 5 to 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Stearns Creek

Section: Lower Columbia

Area Type: Terrestrial

Stearns Creek

continued from previous page

<u>Area:</u>	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
2,354 ha		Agriculture 2 %	1	0 %	4 100 %
5,814 ac	km	Developed 6 %	2	0 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 91 %	3	0 %	
		Marine/Freshwater 0 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a
Puget lowlands - outwash, low elevation, moderate gradients	n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium

Stillaguamish River-Port Susan

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
17,427 ha		Agriculture 23 %	1	0 %	4 79 %
43,045 ac	19.9 km	Developed 5 %	2	1 %	5 2 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 59 %	3	18 %	
County Government	<5 %	Marine/Freshwater 13 %			
Department of Natural Resources	14 %				
Preserve	6 %				
Washington Department of Fish and	<5 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Intertidal salt marshes	GU	C
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	C

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Subtidal vegetation	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i> <i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

	Cascade foothills headwaters - glacial drift and alluvium , low to mid elevation, mixed gradient	n/a
	Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a
	Cascades middle river systems - predominantly granitic watershed, low to mid elevation, variable gradient	n/a
	North Cascades - mafic , mid elevation, mixed gradient	n/a
	Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a
	Puget Sound tributary rivers - glacial drift, low elevation, low gradient	n/a
	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a

Species

Birds

	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Ardea herodias</i>	Great blue heron	G5	A
<i>Branta bernicla</i>	Brant	G5	
<i>Gavia spp</i>	Loons	GU	
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	
<i>Various</i>	Wintering raptor concentrations	GU	

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Herpetofauna

<i>Bufo boreas</i>	Western toad	G4	PS	C
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Mammals

<i>Eschrichtius robustus</i>	Grey whale	G4	PS:LE
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Non-Vascular - Moss

<i>Andreaea megistospora</i>	Andreaea megistospora	G4		K
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Vascular Plants

<i>Salix prolixa (rigida var macrogemma)</i>	Mackenzie willow	G5		K
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Stillaguamish River-Port Susan *continued from previous page*

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Shoreline stabilization	High (present or likely within 4 years)	Medium
Marine		
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	High
Crop production practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Industrial discharge	High (present or likely within 4 years)	Medium
Recreational use	Low (not likely within 10 years)	Medium
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium

Stout Mountain

Section: <u>Willamette Valley</u>		Area Type: <u>Terrestrial</u>	
Area:	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	
669 ha	km	Agriculture	20 %
1,652 ac		Developed	2 %
<u>Ownership / Management</u> % of Area		Undeveloped	77 %
		Marine/Freshwater	2 %
		<u>GAP Management Status</u>	
		1	0 %
		2	0 %
		3	0 %
		4	100 %
		5	0 %

Targets known in this Conservation Area:	(Common Name)	(GRank)	(Listing)	(EORank)
Terrestrial Ecological Systems				
	Depressional wetland broadleaf forests	GU		D
	Douglas fir - western hemlock - western redcedar forests	GU		
	Dry evergreen forests and woodlands	GU		
	Dry evergreen forests and woodlands (ranked occurrences)	GU		C
	Oak woodlands	GU		
	Riparian forests and shrublands	GU		
	Upland prairies and savannas	GU		D
Plant Communities				
	<i>Fraxinus latifolia</i> / <i>carex obnupta</i> forest	Oregon ash / slough sedge	G3	D
	<i>Quercus garryana</i> / <i>festuca roemeri</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	D
Species				
Birds				
	<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K

Stout Mountain

continued from previous page

<i>Progne subis</i>	Purple martin	G5	A
Herpetofauna			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A
Vascular Plants			
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Mining practices	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium
Residential development	Low (not likely within 10 years)	Medium
Forestry practices	Medium (likely within 5 to 10 years)	High

Striped Peak

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u> 3,113 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
7,689 ac	22.2 km	Agriculture 0 %	1 0 % 4 26 %
		Developed 2 %	2 1 % 5 25 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 69 %	3 48 %
County Government	<5 %	Marine/Freshwater 29 %	
Department of Natural Resources	47 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Intertidal salt marshes	GU	C

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Rock cliff / Vegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a

Species

Birds

	Diving ducks/bay ducks	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU

Striped Peak

continued from previous page

<i>Podiceps grisegena</i>	Red-necked grebe	G5	
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU	
Fishes			
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes melanops</i>	Black rockfish	G?	
Mammals			
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4	A
Molluscs			
<i>Crassedoma giganteum</i>	Rock scallop	G?	
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	Low (not likely within 10 years)	High
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium

Stuart Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	679 ha	<u>Marine Shoreline</u>
	1,677 ac	6.9 km
<u>Ownership / Management</u>	<u>% of Area</u>	
US Bureau of Land Management	<5 %	
Washington Parks and Recreation Co	8 %	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>
Agriculture	0 %	1 0 % 4 78 %
Developed	1 %	2 9 % 5 13 %
Undeveloped	82 %	3 1 %
Marine/Freshwater	17 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

Rock cliff / Vegetated	n/a
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<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
Species		
Birds		
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
Fishes		
<i>Ophiodon elongatus</i>	Lingcod	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4
Molluscs		
<i>Crassedoma giganteum</i>	Rock scallop	G?
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?
Other Invertebrates		
<i>Polyorchis penicillatus</i>	Polyorchis jellyfish	G?

<u>Impacts assessed in this Conservation Area:</u>		<u>(Urgency)</u>	<u>(Severity)</u>
<u>Terrestrial</u>			
Trails		High (present or likely within 4 years)	Low
Recreational infrastructure development		High (present or likely within 4 years)	Low
Management of/for certain species		High (present or likely within 4 years)	Medium
Forestry practices		High (present or likely within 4 years)	Low
<u>Marine</u>			
Roads and/or utilities		High (present or likely within 4 years)	High
Recreational use		High (present or likely within 4 years)	Medium
Poaching or commercial collecting		High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting		High (present or likely within 4 years)	High
Invasive species		High (present or likely within 4 years)	Low
Collateral damage from fishing		High (present or likely within 4 years)	High
Aquaculture		High (present or likely within 4 years)	Low
Known source of water pollution		Medium (likely within 5 to 10 years)	Medium
Residential development		Medium (likely within 5 to 10 years)	Medium

Sucia-Matia-Patos Islands

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	2,000 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	4,940 ac	40.9 km	Agriculture 0 %	1 0 % 4 2 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 23 % 5 71 %
US Fish and Wildlife Service	<5 %		Undeveloped 22 %	3 4 %
			Marine/Freshwater 78 %	

Sucia-Matia-Patos Islands *continued from previous page*

Washington Parks and Recreation Co 17 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	C
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	C

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a	
	Rock cliff / Unvegetated	n/a	
	Rock cliff / Vegetated	n/a	
	Rock platform / Unvegetated	n/a	
	Rock platform / Vegetated	n/a	
	Rock with sand and/or gravel beach / Unvegetated	n/a	
	Sand beach / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a	
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>			
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a	
<i>/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>			

Plant Communities

<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	C
<i>Pseudotsuga menziesii - arbutus menziesii / lonicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	G2	B
<i>Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest</i>	Douglas-fir - western redcedar / salal	G2	B
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2	B
<i>Pseudotsuga menziesii / symphoricarpos albus - holodiscus discolor forest</i>	Douglas-fir / common snowberry - oceanspray	G2	C
<i>Thuja plicata - abies grandis / polystichum munitum forest</i>	Western redcedar - grand fir / swordfern	G2	C

Species

Birds

<i>Aechmophorus occidentalis</i>	Western grebe	G5	
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Sucia-Matia-Patos Islands

continued from previous page

<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Gavia spp</i>	Loons	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Melanitta spp</i>	Scoters	GU	
Seabird nesting colonies	Seabird nesting colonies	GU	
<u>Fishes</u>			
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?	
<u>Mammals</u>			
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5	
<u>Molluscs</u>			
<i>Crassedoma giganteum</i>	Rock scallop	G?	
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	
<u>Other Invertebrates</u>			
<i>Gorgonocephalus eucnemis</i>	Basket star	G?	
<u>Vascular Plants</u>			
<i>Artemisia campestris ssp scouleriana</i>	Pacific sage	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Low
Recreational infrastructure development	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Fire management	Medium (likely within 5 to 10 years)	High

Marine

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Recreational vehicles	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Sultan Foothill Forest

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	16,121 ha	<u>Marine Shoreline</u>
	39,819 ac	km
<u>Ownership / Management</u>	<u>% of Area</u>	
City	9 %	
County Government	<5 %	

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>	
Agriculture	0 %	1	0 %
Developed	13 %	2	1 %
Undeveloped	85 %	3	61 %
Marine/Freshwater	2 %	4	38 %
		5	0 %

Sultan Foothill Forest *continued from previous page*

Department of Natural Resources	55 %
US Forest Service	<5 %
Washington Parks and Recreation Co	<5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	B

Freshwater Ecological Systems

Cascades medium rivers - mixed watershed geology traversing glacial drift and alluvium, low elevation, low gradient	n/a
Northern Cascades headwaters - sandstone, moderate to high elevation, moderate to high gradient	n/a
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Non point source water pollution	Low (not likely within 10 years)	High
Residential development	Medium (likely within 5 to 10 years)	High
Invasive species	Medium (likely within 5 to 10 years)	Medium

Sumas Mountain

Section: Puget Trough

Area Type: Terrestrial

Area:	2,474 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	6,111 ac	km	Agriculture 21 %	1 4 % 4 96 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 0 %
Provincial Park Ecological Reserve	<5 %		Undeveloped 73 %	3 0 %
Regional District Nature Appreciation	<5 %		Marine/Freshwater 6 %	
Trust	<5 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	K
Freshwater marshes	GU	K
Oak woodlands (ranked occurrences)	GU	C
Sphagnum bogs and fens	GU	K

Freshwater Ecological Systems

Fraser/Nooksack coastal plain - sedimentary, low elevation, low gradient n/a

Species

Vascular Plants

<i>Carex vulpinoidea</i>	Fox sedge	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Non point source water pollution	Medium (likely within 5 to 10 years)	Medium
Livestock production practices	Medium (likely within 5 to 10 years)	Medium
Ditches, dikes, drainages and diversions	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	Medium

Swamp Creek Wetlands

Section: Willamette Valley

Area Type: Terrestrial

Area: 597 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
1,475 ac	km	Agriculture 13 %	1	0 %	4	1 %
		Developed 0 %	2	0 %	5	0 %
Ownership / Management	% of Area	Undeveloped 87 %	3	0 %		
US Bureau of Land Management	14 %	Marine/Freshwater 0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High

Swamp Creek Wetlands *continued from previous page*

Fire management	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	Medium

Tanwax Creek

<u>Section:</u> Puget Trough		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	3,025 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	7,472 ac	km	Agriculture 1 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 16 %
			Undeveloped 81 %
			Marine/Freshwater 2 %
			<u>GAP Management Status</u>
			1 0 % 4 100 %
			2 0 % 5 0 %
			3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a
South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	C
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Vascular Plants

<i>Betula pumila var glandulifera</i>	Dwarf birch	G5	B
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	Low
Operation of drainage or diversion systems	Medium (likely within 5 to 10 years)	Medium
Groundwater manipulation	Medium (likely within 5 to 10 years)	High

Tarboo-Dabob Bay

Section: Puget Trough Area Type: Terrestrial/Nearshore Marine

Tarboo-Dabob Bay

continued from previous page

Area:	5,685 ha	Marine Shoreline		Land Use/Land Cover		GAP Management Status	
	14,042 ac	15.5 km		Agriculture	0 %	1	1 % 4 68 %
				Developed	5 %	2	1 % 5 3 %
Ownership / Management		% of Area		Undeveloped	87 %	3	26 %
Conservation Easement		<5 %		Marine/Freshwater	7 %		
Department of Natural Resources		25 %					
Washington Department of Fish and		<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Intertidal salt marshes	GU	B
Riparian forests and shrublands	GU	

Nearshore Marine Ecological Systems

<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a

Freshwater Ecological Systems

Olympics rainshadow coastal headwaters	n/a
Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a

Plant Communities

<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	G1	B
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Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Branta bernicla</i>	Brant	G5
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?

Molluscs

<i>Ostrea lurida</i>	Olympia oyster	G?
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Recreational infrastructure development	High (present or likely within 4 years)	Low

	Invasive species	High (present or likely within 4 years)	Medium
	Channelization of rivers or streams	High (present or likely within 4 years)	Low
<u>Marine</u>			
	Shoreline stabilization	High (present or likely within 4 years)	High
	Poaching or commercial collecting	High (present or likely within 4 years)	Medium
	Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
	Management of/for certain species	High (present or likely within 4 years)	Medium
	Forestry practices	High (present or likely within 4 years)	Medium
	Collateral damage from fishing	High (present or likely within 4 years)	Low
	Aquaculture	High (present or likely within 4 years)	Low
	Unknown source of water pollution	Low (not likely within 10 years)	High
	Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
	Residential development	Medium (likely within 5 to 10 years)	Medium

The Butte RNA

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u>	51 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	126 ac	km	Agriculture 0 %	1 0 % 4 0%
			Developed 1 %	2 0 % 5 0%
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 99 %	3 1 %
US Bureau of Land Management		62 %	Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Coast Range tributaries - shales, mid elevation, moderate gradient	n/a
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Species

Birds

Brachyramphus marmoratus

Marbled murrelet	G3	n/a
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Vascular Plants

Geranium oreganum

Oregon crane's-bill	G4	K
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Viola praemorsa ssp praemorsa

Canary violet	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Forestry practices	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

The Narrows

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	759 ha 1,875 ac	Marine Shoreline 23.0 km	Land Use/Land Cover	GAP Management Status			
			Agriculture	0 %	1	0 %	4 20 %
			Developed	3 %	2	28 %	5 50 %
Ownership / Management	% of Area		Undeveloped	36 %	3	2 %	
City	25 %		Marine/Freshwater	61 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	D
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand beach / Unvegetated	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a

Plant Communities

<i>Acer macrophyllum - alnus rubra / polystichum munitum - tellima grandiflora forest</i>	Bigleaf maple - red alder / swordfern - fringedcup	G2	C
<i>Pseudotsuga menziesii - tsuga heterophylla / vaccinium ovatum forest</i>	Douglas-fir - western hemlock / evergreen huckleberry	G2	D

Species

Birds

	Dabbling ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Gavia spp</i>	Loons	GU	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	
<i>Progne subis</i>	Purple martin	G5	D

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?	
<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	

Mammals

<i>Orcinus orca</i>	Killer whale	G4	
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Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<u>Terrestrial</u>		
Recreational use	High (present or likely within 4 years)	Medium
Trails	High (present or likely within 4 years)	Low
Fire management	Low (not likely within 10 years)	Medium
Roads and/or utilities	Medium (likely within 5 to 10 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Medium
<u>Marine</u>		
Residential development	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Industrial discharge	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Medium
Marina development	High (present or likely within 4 years)	Low
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Point source water pollution	High (present or likely within 4 years)	Medium
Shoreline stabilization	High (present or likely within 4 years)	High
Small population size and distribution	High (present or likely within 4 years)	High
Unknown source of water pollution	High (present or likely within 4 years)	Medium
Wastewater treatment	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium

Thetis-Frances

Section: <u>Georgia Basin</u>		Area Type: <u>Terrestrial</u>	
<u>Area:</u>	1,174 ha 2,900 ac	<u>Marine Shoreline</u>	km
<u>Ownership / Management</u>	% of Area	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
Regional District Nature Appreciation	63 %	Agriculture	2 %
Regional District Nature Appreciation	14 %	Developed	6 %
		Undeveloped	88 %
		Marine/Freshwater	3 %
			1 77 % 4 23 %
			2 0 % 5 0 %
			3 0 %

Targets known in this Conservation Area:	(Common Name)	(GRank)	(Listing)	(EORank)
<u>Terrestrial Ecological Systems</u>				
	Depressional wetland shrublands	GU		K
	Douglas fir - western hemlock - western redcedar forests	GU		
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU		K
	Dry evergreen forests and woodlands	GU		
	Dry evergreen forests and woodlands (ranked occurrences)	GU		C
	Herbaceous balds and bluffs	GU		C
	Oak woodlands (ranked occurrences)	GU		A
	Riparian forests and shrublands	GU		

Plant Communities

Thetis-Frances

continued from previous page

<i>Festuca roemerii</i> - <i>cerastium arvense</i> - <i>koeleria macrantha</i> herbaceous vegetation	Roemer's fescue - field chickweed - prairie junegrass	G1	C
<i>Pseudotsuga menziesii</i> / <i>symphoricarpos hesperius</i> forest	Douglas-fir / trailing snowberry	G2	C
<i>Quercus garryana</i> / <i>carex inops</i> - <i>camassia quamash</i> woodland	Oregon white oak / long-stolon sedge - common camas	G1	A
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2	C
<i>Stipa lemmonii</i> / <i>racomitrium canescens</i> herbaceous vegetation	Lemmon needlegrass / rock moss	G1	C

Species

Mammals

Various	Bat roost sites	GU	K
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Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3	A
<i>Aster radulinus</i>	Rough-leaf aster	G4	K
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5	A
<i>Epilobium torreyi</i>	Brook spike-primrose	G5	K
<i>Idahoia scapigera</i>	Scapose scalepod	G5	K
<i>Meconella oregana</i>	White meconella	G2	K
<i>Microseris bigelovii</i>	Coast microseris	G4	K
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	G4	K
<i>Psilocarphus elatior</i>	Tall woolly-heads	G5	K
<i>Psilocarphus tenellus</i> var <i>tenellus</i>	Slender woolly-heads	G4	D
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	High
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Recreational infrastructure development	Medium (likely within 5 to 10 years)	High

Thetis-Kuper

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 6,088 ha 15,037 ac	Marine Shoreline 57.9 km	Land Use/Land Cover	GAP Management Status
		Agriculture 1 %	1 0 % 4 39 %
		Developed 3 %	2 0 % 5 61 %
		Undeveloped 34 %	3 0 %
		Marine/Freshwater 63 %	
Ownership / Management	% of Area		
Provincial Park Ecological Reserve	<5 %		
Trust	16 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	

	Dry evergreen forests and woodlands (ranked occurrences)	GU		K
	Herbaceous balds and bluffs	GU		K
	Sphagnum bogs and fens	GU		K
<u>Nearshore Marine Ecological Systems</u>				
	Rock cliff / Unvegetated	n/a		
	Rock cliff / Vegetated	n/a		
	Rock platform / Unvegetated	n/a		
	Rock platform / Vegetated	n/a		
	Rock with sand and/or gravel beach / Unvegetated	n/a		
	Sand and gravel flat / Unvegetated	n/a		
	Sand flat / Unvegetated	n/a		
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand and gravel flat / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand beach / Kelp	n/a		
<i>Nereocystis/Macrocystis</i>	Sand flat / Kelp	n/a		
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a		
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a		
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a		
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a		
<u>Species</u>				
<u>Birds</u>				
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU		
<u>Fishes</u>				
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<u>Mammals</u>				
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	G4		A
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT	
<i>Eumetopias jubatus</i>	Steller sea lion rafting sites	G3	LE, LT	
<i>Orcinus orca</i>	Killer whale	G4		
<u>Other Invertebrates</u>				
<i>Cancer magister</i>	Dungeness crab	G?		
<i>Tritonia diomedea</i>	Rosy tritonia	G?		
<u>Vascular Plants</u>				
<i>Trifolium dichotomum</i>	Branched Indian clover	G4?		D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	High
Small population size and distribution	Low (not likely within 10 years)	Low
Grazing practices	Medium (likely within 5 to 10 years)	Medium

Marine

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Recreational use	Low (not likely within 10 years)	Low

Thormanby Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,539 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,801 ac	28.9 km	Agriculture 0 %	1 31 % 4 29 %
			Developed 1 %	2 0 % 5 41 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped 60 %	3 0 %
BC Parks		31 %	Marine/Freshwater 39 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Freshwater marshes	GU	K
Herbaceous balds and bluffs	GU	C

Nearshore Marine Ecological Systems

	Mud flat / Unvegetated	n/a
	Rock cliff / Unvegetated	n/a
	Sand and gravel beach / Unvegetated	n/a
	Sand and gravel flat / Unvegetated	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a

Species

Birds

<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU
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Mammals

<i>Orcinus orca</i>	Killer whale	G4
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Residential development	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Medium
Marina development	Low (not likely within 10 years)	Medium
Overfishing, overhunting, over collecting	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	High

Thorndyke

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	8,989 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
	22,203 ac	9.1 km	Agriculture	0 %	1	0 %	4 91 %
			Developed	9 %	2	0 %	5 1 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped	88 %	3	8 %	
Department of Natural Resources		8 %	Marine/Freshwater	3 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	C
Depressional wetland shrublands	GU	B
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	A
Freshwater marshes	GU	B
Intertidal salt marshes	GU	B
Riparian forests and shrublands	GU	
Sphagnum bogs and fens	GU	A

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a
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Plant Communities

<i>Festuca rubra - ambrosia chamissonis herbaceous vegetation</i>	Red fescue - silver burweed	G1	C
<i>Pinus monticola / ledum groenlandicum / sphagnum spp. wooded shrubland</i>	Western white pine / bog labrador-tea / peat moss	G1	C

Species

Birds

	Dabbling ducks	G5	
	Diving ducks/bay ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Ardea herodias</i>	Great blue heron	G5	C
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Gavia spp</i>	Loons	GU	
<i>Melanitta spp</i>	Scoters	GU	
<i>Podiceps griseigena</i>	Red-necked grebe	G5	

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?

<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<u>Herpetofauna</u>			
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	K
<u>Other Invertebrates</u>			
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?	

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Non point source water pollution	Low (not likely within 10 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	Low

Marine

Shoreline stabilization	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management of/for certain species	High (present or likely within 4 years)	Medium
Unknown source of water pollution	Low (not likely within 10 years)	High
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Three Corner Lake

Section: Georgia Basin

Area Type: Terrestrial

Area:	397 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	981 ac	km	Agriculture 0 %	1 0 % 4 96 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 3 %	2 0 % 5 0 %
Department of Natural Resources	<5 %		Undeveloped 96 %	3 4 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a
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Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient n/a

Plant Communities

Pseudotsuga menziesii / rosa gymnocarpa - holodiscus discolor forest

Douglas-fir / baldhip rose - oceanspray G2 C

Species

Vascular Plants

Plagiobothrys tenellus

Pacific popcorn-flower G4 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium

Timber Grove

Section: Lower Columbia

Area Type: Terrestrial

Area: 3,882 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
9,589 ac	km	Agriculture 15 %	1 0 % 4 88 %
Ownership / Management	% of Area	Developed 0 %	2 0 % 5 0 %
US Bureau of Land Management	14 %	Undeveloped 84 %	3 12 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Cascade tributaries - volcanics, high/mid elevation, low gradient n/a
 Lower Columbia headwater - volcanic/sedimentary mixture, low elevation, low gradient n/a
 Valley/foothill tributaries - volcanics, mid elevation n/a

Species

Herpetofauna

Batrachoseps wrighti

Oregon slender salamander G3 A

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Low

Conversion to agriculture or silviculture High (present or likely within 4 years) Medium

Toandos Peninsula

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
2,849 ha		Agriculture 0 %	1	0 %	4	54 %
7,037 ac	7.2 km	Developed 4 %	2	0 %	5	6 %
Ownership / Management	% of Area	Undeveloped 87 %	3	40 %		
Department of Natural Resources	28 %	Marine/Freshwater 10 %				
US Dept. of Defense	11 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Puget lowland headwaters north - glacial drift, low elevation, low to moderate gradient	n/a
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Species

Birds

Dabbling ducks	G5	
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Melanitta spp</i>	Scoters	GU

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Marine

Shoreline stabilization	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium

Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Military activities	High (present or likely within 4 years)	Low
Management off/for certain species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Collateral damage from fishing	High (present or likely within 4 years)	Low
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Low (not likely within 10 years)	High
Wastewater treatment	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Toboton and Lackamus Creeks

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	917 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,265 ac	km	Agriculture 0 %	1 0 % 4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 6 %	2 0 % 5 0 %
			Undeveloped 94 %	3 0 %
			Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	High

Totten-Skookum Inlets

Section: Puget Trough

Area Type: Nearshore Marine

<u>Area:</u>	883 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	2,181 ac	44.3 km	Agriculture 0 %	1 3 % 4 45 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 26 %
Department of Natural Resources	<5 %		Undeveloped 0 %	3 26 %
			Marine/Freshwater 100 %	

Totten-Skookum Inlets *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU

Nearshore Marine Ecological Systems

Mud flat / Unvegetated n/a
 Sand beach / Unvegetated n/a
 Sand flat / Unvegetated n/a
Nereocystis/Macrocyctis Sand beach / Kelp n/a
Nereocystis/Macrocyctis Sand flat / Kelp n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Mud flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Sand beach / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia Sand flat / Saltmarsh n/a
Triglochin/Salicornia/Deschampsis/Distichlis/Salicornia /Nereocystis/Macrocyctis/Phyllospadix/Zostera Sand beach / Saltmarsh and subtidal vegetation n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use High (present or likely within 4 years) Low
 Grazing practices High (present or likely within 4 years) Medium
 Forestry practices High (present or likely within 4 years) Low
 Ditches, dikes, drainages and diversions High (present or likely within 4 years) Medium
 Roads and/or utilities High (present or likely within 4 years) Low
 Conversion to agriculture or silviculture Low (not likely within 10 years) High

Marine

Unknown source of water pollution High (present or likely within 4 years) Medium
 Wastewater treatment High (present or likely within 4 years) Medium
 Aquaculture High (present or likely within 4 years) Low
 Poaching or commercial collecting High (present or likely within 4 years) Low
 Parasites/pathogens High (present or likely within 4 years) Low
 Overfishing, overhunting, over collecting High (present or likely within 4 years) High
 Management of/for certain species High (present or likely within 4 years) Medium
 Invasive species High (present or likely within 4 years) Low
 Collateral damage from fishing Medium (likely within 5 to 10 years) Low
 Shoreline stabilization Medium (likely within 5 to 10 years) High
 Residential development Medium (likely within 5 to 10 years) High

Toutle Forest Corridor

Section: Lower Columbia

Area Type: Terrestrial

<u>Area:</u>	14,142 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	34,931 ac	km	Agriculture 3 %	1 0 % 4 99 %
			Developed 5 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 89 %	3 0 %
Department of Natural Resources	<5 %		Marine/Freshwater 2 %	
Washington Parks and Recreation Co	<5 %			

Toutle Forest Corridor *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascade tributaries - volcanics, high/mid elevation, low gradient	n/a	
Cowlitz tributary small rivers - sedimentary	n/a	
Lower Columbia tributaries - volcanic and sedimentary mixture, low/mid elevation, low gradient	n/a	
Lower Cowlitz tributaries - coarse outwash, low/mid elevation, low gradient	n/a	

Species

Herpetofauna

<i>Rhyacotriton kezeri</i>	Columbia torrent salamander	G3	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Medium

Trial Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	18 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	44 ac	1.1 km	Agriculture 0 %	1 77 % 4 13 %
Ownership / Management	% of Area		Developed 0 %	2 5 % 5 6 %
Provincial Park Ecological Reserve	80 %		Undeveloped 0 %	3 0 %
			Marine/Freshwater 105 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	B
Depressional wetland broadleaf forests	GU	B
Herbaceous balds and bluffs	GU	A
Vernal pools	GU	A

Nearshore Marine Ecological Systems

Trial Island

continued from previous page

Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Kelp and seagrass n/a

Plant Communities

Plagiobothrys scouleri - plantago bigelovii herbaceous vegetation Scouler's popcornflower - annual coastal plantain G2 A

Populus tremuloides / carex obnupta forest Quaking aspen / slough sedge G2 B

Species

Insects

Coenonympha californica insulana Vancouver Island ringlet G4 K

Vascular Plants

Alopecurus carolinianus Tufted foxtail G5 K

Aster curtus White-topped aster G3 K

Castilleja levisecta Golden paintbrush G1 LT K

Castilleja tenuis Hairy owl's-clover G5 K

Limnanthes macounii Macoun's meadow-foam G3 C

Lotus formosissimus Seaside trefoil G5 K

Montia howellii Howell's miner's-lettuce G3 C

Ranunculus californicus California buttercup G5 K

Sanicula arctopoides Bear's-foot sanicle G5 K

Sidalcea hendersonii Henderson mallow G3 D

Silene scouleri ssp grandis Scouler's large campion G5 D

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Military activities	Medium (likely within 5 to 10 years)	Medium

Tryon Creek Nature Park

Section: Lower Columbia

Area Type: Terrestrial

Area: 374 ha <u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
924 ac km	Agriculture 0 % 1 0 % 4 1 %	
	Developed 14 % 2 0 % 5 0 %	
<u>Ownership / Management</u> % of Area	Undeveloped 85 % 3 0 %	
Oregon Parks and Recreation 27 %	Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Dry evergreen forests and woodlands GU

Species

Vascular Plants

Euonymus occidentalis Western strawberry-bush G5 K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Tryon Creek Nature Park *continued from previous page*

Residential development	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Low
Recreational infrastructure development	High (present or likely within 4 years)	Medium

Tualatin National Wildlife Refuge

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	3,910 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	9,658 ac	km	Agriculture 72 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 3 %
			Undeveloped 21 %
			Marine/Freshwater 3 %

GAP Management Status

1	0 %	4	83 %
2	17 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland shrublands	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	C
Freshwater aquatic beds	GU	K
Oak woodlands	GU	

Freshwater Ecological Systems

Coast Range medium river - volcanic, low elevation	n/a
Foothills tributaries - basalt, low to mid elevation	n/a
Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a

Species

Herpetofauna

<i>Rana aurora aurora</i>	Northern red-legged frog	G4	A
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Vascular Plants

<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	G2	LT	C
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Non point source water pollution	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Crop production practices	High (present or likely within 4 years)	High
Channelization of rivers or streams	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium
Grazing practices	Medium (likely within 5 to 10 years)	Low

Tualitan Hills Park

Section: Lower Columbia Area Type: Terrestrial

Tualitan Hills Park

continued from previous page

<u>Area:</u>	400 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	988 ac	km	Agriculture 38 %	1	0 %	4 100 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 10 %	2	0 %	5 0 %
			Undeveloped 51 %	3	0 %	
			Marine/Freshwater 1 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Freshwater aquatic beds	GU	B
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	

Species

Vascular Plants

<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4	K
<i>Elatine triandra</i>	Longstem water-wort	G5	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K
<i>Euonymus occidentalis</i>	Western strawberry-bush	G5	D
<i>Geranium oregonum</i>	Oregon crane's-bill	G4	K
<i>Linaria canadensis var texana</i>	Texas toadflax	G4	K
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4	D
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	C
<i>Viola hallii</i>	Hall's violet	G4	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational use	High (present or likely within 4 years)	Low
Recreational infrastructure development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium

Tuam-Bruce

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	3,142 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>		
	7,761 ac	16.3 km	Agriculture 0 %	1	8 %	4 91 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2	0 %	5 0 %
Provincial Park Ecological Reserve	<5 %		Undeveloped 100 %	3	0 %	
Provincial Park Ecological Reserve	6 %		Marine/Freshwater 0 %			
Regional District Nature Appreciation	<5 %					

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

	Douglas fir - western hemlock - western redcedar forests	GU	
	Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
	Dry evergreen forests and woodlands	GU	
	Dry evergreen forests and woodlands (ranked occurrences)	GU	B
	Herbaceous balds and bluffs	GU	C
	Oak woodlands (ranked occurrences)	GU	A
	Sphagnum bogs and fens	GU	C
<u>Nearshore Marine Ecological Systems</u>			
	Rock cliff / Unvegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
<i>Nereocystis/Macrocytis</i>	Rock with sand and/or gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocytis</i>	Sand and gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocytis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a	
<i>Nereocystis/Macrocytis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a	
<i>Nereocystis/Macrocytis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocytis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	
<u>Freshwater Ecological Systems</u>			
	Coastal headwaters - granitic, low elevation, low gradient	n/a	
	Mountain headwaters - mafic, mid to high elevation, steep gradients	n/a	
<u>Plant Communities</u>			
<i>Arbutus menziesii / arctostaphylos columbiana woodland</i>	Pacific madrone / hairy manzanita	G2	C
<i>Festuca roemerii - cerastium arvense - koeleria macrantha herbaceous vegetation</i>	Roemer's fescue - field chickweed - prairie junegrass	G1	C
<i>Pseudotsuga menziesii - thuja plicata / gaultheria shallon forest</i>	Douglas-fir - western redcedar / salal	G2	B
<i>Pseudotsuga menziesii / corylus cornuta / polystichum munitum forest</i>	Douglas-fir / beaked hazel / swordfern	G3	B
<i>Pseudotsuga menziesii / symphoricarpos hesperius forest</i>	Douglas-fir / trailing snowberry	G2	C
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1	A
<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	C
<i>Stipa lemmonii / racomitrium canescens herbaceous vegetation</i>	Lemmon needlegrass / rock moss	G1	C
<i>Thuja plicata - abies grandis / polystichum munitum forest</i>	Western redcedar - grand fir / swordfern	G2	B
<u>Species</u>			
<u>Insects</u>			
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4	K
<u>Vascular Plants</u>			
<i>Idahoia scapigera</i>	Scapose scalepod	G5	A
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational vehicles	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	High
Forestry practices	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Tulalip

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	2,290 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	5,656 ac	km	Agriculture 0 %	1 0 % 4 90 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 8 %	2 0 % 5 0 %
Tribal	90 %		Undeveloped 88 %	3 10 %
US Dept. of Defense	10 %		Marine/Freshwater 3 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater Ecological Systems

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Commercial/industrial development	High (present or likely within 4 years)	High

Turtleback-Deer Harbor

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	1,485 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	3,668 ac	9.9 km	Agriculture 0 %	1 0 % 4 74 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 2 %	2 0 % 5 25 %
Department of Natural Resources	<5 %		Undeveloped 78 %	3 1 %
			Marine/Freshwater 19 %	

Turtleback-Deer Harbor *continued from previous page*

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Herbaceous balds and bluffs	GU	C
Oak woodlands	GU	

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a	
	Rock cliff / Vegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocystis</i>	Sand and gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a	
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a	

Plant Communities

<i>Pseudotsuga menziesii - arbutus menziesii / Ionicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	G2	B
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Species

Birds

<i>Aechmophorus occidentalis</i>	Western grebe	G5	
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3	
<i>Gavia spp</i>	Loons	GU	
<i>Histrionicus histrionicus</i>	Harlequin duck	G4	
<i>Podiceps grisegena</i>	Red-necked grebe	G5	

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	

Mammals

<i>Balaenoptera acutorostrata</i>	Minke whale	G5	
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Molluscs

<i>Crassidoma giganteum</i>	Rock scallop	G?	
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?	

Other Invertebrates

<i>Polyorchis penicillatus</i>	Polyorchis jellyfish	G?	
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Parasites/pathogens	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium

Turtleback-Deer Harbor *continued from previous page*

<u>Marine</u>	Fire management	Medium (likely within 5 to 10 years)	High
	Roads and/or utilities	High (present or likely within 4 years)	High
	Recreational use	High (present or likely within 4 years)	Medium
	Poaching or commercial collecting	High (present or likely within 4 years)	Medium
	Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
	Marina development	High (present or likely within 4 years)	Low
	Invasive species	High (present or likely within 4 years)	Low
	Collateral damage from fishing	High (present or likely within 4 years)	High
	Channelization of rivers or streams	High (present or likely within 4 years)	High
	Aquaculture	High (present or likely within 4 years)	Low
	Known source of water pollution	Medium (likely within 5 to 10 years)	Medium
	Residential development	Medium (likely within 5 to 10 years)	Medium

Tuwanek Point

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Nearshore Marine	
<u>Area:</u>	168 ha <u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	415 ac 10.8 km	Agriculture 0 %	1 1 % 4 8 %
		Developed 0 %	2 0 % 5 92 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 0 %	3 0 %
BC Parks	<5 %	Marine/Freshwater 100 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated n/a
Sand and gravel beach / Unvegetated n/a

Species

Fishes

Clupea pallasii Pacific herring spawning G?
Sebastes caurinus Copper rockfish G?
Sebastes maliger Quillback rockfish G?
Sebastes ruberrimus Yelloweye rockfish G?

Mammals

Orcinus orca Killer whale G4
Phocoena phocoena Pacific harbor porpoise G4

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Residential development Low (not likely within 10 years) Medium
Recreational use Low (not likely within 10 years) Medium
Aquaculture Medium (likely within 5 to 10 years) Low

Twin Islands

Section: Georgia Basin

Area Type: Terrestrial

Area: 285 ha Marine Shoreline
704 ac km
Ownership / Management % of Area

Land Use/Land Cover
Agriculture 0 %
Developed 0 %
Undeveloped 86 %
Marine/Freshwater 14 %

GAP Management Status
1 0 % 4 87 %
2 0 % 5 13 %
3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
Dry evergreen forests and woodlands GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development Medium (likely within 5 to 10 years) Medium

UBC Research Forest/Blue

Section: Puget Trough

Area Type: Terrestrial

Area: 4,805 ha Marine Shoreline
11,868 ac km
Ownership / Management % of Area
Parks Canada 42 %

Land Use/Land Cover
Agriculture 0 %
Developed 1 %
Undeveloped 99 %
Marine/Freshwater 0 %

GAP Management Status
1 43 % 4 57 %
2 0 % 5 0 %
3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Lower Fraser River tributaries headwaters - granitic, low elevation, low to moderate gradient n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Trails Medium (likely within 5 to 10 years) Medium
Recreational vehicles Medium (likely within 5 to 10 years) Medium
Recreational use Medium (likely within 5 to 10 years) Medium
Forestry practices Medium (likely within 5 to 10 years) Medium

Upper Siuslaw Site

Section: Willamette Valley

Area Type: Terrestrial

Upper Siuslaw Site

continued from previous page

Area:	29,815 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
	73,643 ac	km	Agriculture	1	1 %	4	66 %
			Developed	2	10 %	5	0 %
Ownership / Management	% of Area		Undeveloped	3	23 %		
Corps of Engineers	<5 %		Marine/Freshwater				
Oregon Parks and Recreation	<5 %						
Oregon State	<5 %						
US Bureau of Land Management	35 %						

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Dry evergreen forests and woodlands (ranked occurrences)	GU		B
Oak woodlands	GU		

Freshwater Ecological Systems

Cascade tributaries - sedimentary, mid elevation, steep	n/a		
Coast Range headwaters - sedimentary, mid elevation	n/a		
Coast Range small rivers - sedimentary, low to mid elevation	n/a		

Species

Birds

<i>Brachyramphus marmoratus</i>	Marbled murrelet	G3		n/a
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a

Herpetofauna

<i>Aneides ferreus</i>	Clouded salamander	G3		C
<i>Contia tenuis</i>	Sharptail snake	G5		C
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	G3		A

Molluscs

<i>Megomphix hemphilli</i>	Oregon megomphix (snail)	G2		C
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Vascular Plants

<i>Aster vialis</i>	Wayside aster	G2		B
<i>Cimicifuga elata</i>	Tall bugbane	G2		C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium

Utsalady, Camano Island

Section: Georgia Basin

Area Type: Nearshore Marine

Utsalady, Camano Island *continued from previous page*

Area:	205 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
	506 ac	7.4 km	Agriculture	0 %	1	0 %	4 18 %
Ownership / Management	% of Area		Developed	0 %	2	0 %	5 75 %
			Undeveloped	0 %	3	7 %	
			Marine/Freshwater	100 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a

Species

Birds

	Dabbling ducks	G5
	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Haematopus bachmani, Arenaria melanocephala</i>	Shorebirds-mud/aggregated	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Eschrichtius robustus</i>	Grey whale	G4	PS:LE
<i>Orcinus orca</i>	Killer whale	G4	

Other Invertebrates

<i>Cancer magister</i>	Dungeness crab	G?
<i>Cucumaria miniata</i>	Burrowing sea cucumber	GU
<i>Ptilosarcus gurneyi</i>	Orange sea pens	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Small population size and distribution	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low

Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Van Ornum Creek Forest

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	833 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	2,058 ac	km	Agriculture 4 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 14 %
			Undeveloped 81 %
			Marine/Freshwater 1 %

<u>GAP Management Status</u>		
1	0 %	4 100 %
2	0 %	5 0 %
3	0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Roads and/or utilities	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Low
Residential development	Medium (likely within 5 to 10 years)	Medium
Invasive species	Medium (likely within 5 to 10 years)	Medium

Waldron-Skipjack Islands

<u>Section:</u> Georgia Basin		<u>Area Type:</u> Nearshore Marine	
<u>Area:</u>	181 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	447 ac	6.2 km	Agriculture 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %
US Fish and Wildlife Service	10 %		Undeveloped 0 %
			Marine/Freshwater 100 %

<u>GAP Management Status</u>		
1	0 %	4 0 %
2	24 %	5 65 %
3	10 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a
	Rock platform / Vegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a

Waldron-Skipjack Islands *continued from previous page*

<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
Species		
Birds		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Melanitta spp</i>	Scoters	GU
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU
Mammals		
<i>Orcinus orca</i>	Killer whale	G4
<i>Phoca vitulina</i>	Harbor seal pupping sites	G5
Molluscs		
<i>Crassedoma giganteum</i>	Rock scallop	G?
<i>Halotis kamtschatkana</i>	Pinto (northern) abalone	G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine			
Small population size and distribution	High (present or likely within 4 years)	High	
Roads and/or utilities	High (present or likely within 4 years)	High	
Recreational use	High (present or likely within 4 years)	Medium	
Poaching or commercial collecting	High (present or likely within 4 years)	Medium	
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High	
Invasive species	High (present or likely within 4 years)	Low	
Collateral damage from fishing	High (present or likely within 4 years)	High	
Aquaculture	High (present or likely within 4 years)	Low	
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium	
Residential development	Medium (likely within 5 to 10 years)	Medium	

Wapato Marsh

Section: <u>Lower Columbia</u>		Area Type: <u>Terrestrial</u>	
<u>Area:</u>	4,314 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	10,656 ac	km	Agriculture 96 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %
Oregon Department of Fish and Wildli	<5 %		Undeveloped 3 %
US Fish and Wildlife Service	13 %		Marine/Freshwater 1 %
			<u>GAP Management Status</u>
			1 0 % 4 1 %
			2 0 % 5 0 %
			3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems			
Depressional wetland broadleaf forests	GU		K
Depressional wetland shrublands	GU		K
Douglas fir - western hemlock - western redcedar forests	GU		
Dry evergreen forests and woodlands	GU		
Freshwater aquatic beds	GU		K
Oak woodlands	GU		
Riparian forests and shrublands	GU		

Freshwater Ecological Systems

Coast Range medium river - volcanic, low elevation	n/a
Coast Range small river - basalt, low elevation	n/a
Coast Range tributaries - sedimentary, low to mid elevation	n/a

Species

Birds

<i>Ardea herodias</i>	Great blue heron	G5	C
<i>Branta canadensis leucopareia</i>	Aleutian canada goose	G2	C

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Vascular Plants

<i>Rotala ramosior</i>	Toothcup	G5	K
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Wastewater treatment	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Crop production practices	Low (not likely within 10 years)	High

Ward Butte

Section: Willamette Valley

Area Type: Terrestrial

Area: 151 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status			
373 ac	km	Agriculture 92 %	1	0 %	4	1 %
Ownership / Management	% of Area	Developed 0 %	2	0 %	5	0 %
		Undeveloped 8 %	3	0 %		
		Marine/Freshwater 0 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation	n/a
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Plant Communities

<i>Quercus garryana / festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	C
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Species

Birds

<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	G3	K
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Herpetofauna

Ward Butte*continued from previous page*

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
Impacts assessed in this Conservation Area:		(Urgency)	(Severity)
<u>Terrestrial</u>			
Invasive species	High (present or likely within 4 years)	Medium	
Grazing practices	Medium (likely within 5 to 10 years)	Medium	
Crop production practices	Medium (likely within 5 to 10 years)	Medium	

Washburn ButteSection: Willamette ValleyArea Type: Terrestrial

<u>Area:</u>	1,357 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>	
	3,352 ac	km	Agriculture 3 %	1 0 %	4 100 %
			Developed 0 %	2 0 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 97 %	3 0 %	
			Marine/Freshwater 0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Plant Communities

<i>Pinus ponderosa - quercus garryana / festuca roemerii</i> wooded herbaceous vegetation	Ponderosa pine -oregon white oak / romer's fescue	G1	C
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Species**Birds**

<i>Haliaeetus leucocephalus</i>	Bald eagle wintering/feeding areas	G4	C
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Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
<i>Rana aurora aurora</i>	Northern red-legged frog	G4	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Grazing practices	Medium (likely within 5 to 10 years)	Medium
Crop production practices	Medium (likely within 5 to 10 years)	Medium

Washougal Oaks - SteigerwaldSection: Lower ColumbiaArea Type: Terrestrial

Washougal Oaks - Steigerwald *continued from previous page*

Area:	1,347 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status
	3,327 ac	km	Agriculture 35 %	1 0 % 4 58 %
Ownership / Management	% of Area		Developed 5 %	2 42 % 5 0 %
US Fish and Wildlife Service	30 %		Undeveloped 58 %	3 0 %
US Forest Service	13 %		Marine/Freshwater 2 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Cascade headwaters - mostly granitic, high/mid elevation, steep	n/a
Lower Columbia mainstem	n/a

Plant Communities

<i>Quercus garyana</i> / <i>viburnum ellipticum</i> - <i>toxicodendron diversiloba</i> forest	Oregon white oak / oval-leaf viburnum - poison-oak	G1	B
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Species

Birds

<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
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Herpetofauna

<i>Plethodon larselli</i>	Larch mountain salamander	G2		C
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A

Vascular Plants

<i>Bolandra oregana</i>	Oregon bolandra	G3		K
<i>Cimicifuga elata</i>	Tall bugbane	G2		K
<i>Delphinium nuttallii</i>	Upland larkspur	G4		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Low
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	High
Trails	Medium (likely within 5 to 10 years)	Low
Fire management	Medium (likely within 5 to 10 years)	Medium

Wasp-Yellow Islands

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

<u>Area:</u>	19 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>			
	47 ac	3.6 km	Agriculture	0 %	1	0 %	4 94 %
			Developed	0 %	2	1 %	5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped	45 %	3	3 %	
Preserve	23 %		Marine/Freshwater	54 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	B

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis</i>	Rock cliff / Vegetated	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp	n/a
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Kelp and seagrass	n/a
	Sand beach / Seagrass	n/a

Plant Communities

<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1	B
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Species

Vascular Plants

<i>Artemisia campestris ssp scouleriana</i>	Pacific sage	G5	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	K
<i>Minuartia stricta var puberulenta</i>	Michaux's stichwort	GU	K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Fire management	Medium (likely within 5 to 10 years)	High
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Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Waterloo Rocks

Section: Willamette Valley

Area Type: Terrestrial

Waterloo Rocks

continued from previous page

<u>Area:</u>	450 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	1,112 ac	km	Agriculture 35 %	1 0 % 4 1 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 4 %	2 0 % 5 0 %
			Undeveloped 49 %	3 0 %
			Marine/Freshwater 12 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Herbaceous balds and bluffs	GU	C
Oak woodlands	GU	
Riparian forests and shrublands	GU	

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Medium
Roads and/or utilities	High (present or likely within 4 years)	Medium
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Mining practices	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Low

Weir Prairie and Forest

Section: Puget Trough

Area Type: Terrestrial

<u>Area:</u>	10,345 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	25,552 ac	km	Agriculture 1 %	1 0 % 4 32 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 5 %	2 0 % 5 0 %
County Government	<5 %		Undeveloped 94 %	3 68 %
Department of Natural Resources	<5 %		Marine/Freshwater 1 %	
Tribal	<5 %			
US Dept. of Defense	63 %			

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Depressional wetland shrublands	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	

Dry evergreen forests and woodlands	GU		
Oak woodlands	GU		
Oak woodlands (ranked occurrences)	GU		C
Riparian forests and shrublands	GU		
Riparian forests and shrublands (ranked occurrences)	GU		C
Sphagnum bogs and fens	GU		C
Upland prairies and savannas	GU		B

Freshwater Ecological Systems

Puget lowland headwaters south - glacial drift, low elevation, low gradient	n/a		
South Puget Sound medium rivers - predominantly volcanic watershed traversing glacial drift and alluvium, low to mid elevation, low gradient	n/a		

Plant Communities

<i>Festuca roemerii</i> - aster curtus herbaceous vegetation	Roemer's fescue - white-topped aster	G1		B
<i>Fraxinus latifolia</i> / <i>spiraea douglasii</i> forest	Oregon ash / douglas' spirea	G3		C
<i>Quercus garryana</i> / <i>symphoricarpos albus</i> / <i>carex inops</i> woodland	Oregon white oak / common snowberry / long-stolon sedge	G2		C

Species

Birds

<i>Sialia mexicana</i>	Western bluebird	G5		C
<i>Strix occidentalis caurina</i>	Northern spotted owl	G3	LT	n/a

Herpetofauna

<i>Bufo boreas</i>	Western toad	G4	PS	B
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A

Insects

<i>Euphyes vestris vestris</i>	Dun skipper	G3		C
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5		C
<i>Speyeria zerene bremnerii</i>	Bremner's silverspot	G4		C

Mammals

<i>Sciurus griseus</i>	Western gray squirrel	G5		H
<i>Thomomys mazama yelmensis</i>	Western pocket gopher, ssp yelmensis	GU		C

Vascular Plants

<i>Aster curtus</i>	White-topped aster	G3		K
<i>Balsamorhiza deltoidea</i>	Deltoid balsam-root	G5		C
<i>Erigeron speciosus var speciosus</i>	Aspen fleabane	G5		B
<i>Senecio macounii</i>	Siskiyou mountains butterweed	G5		D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		B

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	High
Recreational vehicles	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Low
Military activities	High (present or likely within 4 years)	Medium

Weir Prairie and Forest *continued from previous page*

Management of/for certain species	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Shoreline stabilization	Medium (likely within 5 to 10 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Weiss Rd BLM Oaks

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	201 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	496 ac	km	Agriculture 0 %
			Developed 0 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 99 %
US Bureau of Land Management	41 %		Marine/Freshwater 0 %
			<u>GAP Management Status</u>
			1 0 % 4 1 %
			2 0 % 5 0 %
			3 0 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Valley/foothill tributaries - volcanics, mid elevation	n/a
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Species

Vascular Plants

<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	D
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Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium

West Eugene/Spencer Creek

<u>Section:</u> Willamette Valley		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	14,322 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	35,375 ac	km	Agriculture 56 %
			Developed 2 %
<u>Ownership / Management</u>	<u>% of Area</u>		Undeveloped 35 %
Corps of Engineers	10 %		Marine/Freshwater 7 %
County Government	<5 %		
Oregon Department of Fish and Wildli	<5 %		
Preserve	<5 %		
US Bureau of Land Management	<5 %		
			<u>GAP Management Status</u>
			1 0 % 4 87 %
			2 0 % 5 0 %
			3 13 %

West Eugene/Spencer Creek *continued from previous page*

Targets known in this Conservation Area:	(Common Name)	(GRank)	(Listing)	(EORank)
<u>Terrestrial Ecological Systems</u>				
	Depressional wetland broadleaf forests	GU		C
	Depressional wetland shrublands	GU		K
	Douglas fir - western hemlock - western redcedar forests	GU		
	Dry evergreen forests and woodlands	GU		
	Dry evergreen forests and woodlands (ranked occurrences)	GU		B
	Herbaceous balds and bluffs	GU		C
	Oak woodlands	GU		
	Oak woodlands (ranked occurrences)	GU		C
	Riparian forests and shrublands	GU		
	Riparian forests and shrublands (ranked occurrences)	GU		A
	Upland prairies and savannas	GU		C
	Wet prairies	GU		A
<u>Freshwater Ecological Systems</u>				
	Cascade headwaters - volcanics, mid elevation, moderate gradient	n/a		
	Coast Range headwaters - sedimentary, mid elevation	n/a		
	Valley plain tributaries - alluvium and lakeplain, low elevation, low gradient	n/a		
	Valley/foothill tributaries - volcanics, mid elevation	n/a		
<u>Plant Communities</u>				
<i>Deschampsia caespitosa - danthonia californica herbaceous vegetation</i>	Tufted hairgrass - california oatgrass	G2		C
<i>Festuca roemeri - sidalcea malviflora ssp. virgata herbaceous vegetation</i>	Roemer's fescue - rose checker-mallow	G1		C
<i>Pinus ponderosa - quercus garryana / festuca roemeri wooded herbaceous vegetation</i>	Ponderosa pine -oregon white oak / romer's fescue	G1		C
<i>Quercus garryana - (fraxinus latifolia) / symphoricarpos albus forest</i>	Oregon white oak - (oregon ash) / common snowberry	G2		C
<i>Quercus garryana / festuca roemeri wooded herbaceous vegetation</i>	Oregon white oak / roemer's fescue	G1		C
<i>Vaccinium caespitosum / lichen shrubland</i>	Dwarf blueberry	G1		B
<u>Species</u>				
<u>Birds</u>				
<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5		K
<i>Ardea herodias</i>	Great blue heron	G5		K
<i>Branta canadensis occidentalis</i>	Dusky canada goose	G2		K
<i>Poecetes gramineus affinis</i>	Oregon vesper sparrow	G3		K
<u>Herpetofauna</u>				
<i>Chrysemys picta</i>	Painted turtle	G5		K
<i>Contia tenuis</i>	Sharptail snake	G5		n/a
<u>Insects</u>				
<i>Icaricia icarioides fenderi</i>	Fender's blue	G1		A
<u>Molluscs</u>				
<i>Vespericola sp 1</i>	Bald (oak springs) hesperian	G1		A

Non-Vascular - Moss

<i>Bruchia flexuosa</i>	Bruchia flexuosa	G4		K
<i>Ephemerum serratum</i>	Ephemerum serratum	G5		K
<i>Lycopodiella inundata</i>	Northern bog clubmoss	G5		K

Vascular Plants

<i>Agrostis hallii</i>	Hall's bentgrass	G4		D
<i>Aristida oligantha</i>	Prairie three-awn grass	G5		C
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	G5		C
<i>Asclepias speciosa</i>	Showy milkweed	G5		D
<i>Aster curtus</i>	White-topped aster	G3		A
<i>Aster hallii</i>	Hall's aster	G4		A
<i>Aster vialis</i>	Wayside aster	G2		C
<i>Calochortus uniflorus</i>	Shortstem mariposa lily	G4		C
<i>Camassia quamash ssp maxima</i>	Common Camas	G5		A
<i>Cardamine parviflora</i>	Small-flower bitter-cress	G5		B
<i>Cardamine penduliflora</i>	Willamette valley bitter-cress	G4		A
<i>Cicendia quadrangularis</i>	Oregon microcala	G4		B
<i>Cimicifuga elata</i>	Tall bugbane	G2		C
<i>Cyperus bipartitus</i>	Shining flatsedge	G5		K
<i>Cypripedium montanum</i>	Mountain lady's-slipper	G4		K
<i>Epilobium torreyi</i>	Brook spike-primrose	G5		D
<i>Erigeron decumbens var decumbens</i>	Willamette valley daisy	G1	LE	A
<i>Geranium oregonum</i>	Oregon crane's-bill	G4		D
<i>Grindelia integrifolia</i>	Willamette gumweed	G5		C
<i>Horkelia congesta ssp congesta</i>	Shaggy horkelia	G2		B
<i>Lasthenia glaberrima</i>	Smooth goldfields	G5		B
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		C
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	G2	LE	A
<i>Lomatium dissectum var dissectum</i>	Fern-leaved desert-parsley	G4		B
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	A
<i>Montia howellii</i>	Howell's miner's-lettuce	G3		B
<i>Phacelia linearis</i>	Linearleaf phacelia	G4		H
<i>Plagiobothrys tenellus</i>	Pacific popcorn-flower	G4		H
<i>Pyrrocoma (haplopappus) racemosa var r</i>	Slender goldenweed	G5		A
<i>Ranunculus lobbii</i>	Lobb water-buttercup	G4		K
<i>Romanzoffia thompsonii</i>	Thompson mistmaiden	G3		H
<i>Rotala ramosior</i>	Toothcup	G5		K
<i>Salix prolixa (rigida var macrogemma)</i>	Mackenzie willow	G5		K
<i>Scutellaria angustifolia</i>	Narrow-leaf skullcap	G5		H
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		D
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		B
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5		H
<i>Sisyrinchium hitchcockii</i>	Hitchcock's blue-eye-grass	G1		B
<i>Trifolium ciliolatum</i>	Foothill clover	G5		H
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5		K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		D

West Eugene/Spencer Creek *continued from previous page*

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
Terrestrial		
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Non point source water pollution	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Fire management	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Commercial/industrial development	High (present or likely within 4 years)	Medium

West San Juan-Southern Lopez Islands

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area:	7,535 ha	Marine Shoreline	Land Use/Land Cover	GAP Management Status				
	18,611 ac	km	Agriculture	2 %	1	2 %	4	32 %
			Developed	2 %	2	8 %	5	51 %
			Undeveloped	43 %	3	7 %		
			Marine/Freshwater	54 %				
Ownership / Management	% of Area							
City	<5 %							
County Government	<5 %							
Department of Natural Resources	<5 %							
National Park Service	<5 %							
Preserve	<5 %							
US Bureau of Land Management	<5 %							
US Dept. of Defense	<5 %							
US Fish and Wildlife Service	<5 %							
Washington Parks and Recreation Co	<5 %							

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	D
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	B
Freshwater marshes	GU	C
Herbaceous balds and bluffs	GU	B
Intertidal salt marshes	GU	C
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B

Freshwater Ecological Systems

Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient n/a

West San Juan-Southern Lopez Isla continued from previous page

	Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a		
Plant Communities				
<i>Festuca rubra - camassia leichtlinii - grindelia stricta herbaceous vegetation</i>	Red fescue - great camas - oregon gumweed	G1		B
<i>Pinus contorta var. contorta - pseudotsuga menziesii / gaultheria shallon forest</i>	Shore pine - douglas-fir / salal	G2		B
<i>Pseudotsuga menziesii - arbutus menziesii / lonicera hispidula forest</i>	Douglas-fir - pacific madrone / hairy honeysuckle	G2		B
<i>Pseudotsuga menziesii / gaultheria shallon - holodiscus discolor forest</i>	Douglas-fir / salal - oceanspray	G2		B
<i>Quercus garryana / carex inops - camassia quamash woodland</i>	Oregon white oak / long-stolon sedge - common camas	G1		B
Species				
Birds				
	Dabbling ducks	G5		
	Diving ducks/bay ducks	G5		
<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Falco peregrinus</i>	Peregrine falcon	G4	PS:LE	C
<i>Gavia spp</i>	Loons	GU		
<i>Histrionicus histrionicus</i>	Harlequin duck	G4		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps griseogena</i>	Red-necked grebe	G5		
<i>Progne subis</i>	Purple martin	G5		D
<i>Seabird nesting colonies</i>	Seabird nesting colonies	GU		
Fishes				
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?		
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?		
<i>Ophiodon elongatus</i>	Lingcod	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<i>Sebastes melanops</i>	Black rockfish	G?		
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?		
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?		
Insects				
<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4		C
<i>Euchloe ausonides</i>	Island marble (Large marble new subspecies?)	G1		C
Mammals				
<i>Balaenoptera acutorostrata</i>	Minke whale	G5		
<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT	
<i>Orcinus orca</i>	Killer whale	G4		
Molluscs				
<i>Crassedoma giganteum</i>	Rock scallop	G?		
<i>Haliotis kamtschatkana</i>	Pinto (northern) abalone	G?		
Non-Vascular - Lichen				
<i>Bryoria tortuosa</i>	Bryoria tortuosa	G2		K
<i>Cladina portentosa</i>	Cladina portentosa	G?		K

West San Juan-Southern Lopez Isla continued from previous page

<i>Thelomma mammosum</i>	Thelomma mammosum	G?	K
<i>Trapeliopsis wallrothii</i>	Trapeliopsis wallrothii	G?	K
<i>Umbilicaria phaea</i>	Umbilicaria phaea	G?	K
<i>Usnea wirthii</i>	Usnea wirthii	G2	K
<u>Other Invertebrates</u>			
<i>Pollicipes plymerus</i>	Gooseneck barnacles	G?	
<u>Vascular Plants</u>			
<i>Agrostis microphylla</i>	Small-leaf bentgrass	G4	K
<i>Camassia quamash ssp maxima</i>	Common Camas	G5	K
<i>Camissonia contorta (= Oenothera contorta)</i>	Dwarf contorted suncup	G5	B
<i>Crassula connata</i>	Pygmy-weed	G5	K
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5	C
<i>Hutchinsia procumbens</i>	Prostrate hymenolobus	G5	K
<i>Lepidium oxycarpum</i>	Sharp-pod pepper-grass	G4	K
<i>Ranunculus californicus</i>	California buttercup	G5	B
<i>Silene scouleri ssp grandis</i>	Scouler's large campion	G5	B
<i>Sisyrinchium idahoense var macounii</i>	Macoun's blue-eyed grass	G5	K
<i>Sisyrinchium idahoense var segetum</i>	Idaho blue-eyed grass	G5	K
<i>Triteleia (brodiaea) grandiflora var howellii</i>	Howell's triteleia	G5	B
<i>Uropappus (microseris) lindleyi</i>	Lindley's silver-puffs	G5	E

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Small population size and distribution	High (present or likely within 4 years)	High
Parasites/pathogens	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	High
Shoreline stabilization	Medium (likely within 5 to 10 years)	Low
Recreational infrastructure development	Medium (likely within 5 to 10 years)	Low

Marine

Roads and/or utilities	High (present or likely within 4 years)	High
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Uknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

West Sound, Orcas- Broken Point, Shaw Island

Section: Georgia Basin

Area Type: Nearshore Marine

<u>Area:</u>	255 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
	630 ac	km	Agriculture 0 %	1 0 % 4 2 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 0 %	2 0 % 5 96 %
Washington Parks and Recreation Co	<5 %		Undeveloped 0 %	3 2 %
			Marine/Freshwater 100 %	

West Sound, Orcas- Broken Point, S continued from previous page

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU

Dry evergreen forests and woodlands GU

Freshwater Ecological Systems

Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient n/a

Species

Birds

Brachyramphus marmoratus Marbled murrelet - marine G3

Gavia spp Loons GU

Melanitta spp Scoters GU

Podiceps grisegena Red-necked grebe G5

Fishes

Clupea pallasii Pacific herring spawning G?

Hypomesus pretiosus Surf smelt spawning G?

Ophiodon elongatus Lingcod G?

Sebastes caurinus Copper rockfish G?

Sebastes maliger Quillback rockfish G?

Sebastes nigrocinctus Tiger rockfish G?

Mammals

Orcinus orca Killer whale G4

Molluscs

Crassedoma giganteum Rock scallop G?

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Roads and/or utilities	High (present or likely within 4 years)	Low
Recreational use	High (present or likely within 4 years)	Medium
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	Low
Collateral damage from fishing	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Unknown source of water pollution	Medium (likely within 5 to 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium

Western Kitsap Peninsula

Section: Puget Trough

Area Type: Terrestrial/Nearshore Marine

Area:	36,779 ha	Marine Shoreline
	90,844 ac	38.3 km
Ownership / Management	% of Area	
City	6 %	
County Government	<5 %	

Land Use/Land Cover	GAP Management Status				
Agriculture	0 %	1	1 %	4	57 %
Developed	6 %	2	0 %	5	0 %
Undeveloped	92 %	3	42 %		
Marine/Freshwater	2 %				

Western Kitsap Peninsula *continued from previous page*

Department of Natural Resources 36 %
 Washington Department of Fish and <5 %

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Coastal spits, dunes, and strand	GU	D
Douglas fir - western hemlock - western redcedar forests	GU	
Douglas fir - western hemlock - western redcedar forests (ranked occurrences)	GU	B
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	D
Freshwater aquatic beds	GU	B
Intertidal salt marshes	GU	B
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C
Sphagnum bogs and fens	GU	B

Nearshore Marine Ecological Systems

	Sand beach / Unvegetated	n/a
	Sand flat / Unvegetated	n/a
<i>Phyllospadix/Zostera</i>	Sand beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand flat / Seagrass	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Mud flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand beach / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand flat / Saltmarsh	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Mud flat / Saltmarsh and subtidal vegetation	n/a
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia /Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand flat / Saltmarsh and subtidal vegetation	n/a

Freshwater Ecological Systems

Hood Canal coastal streams	n/a
Puget lowland headwaters west - glacial drift, low elevation, low to moderate gradient	n/a
Puget Sound tributary rivers - glacial drift, low elevation, low gradient	n/a

Plant Communities

<i>Pinus contorta var. contorta - pseudotsuga menziesii / gaultheria shallon forest</i>	Shore pine - douglas-fir / salal	G2	C
<i>Pseudotsuga menziesii - tsuga heterophylla / vaccinium ovatum forest</i>	Douglas-fir - western hemlock / evergreen huckleberry	G2	B
<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2	C

Species

Birds

Dabbling ducks	G5
Diving ducks/bay ducks	G5

<i>Aechmophorus occidentalis</i>	Western grebe	G5		
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3		
<i>Branta bernicla</i>	Brant	G5		
<i>Gavia spp</i>	Loons	GU		
<i>Melanitta spp</i>	Scoters	GU		
<i>Podiceps griseigena</i>	Red-necked grebe	G5		
<u>Fishes</u>				
<i>Ammodytes hexapterus</i>	Pacific sandlance	G?		
<i>Clupea pallasii</i>	Pacific herring spawning	G?		
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?		
<i>Sebastes caurinus</i>	Copper rockfish	G?		
<i>Sebastes maliger</i>	Quillback rockfish	G?		
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?		
<u>Herpetofauna</u>				
<i>Bufo boreas</i>	Western toad	G4	PS	B
<i>Rana aurora aurora</i>	Northern red-legged frog	G4		A
<u>Insects</u>				
<i>Speyeria cybele pugetensis</i>	Puget Sound fritillary	G5		C
<u>Molluscs</u>				
<i>Ostrea lurida</i>	Olympia oyster	G?		
<u>Other Invertebrates</u>				
<i>Cancer magister</i>	Dungeness crab	G?		
<i>Cucumaria miniata</i>	Burrowing sea cucumber	GU		
<i>Tritonia diomedea</i>	Rosy tritonia	G?		
Various	Spiny vermilion star	G?		
<u>Vascular Plants</u>				
<i>Erythronium oregonum ssp oregonum</i>	Giant white fawnlily	G5		K
<i>Ophioglossum pusillum</i>	Adder's tongue	G5		K

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Recreational vehicles	High (present or likely within 4 years)	Low
Parasites/pathogens	High (present or likely within 4 years)	Low
Non point source water pollution	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Fire management	Medium (likely within 5 to 10 years)	High

Marine

Unknown source of water pollution	High (present or likely within 4 years)	High
Collateral damage from fishing	High (present or likely within 4 years)	Low
Forestry practices	High (present or likely within 4 years)	Medium
Management of/for certain species	High (present or likely within 4 years)	Medium
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Poaching or commercial collecting	High (present or likely within 4 years)	Medium
Aquaculture	High (present or likely within 4 years)	Low
Shoreline stabilization	High (present or likely within 4 years)	High
Residential development	Medium (likely within 5 to 10 years)	Medium

Wastewater treatment Medium (likely within 5 to 10 years) Medium

White River Riparian

<u>Section:</u> Puget Trough		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,859 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	4,592 ac	km	Agriculture 4 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 1 %
Other	<5 %		Undeveloped 88 %
Tribal	21 %		Marine/Freshwater 8 %

GAP Management Status

1	0 %	4	99 %
2	0 %	5	0 %
3	1 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Shoreline stabilization	High (present or likely within 4 years)	Low
Residential development	High (present or likely within 4 years)	High
Operation of dams or reservoirs	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	Medium
Ditches, dikes, drainages and diversions	High (present or likely within 4 years)	Medium
Channelization of rivers or streams	High (present or likely within 4 years)	Low
Roads and/or utilities	Medium (likely within 5 to 10 years)	Medium
Conversion to agriculture or silviculture	Medium (likely within 5 to 10 years)	Medium
Commercial/industrial development	Medium (likely within 5 to 10 years)	High

Willamette Narrows

<u>Section:</u> Lower Columbia		<u>Area Type:</u> Terrestrial	
<u>Area:</u>	1,070 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>
	2,643 ac	km	Agriculture 16 %
<u>Ownership / Management</u>	<u>% of Area</u>		Developed 5 %
Preserve	<5 %		Undeveloped 61 %
			Marine/Freshwater 17 %

GAP Management Status

1	1 %	4	99 %
2	0 %	5	0 %
3	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Freshwater aquatic beds	GU	K
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C
Riparian forests and shrublands	GU	
Riparian forests and shrublands (ranked occurrences)	GU	C
Sphagnum bogs and fens	GU	B
Upland prairies and savannas	GU	D

Freshwater Ecological Systems

Coast Range medium river - volcanic, low elevation	n/a
Willamette River mainstem	n/a

Plant Communities

Quercus garryana / festuca roemerii wooded herbaceous vegetation

Oregon white oak / roemer's fescue	G1	D
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Species

Vascular Plants

<i>Camassia quamash ssp maxima</i>	Common Camas	G5	C
<i>Cimicifuga elata</i>	Tall bugbane	G2	D
<i>Delphinium leucophaeum</i>	White-rock larkspur	G2	B
<i>Galium mexicanum ssp asperulum</i>	Rough bedstraw	G5	K
<i>Marsilea vestita</i>	Hairy water-fern	G5	K
<i>Trillium parviflorum</i>	Small-flowered trillium	G2	K
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5	C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	Medium
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	Medium

Willamina Oaks 1

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 1,871 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
4,621 ac	km	Agriculture 39 %	1 0 % 4 1 %
		Developed 1 %	2 0 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 60 %	3 0 %
		Marine/Freshwater 1 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU
Oak woodlands	GU
Riparian forests and shrublands	GU

Freshwater Ecological Systems

Coast Range tributaries - shales, mid elevation, moderate gradient n/a

Species

Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Vascular Plants

Delphinium oreganum Larkspur G1 C

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Willamina Oaks 2

Section: Willamette Valley

Area Type: Terrestrial

<u>Area:</u> 988 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
2,440 ac	km	Agriculture 55 %	1 0 % 4 1%
		Developed 1 %	2 0 % 5 0%
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 44 %	3 0 %
		Marine/Freshwater 0 %	

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests GU
 Dry evergreen forests and woodlands GU
 Oak woodlands GU
 Riparian forests and shrublands GU

Species

Herpetofauna

Contia tenuis Sharptail snake G5 n/a

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Winchelsea Island

Section: Georgia Basin

Area Type: Terrestrial/Nearshore Marine

Area: 1,193 ha Marine Shoreline
 2,947 ac 5.5 km
 Ownership / Management % of Area

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>			
Agriculture	0 %	1	0 %	4	10 %
Developed	0 %	2	0 %	5	90 %
Undeveloped	5 %	3	0 %		
Marine/Freshwater	96 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	C
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Dry evergreen forests and woodlands (ranked occurrences)	GU	K
Herbaceous balds and bluffs	GU	C
Oak woodlands (ranked occurrences)	GU	C

Nearshore Marine Ecological Systems

	Rock cliff / Unvegetated	n/a	
	Rock platform / Vegetated	n/a	
	Sand and gravel beach / Unvegetated	n/a	
<i>Nereocystis/Macrocystis</i>	Rock with sand and/or gravel beach / Kelp	n/a	
<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Kelp and seagrass	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia</i>	Sand and gravel beach / Saltmarsh	n/a	
<i>Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Rock with sand and/or gravel beach / Saltmarsh and subtidal vegetation	n/a	

Species

Fishes

<i>Clupea pallasii</i>	Pacific herring spawning	G?	
<i>Ophiodon elongatus</i>	Lingcod	G?	
<i>Sebastes caurinus</i>	Copper rockfish	G?	
<i>Sebastes maliger</i>	Quillback rockfish	G?	
<i>Sebastes nigrocinctus</i>	Tiger rockfish	G?	
<i>Sebastes ruberrimus</i>	Yelloweye rockfish	G?	

Mammals

<i>Eumetopias jubatus</i>	Steller sea lion haul out sites	G3	LE, LT
<i>Orcinus orca</i>	Killer whale	G4	
<i>Phocoena phocoena</i>	Pacific harbor porpoise	G4	

Vascular Plants

<i>Allium geyeri var tenerum</i>	Geyer onion		B
<i>Ranunculus alismaefolius var alismaefolius</i>	Plantain-leaved buttercup	G4	A
<i>Triglochin concinnum var concinnum triglochin concinna var concinna</i>	Dotted watermeal	G5	C
<i>Wolffia borealis</i>	Dotted watermeal	G5	C

Impacts assessed in this Conservation Area:	(Urgency)	(Severity)
<u>Terrestrial</u>		
Invasive species	High (present or likely within 4 years)	Medium
Military activities	Medium (likely within 5 to 10 years)	Medium
<u>Marine</u>		
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Recreational use	Low (not likely within 10 years)	Low

Woodland Beach, Camano Island

Section: Georgia BasinArea Type: Nearshore Marine

Area:	147 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>				
	363 ac	4.6 km	Agriculture	0 %	1	0 %	4	15 %
			Developed	0 %	2	0 %	5	83 %
<u>Ownership / Management</u>		<u>% of Area</u>	Undeveloped	0 %	3	3 %		
			Marine/Freshwater	100 %				

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU
Dry evergreen forests and woodlands	GU

Nearshore Marine Ecological Systems

<i>Nereocystis/Macrocystis/Phyllospadix/Zostera</i>	Sand and gravel flat / Kelp and seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel beach / Seagrass	n/a
<i>Phyllospadix/Zostera</i>	Sand and gravel flat / Seagrass	n/a

Species

Birds

	Diving ducks/bay ducks	G5
<i>Aechmophorus occidentalis</i>	Western grebe	G5
<i>Brachyramphus marmoratus</i>	Marbled murrelet - marine	G3
<i>Gavia spp</i>	Loons	GU
<i>Histrionicus histrionicus</i>	Harlequin duck	G4
<i>Melanitta spp</i>	Scoters	GU
<i>Podiceps grisegena</i>	Red-necked grebe	G5

Fishes

<i>Ammodytes hexapterus</i>	Pacific sandlance	G?
<i>Clupea pallasii</i>	Pacific herring spawning	G?
<i>Hypomesus pretiosus</i>	Surf smelt spawning	G?
<i>Sebastes caurinus</i>	Copper rockfish	G?
<i>Sebastes maliger</i>	Quillback rockfish	G?

Mammals

<i>Eschrichtius robustus</i>	Grey whale	G4	PS:LE
<i>Orcinus orca</i>	Killer whale	G4	

Other Invertebrates

<i>Cucumaria miniata</i>	Burrowing sea cucumber	GU
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Woodland Beach, Camano Island *continued from previous page*

Impacts assessed in this Conservation Area: (Urgency) (Severity)

Marine

Unknown source of water pollution	High (present or likely within 4 years)	Medium
Small population size and distribution	High (present or likely within 4 years)	High
Overfishing, overhunting, over collecting	High (present or likely within 4 years)	High
Management off/for certain species	High (present or likely within 4 years)	Medium
Industrial discharge	High (present or likely within 4 years)	Medium
Crop production practices	High (present or likely within 4 years)	Low
Channelization of rivers or streams	High (present or likely within 4 years)	High
Aquaculture	High (present or likely within 4 years)	Low
Roads and/or utilities	Low (not likely within 10 years)	Medium
Residential development	Medium (likely within 5 to 10 years)	Medium
Poaching or commercial collecting	Medium (likely within 5 to 10 years)	Medium
Collateral damage from fishing	Medium (likely within 5 to 10 years)	Low

Yamhill Oaks

Section: Willamette Valley

Area Type: Terrestrial

Area:	5,648 ha	<u>Marine Shoreline</u>
	13,951 ac	km
<u>Ownership / Management</u>		<u>% of Area</u>

<u>Land Use/Land Cover</u>		<u>GAP Management Status</u>	
Agriculture	40 %	1 0 %	4 100 %
Developed	1 %	2 0 %	5 0 %
Undeveloped	59 %	3 0 %	
Marine/Freshwater	0 %		

Targets known in this Conservation Area: (Common Name) (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Depressional wetland broadleaf forests	GU	K
Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	B
Riparian forests and shrublands	GU	
Upland prairies and savannas	GU	C

Freshwater Ecological Systems

Coast Range medium river - sedimentary, low elevation	n/a
Coast Range tributaries - shales, mid elevation, moderate gradient	n/a

Plant Communities

<i>Quercus garryana</i> / <i>festuca roemerii</i> wooded herbaceous vegetation	Oregon white oak / roemer's fescue	G1	C
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Species

Herpetofauna

<i>Contia tenuis</i>	Sharptail snake	G5	n/a
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Insects

<i>Icaricia icarioides fenderi</i>	Fender's blue	G1	D
<i>Proserpinus clarkiae</i>	Clark's sphinx moth	G4	H

Yamhill Oaks

continued from previous page

<i>Rhyacophila fenderi</i>	Fender's rhyacophilan caddisfly	G3		D
Vascular Plants				
<i>Lathyrus holochlorus</i>	Thin-leaved peavine	G4		D
<i>Lupinus sulphureus var kincaidii</i>	Kincaid's lupine	G2	LT	E
<i>Sidalcea campestris</i>	Meadow checker-mallow	G4		D
<i>Sidalcea malviflora ssp virgata</i>	Rose checker-mallow	G4		D
<i>Viola praemorsa ssp praemorsa</i>	Canary violet	G5		C

Impacts assessed in this Conservation Area: _____ (Urgency) _____ (Severity)

Terrestrial

Residential development	High (present or likely within 4 years)	High
Invasive species	High (present or likely within 4 years)	High
Grazing practices	High (present or likely within 4 years)	Medium
Forestry practices	High (present or likely within 4 years)	High
Fire management	High (present or likely within 4 years)	Medium
Conversion to agriculture or silviculture	High (present or likely within 4 years)	High
Parasites/pathogens	Medium (likely within 5 to 10 years)	High

Young Hill

Section: Georgia Basin

Area Type: Terrestrial

<u>Area:</u> 669 ha	<u>Marine Shoreline</u>	<u>Land Use/Land Cover</u>	<u>GAP Management Status</u>
1,652 ac	km	Agriculture 0 %	1 0 % 4 56 %
		Developed 0 %	2 26 % 5 0 %
<u>Ownership / Management</u>	<u>% of Area</u>	Undeveloped 98 %	3 18 %
Department of Natural Resources	18 %	Marine/Freshwater 2 %	
National Park Service	26 %		

Targets known in this Conservation Area: _____ (Common Name) _____ (GRank)(Listing)(EORank)

Terrestrial Ecological Systems

Douglas fir - western hemlock - western redcedar forests	GU	
Dry evergreen forests and woodlands	GU	
Oak woodlands	GU	
Oak woodlands (ranked occurrences)	GU	C

Freshwater Ecological Systems

Fraser/Nooksack coastal plain - sandstone, low elevation, low gradient	n/a
Puget uplands and islands headwaters - glacial drift, low to mid elevation, low to moderate gradient	n/a

Plant Communities

<i>Quercus garryana / symphoricarpos albus / carex inops woodland</i>	Oregon white oak / common snowberry / long-stolon sedge	G2		C
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Species

Insects

<i>Coenonympha californica insulana</i>	Vancouver Island ringlet	G4		B
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<u>Impacts assessed in this Conservation Area:</u>	<u>(Urgency)</u>	<u>(Severity)</u>
<u>Terrestrial</u>		
Trails	High (present or likely within 4 years)	Low
Roads and/or utilities	High (present or likely within 4 years)	Medium
Residential development	High (present or likely within 4 years)	Medium
Recreational use	High (present or likely within 4 years)	Low
Invasive species	High (present or likely within 4 years)	High
Forestry practices	High (present or likely within 4 years)	Low
Fire management	High (present or likely within 4 years)	High

Notes:

Ownership / Management excludes most private lands with exception of preserves.

All data, including ranks and listed status, were current as of September 2001.

Targets Legend::

Global Rank:

The relative rarity or endangerment of the target world-wide.
 G1 = Critically imperiled globally.
 G2 = Imperiled globally.
 G3 = Either very rare and local throughout its range or found locally in a restricted range.
 n/a = Not available (ranks have not been developed for ecological systems targets).
 Two codes (e.g. G1G2) represent an intermediate rank.

Listing:

Listed federal status of the taxon under the U.S. Endangered Species Act (USESAs).
 LE = Listed Endangered
 LT = Listed Threatened
 C = Candidate

EO Rank:

An estimate of occurrence viability based upon expert opinion of the Natural Heritage Program or Conservation Data Center. The EO Rank of occurrences shown represent the highest ranked occurrence mapped in the area. Ecological systems occurrences were not ranked.
 A = Excellent estimated viability
 B = Good estimated viability
 C = Fair estimated viability
 D = Poor estimated viability
 K = Unknown viability

Appendix 21b. Summary of Nearshore Marine Shoreline Segments

These segments are nearshore marine elements of the integrated portfolio that are measured as linear features representing coarse filter targets (Map 5.3a, 5.3b).

Area Type: Shoreline Only

Burrard Inlet

Targets found in this Shoreline Segment:

Shoreline Length: 5.40 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis

Rock platform / Vegetated

Nereocystis/Macrocystis

Rock with sand and/or gravel beach / Kelp

Sand and gravel beach / Kelp

Butler Cove

Targets found in this Shoreline Segment:

Shoreline Length: 3.65 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia

Sand and gravel beach / Unvegetated

Sand beach / Unvegetated

Sand flat / Saltmarsh

Bywater Bay

Targets found in this Shoreline Segment:

Shoreline Length: 1.68 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera

Sand and gravel flat / Kelp and seagrass

Cape George

Targets found in this Shoreline Segment:

Shoreline Length: 5.04 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera

Sand and gravel flat / Kelp and seagrass

Carlyon Beach

Targets found in this Shoreline Segment:

Shoreline Length: 3.12 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis

Sand beach / Kelp

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/

Sand flat / Saltmarsh and subtidal vegetation

Macrocystis/Phyllospadix/Zostera

Carr Inlet, Fox Island

Targets found in this Shoreline Segment: Shoreline Length: 2.35 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand flat / Kelp and seagrass

Coal Island

Targets found in this Shoreline Segment: Shoreline Length: 2.19 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis Rock with sand and/or gravel beach / Kelp

Double Bluff

Targets found in this Shoreline Segment: Shoreline Length: 1.70 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis Sand and gravel flat / Kelp

Nereocystis/Macrocystis Sand flat / Kelp

Dry Creek

Targets found in this Shoreline Segment: Shoreline Length: 1.81 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass

Duke Point

Targets found in this Shoreline Segment: Shoreline Length: 2.74 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Rock with sand and/or gravel beach / Unvegetated

East Beach

Targets found in this Shoreline Segment: Shoreline Length: 0.69 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel flat / Kelp and seagrass

Eliza Island

Targets found in this Shoreline Segment: Shoreline Length: 1.58 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel flat / Kelp and seagrass

Esquimalt Harbor

Targets found in this Shoreline Segment: Shoreline Length: 2.83 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis Rock with sand and/or gravel beach / Kelp

Fisherman's Harbor

Targets found in this Shoreline Segment: Shoreline Length: 5.13 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Saltmarsh and subtidal vegetation

Green Point

Targets found in this Shoreline Segment: Shoreline Length: 2.24 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis Sand and gravel beach / Kelp

Hale Passage, Fox Island

Targets found in this Shoreline Segment: Shoreline Length: 0.66 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel beach / Kelp and seagrass

Hungerford Point

Targets found in this Shoreline Segment: Shoreline Length: 0.92 km

Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis Sand beach / Unvegetated
Sand flat / Unvegetated
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia Sand beach / Kelp
Mud flat / Saltmarsh

Kayak Point

Targets found in this Shoreline Segment:

Shoreline Length: 5.38 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera
Phyllospadix/Zostera
Phyllospadix/Zostera
Phyllospadix/Zostera

Sand flat / Unvegetated
Sand and gravel beach / Kelp and seagrass
Sand and gravel beach / Seagrass
Sand and gravel flat / Seagrass
Sand flat / Seagrass

Ketron Island

Targets found in this Shoreline Segment:

Shoreline Length: 1.84 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera

Sand beach / Kelp and seagrass

Kinney Point

Targets found in this Shoreline Segment:

Shoreline Length: 1.05 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera

Sand and gravel flat / Kelp and seagrass

Monroe Landing

Targets found in this Shoreline Segment:

Shoreline Length: 0.99 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Phyllospadix/Zostera
Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera

Sand flat / Seagrass
Sand flat / Saltmarsh and subtidal vegetation

Mosquito Pass

Targets found in this Shoreline Segment:

Shoreline Length: 1.76 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis
Nereocystis/Macrocystis/Phyllospadix/Zostera
Nereocystis/Macrocystis/Phyllospadix/Zostera

Rock cliff / Vegetated
Rock platform / Vegetated
Sand beach / Kelp
Rock with sand and/or gravel beach / Kelp and seagrass
Sand flat / Kelp and seagrass

Oak Bay

Targets found in this Shoreline Segment:

Shoreline Length: 2.16 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Phyllospadix/Zostera

Sand flat / Seagrass

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia

Mud flat / Saltmarsh

Paradise Cove

Targets found in this Shoreline Segment:

Shoreline Length: 1.28 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocytis/Phyllospadix/Zostera

Sand flat / Kelp and seagrass

Point Wilson

Targets found in this Shoreline Segment:

Shoreline Length: 1.30 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocytis/Phyllospadix/Zostera

Sand and gravel flat / Kelp and seagrass

Pole Pass, Crane Island

Targets found in this Shoreline Segment:

Shoreline Length: 1.33 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocytis

Rock cliff / Vegetated

Phyllospadix/Zostera

Rock with sand and/or gravel beach / Kelp

Sand and gravel flat / Seagrass

Pole Pass, Orcas Island

Targets found in this Shoreline Segment:

Shoreline Length: 0.79 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocytis

Rock with sand and/or gravel beach / Unvegetated

Rock with sand and/or gravel beach / Kelp

Rosenfeld Rocks

Targets found in this Shoreline Segment:

Shoreline Length: km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Mud flat / Unvegetated

Seal Rock

Targets found in this Shoreline Segment: Shoreline Length: km
Scientific Name Common Name

Nearshore Marine Ecological Systems

Rock cliff / Unvegetated

Skunk Bay

Targets found in this Shoreline Segment: Shoreline Length: 1.33 km
Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Sand beach / Kelp and seagrass

Spencer Spit

Targets found in this Shoreline Segment: Shoreline Length: 1.10 km
Scientific Name Common Name

Nearshore Marine Ecological Systems

Triglochin/Salicornia/Deschampsia/Distichlis/Salicornia/Nereocystis/Macrocystis/Phyllospadix/Zostera Mud flat / Saltmarsh and subtidal vegetation

Square Bay

Targets found in this Shoreline Segment: Shoreline Length: 1.61 km
Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis Rock with sand and/or gravel beach / Kelp

Trincomali Channel

Targets found in this Shoreline Segment: Shoreline Length: 11.22 km
Scientific Name Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocystis/Phyllospadix/Zostera Rock cliff / Vegetated
Nereocystis/Macrocystis/Phyllospadix/Zostera Rock platform / Vegetated
Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Unvegetated
Nereocystis/Macrocystis/Phyllospadix/Zostera Mud flat / Subtidal vegetation
Nereocystis/Macrocystis/Phyllospadix/Zostera Rock with sand and/or gravel beach / Kelp and seagrass
Nereocystis/Macrocystis/Phyllospadix/Zostera Sand and gravel flat / Kelp and seagrass

Turn IslandTargets found in this Shoreline Segment:

Shoreline Length: 1.84 km

Scientific NameCommon Name**Nearshore Marine Ecological Systems***Nereocystis/Macrocyctis*

Rock cliff / Vegetated

Nereocystis/Macrocyctis/Phyllospadix/Zostera

Rock platform / Vegetated

Nereocystis/Macrocyctis/Phyllospadix/Zostera

Rock with sand and/or gravel beach / Kelp

Nereocystis/Macrocyctis/Phyllospadix/Zostera

Rock with sand and/or gravel beach / Kelp and seagrass

Phyllospadix/Zostera

Sand and gravel flat / Kelp and seagrass

Sand beach / Kelp and seagrass

Sand beach / Seagrass

TwanohTargets found in this Shoreline Segment:

Shoreline Length: 0.68 km

Scientific NameCommon Name**Nearshore Marine Ecological Systems***Phyllospadix/Zostera*

Sand beach / Seagrass

Phyllospadix/Zostera

Sand flat / Seagrass

Vancouver HarbourTargets found in this Shoreline Segment:

Shoreline Length: 4.89 km

Scientific NameCommon Name**Nearshore Marine Ecological Systems***Nereocystis/Macrocyctis*

Sand and gravel flat / Kelp

Phyllospadix/Zostera

Rock with sand and/or gravel beach / Seagrass

West PointTargets found in this Shoreline Segment:

Shoreline Length: 0.66 km

Scientific NameCommon Name**Nearshore Marine Ecological Systems***Nereocystis/Macrocyctis/Phyllospadix/Zostera*

Sand and gravel flat / Kelp and seagrass

Yellow BluffTargets found in this Shoreline Segment:

Shoreline Length: 2.81 km

Scientific NameCommon Name**Nearshore Marine Ecological Systems***Nereocystis/Macrocyctis/Phyllospadix/Zostera*

Sand and gravel beach / Kelp and seagrass

Phyllospadix/Zostera

Sand and gravel flat / Seagrass

Zero Rocks

Targets found in this Shoreline Segment:

Shoreline Length: 0.63 km

Scientific Name

Common Name

Nearshore Marine Ecological Systems

Nereocystis/Macrocyctis

Sand and gravel beach / Kelp

Appendix 22. Understanding Terrestrial Ecological Community Names

Plant species that are dominant (cover the greatest area) and diagnostic (found consistently in some vegetation types but not others) are the foundation of alliance and association names. At least one species from the dominant and/or uppermost stratum is included in each name. The following guidelines apply to alliance and association names:

- A hyphen ("-") separates species occurring in the same stratum.
- A slash ("/") separates species occurring in different strata.
- Species that occur in the uppermost stratum are listed first, followed successively by those in lower strata.
- Order of species names generally reflects decreasing levels of dominance, constancy, or indicator value.
- Parentheses around species name indicate species less consistently found either in all associations of an alliance, or in all occurrences of an association.

Alliance names include the class (e.g., "Forest," "Woodland," "Herbaceous") in which they are classified, followed by the word "alliance" to distinguish them from associations. The lowest possible number of species is used for an alliance name, up to a maximum of four.

Examples of alliance names:

- *Pseudotsuga menziesii* Forest Alliance
- *Fagus grandifolia* - *Magnolia grandiflora* Forest Alliance
- *Pinus palustris* / *Quercus* spp. Woodland Alliance
- *Andropogon gerardii* - (*Calamagrostis canadensis*, *Panicum virgatum*) Herbaceous Alliance

Association names include the class in which they are classified. The lowest possible number of species is used in an association name. Up to six species may be necessary to define types with very diverse vegetation, relatively even dominance, and variable total composition.

In cases where diagnostic species are unknown or in question, a more general term (such as "Prairie Forbs" is currently allowed as a "placeholder." An environmental or geographic term (for example, "Northern"), or one that is descriptive of the height of the vegetation ("Dwarf"), can also be used as a modifier when such a term is necessary to adequately characterize the association. When confidence in the circumscription of the association is low, the name is followed by the term "[Provisional]".

Examples of association names:

- *Abies lasiocarpa* / *Vaccinium scoparium* Forest
- *Metopium toxiferum* - *Eugenia foetida* - *Krugiodendron ferreum* - *Swietenia mahagoni* / *Capparis flexuosa* Forest
- *Rhododendron carolinianum* Shrubland
- *Quercus macrocarpa* - (*Quercus alba* - *Quercus velutina*) / *Andropogon gerardii* Wooded Herbaceous Vegetation

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